

# Comprehensive Examination CSE - 2019 Batch

S.NO.	Questions	Choices	Answers																																																												
1	<p>Given the following state table of an FSM with two states A and B, one input and one output:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Present State</th><th>Present State</th><th>Input</th><th>Next State A</th><th>Next State B</th><th>Output</th></tr> <tr> <th>State A</th><th>B</th><th></th><th></th><th></th><th></th></tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> </tbody> </table> <p>If the initial state is A=0, B=0, what is the minimum length of an input string which will take the machine to the state A=0, B=1 with Output = 1?</p>	Present State	Present State	Input	Next State A	Next State B	Output	State A	B					0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	1	0	1	1	0	1	0	0	0	0	1	0	1	0	0	1	1	0	0	1	1	0	1	0	1	1	1	1	1	0	0	1	<p>1. 3 2. 4 3. 5 4. 6</p>	1.0
Present State	Present State	Input	Next State A	Next State B	Output																																																										
State A	B																																																														
0	0	0	0	0	1																																																										
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2	<p><math>(a+b)(cd)^*(a+b)</math> denotes the following set</p>	<p>1. <math>\{a(cd)^n b   n \geq 1\}</math> 2. <math>\{a(cd)^n \geq 1\} \cup \{b(cd)^n   n \geq 1\}</math> 3. <math>\{a(cd)^n a   n \geq 0\} \cup \{a(cd)^n b   n \geq 0\} \cup \{b(cd)^n a   n \geq 0\} \cup \{b(cd)^n b   n \geq 0\}</math> 4. <math>\{ac^n d^n b   n \geq 1\}</math></p>	3.0																																																												
3	<p>-24 is 2's complement form is</p>	<p>1. 11101000 2. 01111111 3. 01001000 4. 00111111</p>	1.0																																																												
4	<p>A 2 bit binary multiplier can be implemented using</p>	<p>1. 2 input ANDs only 2. 2 input X-ORs and 4-input AND gates only 3. XOR gates and shift registers 4. Two (2) input NORs and one XNOR gate</p>	2.0																																																												
5	<p>A _____ registrar stores the intermediate arithmetic and logic results in it.</p>	<p>1. Address registrar 2. Program counter 3. Index registrar 4. Accumulator</p>	4.0																																																												

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6	A class is a	1. Structure 2. Memory 3. Template 4. Function	3.0
7	A constructor without any arguments is	1. default constructor 2. parameterized constructor 3. none 4. overloading	1.0
8	A default constructor is one that	1. that takes all default arguments 2. have to be called explicitly 3. gets called automatically 4. does take many parameters	1.0
9	A finite automata that will accept only string X of length n will have _____ many states	1. n 2. $n/2$ 3. $n+1$ 4. infinite	3.0
10	A friend function to a class A cannot access	1. the data members of the derived class of A. 2. public data members and member functions. 3. protected data members and member functions. 4. private data members and member functions.	1.0
11	A property which is not true for classes is that they	1. Can closely model objects in the real world. 2. bring together all aspects of an entity in one place. 3. permit data to be hidden from other classes. 4. are removed from memory when not in use.	2.0
12	A quadruple is a record structure with _____ fields.	1. 3 2. 4 3. 1 4. 2	2.0
13	A Stack-organised Computer uses instruction of	1. Zero addressing 2. Two-addressing 3. Indirect addressing 4. Index addressing	1.0
14	Access to private data is	1. Restricted to methods of the same class 2. Restricted to methods of other classes 3. Available to methods of the same class and other classes 4. Not an issue because the program will not compile	1.0
15	All member functions are _____ to its class by default	1. constant 2. non static 3. dynamic 4. static	4.0
16	An LALR(1) parser for a grammar G can have shift-reduce (S-R) conflicts if and only if	1. The LR(1) parser for G has S-R conflicts. 2. The LR(0) parser for G has S-R conflicts. 3. The LALR(1) parser for G has reduce-reduce conflicts 4. The SLR(1) parser for G has S-R conflicts.	1.0
17	An optimizing compiler	1. Is optimized to occupy less space 2. Optimized the code 3. Is optimized to take less time for execution 4. Secured Code	2.0

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18	An unambiguous grammar has	1. Exactly one leftmost derivation for a string w 2. At most one leftmost and one rightmost derivation for a string w 3. At most one rightmost derivation for a string w 4. Exactly one leftmost and rightmost derivation for a string w	1.0
19	An unambiguous grammar has	1. Exactly one leftmost derivation for a string w 2. At most one leftmost and one rightmost derivation for a string w 3. At most one rightmost derivation for a string w 4. Exactly one leftmost and rightmost derivation for a string w	1.0
20	ASCII, EBCDIC, and Unicode are examples of -----	1. integrated circuits 2. binary coding schemes 3. two-state systems 4. adapter cards	1.0
21	$baa^*c$ denotes the set	1. $\{b^na^m c^p   n, m, p \geq 1\}$ 2. $\{ba^n c   n \geq 0\}$ 3. $\{ba^n c   n \geq 1\}$ 4. $\{w   w \text{ is a string of } a, b, c\}$	3.0
22	BCD to seven segment is a	1. encoder 2. carry look ahead 3. comparator <b>4. decoder</b>	1.0
23	Calculate the person months for a project that was completed in two months with two people working on it.	1. 2 <b>2. 4</b> 3. 1 4. 8	2.0
24	class A { int a; static float b; }; What is the size of class A?	1. sizeof( int ) * 2 2. sizeof( int ) + sizeof( float ) 3. sizeof( int ) 4. sizeof( float )	2.0
25	class n{ int a=0; } obj; what will happen?	1. nothing 2. initializes the data member with 0 3. error <b>4. initializes the object with 0</b>	3.0
26	class n{ public: int *a; } o,p; assigning o=p is called?	1. deep copy 2. shallow copy 3. error 4. constructor	2.0
27	<b>class n{ public: int a; }</b> <b>obj; obj.a=10; cout &lt;&lt; a;</b>	1. error 2. 10 3. 1 4. 0	1.0

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28	<pre>class n{ public: int a=7;}p,q; cout&lt;&lt; n.a;</pre>	1. 0 2. error 3. depends on compiler 4. 7	2.0
29	Consider the regular language $L = (111 + 11111)^*$ . The minimum number of states in any DFA accepting the language is	1. 3 2. 5 3. 8 <b>4. 9</b>	4.0
30	Content of the program counter is added to the address part of the instruction in order to obtain the effective address is called.	1. index addressing mode. 2. register mode. 3. implied mode. <b>4. relative address mode.</b>	4.0
31	Data Members of the base class that are marked private:	1. are directly accessible in the derived class 2. are visible in the derived class 3. exist in memory when the object of the derived class is created <b>4. does exist in memory when the object of the derived class is created</b>	4.0
32	Decimal number 9 in Gray code is	1. 1111 2. <b>3. 1101</b> 4. 1100 5. 1110	2.0
33	During a software development project two similar requirements defects were detected. One was detected in the requirements phase, and the other during the implementation phase. Which of the following statements is mostly likely to be true?	1. There is no relationship between the phase in which a defect is discovered and its repair cost. 2. <b>The most expensive defect to correct is the one detected during the implementation phase.</b> 3. The most expensive defect to correct is the one detected during the requirements phase. 4. The cost of fixing either defect will usually be similar.	2.0
34	Effective software project management focuses on four P's which are	1. <b>people, product, process, project</b> 2. people, product, performance, process 3. people, performance, payoff, product 4. people, process, payoff, product	1.0
35	FAT file system is	1. <b>Indexed Allocation and used in Windows OS</b> 2. used in Windows OS 3. about storage in RAM 4. Indexed Allocation.	1.0
36	Files whose names end in .h are called _____ files	1. helper 2. header 3. handy 4. helping	2.0

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37	Finite automata recognizes -----grammars	1. type-1 2. type-3 3. type-0 4. type-2	2.0
38	Floating point representation is used to store _____.	1. Boolean values 2. real integers 3. integers 4. whole numbers	2.0
39	Function templates can accept	1. Only parameters of the basic type 2. Only one parameter 3. Any type of parameters 4. Only parameters of the derived type	1.0
40	Functional requirements of a system is modelled using	1. Use-case Diagram 2. Sequence Diagram 3. Class Diagram 4. Package Diagram	1.0
41	Given an arbitrary non-deterministic finite automaton (NFA). with N states, the maximum number of states in an equivalent minimized DFA is at least.	1. $N^2$ 2. $2N$ 3. $2^N$ 4. $N!$	3.0
42	Given the language $L = \{ab, aa, baa\}$ , which of the following strings are in $L^*$ ? <b>1) abaabaaabaa</b> <b>2) aaaabaaaa</b> <b>3) baaaabaaaab</b> <b>4) baaaaabaa</b>	1. 1, 2 and 3 2. 2, 3 and 4 3. 1, 2 and 4 4. 1, 3 and 4	3.0
43	Having more than one constructor in a class is	1. not possible 2. compile time polymorphism 3. constructor overriding 4. error	3.0
44	How many DFAs exist with two state over the input alphabet (a,b)	1. 16 2. 26 3. 32 4. 64	4.0
45	How many possible outputs would a decoder have with a 6-bit binary input?	1. 16 2. 64 3. 128 4. 32	2.0

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46	How many select lines would be required for an 8-line-to-1-line multiplexer?	1. 2 2. 4 3. 3 4. 8	3.0
47	How many stages are there in process improvement?	1. three 2. four 3. five 4. six	4.0
48	How many two state FA can be drawn over alphabet{0,1} which accepts(0+1)*	1. 12 2. 14 3. 20 4. 15	3.0
49	How will you free the allocated memory ?	1. delete(var-name); 2. dalloc(var-name); 3. free(var-name); 4. remove(var-name);	3.0
50	Identify the invalid statement from the following	1. for (; ; ) 2. if (1) 3. break(0) 4. while(false)	3.0
51	If a register containing binary data (11001100) is subjected to arithmetic shift left operation, then the content of the register after 'ashl' shall be	1. (10011000) 2. (11001100) 3. (1101100) 4. (10011001)	1.0
52	If a university sets up web-based information system that faculty could access to record student grades and to advise students, that would be an example of an	1. intranet 2. ERP 3. extranet 4. CRM	1.0
53	If M1 machine recognizing L with n states, then M2 recognizing L* constructed Using Thompson construction will have ----- states.	1. n+2 2. n+1 3. n 4. n-1	2.0
54	If M1 machine recognizing L with n states, then M2 recognizing L* constructed Using Thompson construction will have ----- states.	1. n+2 2. n+1 3. n 4. n-1	2.0
55	If there is a complete DFA M1 recognizing a language L1 and has m states out of which two are final states then the machine M recognizing L1 complement will have _____ final states.	1. m+2 2. m 3. m-2 4. 2	1.0

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56	If X is the name of the class, what is the correct way to declare copy constructor of X?	1. X(class X* arg) 2. X(X& arg) 3. X(X* arg) 4. X(X arg)	2.0
57	If you assign a default value to any variable in a function prototype's parameter list, then _____	1. all parameters to the left of that variable must have default values 2. all parameters to the right of that variable must have default values 3. all other parameters in the function prototype must have default values 4. no other parameters in that prototype can have default values	2.0
58	If you want to use a class to define objects in many different programs, you should define the class in a C++ _____ file	1. text 2. source 3. header 4. program	3.0
59	In a BCD-to-seven-segment converter, why must a code converter be utilized?	1. to convert the 4-bit BCD into Gray code 2. to convert the 4-bit BCD into 7-bit code 3. to convert the 4-bit BCD into 10-bit code 4. No conversion is necessary	2.0
60	In C++, dynamic memory allocation is accomplished with the operator _____	1. new 2. this 3. malloc 4. delete	1.0
61	In C++, dynamic memory allocation is achieved with the operator _____	1. malloc() 2. delete 3. new 4. this	3.0
62	In CMM, the life cycle activities of requirements analysis, design, code, and test are described in	1. Software Product Engineering 2. Software Quality Assurance 3. Software Subcontract Management 4. Software Quality Management	1.0
63	In computers, subtraction is generally carried out by _____.	1. 9's complement 2. 2's complement 3. 10's complement 4. 1's complement	2.0
64	In the types of Three-Address statements, copy statements of the form x := y means	1. The value of x is assigned to y or the value of y is assigned to x. 2. The value of x is assigned to y and the value of y is assigned to x. 3. The value of y is assigned to x. 4. The value of x is assigned to y.	3.0
65	Many programmers separate a class into two files: _____	1. one for the primary functions and one for the auxiliary functions 2. one for the public data and one for the private data 3. one for the void functions and one for the other functions 4. one for the declarations and one for the implementations	4.0
66	Multiplication of a positive integer by a power of two can be replaced by left shift, which executes faster on most machines. This is an example of	1. Useless Code 2. Strength Reduction 3. Induction Variable 4. Loop unwinding	2.0

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67	One can safely state that the output lines for a demultiplexer are under the direct control of the:	1. input data select lines 2. the internal OR gate 3. the internal AND gates 4. Input data line	1.0
68	Overloading a prefix increment operator by means of a member function takes	1. Three arguments 2. Two arguments 3. No argument 4. One argument	3.0
69	Overloading involves writing two or more functions with _____	1. different names and different argument lists 2. different names and the same argument list 3. the same name and the same argument list 4. the same name and different argument lists	4.0
70	Specify the 2 library functions to dynamically allocate memory?	1. malloc() and calloc() 2. malloc() and memalloc() 3. alloc() and memalloc() 4. memalloc() and faralloc()	1.0
71	State the acronym of POMA in software project management	1. Project Organization Monitoring Adopting 2. Planning Organizing Monitoring Adjusting 3. project oriented maintenance and administration 4. Project Orientation Mapping Adjusting	2.0
72	Templates improve	1. inheritance 2. reusability 3. class 4. functions	2.0
73	The Epsilon-Closure of any state q will contain the state _____ irrespective of q.	1. p 2. Epsilon 3. q 4. Final State	3.0
74	The binary value for 0.4375 is	1. 0.1111 2. 0.0111 3. 0.0011 4. 0.1010	2.0
75	The call to the parameterized constructor of base class in the derived class	1. appears inside the definition of the derived class 2. appears inside the definition of the derived class constructor 3. appears at the statement where the derived class object is created 4. appears in the member initialization list of the derived class constructor	2.0
76	The fundamental notions of software engineering does not account for ?	1. Software reuse 2. Software Security 3. Software Validation 4. Software processes	3.0

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77	The language is $L=\{0^p1^q0^r \mid p,q,r \geq 0, p \neq r\}$ is	1. Context-sensitive but not context-free 2. Recursive but not Context-free 3. Regular 4. Context-free	4.0
78	The library function used to find the last occurrence of a character in a string is	1. strstr() 2. strrchr() 3. laststr() 4. strstr()	2.0
79	The major source of data for other systems are:	1. <b>Electronic Switching System</b> 2. Transaction Processing Systems 3. Decision Support System 4. Management Information System	2.0
80	The members of a class in C++ by default, are	1. private 2. protected 3. public 4. mandatory to specify	1.0
81	The minimum length for strings in the regular expression $(0^* + 001^*)^*$ is _____	1. Infinite 2. One 3. Zero 4. Two	3.0
82	The negative numbers in the binary system can be represented by	1. 10's Complement 2. 2's complement 3. Sign magnitude 4. I's complement	2.0
83	The number of full and half-adders required to add 16-bit numbers is	1. 8 half-adders, 8 full-adders 2. <b>1 half-adder, 15 full-adders</b> 3. 16 half-adders, 0 full-adders 4. 4 half-adders, 12 full-adders	2.0
84	The number of states in a machine M recognizing $L_1 \cup L_2$ will be _____ where n is the number of states in $M_1$ and m is the number of states in $M_2$ .	1. $m-n$ 2. <b><math>m+n</math></b> 3. $m+n+1$ 4. $n-m$	2.0

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85	The number of states in a machine M recognizing L1UL2 will be _____ where n is the number of states in M1 and m is the number of states in M2 .	1. m-n 2. m+n 3. m+n+1 4. n-m	2.0
86	The number of states in DFA is ----- the number of states in NFA for the same Language.	1. Greater then 2. equal to 3. less then 4. greater then or equal to	3.0
87	The processor 80386/80486 and the Pentium processor uses ____ bits address bus:	1. 36 2. 32 3. 16 4. 64	2.0
88	The set of all strings over the alphabet {a,b} (including epsilon) is denoted by	1. $(a+b)^{\infty}$ 2. $a^{\infty}b^{\infty}$ 3. $a^*b^*$ 4. $(a+b)^*$	4.0
89	The set of fundamental assumptions about what products the organization should produce, how and where it should produce them, and for whom they should be produced is	1. organizational culture. 2. behavioral model. 3. rational model. 4. agency theory.	1.0
90	The set of fundamental assumptions about what products the organization should produce, how and where it should produce them, and for whom they should be produced is	1. organizational culture. 2. behavioral model. 3. rational model. 4. agency theory.	1.0
91	The special memory used to store the micro routines of a computer is _____.	1. Control table 2. Control store 3. Control mart 4. Control shop	2.0
92	The system having memory elements are called.	1. sequential circuits 2. complex circuits 3. combinational circuits 4. logic circuits	1.0

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93	The term m45 should be made up of at least _____ literals.	1. 6 2. 31 3. 4 4. 5	2.0
94	The three key levels at which responsibility can be defined is at the _____, _____, _____	1. Team, Organization, contractor 2. Project, Strategic, Activity 3. Project, Activity, WBS 4. Project, Organization, Team	4.0
95	The while loop is referred to as a(n) _____ loop because the loop condition is tested at the beginning of the loop	1. priming 2. pretest 3. initial 4. beginning	2.0
96	The word case used in the switch statement represents a	1. global variable in the C++ language 2. function in the C++ language 3. keyword in the C++ language 4. data type in the C++ language	3.0
97	Two access specifiers in C++ are	1. void and free 2. public and private 3. int and double 4. formal and informal	2.0
98	Usecase analysis focuses upon	1. Actors 2. Objects 3. Data 4. Entities	1.0
99	Variables inside parenthesis of functions declarations have _____ level access.	1. Local 2. Global 3. Module 4. Universal	1.0
100	Virtual memory is _____	1. A type of memory used in super computers 2. An illusion of extremely large main memory 3. An extremely large main memory 4. An extremely large secondary memory	2.0
101	WE RECEIVED “404 – PAGE NOT FOUND” MESSAGE, WHEN WE BROWSE THE WEB PAGE. WHICH PROTOCOL PROVIDES THIS MESSAGE?	1. IGP  2. EGP  3. SNMP  4. ICMP	4.0

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102	What are the minimum number of 2-to-1 multiplexers required to generate a 2- input AND gate and a 2-input Ex-OR gate?	1. 1 and 2 2. 1 and 3 3. 1 and 1 4. 2 and 2	1.0
103	What does the following declaration mean? int (*ptr)[10];	1. ptr is array of pointers to 10 integers 2. ptr is a pointer to an array of 10 integers 3. ptr is an array of 10 integers 4. ptr is an pointer to array	2.0
104	What is an Accumulator?	1. A Flip flop 2. A counter 3. A Sequential Logic Circuit 4. A Combinational Logic Circuit	3.0
105	What is an ALU?	1. A Combinational Logic Circuit 2. A Sequential Logic Circuit 3. A Combination of Combinational Circuit and Sequential Circuit 4. A flip flop	2,3
106	What is the condition for setting the Overflow flag in status register?	1. Last two sum bits are different 2. Last two carrys are same 3. Last two sum bits are same 4. Last two carrys are different	3.0
107	What is the maximum number of reduce moves that can be taken by a bottom-up parser for a	1. n/2 2. n-1 3. 2n-1 4. 2^n	2.0
108	What is the recommended distribution of effort for a software project?	1. 50-20-30 2. 50-30-20 3. 30-40-30 4. 40-20-40	4.0
109	What is the return type of the conversion operator function?	1. no return type 2. int 3. void 4. float	1.0
110	What is the status of the inputs S0, S1, and S2 of the 74151 eight-line multiplexer in order for the output Y to be a copy of input I5?	1. S0 = 1, S1 = 0, S2 = 1 2. S0 = 1, S1 = 1, S2 = 0 3. S0 = 0, S1 = 1, S2 = 0 4. S0 = 0, S1 = 0, S2 = 1	1.0
111	What is true about constant member function of a class?	1. cannot access any of its class data members 2. cannot modify values of its class data members 3. cannot modify values of its class data members which are mutable 4. can modify values of its class data members	2.0

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112	What will be the output of the following code #include void main() { int i; int a[3]=5; for (i=2;i>=0;i--) { printf("%d\n",a[i]); } }	1. 0 0 5 2. 5 0 0 3. 5 garbage garbage 4. 5 null null	3.0
113	When an instruction is read from the memory, it is called	1. Memory Read cycle 2. Fetch cycle 3. Instruction cycle 4. Memory write cycle	3.0
114	When FA M is given which recognizes language L and reverse of L is found by using M then there can be _____ Final states	1. Two 2. Three 3. Only one 4. Any number	3.0
115	When there is complete DFA with Five states out of which two are final states if F is modified such that it recognizes complement of the original language then there will be at least _____ final states.	1. 3 2. 2 3. 5 4. 7	3.0
116	When there is more than one final state in the reduced FA, then its regular expression will contain _____ operator surely	1. dot 2. binary + 3. star 4. unary +	4.0
117	When we concatenate two languages L1 and L2 recognized by machine M1 and M2 we obtain a machine with final state same as that of _____	1. M1 OR M2 2. M1 AND M2 3. M2 4. M1	2.0
118	Which directory implementation is used in most Operating System?	1. Two level directory structure 2. Acyclic directory structure 3. Single level directory structure 4. Tree directory structure	4.0
119	Which is not a proper prototype?	1. double funct(char x) 2. void funct(); 3. char x(); 4. intfunct(char x, char y);	1.0
120	WHICH OF THE BELOW IS CALLED CLASSLESS ADDRESS?	1. 191.168.1.1/24 2. 191.168.1.1/16 3. 191.168.1.1/8 4. 191.168.1.1/4	2.0

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121	WHICH OF THE BELOW IS NOT AN EMAIL PROTOCOL?	1. SMTPMP 2. IMAP 3. POP 4. <b>SNMP</b>	4.0
122	Which of the following calls a function named displayName, passing it no actual arguments?	1. call displayName 2. call displayName () 3. displayName <b>4. displayName()</b>	4.0
123	Which of the following conversion is not possible (algorithmically)?	1. nondeterministic PDA to deterministic PDA 2. nondeterministic FSA to deterministic FSA 3. regular grammar to context-free grammar 4. nondeterministic TM to deterministic TM	1.0
124	Which of the following derivations does a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order.	1. Leftmost derivation 2. Leftmost derivation traced out in reverse 3. Rightmost derivation 4. Rightmost derivation traced out in reverse	1.0
125	Which of the following functions compares two strings?	1. compare(); 2. cmp(); 3. stringcompare(); <b>4. strcmp();</b>	4.0
126	Which of the following gives the memory address of a variable pointed to by pointer a?	1. a; 2. *a; <b>3. &amp;a;</b> 4. address(a);	3.0
127	which of the following intermediate language can be used in intermediate code generation?	1. Quadruples 2. Postfix notation and Three address code 3. Triples 4. Infix notation and two address code	1,3,2
128	Which of the following is a complete function?	1. void funct(int) { printf("Hello"); } 2. int funct(); 3. void funct(x) { printf("Hello"); } 4. int funct(int x) { return x=x+1; }	4.0
129	Which of the following is a valid destructor of the class name "Country"	1. void ~Country() 2. int ~Country(Country obj) 3. int ~Country() 4. Country()	4.0
130	which of the following is an incorrect definition inside a class ?	1. void * operator new () {} <b>2. int operator ++() {}</b> 3. void operator delete(void * ptr) {} 4. void * operator new(size_t size) {}	2.0

S.NO.	Questions	Choices	Answers
131	Which of the following is correct for a gated <i>D</i> flip-flop?	1. The output toggles if one of the inputs is held HIGH. 2. Only one of the inputs can be HIGH at a time. 3. The output complement follows the input when enabled. 4. <i>Q</i> output follows the input <i>D</i> when the enable is HIGH.	4.0
132	Which of the following is not a technology driver for an information system?	1. Collaborative technologies 2. Knowledge asset management 3. Enterprise applications 4. Object technologies	2.0
133	Which of the following is not a type of constructor?	1. Copy Constructor 2. Friend Constructor 3. Default Constructor 4. Parametrized Constructor	2.0
134	Which of the following is the insertion operator?	1. /* 2. // 3. << 4. >>	4.0
135	Which of the following is/are main parameters that you should use when computing the costs of a software development project?	1. Hardware and software costs 2. Effort costs (the costs of paying software engineers and managers) 3. Travel and training costs 4. All the parameters required given in the option.	4.0
136	Which of the following language feature is not an access specifier in C++?	1. internal 2. protected 3. public 4. private	1.0
137	Which of the following regular expression denotes a language comprising of all possible strings over {a,b} of length n where n is a multiple of 3?	1. (aaa+ab+a)+(bbb+bb+a) 2. ((a+b) (a+b) (a+b)) 3. (aaa+bbb)* 4. (a+b+aa+bb+aba+bba)*	2.0
138	Which of the following regular expression identities are true?	1. r* s* = r* + s* 2. (r + s)* = (r*s*)* 3. (r + s)* = r* + s* 4. (r + s)* = r* s*	2.0
139	Which of the following results in a compile-time error?	1. int f2() { static int i; i++; return i; } 2. int f3( static int i ) { return 300; } 3. static int f1() { return 100; } 4. static int a;	3.0

S.NO.	Questions	Choices	Answers
140	Which of the following scheduling algorithm comes under preemptive scheduling?	1. FCFS 2. Round Robin 3. Multilevel Queue Scheduling 4. Largest Job First	2.0
141	Which of the following special symbol is allowed in a variable name?	1. _ (underscore) 2. - (hyphen) 3.   (pipeline) 4. * (asterisk)	1.0
142	Which of the following statement is false?  1. For $R = R_1^*$ , $L(R)$ is empty if and only if $L(R_1)$ is empty 2. For $R = (R_1)$ , $L(R)$ is empty if and only if $L(R_1)$ is empty 3. For $R = R_1 R_2$ , $L(R)$ is empty if and only if either $L(R_1)$ or $L(R_2)$ is empty. 4. If $R = R_1 + R_2$ , $L(R)$ is empty if and only if both $L(R_1)$ and $L(R_2)$ are empty.	1.0	
143	Which of the following statement is false?  1. If there is a PDA by acceptance state that accept L, then there is also a PDA by empty stack that accept L 2. If there is a NPDA that accept L, then there is also a DPDA that accept L. 3. If there is a PDA by empty stack, then there is also a CFG G that accept L. 4. If there is a CFG G that accepts L, then there is also a PDA that accept L.		
144	Which of the following statements is/are FALSE?  1. Turing recognizable languages are closed under union and complementation. 2. Turing decidable languages are closed under intersection and complementation 3. Turing recognizable languages are closed under union and intersection. 4. For every non-deterministic Turing machine, there exists an equivalent deterministic Turing machine.		
145	Which of the following suffices to convert an arbitrary CFG to an LL(1) grammar?	1. Removing left recursion alone 2. Factoring the grammar alone 3. Removing left recursion and factoring the grammar 4. Removing left recursion, left factoring and ambiguity of the grammar	4.0
146	Which of the following ways are legal to access a class data member using this pointer?	1. this.x 2. *this.x 3. this->x 4. *this-x	3.0
147	Which one of the following is a top-down parser?	1. An LR(k) parser. 2. An LALR(k) parser 3. Operator precedence parser. 4. Recursive descent parser.	4.0

S.NO.	Questions	Choices	Answers
148	Which one of the following is a valid project Key Performance Indicator (KPI)?	1. Master schedule. 2. Staff appraisals. 3. Management buy in. 4. <b>Milestone achievement.</b>	4.0
149	Which one of the following is the correct way to declare a pure virtual function?	1. <code>virtual void Display(void){0};</code> 2. <code>void Display(void) = 0;</code> 3. <b><code>virtual void Display(void) = 0;</code></b> 4. <code>virtual void Display = 0;</code>	3.0
150	Which one of the following languages over alphabet {0,1} is described by the regular expression: $(0+1)^*0(0+1)^*0(0+1)^*$ ?	1. <b>The set of all strings containing at least two 0's</b> 2. The set of all strings that begin and end with either 0 or 1. 3. The set of all strings containing at most two 0's. 4. The set of all strings containing the substring 00.	1.0
151	Which one of the following models is not suitable for accommodating any change?	1. Build & Fix Model 2. RAD Model 3. Waterfall Model 4. Prototyping Model	3.0
152	Which one of the following regular expressions over {0,1} denotes the set of all strings not containing 100 as a substring?	1. $0^*(11^*0)^*$ 2. $0^*1^*01$ 3. <b><math>0^*(10+1)^*</math></b> 4. $0^*1010^*$	1234.0
153	Which one of the following statements best defines the purpose of a Product Breakdown Structure (PBS)?	1. To identify the health and safety strategies and procedures to be used on the project 2. To establish the extent of work required prior to project commissioning and the handover 3. To define how the products are produced by identifying derivations and dependencies <b>4. To define the hierarchy of deliverables that are required to be produced on the project</b>	4.0
154	Who owns the Project Management Plan (PMP)?	1. The project team. 2. The chief executive. <b>3. The project manager.</b> 4. The project support office.	3.0
155	Write the regular expression to denote the language L over $\Sigma = \{a, b\}$ such that all the strings do not contain the substring "ab".	1. $a^*b^*$ 2. <b><math>b^*a^*</math></b> 3. $(ab)^*$ 4. $(ba)^*$	24.0
156	Zero address instruction format is used for	1. Von-Neuman architecture 2. RISC architecture 3. CISC architecture <b>4. Stack-organized architecture</b>	4.0

S.NO.	Questions	Choices	Answers
157	In a slab under steady state conduction if the thermal conductivity increases along the thickness, the temperature gradient along the direction will become	1. Steeper 2. Flatter 3. Constant 4. mixed pattern	3.0
158	The temperature of a gas stream is to be measured by a thermocouple whose junction can be approximated as 1-mm-dia sphere. The properties of the junction are $k = 35 \text{ W/m}^{\circ}\text{C}$ , $\rho = 8500 \text{ kg/m}^3$ , and $C_p = 320 \text{ J/kg}^{\circ}\text{C}$ , and the convection heat transfer coefficient between the junction and the gas is $h = 210 \text{ W/m}^2^{\circ}\text{C}$ . The time taken by the thermocouple to read 99 percent of the initial temperature difference	1. 2 sec 2. <b>10 sec</b> 3. 28 sec 4. 63 sec	3.0
159	Assuming flow to be laminar, if the diameter of the pipe is halved, then the pressure drop will	1. increase 2. decrease 3. remain same 4. be quadrupled	1.0
160	Dimension of absolute viscosity is	1. $ML^{-1}T^{-1}$ 2. $MLT^{-1}$ 3. $ML^{-1}T$ 4. $MLT$	1.0
161	Which of the following is minimum error code?	1. Octal code 2. <b>Grey code</b> 3. Binary code 4. Excess 3 code	2.0
162	When used with an IC, what does the term "QUAD" indicate?	1. <b>4 circuits</b> 2. 2 circuits 3. 8 circuits 4. 6 circuits	1.0

S.NO.	Questions	Choices	Answers
163	Adding 1001 and 0010 gives	1. 1011  2. 1111  3. 0  4. 1010	1.0
164	Radix of binary number system is ____?	1. 0 2. 1 3. <b>2</b> 4. A&B	3.0
165	SR Flip flop can be converted to T-type flip-flop if ?	1. is connected to Q 2.R is connected to Q 3.Both S and R are shortend  <b>4.S and R are connected to Q and Q' respectively</b>	4.0
166	The main difference between JK and RS flip-flop is that?	1. JK flip-flop does not need a clock pulse 2. there is feedback in JK flip-flop  3. <b>JK flip-flop accepts both inputs as 1</b> 4. JK flip-flop is acronym of junction cathode multivibrator	3.0
167	Register is a -----	1.Set of capacitor used to register input instructions in a digital computer 2.Set of paper tapes and cards put in a file 3. Temporary storage unit within the CPU having dedicated or general purpose use  4.Part of the auxiliary memory	3.0
168	Magnitude comparator compares using operation of	1. addition  2. subtraction  3. multiplication  4. division	xnor1

S.NO.	Questions	Choices	Answers
169	An SR flip flop cannot accept the following input entry	1. Both input zero 2. zero at R and one at S 3. zero at S and one at R 4. Both inputs one	4.0
170	One operation that is not given by magnitude comparator	1. equal 2. less 3. greater 4. addition	2.0
171	Automaton accepting the regular expression of any number of a's is:	1. $a^*$ 2. a 3. $a^*b^*$ 4. abc	1.0
172	Let L be a set accepted by a nondeterministic finite automaton. The number of states in nondeterministic finite automaton is $ Q $ . The maximum number of states in equivalent finite automaton that accepts L is	1. $ Q $ 2. $2 Q $ 3. $2 \text{ raise to power }  Q ^*1$ 4. $2 \text{ raise to power }  Q $	4.0
173	Number of final state require to accept $\Phi(\phi)$ in minimal finite automata.	1. 4 2. 3. 3. 1 4. 0	4.0

S.NO.	Questions	Choices	Answers
174	The embedded c program is converted by cross compiler to	<p>1. the machine code corresponding to the processor of the PC used for application development</p> <p>2. the machine code corresponding to a processor which is different from the processor of the PC used for application development</p> <p>3. the machine code for all the microcontrollers</p> <p>4. assemble code of the PC used for application development</p>	2.0
175	The regular expression $0^*(10^*)^*$ denotes the same set as	<p>1. <math>(1*0)^*1^*</math></p> <p>2. <math>0 + (0 + 10)^*</math></p> <p>3. <math>(0 + 1)^* 10(0 + 1)^*</math></p> <p>4. <math>(0+1)^*</math></p>	1.0
176	<p>Which of the following statements is/are FALSE?</p> <p>(1) For every non-deterministic Turing machine, there exists an equivalent deterministic Turing machine.</p> <p>(2) Turing recognizable languages are closed under union and complementation.</p> <p>(3) Turing decidable languages are closed under intersection and complementation</p> <p>(4) Turing recognizable languages are closed under union and intersection.</p>	<p>1. 1 and 4 only</p> <p>2. 1 and 3 only</p> <p>3. 2 only</p> <p>4. 3 only</p>	3.0
177	Two automata are equal when	<p>1. both are under union</p> <p>2. both are under same language</p> <p>3. both are having equal number of states</p> <p>4. both are having same number of final states</p>	2.0

S.NO.	Questions	Choices	Answers
178	What is the minimum number of states needed to a DFA over $\Sigma = \{a, b\}$ which accept those words from $\Sigma$ such that the number of a is even and the number of b is divisible by three.	1. 2 states 2. 4 states 3. <b>6 states</b> 4. 5 states	3.0
179	<i>If a language is denoted by a regular expression</i> $L = (x)^*(x \mid yx)$ , <i>then which of the following is not a legal string within L ?</i>	1. yx 2. xyx 3. x 4. xyxyx	4.0
180	The CFG $s \rightarrow^* as \mid bs \mid a \mid b$ is equivalent to regular expression	1. (a + b) 2. (a + b)(a + b)* 3. (a + b)(a + b) 4. (a + b)(a + b)(a + b)(a + b)	2.0
181	-----is used to check whether the language is not regular.	1. <b>Pumping Lemma</b> 2. RE 3. MN Theorem 4. Pigeon hole principle	1.0
182	The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by	1. <b>the instruction set architecture</b> 2. page size 3. physical memory size 4. number of processes in memory	1.0

S.NO.	Questions	Choices	Answers
183	A computer has a 256 KByte, 4-way set associative, write back data cache with block size of 32 Bytes. The processor sends 32 bit addresses to the cache controller. Each cache tag directory entry contains, in addition to address tag, 2 valid bits, 1 modified bit and 1 replacement bit. The size of the cache tag directory is	1. 11  2. 14  3. 27  4. 16	4.0
184	Pre-emptive scheduling is the strategy of temporarily suspending a running process	1.  before the CPU time slice expires  2. to allow starving processes to run  3. when it requests IO  4. None of mentioned	1.0
185	Multiprogramming systems _____	1.  Are easier to develop than single programming systems  2. Execute each job faster  3.  Execute more jobs in the same time  4.  Are used only on large main frame computers	3.0
186	The DMA controller has _____ registers	1. 4  2.  3.  4.  1	3.0
187	The truth table X Y f(X,Y) 0 0 0 0 1 0 1 0 1 1 1 1  represents the Boolean function	1. X  2. X+Y  3. X'Y'  4. Y	1.0

S.NO.	Questions	Choices	Answers
188	Which of the following regular expression denotes a language comprising of all possible strings over $\Sigma = \{a,b\}$ of length n where n is a multiple of 3?	1. $(a+b+aa+bb+aba+bba)^*$ 2. $(aaa+bbb)^*$ 3. $((a+b)(a+b)(a+b))^*$ 4. $(aaa+ab+a)+(bbb+bb+a)$	3.0
189	Which of the following statement is true?	1.NFA is more powerful than DFA 2.DFA is more powerful than NFA 3. 4.None <b>NFA and DFA have equal power</b>	3.0
190	Assume that a mergesort algorithm in the worst case takes 30 seconds for an input of size 64. Which of the following most closely approximates the maximum input size of a problem that can be solved in 6 minutes?	1.256 2.2048 3.1024 4.512	4.0
191	ElGamal encryption system is:	1. symmetric key encryption algorithm 2. <b>asymmetric key encryption algorithm</b> 3. not an encryption algorithm 4. none of the mentioned	2.0
192	#include < stdio.h > int main() { typedef auto int AI; AI var=100; printf("var=%d",var); return 0; }  Find the output	1. var=100 2. var=AI 3. var=0 4. <b>Error</b>	4.0
193	#include < stdio.h > int main() { typedef char* string; string myName="ABCDEFG"; printf("myName=%s (size=%d)",myName,sizeof(myName)); return 0; }  Find the output	1. myName=ABCDEFG(size=7) 2. <b>Error</b> 3. myName=ABCDEFG(size=4) 4. myName=ABCDEFG(size=8)	4.0
194	#include < stdio.h > int main() { typedef int AAA,BBB,CCC,DDD; AAA aaa=10; BBB bbb=20; CCC ccc=30; DDD ddd=40; printf("%d,%d,%d,%d",aaa,bbb,ccc,ddd); return 0; }  Find the output	1. <b>Error</b> 2. 10,10,10,10 3. 10,20,30,40 4. AAA, BBB, CCC, DDD	3.0

S.NO.	Questions	Choices	Answers
195	<pre>#include &lt;stdio.h&gt; int main() {     typedef struct     {         int empid;         int bsal;     }EMP;     EMP E={10012,15100};     printf("%d,%d",E.empid,E.bsal);     return 0; }</pre> <p>Find the output</p>	1. 10012,12100 2. 0,0 3. Error 4. 10012,10012	1.0
196	<pre>#include &lt;stdio.h&gt; void main() { unsigned char var=0; for(var=0;var&lt;=255;var++) {     printf("%d ",var); } }</pre> <p>Find the output</p>	1. 0 1 2 ... 255 2. 255 3. 256 4. blank screen as output	1.0
197	<pre>#include &lt;stdio.h&gt; #define MOBILE 0x01 #define LAPPY 0x02  int main() { unsigned char item=0x00;  item  =MOBILE; item  =LAPPY;  printf("I have purchased ...:"); if(item &amp; MOBILE){     printf("Mobile, "); } if(item &amp; LAPPY){     printf("Lappy"); }  return 1; }</pre>	1. I have purchased ...: 2. I have purchased ...:Mobile, Lappy 3. I have purchased ...:Mobile, 4. I have purchased ...:Lappy	2.0
198	<pre>#include &lt;stdio.h&gt; int main() { char flag=0x0f; flag &amp;= ~0x02; printf("%d",flag);  return 0; }</pre> <p>Predict the Output.</p>	1. 13 2. d 3. 22 4. 10	1.0
199	<pre>#include &lt;stdio.h&gt; int main() { int a=10; int b=2; int c;  c=(a &amp; b); printf("c= %d",c);  return 0; }</pre> <p>Find the output.</p>	1. c = 12 2. c = 10 3. c = 2 4. c = 0	3.0

S.NO.	Questions	Choices	Answers
200	<pre>#include &lt;stdio.h&gt; #define FUN(x,y) x##y int main() { int a=10,a2=20; printf("%d...%d",FUN(a,1),FUN(a,2)); return 0; }  Find the output</pre>	1. Error 2. 10...10 3. 20...20 4. 10...20	4.0
201	<pre>#include &lt;stdio.h&gt; #define LARGEST(x,y) (x&gt;=y)?x:y int main() { int a=10,b=20,l=0; l=LARGEST(a++,b++);  printf("a=%d,b=%d,largest=%d",a,b,l); return 0; }  Find the output</pre>	1. a=10,b=20,largest=20 2. a=11,b=21,largest=20 3. a=11,b=21,largest=21 4. a=11,b=22,largest=21	4.0
202	<pre>#include &lt;stdio.h&gt; #define MAX 100 int main() { #define MAX 20 printf("MAX=%d...",MAX); return 0; }  Find the output</pre>	1. Error 2. MAX=100... 3. MAX=20... 4. MAX=10020	3.0
203	<pre>#include &lt;stdio.h&gt; #define MAX 10 int main() { int array[MAX]={1,2,3},tally; for(tally=0;tally&lt; sizeof(array)/sizeof(int);tally+=1) printf("%d ",*(tally+array)); return 0; }  Find the output</pre>	1. 1 3 4 5 6 7 8 9 10 11 2. 1 2 3 0 0 0 0 0 0 0 3. 0 0 0 0 0 0 0 0 0 0	3.0
204	<pre>#include &lt;stdio.h&gt; #define MAX 99 int main() { printf("%d...",MAX); #undef MAX printf("%d",MAX); return 0; }  Find the output</pre>	1. 99...0 2. 99...99 3. Error 4. MAX...MAX	3.0
205	<pre>#include &lt;stdio.h&gt; #define TEXT IncludeHelp int main() { printf("%s",TEXT); return 0; }  Find the output</pre>	1. IncludeHelp 2. TEXT 3. Error 4. TEXT IncludeHelp	3.0

S.NO.	Questions	Choices	Answers
206	<pre>#include &lt;stdio.h&gt; #define TRUE 1 int main() {     if(TRUE)         printf("1");         printf("2");     else         printf("3");         printf("4");     return 0; }  Find the output.</pre>	1. 1 2. Error 3. 2 4. 12	2.0
207	<pre>#include &lt;stdio.h&gt; #define TRUE 1 int main() {     int loop=10;     while(printf("Hello ") &amp;&amp; loop--); }  Find the output</pre>	1. Hello 2. Hello Hello Hello Hello ... (infinite times) 3. Hello (10 times) 4. Hello (11 times)	4.0
208	<pre>#include &lt;stdio.h&gt; #define VAR1  VAR2+10 #define VAR2  VAR1+20  int main() {     printf("%d",VAR1);     return 0; }  Find the output</pre>	1. VAR2+10 2. VAR1+20 3. Error 4. 10	3.0
209	<pre>#include &lt;stdio.h&gt; #include &lt; string.h &gt;  struct student {     char name[20]; }std; char * fun(struct student *tempStd) {     strcpy(tempStd-&gt;name,"Thomas");     return tempStd-&gt;name; }  int main() {     strcpy(std.name,"Mike ");     printf("%s%s",std.name,fun(&amp;std));     return 0; }  Find the output</pre>	1. Mike Thomas 2. Mike Mike 3. ThomasThomas 4. ThomasMike	3.0
210	<pre>#include &lt;stdio.h&gt; #include &lt;string.h&gt; int main() {     char s1[]{"IncludeHelp"};     char s2[10];      strncpy(s2,s1,5);     printf("%s",s2);     return 0; }  Find the output</pre>	1. Inclu 2. IncluGARBAGE_VALUE 3. Error 4. IncludeHelp	1.0

S.NO.	Questions	Choices	Answers
211	<pre>#include &lt;stdio.h&gt; #include &lt;string.h&gt; int main() {     char str1[]="IncludeHelp",str2[]=".Com";     printf("%s",str1+strlen(str2));     return 0; }</pre> <p>Find the output</p>	1. IncludeHelp.Com 2. udeHelp 3. Error 4. IncludeHelp4	2.0
212	<pre>#include &lt;stdio.h&gt; #include &lt;string.h&gt; int main() {     char str[50]="IncludeHelp";     printf("%d...%d",strlen(str),sizeof(str));     return 0; }</pre> <p>Find the output</p>	1. 50...5011...50 2. 3. 11...50 4. 11...11 5. 50...11	2.0
213	<pre>#include &lt;stdio.h&gt; #include &lt;string.h&gt; int main() {     int val=0;     char str[]={IncludeHelp.Com};     val=strcmp(str,"includehelp.com");     printf("%d",val);     return 0; }</pre> <p>Find the output</p>	1. 0 2. 3. 1 4. 1 Error	3.0
214	<pre>#include &lt;stdio.h&gt;  #define OFF 0 #if debug == OFF     int a=11; #endif  int main() {     int b=22;     printf("%d...%d",a,b);     return 0; }</pre> <p>Find the output</p>	1. 11...22 2. 3. Error 4. 11...11 4. 22...22	1.0
215	<pre>#include &lt;stdio.h&gt;  int main() {     char *text="Hi Babs.";     char x=(char)(text+3);      printf("%c\n",x);      return 0; }</pre> <p>Find the output</p>	1. Garbage 2. 3. B 4. Error 4. Null	4.0
216	<pre>#include &lt;stdio.h&gt;  int main() {     char *text="Hi Babs.";     char x=(char)(text[3]);      printf("%c\n",x);      return 0; }</pre> <p>Find the output</p>	1. Garbage 2. 3. B 4. Error 4. Null	2.0

S.NO.	Questions	Choices	Answers
217	<pre>#include &lt;stdio.h&gt;  int main() {     int anyVar=10;     printf("%d",10);     return 0; } extern int anyVar;  Find the output</pre>	1. Complie time error 2. 10 3. Run Time error 4. No output	2.0
218	<pre>#include &lt;stdio.h&gt;  int main() {     int x=2.3;     const char c1=(float)x;     const char c2=(int)x;      printf("%d,%d\n",c1,c2);      return 0; } Find the output</pre>	1. Error 2. 2.3,2 3. 2.3000000,2 4. 2,2	2.0
219	<pre>#include &lt;stdio.h&gt;  struct sample {     int a; }sample;  int main() {     sample.a=100;     printf("%d",sample.a);     return 0; }  Find the output</pre>	1. 0 2. 100 3. ERROR 4. arning	2.0
220	<pre>#include &lt;stdio.h&gt; char* fun1(void) {     char str[]="Hello";     return str; }  char* fun2(void) {     char *str="Hello";     return str; }  int main() {     printf("%s,%s",fun1(),fun2());     return 0; }  Find the output</pre>	1. ERROR 2. Hello,Hello 3. Hello,Garbage 4. Garbage>Hello	4.0
221	<pre>#include &lt;stdio.h&gt; char* strFun(void) {     char *str="IncludeHelp";     return str; }  int main() {     char *x;     x=strFun();     printf("str value = %s",x);     return 0; }  Find the output</pre>	1. str value= Garbage value 2. str value = IncludeHelp 3. Error 4. No output	2.0

S.NO.	Questions	Choices	Answers
222	<pre>#include &lt;stdio.h&gt; int foo(void) {     static int num=0;     num++;     return num; } int main() {     int val;     val=foo();     printf("step1: %d\n",val);     val=foo();     printf("step2: %d\n",val);     val=foo();     printf("step3: %d\n",val);     return 0; }  Find the output</pre>	1. step1: 1 2. step2: 1 3. step3: 1 4. step1: 1 5. step2: 2 6. step3: 3 7. 3. 8. step1: 0 9. step2: 0 10. step3: 0 11. 4. 12. ERROR	2.0
223	<pre>#include &lt;stdio.h&gt; int main() { #ifndef debug     printf("Start debugging..."); #endif     printf("IncludeHelp");     return 0; }  Find the output</pre>	1. Start debugging...IncludeHelp 2. IncludeHelp 3. Error 4. debug	2.0
224	<pre>#include &lt;stdio.h&gt; int main() {     int a[5]={0x00,0x01,0x02,0x03,0x04},i;     i=4;     while(a[i])     {         printf("%02d ",*a+i);         --i;     }     return 0; }  Find the output</pre>	1. 00 01 02 03 04 2. 04 03 02 01 00 3. 04 03 02 01 4. 01 02 03 04	3.0
225	<pre>#include &lt;stdio.h&gt; int main() {     int a[5]={1,2,3,4,5},b[5]={10,20,30,40,50},tally;      for(tally=0;tally&lt; 5;++tally)         *(a+tally)=*(tally+a)+ *(b+tally);      for(tally=0;tally&lt; 5;tally++)         printf("%d ",*(a+tally));      return 0; }  Find the output</pre>	1. 1 2 3 4 5 2. 10 20 30 40 50 3. 11 22 33 44 55 4. Error	3.0
226	<pre>#include &lt;stdio.h&gt; int main() {     static int array[]={10,20,30,40,50};     printf("%d...%d",*array,*array+3)* *array);     return 0; }  Find the output</pre>	1. Error 2. 10...40 3. 10...300 4. 10...400	4.0

S.NO.	Questions	Choices	Answers
227	<pre>#include &lt;stdio.h&gt; int main() {     static int x[]={'A','B','C','D','E'},tally;     for(tally=0;tally&lt; sizeof(x)/sizeof(int) ; tally++)         printf("%c,%c,%c\n",*(x+tally)+1,x[tally]+1,*(tally+x)+1);     return 0; }</pre> <p>Find the output</p>	1. Error 2. A,A,A 3. B,B,B 4. C,C,C 5. D,D,D 6. E,E,E 7. <b>3.</b> 8. <b>B,B,B</b> 9. <b>C,C,C</b> 10. <b>D,D,D</b> 11. <b>E,E,E</b> 12. <b>F,F,F</b> 13. 4. 14. E,E,E 15. D,D,D 16. C,C,C 17. B,B,B 18. A,A,A	3.0
228	<pre>#include &lt;stdio.h&gt; int main() {     char result,str[]="\0IncludeHelp";     result=printf("%s",str);     if(result)         printf("TRUE");     else         printf("FALSE");     return 0; }</pre> <p>Find the output</p>	1. \0IncludeHelpTRUE 2. \0IncludeHelpFALSE 3. Error 4. FALSE	4.0
229	<pre>#include &lt;stdio.h&gt; int main() {     char str[8]="IncludeHelp";     printf("%s",str);     return 0; }</pre> <p>Find the output</p>	1. IncludeHelp 2. IncludeH 3. <b>Error</b> 4. No output	3.0
230	<pre>#include &lt;stdio.h&gt; int main() {     char str[]="Hello%s%dFriends";     printf(str);     printf("\n");     printf("%s",str);     return 0; }</pre> <p>Find the output</p>	1. HelloFriends 2. HelloFriends 3. Hello%s%dFriends 4. Hello%s%dFriends 5. Hello(null)0Friends 6. Hello%s%dFriends 7. 4. 8. Garbage value	3.0

S.NO.	Questions	Choices	Answers
231	<pre>#include &lt;stdio.h&gt; int main() {     char str[]="value is=%d";     int a=7;     str[11]='c';     printf(str,a);     return 0; }</pre> <p>Find the output</p>	1. value is =%d 2. value is =%c 3. value is =55 4. value is =7	4.0
232	<pre>#include &lt;stdio.h&gt; int main() {     char X[10]={'A'},i;     for(i=0; i&lt;10; i++)         printf("%d ",X[i]);     return 0; }</pre> <p>Find the output</p>	1. A 0 0 0 0 0 0 0 0 2. A 3. A 32 32 32 32 32 32 32 32 4. Error	4.0
233	<pre>#include &lt;stdio.h&gt; int main() {     char *str="IncludeHelp";     printf("%c\n",*&amp;str);     return 0; }</pre> <p>Find the output</p>	1. Error 2. IncludeHelp 3. I 4. *I	3.0
234	<pre>#include &lt;stdio.h&gt; int main(){     float a=125.50;     int b=125.50;     char c='A';      printf("%d,%d,%d\n",sizeof(a),sizeof(b),sizeof(125.50));     printf("%d,%d\n",sizeof(c),sizeof(65));     return 0; }</pre> <p>What will be the output on a 32 bit compiler.</p>	1. 4, 4, 4 2. 1, 4 3. 4, 4, 8 4. 1, 1 5. 4, 4, 4 6. 1, 1 7. 4, 4, 8 8. 1, 4	4.0
235	<pre>#include &lt;stdio.h&gt; int main() {     if( (-100 &amp;&amp; 100) (20 &amp;&amp; -20) )         printf("%s","Condition is true.");     else         printf("%s","Condition is false.");     return 0; }</pre> <p>Find the output</p>	1. Condition is True 2. Condition is False 3. No output 4. Error	1.0

S.NO.	Questions	Choices	Answers
236	<pre>#include &lt;stdio.h&gt; int main() {     int a=10;     if(10L == a)         printf("10L");     else if(10==a)         printf("10");     else         printf("0");     return 0; }  Find the output.</pre>	1. 10 2. 10L 3. 10L10 4. Error	2.0
237	<pre>#include &lt;stdio.h&gt; int main() {     int a=10;     if(a==10)     {         printf("Hello...");         break;         printf("Ok");     }     else     {         printf("Hii");     }     return 0; }  Find the output.</pre>	1. Hello... 2. Hello...OK 3. OK... 4. Error	4.0
238	<pre>#include &lt;stdio.h&gt; int main() {     int a=15;     float b=1.234;     printf("%.*f",a,b);     return 0; }  Predict the output?</pre>	1. 1.234 2. 1.234000 3. 1.234000 4. Error	3.0
239	<pre>#include &lt;stdio.h&gt; int main() {     int i;     for(i=0; i&lt; 5; i++)     {         if(i*i &gt; 30 )             goto lbl;         else             printf("%d",i);     lbl:         printf("IHelp ");     }     return 0; }  Find the output</pre>	1. 0IHelp 1IHelp 2IHelp 3IHelp 4IHelp 2. 0IHelp 1IHelp 2IHelp 4IHelp 3. 1IHelp 4. Error	1.0
240	<pre>#include &lt;stdio.h&gt; int main() {     int MAX=10;     int array[MAX];     printf("size of array is = %d",sizeof(array));     return 0; }  Find the output</pre>	1. size of array is = 20 2. size of array is = 40 3. size of array is = 4 4. Error	2.0

S.NO.	Questions	Choices	Answers
241	<pre>#include &lt;stdio.h&gt; int main() {     int pn=100;     if(pn&gt;20)         if(pn&lt;20)             printf("Heyyyyy");         else             printf("Hiiiii");     return 0; }</pre> <p>Find the output.</p>	1. No output 2. Hiiiii 3. Heyyyyy 4. HeyyyyyHiiiii	2.0
242	<pre>#include &lt;stdio.h&gt; int main() {     int var=100;     {         int var=200;         printf("%d",var);     }     printf("%d",var);     return 0; }</pre> <p>Find the output</p>	1. ERROR 2. 200...200 3. 100...100 4. 200...100	4.0
243	<pre>#include &lt;stdio.h&gt; int main() {     int var=250;     printf("value of var = %d\n",var);     200+50;     "includehelp.com";     printf("%s\n","includehelp");     return 0; }</pre> <p>Find the output</p>	1. value of var = 250 2. includehelp.com 3. value of var = 250 4. includehelp 5. Error 6. value of var = 250 7. Garbage	2.0
244	<pre>#include &lt;stdio.h&gt; int main() {     int iVal;     char cVal;     void *ptr; // void pointer     iVal=50; cVal=65;      ptr=&amp;iVal;     printf("value=%d,size= %d\n",*(int*)ptr,sizeof(ptr));      ptr=&amp;cVal;     printf("value=%d,size= %d\n",*(char*)ptr,sizeof(ptr));     return 0; }</pre> <p>Find the output</p>	1. Error 2. value =50,size= 4 3. value =65,size= 4 4. value =50,size= 4 5. value =65,size= 1 6. Garbage value	2.0
245	<pre>#include &lt;stdio.h&gt; int main() {     static int var[5];     int count=0;      var[++count]=++count;     for(count=0;count&lt;5;count++)         printf("%d ",var[count]);      return 0; }</pre> <p>Find the output</p>	1. 0 1 0 0 0 2. 0 2 0 0 0 3. 0 0 2 0 0 4. 0 0 0 0 0	3.0

S.NO.	Questions	Choices	Answers
246	<pre>#include &lt;stdio.h&gt; int main() {     struct sample {         int a;         int b;         sample *s;     }t;      printf("%d,%d",sizeof(sample),sizeof(t.s));     return 0; }</pre> <p>Find the output</p>	1. 12, 12 2. 12, 0 3. Error 4. 12, 4	4.0
247	<pre>#include &lt;stdio.h&gt; int main() {     struct std     {         char name[30];         int age;     };     struct std s1={"Mike",26};     struct std s2=s1;      printf("Name: %s, Age: %d\n",s2.name,s2.age); }</pre> <p>Find the output</p>	1. Name: Mike, Age: 26 2. Name: Garbage, Age: Garbage 3. Name: Null, Age: 26 4. Error	1.0
248	<pre>#include &lt;stdio.h&gt; int main() {     typedef struct tag{         char str[10];         int a;     }har;     har h1,h2={"IHelp",10};     h1=h2;     h1.str[1]='h';     printf("%s,%d",h1.str,h1.a);     return 0; }</pre> <p>Find the output</p>	1. ERROR 2. IHelp, 10 3. IHelp, 0 4. Ihelp, 10	4.0
249	<pre>#include &lt;stdio.h&gt; int main() {     union test     {         int i;         int j;     };      union test var=10;     printf("%d,%d\n",var.i,var.j); }</pre> <p>Find the output</p>	1. 10,10 2. 10,0 3. 0,10 4. Error	4.0
250	<pre>#include &lt;stdio.h&gt; int main() {     union values     {         int intval;         char chrval[2];     };      union values val;     val.chrval[0]='A'; val.chrval[1]='B';      printf("\n%c,%c,%d",val.chrval[0],val.chrval[1],val.intval);     return 0; }</pre> <p>Find the output</p>	1. A,B,0 2. A,B,16961 3. B,B,66 4. A,A,65	2.0

S.NO.	Questions	Choices	Answers
251	<pre>#include &lt;stdio.h&gt; int main() {     union values     {         unsigned char a;         unsigned char b;         unsigned int c;     };      union values val;     val.a=1;     val.b=2;     val.c=300;      printf("%d,%d,%d",val.a,val.b,val.c);     return 0; }</pre> <p>Find the output</p>	1. 44,44,300 2. 1,2,300 3. 2,2,300 4. 256,256,300	1.0
252	<pre>#include &lt;stdio.h&gt; int main() {     void *ptr;     ++ptr;     printf("%u",ptr);     return 0; }</pre> <p>Find the output</p>	1. 2004 2. 2001 3. 2000 4. ERROR	2.0
253	<pre>#include &lt;stdio.h&gt; struct employee{     int empId;     char *name;     int age; }; int main() {     struct employee emp []={ {1,"Mike",24}, {2,"AAA",24}, {3,"BBB",25}, {4,"CCC",30} };      printf("Id : %d, Age : %d, Name : %s", emp[2].empId,emp[2].age,(emp+1).name);     return 0; }</pre> <p>Find the output</p>	1. Id: 3, Age: 24, Name: Mike 2. Id: 3, Age: 23, Name: Mike 3. Id: 3, Age: 30, Name: AAA 4. Error	3.0
254	<pre>#include &lt;stdio.h&gt; void main() {     int a=2;     switch(a)     {         printf("Message\n");         default:             printf("Default\n");         case 2:             printf("Case-2\n");         case 3:             printf("Case-3\n");     }     printf("Exit from switch\n"); }</pre> <p>Find the output</p>	1. Case-2 2. Message 3. Message 4. Case-2 Case-3 Exit from switch	4.0

S.NO.	Questions	Choices	Answers
255	<pre>#include &lt;stdio.h&gt; void main(){     static int staticVar;     int j;     for(j=0;j&lt;=5;j+=2)         switch(){             case 1:                 staticVar++;                 break;             case 2:                 staticVar+=2;             case 4:                 staticVar%=2;                 j-=1;                 continue;             default:                 --staticVar;                 continue;         }     printf("%d",staticVar); }</pre> <p>Find the output</p>	1. 0 2. 1 3. 2 4. Error	1.0
256	<pre>#include &lt;stdio.h&gt; void main(){     int a=0;     a=5  2 1;     printf("%d",a); }</pre> <p>Find the output.</p>	1. 2. 1 3. 0 4. 8	2.0
257	<pre>#include &lt;stdio.h&gt; void main(){     int a=1;     switch(a/2)     {         case NULL:             printf("Case NULL\n");             break;         case 0:             printf("Case ZERO\n");             break;         default:             printf("DEFAULT\n");             break;     } }</pre> <p>Find the output</p>	1. Case NULL 2. Case ZERO 3. Case DEFAULT 4. Error	4.0
258	<pre>#include &lt;stdio.h&gt; void main() {     int a=2;     int b=a;      switch(b)     {         case a:             printf("Case-a\n"); break;         case 3:             printf("Case-3\n"); break;         default:             printf("No option\n"); break;     }     printf("Exit from switch"); }</pre> <p>Find the output</p>	1. Case-2 2. Error: case expression not constant 3. Message 4. Case-2 Case-2 Case-3 Exit from switch	2.0

S.NO.	Questions	Choices	Answers
259	<pre>#include &lt;stdio.h&gt; void main() {     int cnt=1;     while(cnt&lt;=10)     {         printf("%d",cnt);         cnt+=1;     }     printf("\nAfter loop cnt=%d",cnt);     printf("\n"); }</pre> <p>Find the output</p>	1. After loop cnt= 1 2. 1, After loop cnt= 2 3. After loop cnt= 2 4. 11	1.0
260	<pre>#include &lt;stdio.h&gt; void main() {     int i,j,charVal='A';      for(i=5;i&gt;=1;i--)     {         for(j=0;j&lt; i;j++)             printf("%c ",(charVal+j));         printf("\n");     } }</pre> <p>Identify the output</p>	1. A B C D E A B C D E A B C D E A B C D E A B C D E 2. A B C D A B C D A B C D A B C D 3. A B C D A B C A B A 4. A B C D E A B C D A B C A B A	3.0
261	<pre>#include &lt;stdio.h&gt; void main() {     int i=1;     while (i&lt;=5)     {         printf("%d",i);         if (i==5)             goto print;         i++;     } } fun() { print:     printf("includehelp.com"); }  Find the output</pre>	1. Error 2. 12345includehelp.com 3. 1234includehelp.com 4. 1includehelp.com 2includehelp.com 3includehelp.com 4includehelp.com 5includehelp.com	1.0
262	<pre>#include &lt;stdio.h&gt; void main(){     int intVar=20,x;     x= ++intVar,intVar++,++intVar;     printf("Value of intVar=%d, x=%d",intVar,x); }  Find the output</pre>	1. Value of intVar=23, x=21 2. Value of intVar=23, x=23 3. Value of intVar=21, x=21 4.ERROR	1.0

S.NO.	Questions	Choices	Answers
263	<pre>#include &lt;stdio.h&gt; void main() {     int tally;     for(tally=0;tally&lt;10;++tally)     {         printf("#");         if(tally&gt;6)             continue;         printf("%d",tally);     } }  Find the output</pre>	1. #0#1#2#3#4#5#6##### 2. #0#1#2#3#4#5#6#7#8#9#10 3. #0#1#2#3#4#5##7#8#9#10 4. #0#1#2#3#4#5#	1.0
264	<pre>#include &lt;stdio.h&gt; void main() {     unsigned char c=290;     printf("%d",c); }  Find the output</pre>	1. 34 2. 290 3. Garbage value 4. Error	1.0
265	<pre>#include &lt;stdio.h&gt; void main() {     char cnt=0;     for(;cnt++ ;printf("%d",cnt));     printf("%d",cnt); }  Find the output</pre>	1. 0 1 2 ... infinity 2. 1 2 2 ... 127 3. 0 4. 1	4.0
266	<pre>#include &lt;stdio.h&gt; #include &lt;string.h&gt;  int main() {     char str[];     strcpy(str,"Hello");     printf("%s",str);     return 0; }  Find the output</pre>	1. Hello 2. Error 3. NULL 4. NO OUTPUT	2.0
267	<pre>#include  #define SUM(x,y) int s; s=x+y; printf("sum=%d\n",s); int main() {     SUM(10,20);     return 0; }  Find the output</pre>	1. sum=30 2. 10,20 3. Error 4. sum=0	1.0
268	<pre>#include int main() {     char ch=10;     void *ptr=&amp;ch;     printf("%d,%d",*(char*)ptr,++(*char*)ptr);     return 0; }  Find the output</pre>	1. 11, 11 2. 10, 11 3. Error 4. 10, 10	1.0

S.NO.	Questions	Choices	Answers
269	<pre>#include int main() {     char *str []={"AAAAA","BBBBB","CCCCC","DDDDD"};     char **sptr []={str+3,str+2,str+1,str};     char ***pp;      pp=sptr;     ++pp;     printf("%s",**++pp+2);     return 0; }  Find the output</pre>	1. BBBBB 2. CCCCC 3. BBB 4. Error	3.0
270	<pre>#include int main() {     int a=10,b=2;     int *pa=&amp;a,*pb=&amp;b;     printf("value = %d", *pa/*pb);     return 0; }  Find the output</pre>	1. 5 2. 5.0 3. ERROR 4. No output	1.0
271	<pre>#include void fun(int *ptr) {     *ptr=100; } int main() {     int num=50;     int *pp=#     fun(&amp; *pp);     printf("%d,%d",num,*pp);     return 0; }  Find the output</pre>	1. 100,100 2. 50,50 3. 50,100 4. Error in function calling	3.0
272	<pre>#include #define FUN(x) x*x int main() {     int val=0;     val=128/FUN(8);     printf("val=%d",val);     return 0; }  Find the output</pre>	1. 2 2. 12864 3. 40 4. 1	2.0
273	<pre>#include int main () { static int a[]={10, 20, 30 40, 50}; static int *p[]={ a, a+3, a+4, a+1, a+2}; int **ptr=p; ptr++; printf ("%d%d", ptr p, **ptr); }  The output of the program is _____</pre>	1. 43 2. 140 3. 89 4. 78	2.0
274	<pre>#include &lt;stdio.h&gt; #define TRUE 1 int main() {     switch(TRUE)     {         printf("Hello");     } }  Find the output</pre>	1. Hello 2. ERROR 3. No output 4. Garbage	3.0

S.NO.	Questions	Choices	Answers
275	<pre>#include &lt;stdio.h&gt; enum numbers {     zero, one, two, three , four=3,five,six,seven=0,eight }; void main() {     printf("%d,%d,%d,%d,%d,%d,%d,%d",zero,one,two,three,four,five,six,seven,eight); }  What will be the output.</pre>	1. 0, 1, 2, 3, 3, 4, 5, 0, 1 2. 0, 1, 2,3,3,1,2,3,4 3. 0,1,2,3,3,1,2,3,4 4. 0, 1, 2, 3, 3, 4, 5, 0, 9	1.0
276	<pre>#include &lt;stdio.h&gt; int main() {     char val=250;     int ans;     ans= val+ !val + ~val + ++val;     printf("%d",ans);     return 0; }  Find the output.</pre>	1. -5 2. -6 3. 0 4. 6	2.0
277	<pre>#include &lt;stdio.h&gt; int main() {     float a,b;     a=3.0f;     b=4.0f;     printf("%.0f,% .1f,% .2f",a/b,a/b,a/b);     return 0; }  Find the output.</pre>	1. 1, 0.8, 0.75 2. 0, 0.7, 0.75 3. 0, 0.8, 0.75 4. Error: Invalid format Specifier	3.0
278	<pre>#include &lt;stdio.h&gt; int main() {     float a;     (int)a= 10;     printf("value of a=%d",a);     return 0; }  Find the output</pre>	1. value of a=10 2. value of a=10.000000 3. value of a=0 4. L-Value required	4.0
279	<pre>#include &lt;stdio.h&gt; int main() {     int i=-1,j=-1,k=0,l=2,m;     m=i++&amp;&amp;j++&amp;&amp;k++  l++;     printf("%d %d %d %d %d",i,j,k,l,m);     return 0; }  Find the output</pre>	1. 0 0 1 2 1 2. 0 0 1 3 2 3. 0 0 1 3 1 4. 0 1 1 3 1	3.0
280	<pre>#include &lt;stdio.h&gt; int main() {     int intVar=24;     static int x=intVar;     printf("%d,%d",intVar,x);     return 0; }  Find the output of this program, (program name is: static_ec.c)</pre>	1. 24, 24 2. 24, 0 3. Error: Illegal Initialization 4. Run time error	3.0

S.NO.	Questions	Choices	Answers
281	<pre>#include &lt;stdio.h&gt; int main() {     int ok=-100;     -100;     printf("%d",ok);     return 0; }</pre> <p>Find the output.</p>	1. 0 2. -100 3. 100 4. Error	2.0
282	<pre>#include &lt;stdio.h&gt; int main() {     int var;     var= -10;     printf("value of var= %d\n",var);     var+= +10;     printf("value of var= %d\n",var);     return 0; }</pre> <p>Find the output</p>	1. ERROR 2. value of var= -10 value of var= 10 3. value of var= 10 value of var= 10 4. value of var= 10 value of var= 11	3.0
283	<pre>#include &lt;stdio.h&gt; int main(){     int x;     x=100,30,50;     printf("x=%d\n",x);     x=(100,30,50);     printf("x=%d\n",x);     return 0; }</pre> <p>Find the output</p>	1. x=100 x=100 2. x=100 x=50 3. x=50 x=50 4. x=50 x=100	2.0
284	<pre>#include &lt;stdio.h&gt; void main() {     int a=10;     switch(a){         case 5+5:             printf("Hello\n");         default:             printf("OK\n");     } }</pre> <p>Find the output</p>	1. Hello 2. OK 3. Hello OK 4. Error	3.0
285	<pre>#include &lt;stdio.h&gt; void main() {     unsigned short var='B';     var+=2;     var++;     printf("var : %c , %d ", var,var); }</pre> <p>Find the output</p>	1. var : E, 69 2. var : E, 68 3. var : D, 69 4. var : D, 68	1.0

S.NO.	Questions	Choices	Answers
286	<pre>#include &lt;stdio.h&gt; void main() {     int a=2;     switch(a/2*1.5)     {         case 1:             printf("One...");             break;         case 2:             printf("Two...");             break;         default:             printf("Other...");             break;     } }</pre> <p>Find the output</p>	1. One... 2. Two... 3. Other... 4. Error	4.0
287	<pre>#include &lt;stdio.h&gt; void main() {     short a=2;     switch(a)     {         case 1L:             printf("One\n");             break;         case 2L:             printf("Two\n");             break;         default:             printf("Else\n");             break;     } }</pre> <p>Find the output</p>	1. One 2. Two 3. Else 4. Error	2.0
288	<pre>#include &lt;stdio.h&gt; void main() {     short day=2;     switch(day)     {         case 2:    case 22:             printf("%d nd",day);             break;         default:             printf("%d th",day);             break;     } }</pre> <p>Find the output</p>	1. 2 nd 2. 22 nd 3. Error 4. 2 nd 22 nd	3.0
289	<pre>#include &lt;stdio.h&gt; int main(){     int a,b,c;     a=0x10; b=010;     c=a+b;     printf("\nAddition is= %d",c);     return 0; }</pre> <p>Find the output.</p>	1. Addition is = 20 2. Addition is = 24 3. Addition is = Garbage 4. Error	2.0
290	<pre>#include &lt;stdio.h&gt; void main() {     int x;     x=(printf("AA")  printf("BB"));     printf("%d",x);     printf("\n");      x=(printf("AA")&amp;&amp;printf("BB"));     printf("%d",x); }</pre> <p>Find the output</p>	1. AABB1 AABB1 2. 1 1 3. AABB1 AA1 4. AA1 AABB1	4.0

S.NO.	Questions	Choices	Answers
291	\$a = array( null => 'a', true => 'b', false => 'c', 0 => 'd', 1 => 'e', " => 'f' ); echo count(\$a), "\n"; What will be printed?	1.2 2. <b>3</b> 3.4 4.5	2.0
292	\$a = array(); if (\$a[1]) null; echo count(\$a), "\n"; What will be printed?	1.0 2.1 3.2 4.Code wont work	1.0
293	What is the most common approach for the development of application system now?	1. Incremental development 2. Agile 3. Waterfall 4. None of the options	1.0
294	..... data type can store unstructured data	1. RAW 2. CHAR 3. NUMERIC 4. VARCHAR	1.0
295	A wireless network interface controller can work in	1. infrastructure mode 2. ad-hoc mode 3. <b>both infrastructure and ad-hoc mode</b> 4. none	3.0
296	Consider the code snippet given below var count = [1,,3]; What is the observation made?	1. <b>The omitted value takes “undefined”</b> 2. This results in an error 3. This results in an exception 4. Can't predict	1.0
297	Consider the following javascript statements x = ~~y; w = x = y = z; q = a?b:c?d:e?f:g; The above code snippet is equivalent to:	1. x = ~(-y); w = (x = (y = z)); q = a?b:(c?d:(e?f:g)); 2. x = a?b:(c?d:(e?f:g)); q = ~(-y); w = (x = (y = z)); 3. x = (x = (y = z));w = ~(-y); q = a?b:(c?d:(e?f:g)); 4. x = ~(-y); w = (x = (y = z)); q = (c?d:(e?f:g));	4.0

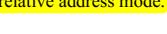
S.NO.	Questions	Choices	Answers
298	<p>Consider the following statements</p> <pre>var text = "testing: 1, 2, 3"; // Sample text var pattern = /\d+/g // Matches all instances of one or more digits</pre> <p>In order to check if the pattern matches with the string "text", the statement is</p>	1. text==pattern 2. text.equals(pattern) 3. text.test(pattern) 4. pattern.test(text)	4.0
299	----- is the minimal super key	1. Partial Key 2. Candidate Key 3. Surrogate Key 4. Unique Key	2.0
300	----- is a built - in JavaScript function which can be used to execute another function after a given time interval.	1.Timeout() 2.TimeInterval() 3.setTimeout() 4.All of the above	3.0
301	..... command can be used to modify a column in a table	1. alter 2. update 3. set 4. create	1.0
302	..... is preferred method for enforcing data integrity	1. Constraints 2. Stored Procedure 3. Triggers 4. Cursors	1.0
303	66.6% risk is considered as	1. very low 2. low 3. moderate 4. high	4.0
304	8086 microprocessor is interfaced to 8253 a programmable interval timer. The maximum number by which the clock frequency on one of the timers is divided by	1.216 2.28 3.210 4.220	1.0

S.NO.	Questions	Choices	Answers
305	Which activity most easily lends itself to incremental design?	1. User Interfaces 2. Web Services 3. <b>Enterprise resource planning</b> 4. Embedded Software	3.0
306	Graphical representation of the project, showing each task and activity as horizontal bar whose length is proportion to time taken for a completion of that activity is called	1.Gantt Chart 2. Structure Chart 3. Pert Chart 4. Time Line	1.0
307	Software deteriorates rather than wears out because	1. Software suffers from exposure to hostile environments 2. Defects are more likely to arise after software has been used often 3. <b>Multiple change requests introduce errors in component interactions</b> 4. Software spare parts become harder to order	3.0
308	The 40-20-40 rule suggests that the least amount of development effort can be spent on	1.Estimation and planning 2. Analysis and design 3. <b>Coding</b> 4. Testing	3.0
309	The prototyping model of software development is	1. A reasonable approach when requirements are well defined 2. <b>A Useful approach when a customer cannot define requirements clearly</b> 3. The best approach to use projects with larger development teams 4. A risky model that rarely produces a meaningful product	2.0
310	In reuse-oriented software engineering the last stage is _____.	1. component analysis 2. requirements modification 3. <b>system validation</b> 4. system design	3.0

S.NO.	Questions	Choices	Answers
311	Which of the following is not a part/product of requirements engineering?	1. Feasibility study 2. Requirements validation 3. System models 4. Architectural design	4.0
312	Software Specification is the process where	1. you decide what software you will use to program 2. you develop a prototype and show it to the client 3. You find out what services are required from the system 4. none	3.0
313	What is an advantage of incremental delivery?	1. everything is coded at once, so the customer receives the full product 2. replacement systems are easily developed with full features that clients expected from the old system 3. Customers can use prototypes and gain experience that informs their requirements for later systems 4. none of the mentioned	3.0
314	This is a software development process model	1. waterfall model 2. Incremental model 3. Boehm's Spiral model 4. all	4.0
315	What is the type of software design that defines interfaces between system components?	1. architectural design 2. 3. Interface Design 4. component Design 5. database design	2.0
316	The size of the data count register of a DMA controller is 16 bits. The processor needs to transfer a file of 29,154 kilobytes from disk to main memory. The memory is byte addressable. The minimum number of times the DMA controller needs to get the control of the system bus from the processor to transfer the file from the disk to main memory is	1. 454 2. 455 3. 456 4. 457	3.0

S.NO.	Questions	Choices	Answers
317	For which of the following flip-flop the output clearly defined for all combinations of two inputs?	1. D type flip-flop 2. R S type flip-flop 3. JK flip-flop 4. T flip-flop	3.0
318	In excitation table of D flipflop next state is equal to	1. Next State 2. Present State 3. Previous State 4. D State	4.0
319	A computer system implements 8 kilobyte pages and a +32-bit physical address space. Each page table entry contains a valid bit, a dirty bit, three permission bits, and the translation. If the maximum size of the page table of a process is 24 megabytes, the length of the virtual address supported by the system is _____ bits.	1. 33 2. 35 3. 34 4. 36	4.0
320	A graphical display of the fundamental products in a truth-table is known as	1. Mapping 2. Graphing 3. T-map 4. Karnaugh-Map	4.0
321	A processor can support a maximum memory of 4 GB, where the memory is word-addressable (a word consists of two bytes). The size of the address bus of the processor is at least _____ bits	1. 30 2. 31 3. 32 4. 33	2.0

S.NO.	Questions	Choices	Answers
322	A Stack-organized Computer uses instruction of	1. Indirect addressing 2. Two-addressing 3. Zero addressing 4. Index addressing	3.0
323	A 4-way set-associative cache memory unit with a capacity of 16 KB is built using a block size of 8 words. The word length is 32 bits. The size of the physical address space is 4 GB. The number of bits for the TAG field is	1. 19 2. 20 3. 21 4. 22	2.0
324	A circuit that converts n inputs to $2^n$ outputs is called	1. Encoder 2. Decoder 3. Comparator 4. Carry Look Ahead	1.0
325	A Program Counter contains a number 825 and address part of the instruction contains the number 24. The effective address in the relative address mode, when an instruction is read from the memory is	1. 849 2. 850 3. 801 4. 802	2.0
326	Buffering is useful because	1. It makes it seem like there's more memory in the computer 2. It reduces the number of memory copies required 3. It allows all device drivers to use the same code 4. It allows devices and the CPU to operate asynchronously	4.0

S.NO.	Questions	Choices	Answers
327	Consider a 6-stage instruction pipeline, where all stages are perfectly balanced. Assume that there is no cycle-time overhead of pipelining. When an application is executing on this 6-stage pipeline, the speedup achieved with respect to non-pipelined execution if 25% of the instructions incur 2 pipeline stall cycles is	1. 1  2. 2  3.  4.  4.5	3.0
328	Consider a join (relation algebra) between relations r(R) and s(S) using the nested loop method. There are 3 buffers each of size equal to disk block size, out of which one buffer is reserved for intermediate results. Assuming size(r(R))	1.  Relation r(R) is in the outer loop.  2.  Relation s(S) is in the outer loop.  3.  Join selection factor between r(R) and s(S) is more than 0.5  4.  Join selection factor between r(R) and s(S) is less than 0.5.	1.0
329	Consider a main memory system that consists of 8 memory modules attached to the system bus, which is one word wide. When a write request is made, the bus is occupied for 100 nanoseconds (ns) by the data, address, and control signals. During the same 100 ns, and for 500 ns thereafter, the addressed memory module executes one cycle accepting and storing the data. The (internal) operation of different memory modules may overlap in time, but only one request can be on the bus at any time. The maximum number of stores (of one word each) that can be initiated in 1 millisecond is	1. 5535  2. 65335  3. 53892  4. 	4.0
330	Consider two processors P1 and P2 executing the same instruction set. Assume that under identical conditions, for the same input, a program running on P2 takes 25% less time but incurs 20% more CPI (clock cycles per instruction) as compared to the program running on P1. If the clock frequency of P1 is 1GHz, then the clock frequency of P2 (in GHz) is	1. 1.5  2.  1.6  3. 1.7  4. 1.8	2.0
331	Content of the program counter is added to the address part of the instruction in order to obtain the effective address is called	1.    2.  index addressing mode.  3.  register mode  4.  implied mode	1.0

S.NO.	Questions	Choices	Answers
332	How many address bits are needed to select all memory locations in the $16K \times 1$ RAM?	1. 8 2. 10 3. 14 4. 16	3.0
333	If the associativity of a processor cache is doubled while keeping the capacity and block size unchanged, which one of the following is guaranteed to be NOT affected?	1. Width of tag comparator 2. Width of set index decoder 3. Width of way selection multiplexer 4. <b>Width of processor to main memory data bus</b>	4.0
334	If the main memory is of 8K bytes and the cache memory is of 2K words. It uses associative mapping. Then each word of cache memory shall be_____.	1. 11 bits 2. 21 bits 3. <b>16 bits</b> 4. 20 bits	3.0
335	If two interrupts, one of higher priority and other of lower priority occur simultaneously, then the service provided is for	1. interrupt of lower priority 2. interrupt of higher priority 3. both the interrupts 4. none of the mentioned	2.0
336	Minterms are arranged in map in a sequence of	1. binary sequence 2. <b>gray code</b> 3. binary variables 4. BCD code	2.0

S.NO.	Questions	Choices	Answers
337	Register renaming is done in pipelined processors	1. As an alternative to register allocation at compile time 2. For efficient access to function parameters and local variables 3. To handle certain kinds of hazards 4. As part of address translation	3.0
338	Simplified form of the boolean expression $(X + Y + XY)(X + Z)$ is	1. $X + Y + Z$ 2. $XY + YZ$ 3. $X + YZ$ 4. $XZ + Y$	3.0
339	The 16-bit 2's complement representation of an integer is 1111 1111 1111 0101, its decimal representation is	1. 1 2. 2 3. 3 4. -11	4.0
340	The addressing mode used in an instruction of the form ADD R1, R2 is _____.	1. Absolute 2. Indirect 3. Index 4. Register	3.0
341	The capacity of a memory unit is defined by the number of words multiplied by the number of bits/word. How many separate address and data lines are needed for a memory of $4\text{ K} \times 16$ ?	1. 10 address, 16 data lines 2. 11 address, 8 data lines 3. 12 address, 12 data lines 4. 12 address, 16 data lines	4.0

S.NO.	Questions	Choices	Answers
342	The data-in register of I/O port is	1. <b>read by host to get input</b> 2. read by controller to get input 3. written by host to send output 4. written by host to start a command	1.0
343	The Firmware are stored in read-only memory or _____ chips.	1. Flash memory 2. Dynamic random access memory 3. <b>EEPROM</b> 4. Random-access memory	3.0
344	The performance of cache memory is frequently measured in terms of a quantity called	1. <b>hit ratio</b> 2. miss ratio 3. average ratio 4. ratio	1.0
345	The smallest integer than can be represented by an 8-bit number in 2? complement form is	1. -256 2. <b>-128</b> 3. -127 4. 1	2.0
346	The main difference between JK and RS flip-flop is that	1. JK flip flop needs a clock pulse 2. There is a feedback in JK flip-flop 3. <b>JK flip-flop accepts both inputs as 1</b> 4. JK flip-flop is acronym of Junction cathode multi-vibrator	3.0

S.NO.	Questions	Choices	Answers
347	The rate at which a computer clock deviates from a perfect reference clock is called as	1. Clock rate 2. Clock speed 3. <b>clock drift rate</b> 4. Transmission Bandwidth	3.0
348	The width of the physical address on a machine is 40 bits. The width of the tag field in a 512 KB 8-way set associative cache is _____ bits	1. 21 2.22 3. 23 <b>4.</b> <b>24</b>	4.0
349	To build a mod-19 counter the number of flip-flops required is	1. 3 <b>2.</b> <b>5</b> 3. 7 4. 9	2.0
350	Using 10's complement $72532 - 3250$ is	1. <b>69282</b> 2. 69272 3. 69252 4. 69232	1.0
351	What is the main difference between traps and interrupts?	1. <b>How they are initiated</b> 2. The kind of code that's used to handle them 3. Whether or not the scheduler is called 4. How the operating system returns from them	1.0

S.NO.	Questions	Choices	Answers
352	When an instruction is read from the memory, it is called	1. Memory Read cycle 2. Fetch cycle 3. <b>Instruction cycle</b> 4. Memory write cycle	3.0
353	Which amongst the following refers to Absolute addressing mode	1. <b>move R1, R2</b> 2. move LOC1, LOC2 3. move LOC1, R2 4. move LOC2, R1	1.0
354	Which level of RAID refers to disk mirroring with block striping?	1. <b>RAID level 1</b> 2. RAID level 2 3. RAID level 0 4. RAID level 3	1.0
355	Which of the following logic expression is incorrect?	1. $1 \oplus 0 = 1$ <b>2.</b> <b><math>1 \oplus 1 \oplus 0 = 1</math></b> 3. $1 \oplus 1 \oplus 1 = 1$ 4. $1 \oplus 1 = 0$	2.0
356	Which of the following paging algorithms is most likely to be used in a virtual memory system?	1. FIFO 2. Second chance 3. <b>Least Recently Used</b> 4. Least Frequently Used	3.0

S.NO.	Questions	Choices	Answers
357	Which one of the following connects high-speed high-bandwidth device to memory subsystem and CPU.	1. expansion bus  2. PCI bus  3. SCSI bus  4. none of the mentioned	1.0
358	Which one of these is characteristic of RAID 5?	1. Distributed parity  2. No Parity  3. All parity in a single disk  4. Double Parity	1.0
359	Which two RAID types use parity for data protection?	1. RAID 1  2. RAID 4  3. RAID 1+0  4. RAID 5	4.0
360	X=1010100 and Y=1000011 using 1's complement Y-X is	1. -10111  2. -10011  3. -10001  4. -11001	3.0
361	The minimum number of NAND gates required to implement the Boolean function. A + AB' + AB'C is equal to	1. Zero  2.  3.  4.  7	1.0

S.NO.	Questions	Choices	Answers
362	Which of the following boolean expressions is not logically equivalent to all of the rest ?	1. $ab + (cd)' + cd + bd'$ 2. $a(b+c) + cd$ <b>3. <math>ab + ac + (cd)'</math></b> 4. $bd' + c'd' + ab + cd$	3.0
363	Which of the following unit will choose to transform decimal number to binary code ?	<b>1. Encoder</b> 2. Decoder 3. Multiplexer 4. Counter	1.0
364	If the associativity of a processor cache is doubled while keeping the capacity and block size unchanged, which one of the following is guaranteed to be NOT affected?	1. Width of tag comparator 2. Width of set index decoder 3. Width of way selection multiplexer <b>4. Width of processor to main memory data bus</b>	4.0
365	The correspondence between the main memory blocks and those in the cache is given by	1. Hash function <b>2. Mapping function</b> 3. Locale function 4. Assign function	2.0
366	The stage delays in a 4-stage pipeline are 800, 500, 400 and 300 picoseconds. The first stage (with delay 800 picoseconds) is replaced with a functionally equivalent design involving two stages with respective delays 600 and 350 picoseconds. The throughput increase of the pipeline is _____ percent.	<b>1. 33</b> 2. 34 3. 35 4. 32	1.0
367	What is the software that runs a computer, including scheduling tasks, managing storage, and handling communication with peripherals?	1. driver 2. application suite <b>3. operating system</b> 4. bluetooth technology	3.0

S.NO.	Questions	Choices	Answers
368	For an undirected graph with n vertices and e edges, the sum of the degree of each vertex is equal to	1. $2n$ 2. $(2n-1)/2$ <b>3. <math>2e</math></b> 4. $\text{pow}(e,2)/2$	3.0
369	Which attribute is used to extend the lifetime of a cookie?	1. higher-age 2. increase-age <b>3. max-age</b> 4. lifetime	3.0
370	<h2 style="color:blue">I am Blue</h2> is _____ way of styling HTML elements	1. Internal Style <b>2. Inline Style</b> 3. External Style 4. Default	2.0
371	_____ is referred to as Static Web	1. <b>Web 1.0</b> 2. Web 2.0 3. Web 3.0 4. Web 4.0	1.0
372	A priority queue is implemented as a Max-Heap. Initially, it has 5 elements. The level-order traversal of the heap is: 10, 8, 5, 3, 2. Two new elements 1 and 7 are inserted into the heap in that order. The level-order traversal of the heap after the insertion of the elements is:	1. <b>10, 8, 7, 3, 2, 1, 5</b> 2. 10, 8, 7, 2, 3, 1, 5 3. 10, 8, 7, 1, 2, 3, 5 4. 10, 8, 7, 5, 3, 2, 1	1.0
373	A binary tree in which if all its levels except possibly the last, have the maximum number of nodes and all the nodes at the last level appear as far left as possible, is known as	1. <b>full binary tree</b> 2. AVL tree 3. threaded tree 4. complete binary tree	1.0

S.NO.	Questions	Choices	Answers
374	A binary tree T has 20 leaves. The number of nodes in T having two children is	1. 34 2. 99 3. 7 4. <b>19</b>	4.0
375	A process executes the code fork(); fork(); fork(); The total number of child processes created is	1. 3 2. 4 3. <b>7</b> 4. 8	3.0
376	A Search engine can serve as	1. <b>both as a server and a client</b> 2. As Client always 3. As Server always 4. Neither client nor server	1.0
377	An object of class A receives a message with an argument that is an instance of class B. Identify the type of relationship between class A and Class B:	1. Generalization 2. Association 3. Aggregation 4. Realization	1.0
378	Consider an undirected graph G where self-loops are not allowed. The vertex set of G is $\{(i, j) : 1 = i = 12, 1 = j = 12\}$ . There is an edge between (a, b) and (c, d) if $ a - c  = 1$ and $ b - d  = 1$ . The number of edges in this graph is	1. 505 2. 506 3. 507 4. 508	2.0
379	Consider an undirected random graph of eight vertices. The probability that there is an edge between a pair of vertices is $\frac{1}{2}$ . What is the expected number of unordered cycles of length three?	1. 1/8 2. 1 3. <b>7</b> 4. 8	3.0

S.NO.	Questions	Choices	Answers
380	<p>Consider the C function given below.</p> <pre>int f(int j) { static int i = 50; int k; if (i == j) { printf("something"); k = f(i); return 0; } else return 0; }</pre> <p>Which one of the following is TRUE?</p>	1. The function returns 0 for all values of j. 2. The function prints the string something for all values of j. 3. The function returns 0 when j = 50. 4. The function will exhaust the runtime stack or run into an infinite loop when j = 50.	4.0
381	<p>Consider the following function written the C programming language.</p> <pre>void foo (char * a ) { if(* a &amp;&amp; * a !=''){ putchar (*a); } } }  The output of the above function on input 'ABCD EFGH' is</pre>	1. ABCD EFGH 2. ABCD 3. HGFE DCBA 4. DCBA	1.0
382	<p>Consider the following New-order strategy for traversing a binary tree:</p> <p>1)Visit the root;  2)Visit the right subtree using New-order;  3)Visit the left subtree using New-order;</p> <p>The New-order traversal of the expression tree corresponding to the reverse polish expression 3 4 * 5 - 2 ? 6 7 * 1 + - is given by:</p>	1. + - 1 6 7 * 2 ? 5 - 3 4 * 2. . - + 1 * 6 7 ? 2 - 5 * 3 4 3. . + 1 * 7 6 ? 2 - 5 * 4 3 4. . 1 7 6 * + 2 5 4 3 * - ? -	3.0
383	<p>Consider the following program:</p> <pre>int f(int *p, int n) { if (n &lt;= 1) return 0; else return max ( f(p+1, n-1),p[0]-p[1]); } int main() { int a[] = {3,5,2,6,4}; printf("%d", f(a,5)); }</pre> <p>The value printed by this program is</p>	1. 2. 3. 4.	3.0
384	<p>Consider the following recursive C function.</p> <pre>Void get (int n) {if (n&lt;1) return; get (n-1) get (n-3) ; printf ("%d",n); }  If get(6) function is being called in main () then how many times will the get() function be invoked before returning to the main () ?</pre>	1. 15 2. 25 3. 43 4. 24	2.0

S.NO.	Questions	Choices	Answers
385	<p>Consider the function func shown below:</p> <pre>int func(int num) {     int count = 0;     while (num) {         count++;         num&gt;= 1;     }     return (count); }</pre> <p>The value returned by func(435) is</p>	1. 7 2. 8 3. 9 4. 0	3.0
386	<p>For the array (77 ,62,114,80,9,30,99), write the order of the elements after two passes using the Radix sort</p>	1. 80 30 62 114 77 9 99 2. 114 30 62 77 9 99 3. 9 114 30 62 77 80 99 4. 9 30 62 77 80 99 114	2.0
387	<p>How can you make a list that lists the items with numbers?</p>	1. <list> 2. <ol> 3. <dl> 4. <ul>	2.0
388	<p>How do you write "Hello World" in PHP?</p>	1. using System.out.println 2. using Document.Write("Hello World") 3. "Hello World" 4. using echo("Hello World")	4.0
389	<p>HTTP is implemented over</p>	1. UDP 2. TCP 3. SMTP 4. POP	2.0
390	<p>If every node u in G adjacent to every other node v in G, A graph is said to be</p>	1. isolated 2. complete 3. finite 4. strongly connected	2.0

S.NO.	Questions	Choices	Answers
391	In a connected graph, a bridge is an edge whose removal disconnects a graph. Which one of the following statements is true?	1. A tree has no bridges 2. A bridge cannot be part of a simple cycle 3. Every edge of a clique with size 3 is a bridge (A clique is any complete sub graph of a graph) 4. <b>A graph with bridges cannot have a cycle</b>	4.0
392	In HTTP, which method gets the resource as specified in the URI	1. GET 2. POST <b>3. PUT</b> 4. TRACE	3.0
393	Java package is a grouping mechanism with the purpose of	1. Providing the library for the Java program <b>2. Controlling the visibility of the classes, interfaces and methods</b> 3. Replacing header file used in C/C++ 4. An application framework	2.0
394	Suppose a circular queue of capacity ( $n \geq 1$ ) elements is implemented with an array of $n$ elements. Assume that the insertion and deletion operations are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are	1. full: (REAR+1) mod n == FRONT <b>empty: REAR == FRONT</b> 2. (REAR) mod n == FRONT empty: REAR == FRONT 3. (REAR+1) mod n == Rear empty: REAR == FRONT 4. full: (FRONT+1) mod n == FRONT <b>empty: REAR == FRONT</b>	1.0
395	<p>The following function computes the maximum value contained in an integer array p[ ] of size n (<math>n \geq 1</math>).</p> <pre>int max(int *p, int n) {     int a=0, b=n-1;     while (_____) {         if(p[a] &lt;= p[b]) { a = a+1; }         else { b = b-1; }     }     return p[a]; }</pre> <p>The missing loop condition is</p>	1. a != n 2. b != 0 3. b > (a+1) 4. <b>b != a</b>	4.0
396	The following HTML element helps making animated text	1. <em> 2. <ins> 3. <mark> 4. <marquee>	4.0

S.NO.	Questions	Choices	Answers
397	The number of ways in which the numbers 1, 2, 3, 4, 5, 6, 7 can be inserted in an empty binary search tree, such that the resulting tree has height 6, is	1. 63 2. 64 3. 65 4. 66	2.0
398	<b>The purpose of a TLB is</b>	1. To cache page translation information 2. To cache frequently used data 3. To hold register values while a process is waiting to be run 4. To hold the start and length of the page table	2.0
399	The following HTML element is used to display horizontal line	1.   2. <h> 3. <hr> 4. <h2>	3.0
400	To prevent any method from overriding, the method has to declared as,	1. static 2. const 3. <b>final</b> 4. extends	3.0
401	Use of _____ allows for some processes to be waiting on I/O while another process executes.	1. <b>multiprogramming</b> 2. multiuser interfacing 3. Random scheduling 4. Variable cpu cycles	1.0
402	What are the parameters of the service method?	1. ServletRequest and ServletResponse 2. <b>HttpServletRequest and HttpServletResponse</b> 3. HttpRequest and HttpResponse 4. Request and Response	2.0

S.NO.	Questions	Choices	Answers
403	What does JSP stand for?  var a = [1,,3,4,5]; console.log([a[4], a[1], a[5]]);	1. Java Scripting Pages 2. Java Service Pages 3. <b>Java Server Pages</b> 4. Java Script Program	3.0
404	What does the following bit of JavaScript print out?	1. <b>5, undefined,undefined</b> 2. 5,3,undefined 3. 5,0,undefined 4. 5,null,undefined	1.0
405	What is cell padding?	1. Used to separate cell walls from their contents 2. <b>Used to set space between cells</b> 3. Used to provide width to a cell 4. Used to merge two cells	2.0
406	<b>What is the correct HTML for making a text input field?</b>	1. <input type="text"> 2. <textfield> 3. <input type="textfield"> 4. <textinput type="text">	1.0
407	What will be printed as the output of the following program?  public class testinr { public static void main(String args[]) { int i = 0; i = i++ + i; System.out.println(" I = " +i); } }	1. I = 0 2. <b>I = 1</b> 3. I = 2 4. I = 3	2.0

S.NO.	Questions	Choices	Answers
408	Which method is used to get the year of a date object in YYYY format in Javascript.	1. getYear()  2. getYYYY()  3. getFullYear()  4. get4Year()	1.0
409	Which of the following input controls that cannot be placed using <input> tag?	1. Text  2. Password  3. Submit  4. Textarea	4.0
410	Which is the correct CSS syntax?	1. body;color=black  2. {body;color:black}  3. {body:color=black(body)}  4. body {color: black}	4.0
411	Which of the following asymptotic notation is the worst among all?	1. n + 9378 2. 2^n-1 3. 2^n - 1 4. 2n ? 1	2.0
412	Which of the following is/are example(s) of stateful application layer protocols? (i)HTTP (ii)FTP (iii)TCP (iv)POP3	1. (i) and (ii) only 2. (ii) and (iii) only 3. (ii) and (iv) only 4. (iv) only	3.0
413	Which of these is not a valid attribute of <tr> element?	1. valign  2. bgcolor  3. align 4. rowspan	4.0

S.NO.	Questions	Choices	Answers
414	Which of these methods has no restrictions on content size when a form is submitted.	1. GET 2. HEAD 3. <b>POST</b> 4. PUT	3.0
415	Which one is the first search engine in internet?	1. Google 2. <b>Archie</b> 3. AltaVista 4. WAIS	2.0
416	While inserting the elements 71,65,84,69,67,83 in an empty binary search tree (BST) in the sequence shown, the element in the lowest level is	1. 45 2. <b>67</b> 3. 34 4. 78	2.0
417	A mailer that transforms a message body of an e-mail into a web page is called a	1. Browser enriched mail client 2. <b>HTML-enabled mail client</b> 3. Rich Text mail client 4. client server mail client	2.0
418	An incorrectly typed command will cause the operating system to display	1. a prompt 2. <b>an error message</b> 3. a question mark 4. causes exception	2.0
419	Choose the correct HTML to left-align the content inside a table cell	1. <tdleft> 2. <td leftalign> 3. <td valign="left"> 4. <td align="left">	4.0

S.NO.	Questions	Choices	Answers
420	<p>Consider the below code fragment:</p> <pre>if(fork() == 0) { a= a+5; printf("%d, %d \n", a, &amp;a); } else { a= a ? 5; printf("%d %d \n", 0, &amp;a); }</pre> <p>Let u, v be the values printed by parent process and x, y be the values printed by child process. Which one of the following is true?</p>	1. u= x + 10 and v = y 2. u= x + 10 and v!= y 3. u + 10= x and v = y 4. u + 10= x and v != y	3.0
421	<p>Consider the following C code segment:</p> <pre>int a, b, c = 0; void prtFun(void); main() { static int a = 1; /* Line 1 */ prtFun(); a += 1; prtFun(); printf("\n %d %d", a, b); } void prtFun(void) { static int a=2; /* Line 2 */ int b=1; a+=++b; printf("\n %d %d", a, b); }</pre> <p>What output will be generated by the given code segment if:</p> <p>Line 1 is replaced by auto int a = 1;</p> <p>Line 2 is replaced by register int a = 2;</p>	1. 31 41 42 2. 42 61 61 3. 42 42 62 20 4. 42 20	4.0
422	<p>Consider the following C program.</p> <pre>#include &lt;stdio.h&gt; int f1 ( void ) ; int f2 ( void ) ; int x = 10; int main () { int x=1; x+=f1() + f2() + f3(); printf("%d", x); return 0; } int f1(){int x=25; x++; return x;} int f2(){static int x =50; x++;return x;} int f3(){x*=10; return x;}</pre> <p>The output of the program is _____.</p>	1. 434 2. 230 3. 43 4. 432	2.0
423	<p>Consider the following program:</p> <pre>int f(int *p, int n) { if(n &lt;= 1) return 0; else return max ( f(p+1, n-1),p[0]-p[1]); } int main() { int a[] = {3,5,2,6,4}; printf("%d", f(a,5)); }</pre> <p>The value printed by this program is _____</p>	1. 1 2. 2 3. 3 4. 4	3.0

S.NO.	Questions	Choices	Answers
424	<p>Find the output of the following program?</p> <pre>#include &lt;iostream.h&gt; using namespace std;  void myFunction(int&amp; x, int* y, int* z) {     static int temp=1;     temp += (temp + temp) - 1;     x += *(y++ + *z)+ temp - ++temp;     *y=x;     x=temp;     *z= x;     cout&lt;&lt;x&lt;&lt;*y&lt;&lt;*z&lt;&lt;temp; }  int main() {     int i = 0;     int j[] = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9};     i=i++ - ++i;     myFunction(i, j, &amp;i);     return 0; }</pre>	1. 3 3 3 2 2. 3 2 3 3 3. 3 2 3 2 4. 3 1 3 3	gar3
425	If you don't want the frame windows to be resizable, simply add what to the lines ?	1. save 2. dontresize 3. noresize 4. Delete	3.0
426	Sockets originate from	1. BSD Unix 2. Windows 3. Linux 4. Mac	1.0
427	The preorder traversal sequence of a binary search tree is 30, 20, 10, 15, 25, 23, 39, 35, 42.Which one of the following is the postorder traversal sequence of the same tree?	1. 10,20,15,23,25,35,42,39,30 2. 15,10,25,23,20,42,35,39,30 3. 15,20,10,23,25,42,35,39,30 4. 15,10,23,25,20,35,42,39,30	4.0
428	What will be the output of the following C program?	1. 3 1 2 2 1 3 4 4 4 2. 3 1 2 1 1 1 2 2 2 3. 3 1 2 2 1 3 4 4. 3 1 2 1 1 1 2	1.0

S.NO.	Questions	Choices	Answers
429	Where in an HTML document is the correct place to refer to an external style sheet?	1. In the section 2. In the section 3. At the end of the document 4. At the top of the document	head
430	Which of the following is included in the head section of HTML	1. title,body,form and script 2. title,meta tag,script and CSS 3. title , meta tag,css and form 4. title, body,script and CSS	2.0
431	Which of these is Server side technology?	1. CGI 2. HTML 3. JavaScript 4. CSS	3.0
432	Which of the following in HTML is used to left align the content inside a table cell?	1. <td ralign = "left" > 2. <tdleft> 3. <td leftalign> 4. <td align = "left">	4.0
433	Which one of the following statements is NOT correct about HTTP cookies?	1. A cookie is a piece of code that has the potential to compromise the security of an internet user 2. A cookie gains entry to the user's work area through an HTTP header 3. A cookie has an expiry date and time 4. Cookies can be used to track the browsing pattern of a user at a particular site	1.0
434	Consider the following program: <pre>int f(int *p, int n) { if(n &lt;= 1) return 0; else return max ( f(p+1, n-1),p[0]-p[1]); } int main() { int a[] = {3,5,2,6,4}; printf("%d", f(a,5)); }</pre> The value printed by this program is	1. 2. 3. 4.	3.0

S.NO.	Questions	Choices	Answers
435	Which of these methods has no restrictions on content size when a form is submitted.	1. GET 2. HEAD 3. <b>POST</b> 4. PUT	3.0
436	_____ datastructure used in pushdown automata.	1. Stack 2. array 3. queue 4. linked list	1.0
437	Consider the following:  temp=root->left; while(temp->right!=NULL) temp=temp->right; return temp;  The above code snippet for a BST with the address of the root node in pointer 'root' returns	1.Inorder successor of the root 2. Maximum element in the right subtree of root 3. Minimum element in the right subtree of root 4. <b>Inorder predecessor of the root</b>	4.0
438	_____ is used to define a special CSS style for a group of HTML elements	1. <b>Class attribute</b> 2. name attribute 3. group attribute 4. id attribute	1.0
439	The _____ attribute defines the action to be performed when the form is submitted	1. method attribute 2. <b>action attribute</b> 3. onSubmit attribute 4. onClick attribute	2.0
440	Consider a schedule S1 given below; R1(A); W1(A); R2(B); R2(A); R1(B); W2(A+B); W1(B); where R1 and W1 are read and write operations of transaction T1 and R2 and W2 are read and write operations of transaction T2.  Which of the following is correct regarding schedule S1?	1. S1 is a serializable schedule 2. A deadlock will occur if 2PL is used 3. <b>S1 is a conflict serializable schedule</b> 4. <b>S1 is a view serializable schedule</b>	4.0

S.NO.	Questions	Choices	Answers
441	Boolean algebra is also called	1. <b>switching algebra</b>  2. arithmetic algebra  3. linear algebra  4. algebra	1.0
442	Software prototyping helps to	1. generate code  2. provide thorough testing  3. explore possible software solutions  4. <b>collect initial software requirements</b>	2.0
443	Activities such as documentation and software configuration management are what kind of process activities?	1. Primary  2. Validation  3. Design  4. <b>supporting</b>	4.0
444	In incremental delivery the _____ services are typically delivered first	1. quickest to complete  2. <b>highest-priority</b>  3. cheapest  4. most fun to code	2.0
445	In incremental development system structure tends to _____ as many new increments are added.	1. <b>degrade</b>  2. improve  3. develop its own AI  4. shrink	1.0

S.NO.	Questions	Choices	Answers
446	Software specifications are intended to communicate the system needs _____	1. of the developers to the clients 2. to marketing 3. of the clients to the developers 4. to the general public	3.0
447	This software process model takes the fundamental activities of specification, development, validation, and evolution and represents them as separate process phases such as requirements specification, software design, implementation, testing, and so on	1. Incremental development 2. The waterfall model 3. Reuse-oriented software engineering 4. Boehm's spiral model	2.0
448	What is a software process model?	1. A simplified representation of a software process 2. A presentation put together in Powerpoint 3. A work flow model of the software's components 4. A prototype of the final software product	1.0
449	What is a type of software design that designs system data structures to be used in a database?	1. architectural design 2. interface Design 3. component Design 4. Database design	4.0
450	What is based on the idea of developing an initial implementation, exposing this to user comment and evolving it through several versions until an adequate system has been developed?	1. The Waterfall Method 2. Incremental Development 3. Reuse-oriented Software Engineering 4. Implementation And Unit Testing	2.0
451	What is NOT part of the design process	1. Architectural design 2. Database design 3. Component design 4. Validation testing	4.0

S.NO.	Questions	Choices	Answers
452	Which is not part of the waterfall method?	1. Requirements Definition 2. System and Software Design 3. Implementation and Unit Testing 4. System Validation	4.0
453	Which statement best describes a benefit of Incremental development over the waterfall model	1. It is possible to gather more of the requirements up front 2. Time to market is faster because there is less overhead 3. It is easier to get customer feedback on the development work that's been done 4. It is easier to reuse existing components.	3.0
454	_____ adds to the costs of Software Development because it usually means that work that has been completed has to be redone	1. Picture quality 2. Production 3. Software speed 4. Change	4.0
455	Given the following structure template, choose the correct syntax for accessing the 5th subject marks of the 3rd student: <pre>struct stud {     int marks[6];     char sname[20];     char rno[10]; }s[10];</pre>	1. stud[2].marks[4] 2. stud[4].marks[2] 3. <b>s[2].marks[4]</b> 4. s[4].marks[2]	3.0
456	By default, any real number in C is treated as _____	1. <b>a float</b> 2. a double 3. a long double 4. depends on the memory model	1.0
457	_____ is the 1st step in the testing process	1. Analyze results 2. Plan test 3. Release product 4. Conduct tests	2.0

S.NO.	Questions	Choices	Answers
458	A set of documents in which a given document can contain text, graphics video and audio clips as well as embedded references to other documents world wide web pages are called as -----	1. Hypermedia message 2. Hypertext document 3. Hypermedia Documents 4. Path rectangular grid of Pixels	3.0
459	A software requirements specification (SRS) document should avoid discussing which one of the following?	1. User interface issues 2. Non-functional requirements 3. Design specification 4. Interfaces with third party softwareKey	1.0
460	Consider a B+ tree in which the search Answer is 12 bytes long, block size is 1024 bytes, record pointer is 10 bytes long and block pointer is 8 bytes long. The maximum number of keys that can be accommodated in each non-leaf node of the tree is _____	1. 40 2. 50 3. 60 4. 70	2.0
461	Extreme Programming process model includes framework activities such as	1. analysis, design,coding,testing 2. planning,analysis,design,coding 3. planning,analysis,coding,testing 4. planning, design, coding, testing	4.0
462	For automatic objects, constructors and destructors are called each time the objects _____	1. enter and leave scope 2. inherit parent class 3. are constructed 4. are destroyed	1.0
463	Important capability needed for an agile software developer is	1. Trust 2. Competence 3. Decision-making 4. HardworkKey	3.0

S.NO.	Questions	Choices	Answers
464	In which phase is Agile Modeling(AM) carried out	1. Analysis 2. Coding 3. Planning 4. TestingKey	3.0
465	Mnemonic codes and variable names are used in	1. Machine language 2. Assembly language 3. high level language 4. Used nowhere	2.0
466	Waterfall model of software development is also termed as	1. The linear sequential model 2. Fountain model 3. Spiral model 4. Concurrent development model	1.0
467	Which of the following is not a Life-critical System?	1. Fire Dispatch Systems 2. Nuclear Reactors 3. Power Utilities 4. Inventory Management	4.0
468	Which of the following statement is correct about destructors?	1. A destructor has void return type. 2. A destructor has integer return type. 3. A destructor has no return type. 4. A destructors return type is always same as that of main()	3.0
469	<pre>#include &lt;iostream.h&gt; using namespace std; int main() {     int x=20;     if(!x&amp;&amp;x)         cout&lt;&lt; else     {         x=10;         cout&lt;&lt; return 0;     } }</pre>	1. 20 2. 10 3. 1 4. 0	1.0

S.NO.	Questions	Choices	Answers
470	<p>Find the output of the following program?</p> <pre>#include &lt;iostream.h&gt; using namespace std; typedef int * IntPtr; int main() {     IntPtr A, B, C;     int D,E;     A = new int(3);     B = new int(6);     C = new int(9);     D = 10;     E = 20;     *A = *B;     B = &amp;E;     D = (*B)++;     *C=(*A)++ * (*B)--;     E= *C++ - *B--;     cout&lt;&lt;*A&lt;&lt;*B&lt;&lt;*C&lt;     return 0; }</pre>	1. 62010206 2. 72010107 3. 71020106 4. 10720107	2.0
471	<p>If a , b , c, are three nodes connected in sequence in a singly linked list, find the valid statement that may help to change this list to a circular linked list?</p>	1. a->next=c 2. b->next=c 3. a->next=c 4. c->next=b	4.0
472	<p>Round Robin scheduling is the strategy of temporarily suspending a running process</p>	1. After the CPU time slice expires 2. to allow starving processes to run 3. when it requests IO 4. when OS wait	1.0
473	<p>With a single resource, deadlock occurs _____</p>	1. if there are more than two processes competing for that resource 2. if there are only two process completing for that resource 3. if there is a single process competing for that resource 4. it never occur in this case	1.0
474	<p>_____ OS pays more attention on the meeting of the time limits.</p>	1. Distributed 2. Network 3. Real time 4. Desktop	3.0

S.NO.	Questions	Choices	Answers
475	Consider a software program that is artificially seeded with 100 faults. While testing this program, 159 faults are detected, out of which 75 faults are from those artificially seeded faults. Assuming that both real and seeded faults are of same nature and have same distribution, the estimated number of undetected real fault is	1. 121 2. 175 3. 432 4. 428	4.0
476	Given the code String s1 = ? VIT? ; String s2 = ? VIT ? ; String s3 = new String ( s1 ); Which of the following would equate to true?	1. s1 == s2 2. s1 = s2 3. s3 == s1 4. s3=s1	13.0
477	Suppose T is a binary tree with 14 nodes. What is the minimum possible depth of T?	1. 0 2. 3. 4. 4. 5	2.0
478	The following HTML _____ element contains meta data which is not displayed inside the document	1. <form> 2. <title> 3. <table> 4. <frame>	2.0
479	To link your Web page to a style sheet, you must use the _____ tag	1. <STYLESHEET> 2. <STYLE> 3. <link> 4. <web>	3.0
480	Which of these will create a shuffled list?	1. <ol> 2. <ul> 3. <dl> 4. Nested list	1.0

S.NO.	Questions	Choices	Answers
481	Which one of the following is a cryptographic protocol used to secure HTTP connection?	1. Stream Control Transmission Protocol (SCTP). 2. Transport Layer Security (TSL). 3. Explicit Congestion Notification (ECN). 4. Resource Reservation Protocol.	2.0
482	Which of the following is example of in-place algorithm?	1. Bubble Sort 2. Merge Sort 3. Insertion Sort 4.	3.0
483	Which of these is asymptotically bigger?	1. $79n^2+43n$ 2. $65n^3+34n$ 3. $6*2^n$ 4. $5*2^n$	2.0
484	_____ bit in ICW1 indicates whether the 8259A is cascade mode or not	1.LTIM=0 2.LTIM=1 3.SNGL=1 4.SNGL=0	4.0
485	_____ messages are typically used for diagnostic or control purposes or generated in response to errors in IP operations.	1.ICMP 2.TCP 3.UDP 4.IP	1.0
486	_____ gives the number of bits that can be transmitted over a network in a fixed time period.	1.Latency 2.Jitter 3.Bandwidth 4.Delay	3.0
487	_____ cryptography refers to encryption methods in which both the sender and receiver share the same key.	1.Symmetric 2.Asymmetric 3.Ceaser key 4.Asymmetric key	1.0
488	_____ is responsible for the final encapsulation of higher-level messages into frames that are sent over the network using the physical layer.	1.Data link layer 2.Network layer 3.Application layer 4.Session layer	1.0
489	_____ appends to the address a slash character and the decimal number of leading bits of the routing prefix.	1.CIDR 2.TCP 3.UDP 4.IP	1.0
490	_____ is assigned to an organization by a global authority.	1.Subnet ID 2.Supernet ID 3.Host ID 4.Network ID	4.0
491	_____ produces the relation that has attributes of R1 and R2	1. Cartesian product 2. Difference 3. Intersection 4. Product	1.0
492	_____ should keep track of multiple file downloads requested by a particular FTP application, or multiple telnet connections from a single terminal client, or web page retrievals from a web server.	1.Transport layer 2.Application layer 3.Presentation layer 4.Session layer	1.0
493	_____ functions as a request-response protocol in the client-server computing model.	1.HTTP 2.IP 3.TCP 4.UDP	1.0
494	_____ is commonly used in wireless LAN.	1. time division multiplexing 2. orthogonal frequency division multiplexing 3. space division multiplexing 4. long division multiplexing	2.0

S.NO.	Questions	Choices	Answers
495	_____ scheduler selects the jobs from the pool of jobs and loads into the ready queue.	<p>1. Long term</p> <p>2. Short term</p> <p>3. Medium term</p> <p>4. None of these</p>	1.0
496	_____ does the job of allocating a process to the processor.	<p>1. Long term scheduler</p> <p>2. Short term scheduler (CPU Scheduler)</p> <p>3. Medium term scheduler</p> <p>4. Dispatcher</p>	4.0
497	has a dedicated communication path between stations	1.Circuit switching 2.Frame relay 3.Packet switching 4.ATM	1.0
498	_____ is a high speed cache used to hold recently referenced page table entries as a part of paged virtual memory	<p>1. Translation Look-aside buffer</p> <p>2. Inverse page table</p> <p>3. Segmented page table</p> <p>4. Hierarchical page table</p>	1.0
499	_____ memory management scheme will produce least fragment	<p>1. Best Fit</p> <p>2. Worst Fit</p> <p>3. First Fit</p> <p>4. None of these</p>	1.0
500	_____ register keeps tracks of the instructions stored in program stored in memory.	<p>1. AR (Address Register)</p> <p>2. XR (Index Register)</p> <p>3. PC (Program Counter)</p> <p>4. AC (Accumulator)</p>	3.0
501	states that it is Optimal Replacement algorithm	<p>1. Replace the page that will not be used for a longest period of time</p> <p>2. Replace the page that will not be used for a shortest period of time</p> <p>3. Replace the page that will be used for a longest period of time</p> <p>4. Replace the page that will be used for a shortest period of time</p>	1.0
502	algorithm is used for the flow control of data between sender and receiver.	1.Dijkstra 2.RIP 3.Leaky bucket 4.Go Back N	4.0

S.NO.	Questions	Choices	Answers
503	_____ programs automatically connects to web sites and download documents and save them to local drive	1. Web Servers 2. Web Downloading Utilities 3. Stay Connected 4. Offline Browsers	2.0
504	_____ signal prevent the microprocessor from reading the same data more than one	1.pipeline 2.handshaking 3.controlling 4.signaling	2.0
505	_____ function in PHP returns a list of response headers sent (or ready to send)	1.header() 2.headers_list() 3.header_sent() 4.header_send()	2.0
506	_____ is an initial version of a software system that is used to demonstrate concepts, try out design options, and find out more about the problem and its possible solutions.	1. Prototype 2. Architectural Design 3. Subsystem 4. Module	1.0
507	_____ is a basic unit of CPU utilization	1. Process 2. Thread 3. Process Control Block 4. Program Counter	2.0
508	_____ is a logical unit of access to a DBMS	1.Transaction 2.Optimization 3.Schema 4.Data	1.0
509	A graphical HTML browser resident at a network client machine Q accesses a static HTML webpage from a HTTP server S. The static HTML page has exactly one static embedded image which is also at S. Assuming no caching, which one of the following is correct about the HTML webpage loading (including the embedded image)?	1. Q needs to send at least 2 HTTP requests to S, each necessarily in a separate TCP connection to server S 2. Q needs to send at least 2 HTTP requests to S, but a single TCP connection to server S is sufficient 3. A single HTTP request from Q to S is sufficient, and a single TCP connection between Q and S is necessary for this 4. A single HTTP request from Q to S is sufficient, and this is possible without any TCP connection between Q and S	2.0
510	A 20-bit address bus can locate _____.	1. 1,048,576 locations 2. 2,097,152 locations 3. 4,194,304 locations 4. 8,388,608 locations	1.0
511	A 32-bit address bus allows access to a memory of capacity	1.1 GB 2.16 MB 3.64 MB 4.4 GB	4.0

S.NO.	Questions	Choices	Answers
512	A B-tree of order m has maximum of _____ children	1. m 2. m + 1 3. m - 1 4. m/2	1.0
513	A binary code that progresses such that only one bit changes between two successive codes is:	1.Gray code 2.excess-3 code 3.8421 code 4.nine's-complement code	1.0
514	A certain 5-bit self-complementary code is used to represent the 10 decimal digits 0 through 9. Given that (246) in decimal is represented as 00010 00100 00110 in this code, what is the representation for (375)?	1.00110 00100 00010 2.00011 00111 00101 3.11001 11101 11011 4.11101 11011 11001	4.0
515	A client process P needs to make a TCP connection to a server process S. Consider the following situation: the server process S executes a socket(), a bind() and a listen() system call in that order, following which it is preempted. Subsequently, the client process P executes a socket() system call followed by connect() system call to connect to the server process S. The server process has not executed any accept() system call. Which one of the following events could take place?	1. connect () system call returns successfully 2. connect () system call blocks 3. connect () system call returns an error 4. connect () system call results in a core dump	3.0
516	A COCOMO model is	1. Common Cost Estimation Model. 2. <b>Constructive Cost Estimation Model.</b> 3. Complete Cost Estimation Model. 4. Comprehensive Cost Estimation Model.	2.0
517	A collection of unused memory reserved for dynamic allocation is called	1. <b>Heap</b> 2.Static 3.array 4.stack dynamic	1.0
518	A comparison between ring and Johnson counters indicates that:	1.A ring counter has fewer flip-flops but requires more decoding circuitry 2.A ring counter has an inverted feedback path 3.A Johnson counter has more flip-flops but less decoding circuitry 4.A Johnson counter has an inverted feedback path	4.0
519	A computer on a 10Mbps network is regulated by a token bucket. The token bucket is filled at a rate of 2Mbps. It is initially filled to capacity with 16Megabits. What is the maximum duration for which the computer can transmit at the full 10Mbps?	1. 1.6 seconds 2. <b>2 seconds</b> 3. 5 seconds 4. 8 seconds	2.0
520	A data structure where elements can be added or removed at either end but not in the middle	1.linked lists 2.Stacks 3.Queues 4.Deque	4.0
521	A fault simulation testing technique is	1. <b>Mutation testing</b> 2. Stress testing 3. Black box testing 4. White box testing	1.0
522	A grammar that produces more than one parse tree for some sentence is called	1. <b>Ambiguous</b> 2.Irregular 3.Regular 4.Unambiguous	1.0

S.NO.	Questions	Choices	Answers
523	A group of bits that tell the computer to perform a specific operation is known as _____.  524 A J-K flip-flop is in a "no change" condition when _____.	1. Instruction code 2. Micro-operation 3. Accumulator 4. Register  1.J = 1, K = 1 2.J = 1, K = 0 3.J = 0, K = 1 4.J = 0, K = 0	1.0 4.0
525	A language is represented by a regular expression $(a)^*(a+ba)$ . Which of the following string does not belong to the regular set represented by the above expression.  526 A layer-4 firewall cannot	1. aaa 2. aba 3. ababa 4. aa  1. block HTTP traffic during 9:00PM and 5:00AM 2. block all ICMP traffic 3. stop incoming traffic from a specific IP address but allow outgoing traffic to same IP 4. block TCP traffic from a specific user on a specific IP address on multi-user system during 9:00PM and 5:00AM	3.0 1.0
527	A linear collection of data elements where the linear node is given by means of pointer is called	1.primitive list 2.node list 3.linked list 4.array	3.0
528	A major problem with priority scheduling is _____.  529 A minimum state DFA accepting the language $L=\{w \mid w \text{ belongs } \{0,1\}^*\}$ number of 0s and 1s in $w$ are divisible by 3 and 5, respectively} has	1. Definite blocking 2. Starvation 3. Low priority 4. None of these  1. 15 states 2. 7 states 3. 9 states 4. 8 states	2.0 1.0
530	A network that contains multiple hubs is most likely configured in which topology?	1.Mesh 2.Tree 3.Bus 4.Star	2.0

S.NO.	Questions	Choices	Answers
531	A NFA converted to DFA has more than one final state.	1. True 2. False 3. may be true 4. always true	1.0
532	A one to many relationship (of table A to Table B) is	1.Where each record in table A can have one or more matching records in table B 2.Where each record in table B can have one or more matching records in table A 3.Where each record in Table B is required to have a match in table A 4.Where each record in table A is required to have a match in table B	1.0
533	A packet switching network	1.can reduce the cost of using an information utility 2.allows communications channel to be shared among more than one user 3.can reduce the cost of using an information utility and allows communications channel to be shared among more than one user 4.is free	3.0
534	A page fault occurs	1. when the page is not in the main memory 2. when the page is in the cache memory 3. when the process enters the blocked state 4. when the process is in the ready state	1.0
535	A parameterized constructor with all arguments initialized is same as	1.default constructor 2.parameterized constructor 3.overriding 4.overloading	1.0
536	A point-to-point protocol over ethernet is a network protocol for	1. encapsulating PPP frames inside ethernet frames 2. encapsulating ethernet frames inside PPP frames 3. for security of ethernet frames 4. for security of PPP frames	1.0
537	A primary key, if combined with a foreign key creates	1.Many to many relationships between the tables that connect them 2.Network model between the tables connect them 3.one to many relationship between the tables that connect them 4.Parent child relationship between the tables that connect them	4.0
538	A professional software engineer must:	1. be loyal to the organization 2. build trust from customers 3. socialize with customers 4. be loyal to the organization and build trust from customers	4.0

S.NO.	Questions	Choices	Answers
539	A relation R is said to be in 2NF when it does not have	1. Partial Dependencies 2. Transitive Dependencies 3. Multivalued Attributes 4. Both Partial dependencies and Multivalued Dependencies	1.0
540	A relational database is	1.the same as a flat file database 2.one that consists of two or more tables that are joined in some way 3.one that consists of two or more tables 4.a database that is able to process tables, queries, forms, reports and macros	4.0
541	A ring counter is same as.	1.up-down counter 2.parallel adder 3.shift register 4.ALU	3.0
542	A set of possible data values is called	1. attribute 2. degree 3. domain 4. tuple	4.0
543	A shift register can be used for.	1.Digital delay line 2.Serial to parallel conversion 3.All of these 4.Parallel to serial conversion	4.0
544	A single channel is shared by multiple signals by	1. analog modulation 2. digital modulation 3. multiplexing 4. none of the mentioned	3.0
545	A software package designed to store and manage databases	1.Database 2.DBMS 3.Data Model 4.Data	2.0
546	A stack organized computer has	1.Three-address Instruction 2. Two-address Instruction 3.One-address Instruction 4. Zero-address Instruction	4.0
547	2.0	1. TRUE 2. False 3. 4.	2.0
548	A static data member is given a value	1.Within the class definition 2.Outside the class definition 3.When the program is executed 4.Never	2.0
549	A synchronous sequential circuit is made up of.	1.combinational gates 2.flip-flops 3.both flip-flops and latches 4.both combinational gates and flip-flops	4.0

S.NO.	Questions	Choices	Answers
550	A system uses FIFO policy for page replacement. It has 4 page frames with no pages loaded to begin with. The system first accesses 100 distinct pages in some order and accesses the same 100 pages but now in the reverse order how many page faults will occur?	1. 196 2. 192 3. 197 4. 195	1.0
551	A table can have only one	1. Secondary key 2. Alternate key 3. Unique key 4. Primary key	4.0
552	A tree sturctured file directory system	1. allows easy storage and retrieval of file names 2. is not essential when we have millions of files 3. is a much debated unnecessary feature 4. none of these	1.0
553	A value that has no defined value is expressed in PHP with the following keyword:	1.undefined 2.null 3.Cant Define 4.There is no such concept in PHP	2.0
554	A variable P is called pointer if	1.P contains the address of an element in DATA 2.P contain the DATA and the address of DATA 3.P can store only memory addresses 4.P points to the address of first element in DATA	1.0
555	A variable P is called pointer if	1.P contains the address of an element in DATA 2.P contain the DATA and the address of DATA 3.P can store only memory addresses 4.P points to the address of first element in DATA	1.0
556	A view is a	1. virtual table 2. subset of the table 3. base table 4. super table	1.0
557	A Winchester disk is a	1. Disk stack 2. Removable disk 3. Flexible disk 4. None of these	1.0

S.NO.	Questions	Choices	Answers
558	A complete binary min-heap is made by including each integer in [1;1023] exactly once. The depth of a node in the heap is the length of the path from the root of the heap to that node. Thus, the root is at depth 0. The maximum depth at which integer 9 can appear is	1. 7 2. 8 3. 9 4. 10	2.0
559	Abstraction is	1.Having public members 2.having private member and public function 3.friend function 4.friend classes	2.0
560	2.0	1. developer 2. end users 3. test team 4. systems engineers	2.0
561	Access time is faster for _____.	1. ROM 2. <b>SRAM</b> 3. DRAM 4. ERAM	2.0
562	Additive rule	1.cyan+ magenta+ Yellow= white 2.Red + Green + Blue = white 3.cyan+ Green+ Yellow= white 4.cyan+ magenta+ Yellow= Black	2.0
563	Address line for TRAP is?	1. 0023H 2. <b>0024H</b> 3. 0033H 4. 0099H	2.0
564	ALE stands for _____	1. address latch enable 2. address level enable 3. address leak enable 4. address leak extension	1.0
565	ALGORITHM HAS THE _____ TO THE PROBLEM IN _____ NUMBER OF STEPS	1.SOLUTION & FINITE 2.PROBLEM & INFINITE 3.SOLUTION & INFINITE 4.PROBLEM & FINITE	1.0
566	All devices/host connect to a central switch in _____ topology.	1.Star 2.Ring 3.Bus 4.Tree	1.0
567	All the modules of the system are integrated and tested as complete system in the case of	1. Bottom up testing 2. Top-down testing 3. Sandwich testing 4. <b>Big-Bang testing</b>	4.0

S.NO.	Questions	Choices	Answers
568	Among simple LR (SLR), canonical LR, and look-ahead LR (LALR), which of the following pairs identify the method that is very easy to implement and the method that is the most powerful, in that order?	1. SLR , LALR  2. CLR , LALR  3. <b>SLR , CLR</b>  4. SLR	3.0
569	An activity is said to be critical if slack time is equal to	1. <b>0</b>  2.  1  3.  2  4.  3	1.0
570	An advantage of the database approach is	1.Elimination of the data redundancy 2.Ability to associate related data 3.Increase security 4.All of the options	4.0
571	An Entity from an ER diagram can be represented in the relational model by a	1.relation  2.domain  3.function dependency  4.single attribute	1.0
572	An ethernet frame that is less than the IEEE 802.3 minimum length of 64 octets is called	1.short frame  <b>2.runt frame</b>  3.mini frame  4.man frame	2.0
573	An intermediate code form is	1.Postfix notation 2.Syntax trees 3.Three address code 4.Postfix notation, Syntax trees and Three address code	4.0
574	An organization has a class B network and wishes to form subnets for 64 departments. The subnet mask would be:	1.  255.255.0.0  2.  255.255.64.0  3.  255.255.128.0  4.  <b>255.255.252.0</b>	4.0
575	Any code inside a loop that always computes the same value can be moved before the loop. This is called	1. <b>Loop invariant computation</b> 2.Interchange of statements 3.induction variable 4.Algebraic Transformation	1.0
576	Application layer protocol defines	1.  types of messages exchanged  2.  message format, syntax and semantics  3.  rules for when and how processes send and respond to messages  <b>4.</b>  <b>all of the mentioned</b>	4.0

S.NO.	Questions	Choices	Answers
577	Architecture of the database can be viewed as	1. two levels 2. four levels 3. <b>three levels</b> 4. one level	3.0
578	Arrange the operators according to their precedence: <u>+</u> , <u>%</u> , <u>-&gt;</u> , <u>=</u>	1. <b>&gt;, %, +, =</b> 2. =, +, %, -> 3. %, +, =, -> 4. %, ->, =, +	1.0
579	Assume that a table R with 1000 records is to be joined with another table S with 10000 records. What is the maximum number of records that would result in if we join R with S and the equi-join attribute of S is the primary key?	1. 1000 2. 10000 3. 1,00,00,000 4. 11000	1.0
580	Assume that we have constructor functions for both base class and derived class. Now consider the declaration in main( ). Base * P = New Derived; in what sequence will the constructor be called ?	1.Derived class constructor followed by Base class constructor. 2.Base class constructor followed by derived class constructor. 3.Base class constructor will not be called. 4.Derived class constructor will not be called.	2.0
581	Assume the base address of CS is 3000H and IP is 2000H. Calculate the memory address.	1.32000H 2.3000H 3.3000H 4.2000H	1.0
582	Assume you would like to sort an array in ascending order by value while preserving key associations. Which of the following PHP sorting functions would you use?	1. ksort( ) 2. <b>asort()</b> 3. krsort( ) 4. sort( )	2.0
583	Assuming today is , 10 July 2000, what is returned by this statement: SELECT to_char>Last_DAY(sysdate), 'DD-MON-RR' FROM dual;	1. 17-JUL-00 2. 10-JUL-00 3. 31-DEC-00 4. 31-JUL-00	4.0
584	Binary search algorithm can not be applied to	1.sorted linked list 2.sorted binary trees 3.sorted linear array 4.pointer array	4.0
585	Bit stuffing refers to	1.inserting a '0' in user data stream to differentiate it with a flag 2.inserting a '0' in flag data stream to avoid ambiguity 3.appending a nibble to the flag sequence 4.appending a nibble to the user data stream	1.0

S.NO.	Questions	Choices	Answers
586	Bits can be send over guided and unguided media as analog signal using .....	1. digital modulation 2. amplitude modulation 3. frequency modulation 4. phase modulation	1.0
587	2.0	1. true 2. false 3. 4.	2.0
588	By following modern system engineering practices simulation of reactive systems is no longer necessary.	1. 2.0 True 2. FALSE 3. 4.	2.0
589	Cache memory acts between_____.	1. CPU and RAM 2. RAM and ROM 3. CPU and Hard Disk 4. None of these	1.0
590	Calculate the block number in free storage management of files system with number of bits per word is 8, the bit vector is 0001101010101, offset of first 1 bit is 3	1. 59 2. 51 3. 45 4. 53	1.0
591	Calculate the EAT(Effective access time) if 5 micro second is associative look-up time and 0.80 is the hit-ratio in paging hardware with TLB	1. 6.2 micro second 2. 7.8 micro second 3. 2.2 micro second 4. 3.2 micro second	3.0
592	Cartesian product in relational algebra is	1. a Unary operator 2. a Binary operator 3. a Ternary operator 4. not defined	2.0

S.NO.	Questions	Choices	Answers
593	Change cannot be easily accommodated in most software systems, unless the system was designed with change in mind.	1. True 2. False 3. 4.	1.0
594	Changes made to an information system to add the desired but not necessarily the required features is called	1. Preventative maintenance. 2. Adaptive maintenance. 3. Corrective maintenance. 4. <b>Perfective maintenance.</b>	4.0
595	Class _____ IP addresses are used for large organizations	1.A 2.B 3.D 4.C	1.0
596	class n{ int a;}; how much memory the compiler allocates for this class	1.0 2.2 3.depends on compiler 4.4	4.0
597	1.0	1. true 2. false 3. 4.	1.0
598	Classes and components that exhibit functional, layer, or communicational cohesion are relatively easy to implement, test, and maintain.	1. true 2. false 3. 4.	1.0
599	Compile time polymorphism is	1.function overloading 2.template 3.function overriding 4.abstraction	1.0
600	Computers use addressing mode techniques for _____.	1. giving programming versatility to the user by providing facilities as pointers to memory counters for loop control 2. to reduce no. of bits in the field of instruction 3. specifying rules for modifying or interpreting address field of the instruction 4. <b>All of these</b>	4.0
601	Condition testing is a control structure testing technique where the criteria used to design test cases is that they	1. <b>1.rely on basis path testing</b> 2. exercise the logical conditions in a program module 3. select test paths based on the locations and uses of variables 4. focus on testing the validity of loop constructs	1.0
602	Consider 2 scenarios:  C1: For DFA ( $\phi$ , $\Sigma$ , $\delta$ , $q_0$ , $F$ ), if $F = \phi$ , then $L = \Sigma^*$ C2: For NFA ( $\phi$ , $\Sigma$ , $\delta$ , $q_0$ , $F$ ), if $F = \phi$ , then $L = \Sigma^*$ Where $F$ = Final states set $\phi$ = Total states set  Choose the correct option ?	1. Both are true 2. Both are False 3. C1 is true, C2 is false 4. C1 is false, C2 is true	3.0
603	Consider a binary tree T that has 200 leaf nodes. Then, the number of nodes in T that have exactly two children are _____.	<b>1.199</b> 2.200 3.Any number between 0 and 199 4.Any number between 100 and 200	1.0

S.NO.	Questions	Choices	Answers
604	Consider a DFA over $\Sigma = \{a, b\}$ accepting all strings which have number of a's divisible by 6 and number of b's divisible by 8. What is the minimum number of states that the DFA will have?	1. 8 2. 14 3. 15 4. 48	4.0
605	Consider a hash table with 9 slots. The hash function is $h(k) = k \bmod 9$ . The collisions are resolved by chaining. The following 9 keys are inserted in the order: 5, 28, 19, 15, 20, 33, 12, 17, 10. The maximum, minimum, and average chain lengths in the hash table, respectively, are	1.3, 3, and 3 <span style="background-color: yellow;">2.3, 0, and 1</span> 3.4, 0, and 1 4.3, 0, and 2	2.0
606	Consider an instance of TCP's Additive Increase Multiplicative Decrease(AIMD) algorithm where the window size at the start of the slow start phase is 2 MSS and the threshold at the start of the first transmission is 8 MSS. Assume that a time out occurs during the fifth transmission. Find the congestion window size at the end of the tenth transmission.	1. 8 MSS 2. 14 MSS <span style="background-color: yellow;">3.</span> <span style="background-color: yellow;">7 MSS</span> 4. 12 MSS	3.0
607	Consider an undirected graph G with 100 nodes. The maximum number of edges to be included is	1.2451 2.4950 3.9900 4.4851	4.0
608	Consider $S \rightarrow SS a$ what is the number of different derivation trees for aaaaa	1. 5 2. 3 3. 14 4. 7	3.0
609	Consider the CFG with $\{S, A, B\}$ as the non-terminal alphabet, $\{a, b\}$ as the terminal alphabet, S as the start symbol and the following set of production rules  $\begin{array}{ll} S \rightarrow aB & S \rightarrow bA \\ B \rightarrow b & A \rightarrow a \\ B \rightarrow bS & A \rightarrow aS \\ B \rightarrow aBB & A \rightarrow bAA \end{array}$ Which of the following strings is generated by the grammar?	1. aaaabb 2. aabbba 3. aababb 4. abbbba	3.0
610	Consider the data of previous question. Suppose that the sliding window protocol is used with the sender window size of $2^i$ where i is the number of bits identified in the previous question and acknowledgments are always piggybacked. After sending $2^i$ frames, what is the minimum time the sender will have to wait before starting transmission of the next frame? (Identify the closest choice ignoring the frame processing time).	1. 16ms 2. 18ms 3. 20ms 4. 22ms	3.0

S.NO.	Questions	Choices	Answers
611	Consider the DFAs M and N given above. The number of states in a minimal DFA that accepts the language $L(M) \cap L(N)$ is _____.	1. 0 2. 1 3. 2 4. 3	1.0
612	Consider the following array of elements. {89,19,50,17,12,15,2,5,7,11,6,9,100}.The minimum number of interchanges needed to convert it into a max-heap is	1.4 2.2 3.5 4.3	4.0
613	Consider the following C code segment.  <pre>for (i = 0, i&lt;n; i++) {     for (j=0; j&lt;n; j++)     {         if (i%2)         {             x += (4*j + 5*i);             y += (7 + 4*j);         }     } }</pre> Which one of the following is false?	4.0	4.0
614	Consider the following C declaration struct { short s [5] union { float y; long z; }u; } t; Assume that objects of the type short, float and long occupy 2 bytes, 4 bytes and 8 bytes, respectively. The memory requirement for variable t, ignoring alignment considerations, is	 1.10 bytes 2.18 bytes 3.22 bytes 4.14 bytes	2.0
615	Consider the following code segment.  <pre>x = u - t; y = x * v; x = y + w; y = t - z; y = x * y;</pre> The minimum number of total variables required to convert the above code segment to static single assignment form is	1. 6 2. 8 3. 9 4. 10	4.0
616	Consider the following code snippet  <pre>var a1 = [,,,]; var a2 = new Array(3); 0 in a1 0 in a2</pre> Result of Javascript is:	1. true false 2. false true 3. true true 4. false true	1.0
617	Consider the following code snippet: var a = [1,2,3,4,5]; a.slice(0,3); What is the possible output for the above code snippet?	1.Returns [1,2,3] 2.Returns [4,5] 3.Returns [1,2,3,4] 4.Returns [1,2,3,4,5]	1.0
618	Consider the following code snippet  <pre>function oddsums(n) {     let total = 0, result=[];     for(let x = 1; x &lt;= n; x++)     {         let odd = 2*x-1;         total += odd;         result.push(total);     }     return result; }</pre> What would be the output if  <code>oddsums (5);</code>	1. Returns [1,4,9,16,25] 2. Returns [1,2,3,4,5] 3. Returns [3,6,9,12,15] 4. Returns [1,3,5,7,9]	1.0
619	Consider the following code: var a = []; a.unshift(1); a.unshift(22); a.shift(); a.unshift(3,[4,5]); a.shift(); a.shift(); a.shift(); The final output for the shift() is	1.1 2.[4,5] 3.[3,4,5] 4.Exception	1.0

S.NO.	Questions	Choices	Answers
620	<p>Consider the following function</p> <pre>double f(double x) { if (abs(x*x - 3) &lt; 0.01) return x; else return f(x/2 + 1.5/x); }</pre> <p>Give a value q (to 2 decimals) such that f(q) will return q:_____.</p>	1.1.723 2.1.732 3.0.732 4.1.733	2.0
621	<p>Consider the following javascript code snippet :</p> <pre>var a = []; a.unshift(1); a.unshift(22); a.shift(); a.unshift(3, [4,5]); a.shift(); a.shift(); a.shift();</pre> <p>The final output for the shift() is</p>	1. 1 2. [4,5] 3. [3,4,5] 4. Exception	1.0
622	<p>Consider the following program in C language:</p> <pre>#include main() { int i; int *pi = &amp;i; scanf("%d", pi); printf("%d\n", i+5); }</pre> <p>Which one of the following statements is TRUE?</p>	1. Compilation fails. 2. Execution results in a run-time error. 3. On execution, the value printed is 5 more than the address of variable i 4. On execution, the value printed is 5 more than the integer value entered	4.0
623	<p>Consider the following statements for priority queue :</p> <p>S1 : It is a data structure in which the intrinsic ordering of the elements does determine the result of its basic operations.</p> <p>S2 : The elements of a priority queue may be complex structures that are ordered on one or several fields.</p> <p>Which of the following is correct?</p>	1.Both S1 and S2 are incorrect 2.S1 is correct and S2 is incorrect 3.Both S1 and S2 are correct 4.S1 is incorrect and S2 is correct	4.0
624	<p>Consider the following two sets of LR(1) items of an LR(1) grammar.</p> <pre>X -&gt; c.X, c/d X -&gt; .cX, c/d X -&gt; .d, c/d X -&gt; c..X, \$ X -&gt; .cX, \$ X -&gt; .d, \$</pre> <p>Which of the following statements related to merging of the two sets in the corresponding LALR parser is/are FALSE?</p> <ul style="list-style-type: none"> <li>1. Cannot be merged since look aheads are different.</li> <li>2. Can be merged but will result in S-R conflict.</li> <li>3. Can be merged but will result in R-R conflict.</li> <li>4. Cannot be merged since goto on c will lead to two different sets.</li> </ul>	1. 1 only 2. 2 only 3. 1 and 4 only 4. 1,2,3,4	4.0
625	<p>Consider the following two sets of LR(1) items of an LR(1) grammar.</p> <pre>X -&gt; c.X, c/d X -&gt; .cX, c/d X -&gt; .d, c/d X -&gt; c..X, \$ X -&gt; .cX, \$ X -&gt; .d, \$</pre> <p>Which of the following statements related to merging of the two sets in the corresponding LALR parser is/are FALSE?</p> <ul style="list-style-type: none"> <li>1. Cannot be merged since look aheads are different.</li> <li>2. Can be merged but will result in S-R conflict.</li> <li>3. Can be merged but will result in R-R conflict.</li> <li>4. Cannot be merged since goto on c will lead to two different sets.</li> </ul>	1. 1 only 2. 2 only 3. 3 and 4 only 4. 1,2,3,4	4.0
626	<p>Consider the grammar shown below.</p> <pre>S -&gt; C C C -&gt; c C   d</pre> <p>The grammar is</p>	1. LL(1) 2. SLR(1) but not LL(1) 3. LALR(1) but not SLR(1) 4. LR(1) but not LALR(1)	1.0

S.NO.	Questions	Choices	Answers
627	<p>Consider the grammar with the following translation rules and E as the start symbol.</p> <pre>E → E1 # T { E.value = E1.value * T.value }   T{ E.value = T.value } T → T1 &amp; F { T.value = T1.value + F.value }   F{ T.value = F.value } F → num { F.value = num.value }</pre> <p>Compute E.value for the root of the parse tree for the expression: 2 # 3 &amp; 5 # 6 &amp; 4.</p>	1. 200 2. 180 3. 160 4. 40	3.0
628	<p>Consider the grammar</p> <pre>S → (S)   a</pre> <p>Let the number of states in SLR(1), LR(1) and LALR(1) parsers for the grammar be n1, n2 and n3 respectively. The following relationship holds good</p>	1. n1< n2< n3 2. n1= n3< n2 3. n1= n2= n3 4. n1> n2> n3	2.0
629	<p>Consider the intermediate code given below:</p> <pre>1. i = 1 2. j = 1 3. t1 = 5 * i 4. t2 = t1 + j 5. t3 = 4 * t2 6. t4 = t3 7. a[4] = -1 8. j = j + 1 9. if j &lt;= 5 goto(3) 10. i = i + 1 11. if i &lt; 5 goto(2)</pre> <p>The number of nodes and edges in the control-flow-graph constructed for the above code, respectively, are</p>	1. 5 and 7 2. 6 and 7 3. 5 and 2 4. 7 and 8	2.0
630	<p>Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join is:</p>	1. mn 2. m+n 3. (m+n)/2 4. 2(m+n)	1.0
631	<p>Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join is:</p>	1. mn 2. m + n 3. (m + n) / 2 4. 2(m + n)	1.0
632	<p>Consider the regular language <math>L = (111 + 11111)^*</math>. The minimum number of states in any DFA accepting this languages is:</p>	1. 3 2. 5 3. 8 4. 9	4.0

S.NO.	Questions	Choices	Answers
633	Consider the relation R1(employee_name, project_name, dependent_name). If {{employee_name -->-> project_name}, {employee_name -->-> dependent_name}}, what is the highest normal form it satisfies?	1. 2NF 2. 3NF 3. BCNF 4. 4NF	1.0
634	Consider the translation scheme shown below <pre>S → T R R → + T {print ('+')}; R   ε T → num {print (num.val);}</pre> Here num is a token that represents an integer and num.val represents the corresponding integer value. For an input string '9 + 5 + 2', this translation scheme will print	1. 9 + 5 + 2 2. 9 5 + 2 + 3. 9 5 2 + + 4. + + 9 5 2	2.0
635	Consider two strings A ='qpqr' and B = 'pqqrqp'. Let x be the length of the LCS between A and B and let y be the number of such longest common subsequences between A and B. Then x + 10y =	1.42 2.34 3.32 4.30	2.0
636	Count function in SQL returns the number of	1. values 2. distinct values 3. groups 4. columns	1.0
637	CPU Scheduling is the basis of _____ operating system	1. Batch 2. Real Time 3. Multi-programming 4. network	2.0
638	create table student_\$( id number(4), namee varchar2(10)); reponse would be	1. Error 2. Table created 3. Table created with error 4. Table created with data	2.0
639	Creating additional function similar to template function is called	1.implicit specialization 2.explicit specialization 3.abstraction 4.template overriding	4.0
640	Cross-compiler is a compiler	1.which is written in a language that is same as the source language. 2.that runs on one computer but produces object code for different type of computer. 3.that generates object code for its host machine. 4.which is written in a language that is different from the source language.	2.0

S.NO.	Questions	Choices	Answers
641	Cryptanalysis is used	1. to find some insecurity in a cryptographic scheme 2. to increase the speed 3. to encrypt the data 4. none of the mentioned	1.0
642	Cryptographic hash function takes an arbitrary block of data and returns	1. fixed size bit string 2. variable size bit string 3. both (a) and (b) 4. None	1.0
643	Currently there is no single standard file type that can be used to play audio using the audio element consistently on all browsers. Which is the solution that the audio element provides to resolve this conflict?	1. Use JavaScript to determine the web browser in use 2. Use Adobe Flash to play the audio 3. Include multiple audio file formats in the src attribute 4. No Solution	
644	1.0	1. rely on basis path testing 2. exercise the logical conditions in a program module 3. select test paths based on the locations and uses of variables 4. focus on testing the validity of loop constructs	1.0
645	Data independence means	1. data is defined separately and not included in programs. 2. programs are not dependent on the physical attributes of data 3. programs are not dependent on the logical attributes of data 4. programs are not dependent on both physical and logical attributes of data	4.0
646	Data Members of the base class that are marked private:	1. does exist in memory when the object of the derived class is created 2. exist in memory when the object of the derived class is created the derived class 3. are visible in the derived class 4. are directly accessible in the derived class	2.0
647	Data Members of the base class that are marked private:	1. does exist in memory when the object of the derived class is created 2. exist in memory when the object of the derived class is created the derived class 3. are visible in the derived class 4. are directly accessible in the derived class	2.0
648	Data Store Symbol in DFD represents a	1. Physical file 2. Data Structure 3. Logical file 4. ALL	2.0
649	DB, DW and DD directives are used to place data in particular location or to simply allocate space without preassigning anything to space. The DW and DD directores are used to generate	1. full address of labels 2. offsets of full address of labels and variables 3. full address of variables 4. offsets	2.0

S.NO.	Questions	Choices	Answers
650	DCL stands for	1. Data Control Language 2. Data Console Language 3. Data Console Level 4. Data Control Level	1.0
651	Demand paged memory allocation	1. allows the virtual address space to be independent of the physical memory 2. allows the virtual address space to be a multiple of the physical memory size 3. allows deadlock to be detected in paging schemes 4. is present only in Windows NT	1.0
652	Desirable properties of relational database design include	1.All of the options 2.minimizing update anomalies 3.minimizing redundancy 4.minimizing insertion/deletion anomalies	1.0
653	Direction flag is used with	1. String instructions 2. Stack instructions. 3. Arithmetic instructions 4. Branch instructions	1.0
654	Divide and conquer mechanism is used in	1.selection sort 2.merge sort 3.quick and merge sorts 4.indexed sequential search	3.0
655	DML is provided for	1. Description of logical structure of database. 2. Addition of new structures in the database system. 3. Manipulation & processing of database. 4. Definition of physical structure of database system.	3.0
656	Drop SQL clause	1. Drops only the values from the table 2. drops structure of the table along with values 3. None of the options 4. changes the structure of the table	2.0
657	Duality principle is used when SE is	1.square 2.symmetric 3.asymmetric 4.translated	2.0

S.NO.	Questions	Choices	Answers
658	1.0	1. applications, data, technology infrastructure 2. communications, organization, financial infrastructure 3. network, database, reporting structure 4. systems, requirements, data structure	1.0
659	Each counter of IC 8254 can work in -----differnt modes of operation	1.6 2.5 3.4 4.3	1.0
660	ElGamal encryption system is	1. symmetric key encryption algorithm 2. <b>asymmetric key encryption algorithm</b> 3. not an encryption algorithm 4. none of the mentioned	2.0
661	EPROM is generally erased by using	1. <b>Ultraviolet rays</b> 2. infrared rays 3. 12 V electrical pulse 4. 24 V electrical pulse	1.0
662	Ethernet in metropolitan area network (MAN) can be used as	1. pure ethernet 2. ethernet over SDH 3. ethernet over MPLS <b>4.</b> <b>combination of all of the above mentioned</b>	4.0
663	3.0	1. reduce the granularity of the plan 2. analyze requirements in depth 3. get all team members to "sign up" to the plan 4. begin design	3.0
664	2.0	1. Are not iterative in nature 2. Can easily accommodate product requirements changes 3. Generally produce throwaway systems 4. Are not specific to applications	2.0

S.NO.	Questions	Choices	Answers
665	External Fragmentation of the file system	1. can be avoided by paging 2. occurs only if the file system is used improperly 3. can be removed by compaction 4. can be avoided by Segmentation	4.0
666	Find the output  <pre>#include &lt;stdio.h&gt; int main() {     int tally=0;     for(;;)     {         if(tally==10)             break;         printf("%d ",++tally);     }     return 0; }</pre>	1. 0 1 2 3 4 5 6 7 8 9 10 2. 0 1 2 3 ... infinite times 3. 1 2 3 4 5 6 7 8 9 10 4. 1 2 3 4 5 6 7 8 9	3.0
667	Find the output  <pre>#include &lt;stdio.h&gt;  int main() {     int x=65;     const unsigned char c=(int)x;      printf("%c\n",c);      return 0; }</pre>	1. Error 2. 65 3. A 4. NULL	3.0
668	Find the output  <pre>#include &lt;stdio.h&gt; struct sample {     int a=0;     char b='A';     float c=10.5; }; int main() {     struct sample s;     printf("%d,%c,%f",s.a,s.b,s.c);     return 0; }</pre>	1. Error 2.0,A,10.5 0,A,10.500000 4. No Error, No Output	1.0
669	Find the output:  <pre>#include &lt;stdio.h&gt; int main() {     int a=100;     printf("%d\n"+1,a);     printf("Value is = %d"+3,a);     return 0; }</pre>	1. Error 2. 101, Value is = 103 3. d ue is = 100 4. 100 100	3.0

S.NO.	Questions	Choices	Answers
670	<p>Find the output:</p> <pre>#include &lt;stdio.h&gt; int main() {     int a=23;     ;     ;printf("%d",a);     ;     return 0; }</pre>	1. 2. Error 3. ;23; 4. ;23	1.0
671	<p>Find the output:</p> <pre>#include &lt;stdio.h&gt; void main() {     const char var='A';     ++var;     printf("%c",var); }</pre>	1. B 2. A 3. <b>ERROR</b> 4. 66	3.0
672	<p>FIND THE OUTPUT:</p> <pre>#include &lt;stdio.h&gt; void main() {     int x=10;     x+=(x++)+(++x)+x;     printf("%d",x); }</pre>	1. 44 2. 45 3. 46 4. 47	2.0
673	<p>Find the output:</p> <pre>#include &lt;stdio.h&gt; void main() {     int x=(20    40 ) &amp;&amp; (10);     printf("x= %d",x); }</pre>	1. x= 60 2. x= 70 3. x= 0 4. x= 1	4.0
674	<p>Find the output:</p> <pre>#include &lt;stdio.h&gt; void main() {     char var=10;     printf("var is = %d",++var++); }</pre>	1. <b>ERROR: can not modify var.</b> 2. <b>ERROR: L-Value required</b> 3. 12 4. <b>ERROR: Expression syntax</b>	2.0
675	First derivative approximation says that values of constant intensities must be	1.1 2.0 3.positive 4.negative	2.0
676	Flip-flop excitation tables shows that	1.For the given PS and NS what will be the inputs 2.For the given PS and NS what will be the outputs 3.For the given PS and NS what will be the type of flip-flops 4.For the given PS and NS what will be the values of NS and PS respectively	4.0
677	Following can be used to implement a SOP function without changing it into minterms	1.MUX 2.PLA 3.ROM 4.DeMUX	4.0

S.NO.	Questions	Choices	Answers
678	For a well understood data processing application it is best to use	1. The waterfall model 2. prototyping model 3. the evolutionary model 4. the spiral model	1.0
679	For purposes of behavior modeling a state is any	1. 3.0 2. data object hierarchy. 3. observable mode of behavior. 4. well defined process.	3.0
680	Foreign Key is	1. A field in a table that matches a key field in another table 2. A field in a table that contains data that is also contained elsewhere in another table 3. A key that consists of more than one field 4. A field in a table that has the same name as a key field in another table	1.0
681	Frames of 1000 bits are sent over a $10^6$ bps duplex link between two hosts. The propagation time is 25ms. Frames are to be transmitted into this link to maximally pack them in transit (within the link). What is the minimum number of bits, i will be required to represent the sequence numbers distinctly? Assume that no time gap needs to be given between transmission of two frames.	1. i=2 2. i=3 3. i=4 4. i=5	4.0
682	FTP server listens for connection on port number	1. 20 2. 21 3. 22 4. 23	2.0
683	Functions that combines to produce $f(x,y)$	1.illumination and frequency 2.intensity and reflectance 3.illumination and radiance 4.illumination and reflectance	4.0
684	Generally Dynamic RAM is used as main memory in a computer system as it _____.  _____.	1. Consumes less power 2. has higher speed 3. has lower cell density 4. needs refreshing circuitry	2.0

S.NO.	Questions	Choices	Answers
685	Generic process models are:	1. waterfall, component-based, iterative 2. waterfall, structural, component-based 3. sequential, waterfall, iterative 4. component-based, object-oriented, iterative	4.0
686	Given a comma-separated list of values in a string, which function from the given list can create an array of each individual value with a single call in PHP?	1. strstr( ) 2. extract 3. explode() 4. strtok()	3.0
687	Given a hash table T with 25 slots that stores 2000 elements, the load factor $\alpha$ for T is	1.80 2.0.0125 3.8000 4.1.25	2.0
688	Given a variable \$email containing the string user@example.com, which of the following PHP statements would extract the string example.com?	1. substr(\$email, strpos(\$email, "@")); 2. strstr(\$email, "@"); 3. strchr(\$email, "@"); 4. substr(\$email, strpos(\$email, "@") + 1);	4.0
689	Given an array that represents elements of arithmetic progression in order. It is also given that one element is missing in the progression, the worst case time complexity to find the missing element efficiently is:	1.theta(n) 2.theta(nLogn) 3.theta(Logn) 4.theta(1)	3.0
690	Given CF=0, BX=00111011 01110101 ROR BX,1. The result is	1.CF=1 BX=10011101 10111010 2.CF=1 BX=10100111 01101110 3.CF=0 BX=01001110 11011101 4.CF=0 BX=01010011 10110111	1.0
691	Given the basic ER and relational models, which of the following is INCORRECT?	1. An attributes of an entity can have more than one value 2. An attribute of an entity can be composite 3. In a row of a relational table, an attribute can have more than one value 4. In a row of a relational table, an attribute can have exactly one value or a NULL value	3.0
692	Given the Code segment CS = 1000H and the offset BX=0050H. Calculated physical address is ---	1.10000H 2.10050H 3.11050H 4.11000H	2.0
693	Given the Extra segment ES = 52B9H and the offset BX=D470H. Calculated physical address is --	1.60000H 2.70000H 3.11000H 4.11050H	4.0
694	Given the frequency f=1.5MHZ for 8253 timer the value of time period T is	1.10ms 2.0.66us 3.1ms 4.100ms	2.0
695	Given the functional dependencies, {AB $\rightarrow$ CDE and A $\rightarrow$ E}, for relation schema R = (A,B,C,D,E) we can infer the following:	1. A is a key for R 2. BE is a key for R 3. AB is a key for R 4. B is a key for R	3.0

S.NO.	Questions	Choices	Answers
696	Given the language $L = \{ab, aa, baa\}$ , which of the following strings are in $L^*$ ? 1) abaabaaaabaa 2) aaaabaaaa 3) baaaaaaaaab 4) baaaaabaa	1. 1, 2 and 3 2. 1, 2 and 4 3. 1, 3 and 4 4. 2, 3 and 4	2.0
697	Grant and revoke are ..... statements.	1. DDL 2. TCL 3. <b>DCL</b> 4. DML	3.0
698	High speed ethernet works on	1. coaxial cable 2. twisted pair cable 3. <b>optical fiber</b> 4. none of the mentioned	3.0
699	How can we count the number of elements in an array?	1.Using sizeof() 2.count() 3.Writing a user defined function and using array_search() 4.using sizeof() and count()	4.0
700	How can you specify default text in an input field?	1.Using JavaScript 2.Using the 'text' attribute 3.Using the 'placeholder' element 4.Using the 'placeholder' attribute	4.0
701	How do I create PHP arrays in a HTML ?	1.< input name= MyArray[] /> 2.< input ="MyArray[]" /> 3.< input name="MyArray[]" /> 4.< input MyArray[] />	3.0
702	How do substring() and substr() differ?	1.One is not a method of the String object. 2.substr() takes three arguments, substring() only two. 3. <b>Only one accepts a desired string length as an argument.</b> 4.Besides the spelling, nothing.	3.0
703	How do we access the value of 'd' later? \$a = array('a', 3 => 'b', 1 => 'c', 'd');	1.\$a[0] 2.\$a[1] 3.\$a[2] <b>4.\$a[4]</b>	4.0
704	How do we prevent margins, borders and padding from overlapping?	1.Setting zero paddings and margins <b>2.By displaying our list as block elements</b> 3.Using table cells 4.By displaying our list as inline elements	2.0
705	How do we submit form data without a Sumbit button?	1.Using header() function 2.Using Javascript 3.Using fdf_set_submit_form_action() fucntion 4.using header() and javascript	4.0
706	How do you check queue is full in array implementation	1.if(rear==size) 2.if(front==size) 3.if(rear==1) 4.if(front==1)	1.0
707	How do you get information from a form that is submitted using the "get" method?	1.Request.QueryString; 2. <b>\$_GET[]</b> ; 3.Request.Form; 4. <b>\$_POST[]</b>	2.0
708	How is a J-K flip-flop made to toggle?	1.J = 0, K = 0 2.J = 0, K = 1 3.J = 1, K = 0 <b>4.J = 1, K = 1</b>	4.0
709	How many bits are required to store one BCD digit?	1.1 2.2 3.3 <b>4.4</b>	4.0
710	How many diagrams are here in Unified Modelling Language?	1. six 2. seven 3. eight <b>4.</b> <b>nine</b>	4.0
711	How many different states does a 3-bit asynchronous counter have?	1.2 2.4 <b>3.8</b> 4.16	3.0
712	How many flip-flops are required to construct a mod10 counter?	1.10 2.8 3.5 <b>4.4</b>	4.0
713	How many flip-flops are required to make a MOD-32 binary counter?	1.3 2.4 <b>3.5</b> 4.6	3.0
714	How many instances of an abstract class can be created?	1.13 2.5 3.1 <b>4.0</b>	4.0

S.NO.	Questions	Choices	Answers
715	How many minimum states are required in a DFA to find whether a given binary string has odd number of 0's or not, there can be any number of 1's.	1. 1  2.  2  3.  3  4.  4	2.0
716	How many nodes in a tree have no ancestors.	1.2.2.n 3.1 4.0	3.0
717	How many operating modes are available in 8253A.	1.1.2.2 3.6 4.3	3.0
718	How many transistors does the 8086 have	1.29,000 2.10,000 3.129,000 4.110,000	1.0
719	How to create a Date object in JavaScript?	1.dateObjectName = new Date([parameters]) 2.dateObjectName.new Date([parameters]) 3.dateObjectName := new Date([parameters]) 4.dateObjectName Date([parameters])	1.0
720	How to create a memory without a name during the execution of the program?	1.malloc() 2.Queue 3.stack 4.list	1.0
721	How will you free the allocated memory ?	1.remove(var-name); 2.free(var-name); 3.delete(var-name); 4.dalloc(var-name);	2.0
722	How will you handle the overflow condition of a linked queue through code(note: new_node is a newly created node in a memory)	1.if(rear==size) 2.if(new_node==0) 3.if(front==size) 4.if(new_node==null)	1.0
723	HTTP client requests by establishing a _____ connection to a particular port on the server.	1. user datagram protocol  2.  3. transmission control protocol  4. broader gateway protocol  RIP	2.0
724	IC 8237 has -----many pins	1.  40  2.  28  3.  24  4.  20	1.0
725	IC 8257 has -----many channels for data transfer	1.  1  2  2  3.  3  4.  4	4.0
726	Identify different segments in a program	1.only code segment 2.data and code segment 3.only data segment 4.data, code, stack and extra segments	4.0
727	Identify the accurate control word for operate counter 0, Read/Write LSB only, Mode 2, BCD countdown.	1.00010111B 2.0001X111B 3.00010101B 4.00110111B	2.0
728	Identify the addressing mode for the instruction MOV AH,47H	1.Immediate addressing mode 2.Direct addressing mode 3.Based addressing mode 4.Indirect addressing mode	2.0
729	Identify the proper data direction and modes of operation of the 8255 ports if the control word written into it is 9BH.	1.Port A as output 2.Port C lower as output 3.Port C upper as input 4.Port B as output	3.0

S.NO.	Questions	Choices	Answers
730	If a class B network on the Internet has a subnet mask of 255.255.248.0, what is the maximum number of hosts per subnet?	1. 1024 2. 1023 3. 2046 4. 2047	3.0
731	If a class C is derived from class B, which is derived from class A, all through public inheritance, then a class C member function can access	1.protected and public data only in C and B 2.protected and public data only in C. 3.private data in A and B. 4.protected data in A and B.	4.0
732	If a constructor function is defined in private section of a class, then	1.The object cannot be created 2.Only its member functions and friends may declare objects of the class 3.Only its friends may declare objects of the class 4.Only its member functions may declare objects of the class	2.0
733	If AL= 7FH and instruction ADD AL,1 is given, specify the contents of the six status flag	1.CF=0,PF=0,AF=1,ZF=0,SF=1,OF=1 2.CF=0,PF=1,AF=0,ZF=0,SF=1,OF=1 3.CF=0,PF=1,AF=1,ZF=0,SF=1,OF=1 4.CF=0,PF=0,AF=1,ZF=0,SF=1,OF=0	4.0
734	If AL=C0H, Determine the content of the register AL after SAL AL,1 instruction is executed.	1.E0H 2.80H 3.0CH 4.0EH	2.0
735	If all page frames are initially empty, and a process is allocated 3 page frames in real memory and references its pages in the order 1 2 3 2 4 5 2 3 2 4 1 and the page replacement is FIFO, the total number of page faults caused by the process will be _____	1. 10 2. 7 3. 8 4. 9	4.0
736	If all tasks must be executed in the same time-span, what type of cohesion is being exhibited?	1. Functional Cohesion 2. <b>Temporal Cohesion</b> 3. Functional Cohesion 4. Sequential Cohesion	2.0
737	If class A is friend of class B and if class B is friend of class C, which of the following is true?	1.Class C is friend of Class A 2.Class A is friend of Class C 3.Class A and Class C don't have any friend relationship 4. <b>Class A and Class C are mutual friends</b>	4.0
738	If every requirement stated in the Software Requirement Specification (SRS) has only one interpretation, SRS is said to be	1. correct. 2. <b>unambiguous.</b> 3. consistent. 4. verifiable.	2.0
739	If inspected in a browser, what will be the total width of the div in the following code snippet? <code>#container { width: 600px; border: 2px solid #CCCCCC; padding: 30px 20px; margin: 20px 10px 40px 10px; }</code>	<b>1.664px 2.660px 3.644px 4.600px</b>	1.0
740	If L and L' are recursively enumerable, then L is	1. regular 2. context-free 3. context-sensitive 4. recursive	4.0

S.NO.	Questions	Choices	Answers
741	If M1 machine recognizing L with n states, then M2 recognizing L* constructed Using Thompson construction will have ----- states.	1. n 2. n+1 3. n+2 4. n-1	2.0
742	If p and q are assigned the values 2 and 3 respectively then the statement P = q++	1.assigns a value 5 to p 2.assigns a value 3 to p 3.gives an error message 4.assigns a value 4 to p	2.0
743	If para1 is the DOM object for a paragraph, what is the correct syntax to change the text within the paragraph?	1."New Text"? 2(para1.value="New Text"; 3 para1.firstChild.nodeValue= "New Text"; 4 para1.nodeValue="New Text";	2.0
744	If the class name is X, what is the type of its "this" pointer?	1.X* 2.const X* const 3.X& 4.X* const	3.0
745	If the disk size is 2^30 bytes and block size is 2^12 bytes then find how many such blocks are there?	1. 2^42 2. 2^18 3. 2^360 4. 2^30	2.0
746	If the PIC outputs the type number of C8H, the CPU will retrieve the vector stored in the address -----	1.00320H - 00323H 2.00324H - 00327H 3.00223H - 00226H 4.00140H - 00143H	
747	If the size of logical address space is 2 to the power of m, and a page size is 2 to the power of n addressing units, then the high order _____ bits of a logical address designate the page number, and the _____ low order bits designate the page offset.	1. m,n 2. n,m 3. m-n,m 4. m-n,n	4.0
748	If there are n relations how many number of join conditions has to be applied to retrieve the data from all the n relations?	1. N+1 2. N 3. N-1 4. A Number in the range 0 to N.	3.0
749	If we create a file by 'ifstream', then the default mode of the file is _____	1.ios :: out 2.ios :: in 3.ios :: app 4.ios :: binary	1.0
750	If X->Y and X->Z then	1. Y->Z 2. Z->Y 3. X->YZ 4. Doesn't hold	3.0

S.NO.	Questions	Choices	Answers
751	If $x \rightarrow\!> y$ then $y \rightarrow\!> x$ . This statement is	1. True 2. False 3. Can't Say 4. Doesn't hold	3.0
752	IF Y is a subset of X then	1. $X \rightarrow\!> Y$ 2. $Y \rightarrow\!> X$ 3. $Y \rightarrow\!>\rightarrow\!> X$ 4. X is a sub set of Y	2.0
753	If you have an empty queue and you insert characters 'r', 'a', 't' (in this order only), what is the order of the characters when you dequeue all the elements?	1. 'r', 'a', 't' 2. 't', 'a', 'r' 3. 'r', 't', 'a' 4. 't', 'r', 'a'	1.0
754	IMUL source is a signed _____	1. multiplication 2. addition 3. subtraction 4. division	1.0
755	In 8086 microprocessor one of the following statements is not true	1.Coprocessor is interfaced in MAX mode 2.Coprocessor is interfaced in MIN mode 3.I/O can be interfaced in MAX / MIN mode 4.Supports pipelining	2.0
756	In 8086 microprocessor the following has the highest priority among all type interrupts	1.TYPE 255 2.DIV 0 3.NMI 4.OVER FLOW	3.0
757	In 8086, Example for Non maskable interrupts are _____.	1. TRAP 2. RST6.5 3. INTR 4. RST6.6	1.0
758	In a bottom-up evaluation of a syntax directed definition, inherited attributes can	1. always be evaluated 2. be evaluated only if the definition is L-attributed 3. be evaluated only if the definition has synthesized attributes 4. never be evaluated	2.0
759	In a circular linked list	1.components are arranged hierarchically 2.there is no beginning and no end 3.forward and backward traversal within the list is permitted 4.components are arranged from top to bottom	2.0

S.NO.	Questions	Choices	Answers
760	In a compiler, keywords of a language are recognized during	1. parsing of the program 2. the code generation 3. the lexical analysis of the program 4. dataflow analysis	3.0
761	In a conceptual model for a university, which of the following could most appropriately be represented via a recursive relationship?	1. Student credit hours 2. Course prerequisites 3. Parking sticker assignments 4. Final exam schedules	2.0
762	In a connected graph, a bridge is an edge whose removal disconnects a graph. Which one of the following statements is True?	1. A tree has no bridge 2. A bridge cannot be part of a simple cycle 3. Every edge of a clique with size $\geq 3$ is a bridge (A clique is any complete subgraph of a graph) 4. A graph with bridges cannot have a cycle	4.0
763	In a DMA write operation the data is transferred	1. from I/O to memory 2. from memory to I/O 3. from memory to I/O 4. from I/O to I/O	1.0
764	In a microprocessor, the service routine for a certain interrupt starts from a fixed location of memory which cannot be externally set, but the interrupt can be delayed or rejected. Such an interrupt is	1. maskable and non-vectorable 2. non-maskable and vectorable 3. maskable and vectorable 4. non-maskable and non-vectorable	3.0
765	In a network of LANs connected by bridges, packets are sent from one LAN to another through intermediate bridges. Since more than one path may exist between two LANs, packets may have to be routed through multiple bridges. Why is the spanning tree algorithm used for bridge-routing?	1. For shortest path routing between LANs 2. For avoiding loops in the routing paths 3. For fault tolerance 4. For minimizing collisions	2.0
766	In a syntax directed translation schema, if value of an attribute of a node is function of the values of the attributes of its children, then it is called	1. Inherited attributes 2. Synthesized attributes 3. Canonical attributes 4. Derived attributes	2.0
767	In a token ring network the transmission speed is $10^7$ bps and the propagation speed is 200 metres/micro second. The 1-bit delay in this network is equivalent to:	1. 500 metres of cable. 2. 200 metres of cable. 3. 20 metres of cable. 4. 50 metres of cable.	3.0

S.NO.	Questions	Choices	Answers
768	In a virtual memory environment	<p>1. segmentation and page tables are stored in the cache and do not add any substantial overhead</p> <p>2. slow down the computer system considerable</p> <p>3. segmentation and page tables are stored in the RAM</p> <p>4. only page table is stored in cache</p>	1.0
769	In access lists and groups which one of the following is correct for the 'RWX' notation of the order 'group, owner, public'	<p>1. 111110001</p> <p>2. 110111001</p> <p>3. 001111110</p> <p>4. 001110111</p>	2.0
770	In an array representation of binary tree, the left child of i th node is located at	1. $2 \cdot (i-1)/2$	4.0
771	In an array representation of binary tree, the right child of i th node is located at	1. $(i-2)/2$	3.0
772	In an E-R diagram an entity set is represent by a	<p>1. rectangle</p> <p>2. ellipse</p> <p>3. diamond box</p> <p>4. circle</p>	1.0
773	In an E-R diagram attributes are represented by	<p>1. rectangle</p> <p>2. square</p> <p>3. ellipse</p> <p>4. triangle</p>	3.0
774	In any undirected graph, the sum of the degrees of all nodes is:	1. is twice number of edges	1.0
775	In Assembly language programming, minimum number of operands required for an instruction is/are	<p>1. Zero</p> <p>2. One</p> <p>3. Two</p> <p>4. Three</p>	1.0
776	In asynchronous serial communication the physical layer provides	<p>1.start and stop signalling</p> <p>2.flow control</p> <p>3.both (a) and (b)</p> <p>4.none of the mentioned</p>	3.0
777	In binary heap, whenever the root is removed then the rightmost element of last level is replaced by the root. Why?	<p>1.To make sure that it is still complete binary tree</p> <p>2.It is the easiest possible way</p> <p>3.Because left and right subtree might be missing</p> <p>4.maximum value is contained by the root node</p>	1.0

S.NO.	Questions	Choices	Answers
778	In case of entity integrity, the primary key may be	1.not Null 2.Null 3.a foreign key 4.any value	1.0
779	3.0	1. cannot be a member of the software team 2. cannot be a customer 3. controls and facilitates the process 4. must be an outsider	2.0
780	In context of OSI or TCP/IP computer network models, which of the following is false?	1.Major difference between LAN and WAN is that the later uses switching element 2.Network layer is connection oriented 3.A repeater is used just to forward bits from one network to another one 4.A gateway is used to connect incompatible networks	2.0
781	In cryptography, the order of the letters in a message is rearranged by	1. transposition ciphers 2. substitution ciphers 3. both (a) and (b) 4. none of the mentioned	1.0
782	In Ethernet when Manchester encoding is used, the bit rate is:	1. Half the baud rate. 2. Twice the baud rate. 3. Same as the baud rate. 4. Grows exponentially	1.0
783	In FTP protocol, client contacts server using ____ as the transport protocol.	1. transmission control protocol 2. user datagram protocol 3. datagram congestion control protocol 4. stream control transmission protocol	1.0
784	In general tree to binary tree conversion, the two links of the binary tree node points to	1.two leaf nodes in the general tree 2.its right child and sibling in the general tree 3.its left child and sibling in the general tree 4.its left and right child in the general tree	4.0
785	In HTTP pipelining	1. multiple HTTP requests are sent on a single TCP connection without waiting for the corresponding responses 2. multiple HTTP requests can not be sent on a single TCP connection 3. multiple HTTP requests are sent in a queue on a single TCP connection 4. none of the mentioned	1.0

S.NO.	Questions	Choices	Answers
786	In interactive environments such as time-sharing systems, the primary requirement is to provide reasonably good response time and in general, to share system resources equitably. In such situations, the scheduling algorithm that is most popularly applied is _____.	1. Shortest Remaining Time Next (SRTN) Scheduling 2. Priorities Based Preemptive Scheduling 3. Round Robin Scheduling 4. First Come First Serve	3.0
787	In javascript, RegExp Object Method test() is used to search a string and returns _____	1.true or false 2.found value 3.index 4.Matched or not matched	1.0
788	In linear search algorithm the Worst case occurs when	1.The item is somewhere in the middle of the array 2.The item is not in the array at all 3.The item is the last element in the array 4.The item is the last element in the array or is not there at all	4.0
789	In max mode, control bus signal So,S1 and S2 are sent out in _____ form	1. shared 2. decoded 3. encoded 4. unshared	3.0
790	In mysql_fetch_array(),if two or more columns of the result have the same field names, what action is taken?	1. the first column will take precedence 2. the column is skipped 3. the last column will take precedence 4. an error is thrown.	3.0
791	In operator precedence parsing , precedence relations are defoned	1.To delimit the handle 2.For all pair of terminals 3.For all pair of non terminals 4.Only for a certain pair of terminals	3.0
792	In PHP, array values are keyed by _____ values (called indexed arrays) or using _____ values (called associative arrays). Of course, these key methods can be combined as well.	1. Float, string 2. Positive number, negative number 3. String, Boolean 4. Integer, String	4.0
793	In PHP, which of the following function is used to insert content of one php file into another php file before server executes it	1.include[] 2.#include() 3.include() 4.#include{}	3.0
794	In Priority Scheduling a priority number (integer) is associated with each process. The CPU is allocated to the process with the highest priority (smallest integer = highest priority). The problem of, Starvation ? low priority processes may never execute, is resolved by _____.	1. Terminating the process. 2. Aging 3. Mutual Exclusion 4. Semaphore	2.0
795	In software engineering development, if there are no applicable theories, people often use adhoc approach.	1. True 2. False 3. 4.	1.0

S.NO.	Questions	Choices	Answers
796	2.0	1. true 2. false 3. 4.	1.0
797	In the absolute addressing mode	1. <b>The operand is inside the instruction</b> 2. The address of the operand is inside the instruction 3. The register containing the address of the operand is specified inside the instruction 4. The location of the operand is implicit	1.0
798	In the architecture of a database system external level is the	1.view level 2.conceptual level 3.logical level 4.physical level	1.0
799	In the context of abstract-syntax-tree (AST) and control-flow-graph (CFG), which one of the following is True?	1.In both AST and CFG, let node N2 be the successor of node N1. In the input program, the code corresponding to N2 is present after the code corresponding to N1 2.For any input program, neither AST nor CFG will contain a cycle 3.Each node in AST and CFG corresponds to at most one statement in the input program 4.The maximum number of successors of a node in an AST and a CFG depends on the input program	4.0
800	In the context of object-oriented software engineering a component contains	4.0	4.0
801	In the following code snippet, what is the correct value of the left margin? margin: 10px 5px 20px 15px;	1.10px 2.5px 3.20px <b>4.15px</b>	4.0
802	In the multi-programming environment, the main memory consisting of _____ number of process.	1. Greater than 100 2. only one 3. Greater than 50 <b>4.</b> <b>More than one</b>	4.0
803	In the network HTTP resources are located by	1. <b>uniform resource identifier</b> 2. unique resource locator 3. unique resource identifier 4. unique resource identifier	1.0
804	In the operation read_item(x), what does x mean?	1. a file 2. a record 3. a disk block <b>4.</b> <b>all of the options</b>	4.0

S.NO.	Questions	Choices	Answers
805	In the running state	1. <b>only the process which has control of the processor is found</b> 2. all the processes waiting for I/O to be completed are found 3. all the processes waiting for the processor are found 4. everything in these options are found	1.0
806	In the slow start phase of the TCP congestion control algorithm, the size of the congestion window .....	1. does not increase 2. increases linearly 3. increases quadratically <b>4.</b> <b>increases exponentially</b>	4.0
807	In the spiral model 'risk analysis' is performed	1. In the first loop 2. in the first and second loop <b>3.</b> <b>In every loop</b> 4. before using spiral model	3.0
808	In tunnel mode IPsec protects the	<b>1.</b> <b>entire IP packet</b> 2. IP header 3. IP payload 4. none of the mentioned	1.0
809	In what type of coupling, the complete data structure is passed from one module to another?	1.Control Coupling <b>2.Stamp Coupling</b> 3.External Coupling 4.Content Coupling	2.0
810	In which addressing mode the operand is given explicitly in the instruction	1. Absolute <b>2.</b> <b>Immediate</b> 3. Indirect 4. Direct	2.0
811	In which case is it mandatory to provide a destructor in a class?	1.Class for which copy constructor is defined 2.Class for which two or more than two objects will be created 3.Almost in every class <b>4.</b> <b>whose objects will be created dynamically</b>	4.0

S.NO.	Questions	Choices	Answers
812	In which mode FTP, the client initiates both the control and data connections.	1. active mode 2. <b>passive mode</b> 3. active mode and passive mode 4. none of the mentioned	2.0
813	In which topology, if there are n devices in a network, each device has n-1 ports for cables?	1. <b>Mesh</b> 2. Star 3. Ring 4. Bus	1.0
814	In which year, 8086 was introduced?	1. <b>1978</b> 2. 1979 3. 1977 4. 1981	1.0
815	2.0	1. TRUE 2. FALSE 3. 4.	1.0
816	In wireless distribution system	1. <b>multiple access point are inter-connected with each other</b> 2. there is no access point 3. only one access point exists 4. none of the mentioned	1.0
817	In wireless network an extended service set is a set of	1. connected basic service sets 2. all stations 3. all access points 4. all nodes	1.0
818	Information retrieval is faster from	1. Floppy disk 2. Magnetic tape 3. Hard disk 4. CD	3.0

S.NO.	Questions	Choices	Answers
819	Insert into Emp(101, 'XXX') gives the following error	1. missing Select keyword 2. Missing Values 3. both of the errors 4. No of the errors	2.0
820	<pre>int main() {     int x,y;     x=(100,200);     y=100,200;     printf("x=%d,y=%d",x,y);     return 0; }</pre> Find the output	1. x=100,y=200 2. x=200,y=200 3. ERROR 4. x=200,y=100	4.0
821	Interaction Diagram is a combined term for	1. Sequence Diagram + Collaboration Diagram 2. Activity Diagram + State Chart Diagram 3. Deployment Diagram + Collaboration Diagram 4. None	1.0
822	Internet Explorer uses ..... property to create transparent images.	1.-moz-opacity:x 2.filter: alpha(opacity=x) 3.filter: beta(opacity=x) 4.-IE-opacity	2.0
823	Interpolation search is an improved variant of binary search. It is necessary for this search algorithm to work that data collection should be	1.in sorted form and equally distributed 2.in sorted form and but not equally distributed 3.equally distributed but not sorted 4.unsorted and not evenly distributed	1.0
824	IPSec is designed to provide the security at the	1. transport layer 2. network layer 3. application layer 4. session layer	2.0
825	It is difficult to design asynchronous sequential circuit because.	1.External clock is to be provided 2.It is using Flip flops 3.It is more complex 4.Generally they involve stability problem	4.0
826	It is ok to have a single ideal approach to develop a software.	1. True 2. False 3. 4.	2.0
827	It would be ideal if all of computer science theories can be used in software engineering.	1. False 2. True 3. 4.	2.0
828	JavaScript RegExp Object has modifier 'i' to _____	1.Perform case-sensitive matching 2.Perform case-insensitive matching 3.Perform both case-sensitive & case-insensitive matching 4.None of the these	2.0

S.NO.	Questions	Choices	Answers
829	Join is equal to	1. Cartesian Product 2. Combination of Union and Cartesian product 3. Combination of selection and Cartesian product 4. Combination of intersection and Cartesian product	3.0
830	K-map follow following code for marking adjacent variables	1.84-2-1 2.Gray Code 3.2421 4.8421	2.0
831	<p>Let G be a weighted connected undirected graph with distinct positive edge weights. If every edge weight is increased by the same value, then which of the following statements is/are TRUE ?</p> <p>P: Minimum spanning tree of G does not change. Q: Shortest path between any pair of vertices does not change</p>	1. P Only 2. Q Only 3. Neither P nor Q 4. Both P and Q	1.0
832	<p>Let E1 and E2 be two entities in an E/R diagram with simple single-valued attributes. R1 and R2 are two relationships between E1 and E2, where R1 is one-to-many and R2 is many-to-many. R1 and R2 do not have any attributes of their own. What is the minimum number of tables required to represent this situation in the relational model?</p>	1. 2. 3. 4. 5.	2.0
833	Let G be a graph with n vertices and m edges, What is the tightest upper bound on the running time on Depth First Search of G? Assume that the graph is represented using adjacency matrix	1.O(n) 2.O(m+n) 3.O(mn) 4.O( $n^2$ )	4.0
834	<p>Let G be the CFG, l be the number of left most derivations, r be the number of right most derivations and P be the number of parse trees. Assume l, r and P are computed for a particular string. For a given CFG 'G' and given string 'w', what is the relation between l, P, r ?</p>	1. $l=P=r$ 2. $l \leq P \geq r$ 3. $l \geq P \leq r$ 4. $l \leq P \leq r$	1.0
835	Let G(x) be the generator polynomial used for CRC checking. What is the condition that should be satisfied by G(x) to detect odd number of bits in error?	1. G(x) contains more than two terms 2. G(x) does not divide $1+x^k$ , for any k not exceeding the frame length 3. $1+x$ is a factor of G(x) 4. G(x) has an odd number of terms.	3.0

S.NO.	Questions	Choices	Answers
836	<p>Let L1 be a recursive language, and let L2 be a recursively enumerable but not a recursive language. Which one of the following is TRUE?</p> <p>L1' --&gt; Complement of L1 L2' --&gt; Complement of L2</p>	1. L1' is recursive and L2' is recursively enumerable 2. L1' is recursive and L2' is not recursively enumerable 3. L1' and L2' are recursively enumerable 4. L1' is recursively enumerable and L2' is recursive	2.0
837	Let P be a QuickSort Program to sort numbers in ascending order using the first element as pivot, Let t1 and t2 be the number of comparisons made by P for the inputs {1, 2, 3, 4, 5} and {4, 1, 5, 3, 2} respectively, Which one of the following holds?	1.t1=5 2.t1>t2 3.t1 4.t1=t2	2.0
838	Let T(n) be the function defined by T(n) = 1 and T(n) = 2T (n/2) + n, which of the following is TRUE ?	1.T(n) = O(n) 2.T(n) = O(log2n) 3.T(n) = O( n) 4.T(n) = O(n2)	3.0
839	Let w be any string of length n is {0,1}*. Let L be the set of all substrings of w. What is the minimum number of states in a non-deterministic finite automaton that accepts L?	1. n+1 2. n 3. n-1 4. 2n+1	1.0
840	Local and loop optimization in turn provide motivation for	1.Peephole optimization 2.DFA and Constant folding 3.Basic Code Analysis 4.Data flow analysis	4.0
841	LOCK prefix is used most often	1.during normal execution. 2.during DMA accesses 3.during interrupt servicing. 4.during memory accesses	3.0
842	Logical addressing is used in _____ layer	1.Network 2.Transport 3.Physical 4.Session	1.0
843	1.0	1. rely basis path testing 2. exercise the logical conditions in a program module 3. select test paths based on the locations and uses of variables 4. focus on testing the validity of loop constructs	2.0
844	Magnetic tapes are good storage media for	1. backup and low volume data 2. backup and high volume data 3. storing original but low volume data 4. storing original but high volume data	2.0
845	Manager salary details are hidden from the employee. This is	1.Conceptual level data hiding 2.Physical level data hiding 3.External level data hiding 4.None of mentioned	1.0
846	1.0	1. TRUE 2. FALSE 3. 4.	2.0

S.NO.	Questions	Choices	Answers															
847	<p>Match all items in Group 1 with correct options from those given in Group 2.</p> <table border="0"> <tr> <td><b>Group 1</b></td><td><b>Group 2</b></td></tr> <tr> <td>P. Regular expression</td><td>1. Syntax analysis</td></tr> <tr> <td>Q. Pushdown automata</td><td>2. Code generation</td></tr> <tr> <td>R. Dataflow analysis</td><td>3. Lexical analysis</td></tr> <tr> <td>S. Register allocation</td><td>4. Code optimization</td></tr> </table>	<b>Group 1</b>	<b>Group 2</b>	P. Regular expression	1. Syntax analysis	Q. Pushdown automata	2. Code generation	R. Dataflow analysis	3. Lexical analysis	S. Register allocation	4. Code optimization	1. P-4, Q-1, R-2, S-3  2. P-3, Q-1, R-4, S-2  3. P-3, Q-4, R-1, S-2  4. P-2, Q-1, R-4, S-3	2.0					
<b>Group 1</b>	<b>Group 2</b>																	
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848	<p>Match the following:</p> <table border="0"> <tr> <td>List-I</td><td>List-II</td></tr> <tr> <td>A. Lexical analysis</td><td>1. Graph coloring</td></tr> <tr> <td>B. Parsing</td><td>2. DFA minimization</td></tr> <tr> <td>C. Register allocation</td><td>3. Post-order traversal</td></tr> <tr> <td>D. Expression evaluation</td><td>4. Production tree</td></tr> </table> <p>Codes:</p> <table border="0"> <tr> <td>A B C D</td></tr> <tr> <td>(a) 2 3 1 4</td></tr> <tr> <td>(b) 2 1 4 3</td></tr> <tr> <td>(c) 2 4 1 3</td></tr> <tr> <td>(d) 2 3 4 1</td></tr> </table>	List-I	List-II	A. Lexical analysis	1. Graph coloring	B. Parsing	2. DFA minimization	C. Register allocation	3. Post-order traversal	D. Expression evaluation	4. Production tree	A B C D	(a) 2 3 1 4	(b) 2 1 4 3	(c) 2 4 1 3	(d) 2 3 4 1	1. a  2. b  3. c  4. d	2.0
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849	Memory elements in clocked sequential circuits are called.	1.latches 2.gates 3.signals 4.flipflop	4.0															
850	Memory unit accessed by content is called_____	1. Read only memory  2. Programmable Memory  3. Virtual Memory  4. Associative Memory	4.0															
851	Mode of communication in which transmission takes place in both directions, but only in one direction at a time is called_____	1.simplex 2.four wired 3.full duplex 4.half-duplex	4.0															
852	Modifying the software to match changes in the ever changing environment is called	1. adaptive maintenance  2. corrective maintenance  3. perfective maintenance  4. preventive maintenance	1.0															
853	Most software continues to be custom built because	1. Component reuse is common in the software world.  2. Reusable components are too expensive to use.  3. Software is easier to build without using someone else's components  4. Off-the-shelf software components are unavailable in many application domains.	1.0															

S.NO.	Questions	Choices	Answers
854	Multiple choice examination answer sheets can be evaluated automatically by	1. Optical Mark Reader 2. Optical Character Reader 3. Magnetic tape reader 4. Magnetic ink character reader.	1.0
855	Multiple object can be sent over a TCP connection between client and server in	1. persistent HTTP 2. nonpersistent HTTP 3. both persistent HTTP and nonpersistent HTTP 4. p-persistent HTTP	1.0
856	Multiple variable declaration of same data type can be avoided by?	1.array 2.identifiers 3.functions 4.Pointer	1.0
857	Network layer firewall works as a	1. frame filter 2. packet filter 3. both (a) and (b) 4. none of the mentioned	2.0
858	Network models are complicated by physical keys, but the relation model is	1.Slower because it uses logical keys 2.Slower because it uses physical keys 3.Faster because it uses physical keys 4.Faster because it uses logical keys	4.0
859	Network operating system that does not support symmetric multi-processing (SMP) is	1.Banyan (VINES) 2.Microsoft NT advanced server 3.SCO Unix 4.Novell Network 3.X	4.0
860	NOR Gate does NOT follow	1.DeMorgan's Theorem 2.Associative Law 3.Commutative Law 4.Distributive Law	4.0
861	Normalisation of database is used to	1.Minimise Errors 2.Improve Security 3.Eliminate redundancy 4.Improve security	3.0
862	Number of the times the instruction sequence below will loop before coming out of loop is, MOV AL, 00h A1: INC AL JNZ A1	1.255 2.01 3.00 4.256	4.0
863	ODBC stands for	1. Object Database Connectivity. 2. Oral Database Connectivity. 3. Oracle Database Connectivity. 4. Open Database Connectivity.	4.0
864	One application of a digital multiplexer is to facilitate:	1.data generation 2.serial-to-parallel conversion 3.data selector 4.parity checking	1.0
865	One of the fault base testing techniques is	1. unit testing. 2. beta testing. 3. Stress testing. 4. mutation testing.	4.0

S.NO.	Questions	Choices	Answers
866	One of the header fields in an IP datagram is the Time to Live (TTL) field. Which of the following statements best explains the need for this field?	1. It can be used to prioritize packets 2. It can be used to reduce delays 3. It can be used to optimize throughput 4. It can be used to prevent packet looping	4.0
867	One of the main advantages of using src attribute is	1.It becomes self-cached 2.It makes the HTML file modular 3.It restricts manipulation in the HTML file 4.It simplifies the HTML files	4.0
868	One of the purposes of using intermediate code in compilers is to	1. make parsing and semantic analysis simpler 2. improve error recovery and error reporting 3. increase the chances of reusing the machine-independent code optimizer in other compilers. 4. improve the register allocation.	3.0
869	overloading + operator requires return type as object because,	1.reference parameter has to be returned 2.binary addition requires that 3.all overloading functions require that 4.chain of additions	3.0
870	Overloading involves writing two or more functions with _____	1.different names and different argument lists 2.different names and the same argument list 3.the same name and different argument lists 4.the same name and the same argument list	3.0
871	Overloading the function operator	1.usually make use of a constructor that takes arguments. 2.allows you to create objects that act syntactically like functions. 3.requires a class with an overloaded operator. 4.requires a class with an overloaded [ ] operator.	3.0
872	Packets of the same session may be routed through different paths in:	1. TCP, but not UDP 2. TCP and UDP 3. UDP, but not TCP 4. Neither TCP nor UDP	2.0
873	Paging _____	1. solves the memory fragmentation problem 2. allows modular programming 3. allows structured programming 4. avoids deadlock	1.0
874	Parallelism and concurrency is fully achieved in which of the following thread model	1. Many-to-one model 2. Many-to-many 3. one-to-one model 4. All the models	1.0

S.NO.	Questions	Choices	Answers
875	Passing the request from one schema to another in DBMS architecture is called as _____	1. Mapping 2. Communication 3. Relational 4. network	1.0
876	Pee hole optimization	1. Local optimization 2. Loop optimization 3. Constant folding 4. Data flow analysis	3.0
877	2.0	1. true 2. false 3. 4.	4.0
878	Physical layer provides	1. mechanical specifications of electrical connectors and cables 2. electrical specification of transmission line signal level 3. specification for IR over optical fiber 4. all of the mentioned	4.0
879	Pick an incorrect declaration:  1. int x[5]; 2. int x[5]={1,2,3,4,5}; 3. int x[5] = {1,2} 4. int x[];	1. 2. 3. 4.	4.0
880	Pick the odd one out.	1.[] 2.() 3.: 4.~	3.0
881	Polymorphism reduces the effort required to extend an object system by	1. Coupling objects together more tightly 2. enabling a number of different operations to share the same name. 3. making objects more dependent on one another 4. removing the barriers imposed by encapsulation.	4.0
882	Popular application of flip-flop are.	1. Shift registers 2. Transfer register 3. Counters 4. All of these	4.0
883	Postorder Tree traversal is recursive	1. LDR 2. LRD 3. DLR 4. DRL	2.0
884	PREDICT THE OUTPUT:  #include <stdio.h> void main() { int a=10,b=2,x=0; x=a+b*a+10/2*a; printf("value is=%d",x); }	1. Value is =1250 2. Value is =80 3. Value is =125 4. Error	2.0
885	Prim's algorithm is a method available for finding out the minimum cost of a spanning tree. Its time complexity is given by:	1. O(1) 2. O(n*n) 3. O(n log n) 4. O(n)	3.0
886	Program flow graphs are identical to program flowcharts.	1. true 2. false 3. 4.	2.0

S.NO.	Questions	Choices	Answers
887	PSW is saved in stack when there is a _____.  888 Quantitative methods for assessing the quality of proposed architectural designs are readily available.	1. interrupt recognized 2. execution of RST instruction 3. Execution of CALL instruction 4. All of these  1. TRUE 2. FALSE 3. 4.	1.0
889	Query Tree uses  890 Relations produced from an E - R model will always be in 891 Relocating bits used by relocating loader are specified by	1. Relational Algebra 2. Tuple Relational Calculus 3. Domain Relational Calculus 4. All of the options  1.3 NF 2.B CNF 3.2 NF 4.1 NF 1.Relocating loader itself 2.Linker 3Assembler 4.Macro processor	4.0 1.0 2.0
892	Replace the page that has not been used for the longest period of time. This principle is adopted by _____  893 Resource locking _____.  894 Risk management is one of the most important jobs for a	1. FIFO Page replacement algorithm 2. Optimal Page replacement algorithm 3. Round robin scheduling algorithm 4. LRU Page replacement algorithm  1. Allows multiple tasks to simultaneously use resource 2. Forces only one task to use any resource at any time 3. Can easily cause a dead lock condition 4. Is not used for disk drives  1. Client 2. Investor 3. Production team 4. Project manager	4.0  2.0  4.0
895	Routine is not loaded until it is called. All routines are kept on disk in a relocatable load format. The main program is loaded into memory & is executed. This type of loading is called _____	1. Static loading 2. Dynamic loading 3. Dynamic linking 4. Overlays	3.0

S.NO.	Questions	Choices	Answers
896	Routine is not loaded until it is called. All routines are kept on disk in a relocatable load format. The main program is loaded into memory & is executed. This type of loading is called _____	1. Static loading 2. Dynamic loading 3. Dynamic linking 4. Overlays	3.0
897	Run time polymorphism is achieved by _____	1.friend function 2.virtual function 3.operator overloading 4.function overloading	2.0
898	S -> aSa bSb a b; The language generated by the above grammar over the alphabet {a,b} is the set of _____	1. All palindromes 2. All odd length palindromes. 3. Strings that begin and end with the same symbol 4. All even length palindromes	2.0
899	1.0	1. true 2. false 3. 4.	2.0
900	SELECT department_id, AVG(salary) FROM employees WHERE AVG(salary) > 8000 GROUP BY department_id	1. Displays the department ID along with the average salary of employees in each department if their average of salary is greater than 8000. 2. Displays a error 3. Displays the department ID along with the average salary of employees 4. None of the options	2.0
901	SELECT department_id, COUNT(last_name) FROM employees;	1. Displays a error 2. Displays the department ID along with the number of employees in each department. 3. None of the options 4. Displays department ID and a null value	2.0
902	SELECT employee_id, last_name FROM employees WHERE salary = (SELECT MIN(salary) FROM employees GROUP BY department_id);	1. Displays the employee_id and name of employees who gets minimum salary in their department 2. Error 3. None of the options 4. Displays the employee_id, name of employees and their salary	1.0

S.NO.	Questions	Choices	Answers
903	SELECT last_name, SYSDATE-hire_date FROM employees;	1. Displays number of days an employee has worked in the company. 2. Displays number of months an employee has worked in the company. 3. Error 4. None of the mentioned	1.0
904	Select operation in SQL is equivalent to	1. the selection operation in relational algebra 2. the selection operation in relational algebra, except that select in SQL retains duplicates 3. the projection operation in relational algebra 4. the projection operation in relational algebra, except that select in SQL retains duplicates	4.0
905	Select the conflicting operation:	1. r1(x), w2(y) 2. r1(x), w1(x) 3. w1(y), w2(x) 4. r1(x), w2(x)	3.0
906	SELECT THE HIGHEST PRIORITY OPERATOR	1.&& 2., 3.? : 4.++	4.0
907	Shift reduce parsers are	1.Vertical parser 2.top down and bottom up parser 3.Bottom up parser 4.Top down parser	3.0
908	Simple network management protocol (SNMP) is implemented with a daughter board in	1.the nodes 2.the server 3.the hubs 4.a separate PC that managers the network	3.0
909	Skewed binary trees can be efficiently represented using	1.Arrays 2.Linked lists 3.Stacks 4.Queues	2.0
910	2.0	1. True 2. False	1.0
911	Software engineering includes system engineering.	3. 4. 1. True 2. False 3. 4.	1.0
912	4.0	1.Customer visible usage scenarios 2. Important software features 3.System inputs and outputs 4. ALL	2.0
913	Software is a product and can be manufactured using the same technologies used for other engineering artifacts.	1. True 2. False 3. 4.	2.0

S.NO.	Questions	Choices	Answers
914	Software validation is achieved through a series of tests performed by the user once the software is deployed in his or her work environment.	1. true 2. false 3. 4.	2.0
915	Some code optimizations are carried out on the intermediate code because	1. they enhance the portability of the compiler to other target processors 2. program analysis is more accurate on intermediate code than on machine code 3. the information from dataflow analysis cannot otherwise be used for optimization 4. the information from the front end cannot otherwise be used for optimization	1.0
916	Some code optimizations are carried out on the intermediate code because	1.The information from data flow analysis cannot otherwise be used for optimization 2.They enhance the portability of the complier to other target processors 3.The information from the front end cannot otherwise be used for optimization 4.Program analysis is name accurate on intermediate code than on machine code	2.0
917	Specify the 2 library functions to dynamically allocate memory?	1.alloc() and memalloc() 2.malloc() and calloc() 3.memalloc() and faralloc() 4.malloc() and memalloc()	2.0
918	Spurious tuples are formed because of	1. join operation done on a non-key attribute 2. outer join operation 3. transitive dependencies 4. inner join	1.0
919	SRS is also known as specification of	1. White box testing 2. Stress testing 3. Integrated testing 4. Black box testing	4.0
920	Station A needs to send a message consisting of 9 packets to Station B using a sliding window (window size 3) and go-back-n error control strategy. All packets are ready and immediately available for transmission. If every 5th packet that A transmits gets lost (but no acks from B ever get lost), then what is the number of packets that A will transmit for sending the message to B?	1. 12 2. 14 3. 16 4. 18	3.0

S.NO.	Questions	Choices	Answers
921	Station A uses 32 byte packets to transmit messages to Station B using a sliding window protocol. The round trip delay between A and B is 80 milliseconds and the bottleneck bandwidth on the path between A and B is 128 kbps. What is the optimal window size that A should use?	1. 20 2. 40 3. 160 4. 320	2.0
922	2.0	1. true 2. false 3. 4.	4.0
923	String length is found by the condition	1.str[i]!NULL 2.str[i]!=sizeof(str) 3.str[i]>='0' 4.str[i]!='0'	4.0
924	Suppose a circular queue of capacity $(n - 1)$ elements is implemented with an array of n elements. Assume that the insertion and deletion operation are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are	1.Full: (FRONT+1) mod n == REAR, empty: REAR == FRONT 2.Full: REAR == FRONT, empty: (REAR+1) mod n == FRONT 3.Full: (REAR+1) mod n == FRONT, empty: (FRONT+1) mod n == REAR 4.Full: (REAR+1) mod n == FRONT, empty: REAR == FRONT	4.0
925	Suppose a circular queue of capacity $(n - 1)$ elements is implemented with an array of n elements. Assume that the insertion and deletion operation are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are	1.Full: (REAR+1) mod n == FRONT, empty: REAR == FRONT 2.Full: (REAR+1) mod n == FRONT, empty: (FRONT+1) mod n == REAR 3.Full: REAR == FRONT, empty: (REAR+1) mod n == FRONT 4.Full: (FRONT+1) mod n == REAR, empty: REAR == FRONT	1.0
926	Suppose P, Q, R, S, T are sorted sequences having lengths 20, 24, 30, 35, 50 respectively. They are to be merged into a single sequence by merging together two sequences at a time. The number of comparisons that will be needed in the worst case by the optimal algorithm for doing this is	1.672 2.740 3.358 4.354	3.0
927	Suppose P, Q, R, S, T are sorted sequences having lengths 20, 24, 30, 35, 50 respectively. They are to be merged into a single sequence by merging together two sequences at a time. The number of comparisons that will be needed in the worst case by the optimal algorithm for doing this is	1.368 2.338 3.348 4.358	4.0
928	Suppose the round trip propagation delay for a 10 Mbps Ethernet having 48-bit jamming signal is 46.4 micro sec. The minimum frame size is:	1. 94 2. 416 3. 464 4. 512	4.0
929	Suppose x is dead, that is, never subsequently used, at the point where the statement $x=y+z$ appears in a basic block. Then this statement may be safely removed without changing the value of the basic block. This transformation is known as _____.	1.Common subexpression elimination 2.Dead code elimination 3.Renaming temporary variables 4.Loop invariant	2.0
930	Suppose you want to delete the name that occurs before 'Vellore' in an alphabetical listing. Which of the following data structures shall be most efficient for this operation?	1.Circular linked list 2.Dequeue 3.Linked list 4.Doubly linked list	2.0
931	Symantec Antivirus is a customized product.	1. True 2. False 3. 4.	2.0
932	Synchronous counters eliminate the delay problems encountered with asynchronous (ripple) counters because the.	1.input clock pulses are applied simultaneously to each stage 2.input clock pulses are applied only to the first and last stages 3.input clock pulses are applied only to the last stage 4.input clock pulses are not used to activate any of the counter stages	4.0
933	Syntax for creating a RegExp object: (i). var txt=new RegExp(pattern,modifiers); (ii). var txt=/pattern/modifiers; Which of the above mentioned syntax is correct?	1.(i) only 2.(ii) only 3.Both (i) and (ii) 4.None of these	3.0
934	Synthesized attribute can be easily simulated by a	1.LR grammar 2.Ambiguous grammar 3.LL grammar 4.LF grammar	1.0
935	System prototypes allow users	1. to see how well the system supports their work 2. to start working on the system 3. to put the system to production 4. to program the software	1.0

S.NO.	Questions	Choices	Answers
936	System reactions to external events is depicted by	1. State diagram 2. Activity diagram 3. Usecase diagram 4. Sequence diagram	1.0
937	2.0	1. TRUE 2. FALSE 3. 4.	1.0
938	1.0	1. true 2. false 3. 4.	1.0
939	1.0	1. True 2. False 3. 4.	3.0
940	The -----is neither an input nor an output; it is an internal bit programmed via the PC4(Port A) or PC2(Port B)bits	1.IFB 2.INTR 3.INT 4.NMI	3.0
941	The ..... instruction is used to specify the number of stop bits, data bits, parity bit, and baud rate clock factor for the 8251 UART	1.bit set/reset 2.Mode 3.Command 4.Code	2.0
942	The 1 MB byte of memory can be divided into _____ segment	1. 1 Kbyte 2. 64 Kbyte 3. 33 Kbyte 4. 34 Kbyte	2.0
943	The 16 bit flag of 8086 microprocessor is responsible to indicate _____	1. the condition of result of ALU operation 2. the condition of memory 3. the result of addition 4. the result of subtraction	1.0
944	The 16-bit data segment value is 1000H and the offset is 2000H. calculated physical address is ---	1.10000H 2.11000H 3.12000H 4.12500H	3.0
945	The 16-bit stack segment value is 5D27H and the offset is 2C30H. calculated physical address is -- ---	1.5FFEOH 2.5FAE0H 3.5FEAOH 4.12500H	3.0

S.NO.	Questions	Choices	Answers
946	The ___ bus controller device decodes the signals to produce the control bus signal	1. internal 2. data 3. external 4. address	3.0
947	The ___ translates internet domain and host names to IP address.	1. domain name system 2. routing information protocol 3. network time protocol 4. internet relay chat	1.0
948	The _____ method of an Array object adds and/or removes elements from an array.	1. Slice 2. Reverse 3. Shift 4. Splice	4.0
949	The _____ ensures that only one IC is active at a time to avoid a bus conflict caused by two ICs writing different data to the same bus	1.control bus 2.control instructions 3.address decoder 4.CPU	3.0
950	The _____ property specifies the stack order of an element	1.d-index 2.s-index 3.x-index 4.z-index	4.0
951	The access method used for magnetic tape is _____	1. Direct 2. Random 3. Sequential 4. None of these	3.0
952	The address resolution protocol (ARP) is used for:	1. Finding the IP address using DNS 2. Finding the IP address of the default gateway 3. Finding the IP address that corresponds to a MAC address 4. Finding the MAC address that corresponds to an IP address	4.0
953	The advantage of DBMS over file systems is	1. redundancy 2. data dependence 3. multiple user 4. single user	1.0

S.NO.	Questions	Choices	Answers
954	1.0	1. data, hardware, software, people 2. data, documentation, hardware, software 3. data, hardware, software, procedures 4. documentation, hardware, people, procedures	1.0
955	The ASCII encoding of binary data is called	1. base 64 encoding 2. base 32 encoding 3. base 16 encoding 4. base 8 encoding	1.0
956	The average time required to reach a storage location in memory and obtain its contents is called the	1. seek time 2. turnaround time 3. access time 4. transfer time	3.0
957	The best index for exact match query is	1. Bucket Hash 2. Quad tree 3. B Tree 4. B+ Tree	1.0
958	1.0	1. software developers do not need to do any testing 2. a test team will test the software more thoroughly 3. testers do not get involved with the project until testing begins 4. arguments between developers and testers are reduced	4.0
959	4.0	1. examine the system model for errors 2. have the customer look over the requirements 3. send them to the design team and see if they have any concerns 4. use a checklist of questions to examine each requirement	2.0
960	The BIU contains FIFO register of size _____ bytes	1. 8 2. 6 3. 4 4. 12	2.0

S.NO.	Questions	Choices	Answers
961	The BIU prefetches the instruction from memory and store them in _____	1. queue 2. register 3. memory 4. stack	1.0
962	The call to the parameterized constructor of base class in the derived class	1.appears inside the definition of the derived class constructor 2.appears in the member initialization list of the derived class constructor 3.appears inside the definition of the derived class 4.appears at the statement where the derived class object is created	4.0
963	The call to the parameterized constructor of base class in the derived class	1.appears inside the definition of the derived class constructor 2.appears in the member initialization list of the derived class constructor 3.appears inside the definition of the derived class 4.appears at the statement where the derived class object is created	4.0
964	The combination of Sixteen adjacent squares in four variable K-map represent the function equal to	1.Four literal 2.One literal 3.Unity 4.Zero	3.0
965	The counters of 8253 can be operated in ----- modes of operation.	1.4 2.3 3.6 4.5	3.0
966	The cyclomatic complexity metric provides the designer with information regarding the number of cycles in the program errors in the program independent logic paths in the program statements in the program	1. cycles in the program 2. errors in the program 3. 3.0 independent logic paths in the program 4. statements in the program	4.0
967	The data structure required for Breadth First Traversal on a graph is	1.tree 2.array 3.stack 4.queue	4.0
968	THE DATA TYPE IS ALL ABOUT	1.NAME VALUE ADDRESS 2.BITS BYTES WORD 3.SIZE LIMITS RESTRICTIONS 4.TYPE SIZE RANGE	4.0
969	The decimal equivalent of hexadecimal number of 'A580' is	1.43286 2.42368 3.43288 4.48632	2.0
970	The default copy constructor performs	1.Deep Copy 2.Shallow Copy 3.Soft Copy 4.Hard Copy	2.0
971	The degree sequence of a simple graph is the sequence of the degrees of the nodes in the graph in decreasing order. Which of the following sequences can not be the degree sequence of any graph? I. 7, 6, 5, 4, 4, 3, 2, 1 II. 6, 6, 6, 6, 3, 3, 2, 2 III. 7, 6, 6, 4, 4, 3, 2, 2 IV. 8, 7, 7, 6, 4, 2, 1, 1	1.IV only 2.III and IV 3.I and II 4.II and IV	4.0
972	The design process related to data structures and their representation is	1. Architectural design 2. Interface design 3. Component design 4. Database design	4.0
973	The difference between linear array and a record is	1.A record form a hierarchical structure but a linear array does not 2.All of above 3.An array is suitable for homogeneous data but the data items in a record may have different data type 4.In a record, there may not be a natural ordering in opposed to linear array	3.0
974	The Document object is which part of the object?	1.Tree 2.System 3.Window 4.Screen	3.0
975	The efficient data structure to insert/delete a number in a stored set of numbers is	1.Queue 2.Linked list 3.Doubly linked list 4.Binary tree	2.0
976	The entity relationship diagram	1. depicts relationships between data objects 2. depicts functions that transform the data flow 3. indicates how data are transformed by the system 4. indicates system reactions to external events	1.0
977	The ESC instruction of 8086 may have two formats. In one of the formats, no memory operand is used. Under this format, the number of external op-codes (for the co- processor) which can be specified is	1.64 2.128 3.256 4.512	2.0

S.NO.	Questions	Choices	Answers
978	The external system bus architecture is created using from _____ architecture	1. Pascal 2. Dennis Ritchie 3. Charles Babbage 4. Von Neumann	4.0
979	The file transfer protocol is built on	1. data centric architecture 2. service oriented architecture 3. client server architecture 4. peer to peer architecture	3.0
980	The first processor to include Virtual memory in the Intel microprocessor family was	1.Pentium 2.80486 3.80286 4.80386	3.0
981	The following is not a Relational Model Constraint	1.Referential Integrity Constraint 2.Check Constraint 3.Foreign Key Constraint 4.Entity Integrity Constraint	1.0
982	The following SQL is which type of join: SELECT CUSTOMER_T.CUSTOMER_ID, ORDER_T.CUSTOMER_ID, NAME, ORDER_ID FROM CUSTOMER_T,ORDER_T ;	1. Equi-join 2. Natural join 3. Outer join 4. Cartesian join	4.0
983	4.0	1. Define the specification for computer-based system 2. Develop defect free computer-based systems 3. Verify the correctness of computer-based systems 4. ALL	1.0
984	The function used to remove the leading spaces is	1. ltrim 2. lpad 3. rpad 4. rtrim	1.0
985	The goal of product engineering is to translate the customer's desire for a set of defined capabilities into a working product.	1. TRUE 2. FALSE 3. 4.	1.0

S.NO.	Questions	Choices	Answers
986	The grammar $A \rightarrow AA \mid (A) \mid \epsilon$ is not suitable for predictive-parsing because the grammar is	1. ambiguous 2. left-recursive 3. right-recursive 4. an operator-grammar	2.0
987	The grammar $S \rightarrow aSa \mid bS \mid c$ is	1. LL(1) but not LR(1) 2. LR(1) but not LR(1) 3. Both LL(1) and LR(1) 4. Neither LL(1) nor LR(1)	3.0
988	The Hardware mechanism that enables a device to notify the CPU is called _____.	1. Polling 2. Interrupt 3. Systems Call 4. None of these	2.0
989	The high paging activity is called _____	1. Inter process communication 2. Thrashing 3. Context Switching 4. Working Set	2.0
990	The IC 8237 is a	1. DMA Controller 2. Interrupt Controller 3. Keyboard controller 4. Serial Interface Controller	1.0
991	The IC 8251 A has ----- many pins	1. 24 2. 28 3. 40 4. 30	3.0

S.NO.	Questions	Choices	Answers
992	The IC 8254 has -----many pins	1. 24 2. 28 3. 34 4. 40	1.0
993	The IC 8254 has -----many 16 bit counters	1. 1 2. 2 3. 3 4. 4	3.0
994	The IC 8279 has -----many pins	1. 20 2. 30 3. 40 4. 10	4.0
995	The IC Number for USART is -----	1. IC 8251A 2. IC8259 3. IC5255 4. IC 8254	1.0
996	The idea of cache memory is based	1. on the property of locality of reference 2. on the heuristic 90-10 rule 3. on the fact that references generally tend to cluster 4. all of these	1.0
997	The importance of software design can be summarized in a single word	1. accuracy 2. complexity 3. 4.0efficiency 4. quality	3.0

S.NO.	Questions	Choices	Answers
998	The Incremental Model is a result of combination of elements of which two models?	1. Build & FIX Model & Waterfall Model 2. Linear Model & RAD Model 3. Linear Model & Prototyping Model 4. Waterfall Model & RAD Model	3.0
999	The incremental model of software development is	1. A reasonable approach when requirements are well defined. 2. A good approach when a working core product is required quickly. 3. The best approach to use for projects with large development teams. 4. A revolutionary model that is not used for commercial products.	2.0
1000	The intel 8086 microprocessor is a _____ processor	1. 8 bit 2. 16 bit 3. 32 bit 4. 4bit	2.0
1001	The internal block diagram of 80286 contains ---- functional parts.	1.6 2.4 3.2 4.8	2.0
1002	The interrupt cycle ends when the ..... instruction is executed	1.IRET 2.CALL 3.PUSH 4.POP	3.0
1003	The intersection of CFL and regular language	1. Is always regular and context free 2. Is always regular 3. Is always context free 4. Need not be regular	3.0
1004	The IP is _____ bits in length	1. 8 bits 2. 4 bits 3. 16 bits 4. 32 bits	4.0
1005	The javascript statement a==b refers to	1. Both a and b are equal in value, type and reference address 2. Both a and b are equal in value 3. Both a and b are equal in value and type 4. There is no such statement	3.0

S.NO.	Questions	Choices	Answers
1006	The kernel keeps track of the state of each task by using a data structure called _____	1. Process control block 2. Process Status Word 3. Memory control block 4. None of these	1.0
1007	The language accepted by a Pushdown Automation in which the stack is limited to 10 items is best described as	1. Regular 2. context free 3. Recursive 4. Deterministic context free	1.0
1008	The language $L = \{0^i 2^{1^i} \mid i \geq 0\}$ over the alphabet {0,1, 2} is:	1. not recursive 2. is recursive and is a deterministic CFL 3. is a regular language 4. is not a deterministic CFL but a CFL	2.0
1009	The language that the computer can understand and execute is called _____	1. Machine language 2. Application software 3. System program 4. None of these	1.0
1010	The language $\{a^m b^n c^{m+n} \mid m, n \geq 1\}$ is	1. Regular language 2. context free but not regular 3. context sensitive but not context free 4. type-0 but not context sensitive	2.0
1011	The length of the shortest string NOT in the language (over $\Sigma = \{a, b\}$ ) of the following regular expression is _____.  $a^*b^*(ba)^*a^*$	1. 2. 2. 3. 4. 4. 5	2.0
1012	The length property belongs to which of the following objects?	1.Window 2.Element 3.History 4.Document	2.0
1013	The levels of hierarchy in inheritance helps to handle	1.flexibility 2.complexity 3.detailed information 4.security	4.0

S.NO.	Questions	Choices	Answers
1014	The lexical analysis for a modern language such as Java needs the power of which one of the following machine models in a necessary and sufficient sense?	1. Deterministic pushdown automata 2. Finite state automata 3. Non-deterministic pushdown automata 4. Turing machine	2.0
1015	The library function used to find the last occurrence of a character in a string is	1.strnstr() 2.laststr() 3.strchr() 4.strstr()	3.0
1016	The linear sequential model of software development is	1. A reasonable approach when requirements are well defined. 2. A good approach when a working program is required quickly. 3. The best approach to use for projects with large development teams. 4. An old fashioned model that cannot be used in a modern context.	1.0
1017	The linear sequential model of software development is also known as the	1. Classical life cycle model 2. Spiral model 3. Waterfall model 4. Incremental Model	3.0
1018	The load instruction is mostly used to designate a transfer from memory to a processor register known as ____.	1. Accumulator 2. Instruction Register 3. Program counter 4. Memory address Register	1.0
1019	The main purpose of a data link content monitor is to	1.detect problems in protocols 2.determine the type of switch used in a data link 3.determine the flow of data 4.determine the type of switching used in data link	1.0
1020	The maximum number of superkeys for the relation schema R(E,F,G,H) with E as the key is	1. 7 2. 8 3. 9 4. 6	2.0

S.NO.	Questions	Choices	Answers
1021	The maximum size of payload field in ethernet frame is	1. 1000 bytes 2. 1200 bytes 3. 1300 bytes 4. 1500 bytes	4.0
1022	The maximum window size for data transmission using the selective reject protocol with n-bit frame sequence numbers is:	1. $2^n$ 2. $2^{(n-1)}$ 3. $2^n - 1$ 4. $2^{(n-2)}$	2.0
1023	The MC 1488 is	1. TTL to RS 232C Level converter 2. RS-232 to TTL level converter 3. Bidirectional Level converter 4. Unidirectional level converter	1.0
1024	The mechanism that bring a page into memory only when it is needed is called _____	1. Segmentation 2. Fragmentation 3. Demand Paging 4. Page Replacement	3.0
1025	The members of a class, by default, are	1.private 2.protected 3.public 4.mandatory to specify	3.0
1026	The memory unit that communicates directly with the CPU is called the	1. main memory 2. Secondary memory 3. shared memory 4. auxiliary memory	1.0
1027	The microprocessor can read/write 16 bit data from or to _____	1. memory 2. I/O device 3. processor 4. register	1.0

S.NO.	Questions	Choices	Answers
1028	The microprocessor determines whether the specified condition exists or not by testing the _____	1. carry flag 2. conditional flag 3. common flag 4. sign flag	2.0
1029	The minimum number of arithmetic operations required to evaluate the polynomial $P(X) = X^5 + 4X^3 + 6^X + 5$ for a given value of X using only one temporary variable is.	1.6 2.9 3.8 4.7	4.0
1030	The minimum number of arithmetic operations required to evaluate the polynomial $P(X)=X^5+4X^3+6^X+5$ for a given value of X using only one temporary variable.	1.6 2.7 3.8 4.9	2.0
1031	The minimum number of nodes in a binary tree of depth d (root at level 0) is	1.2d - 1 2.d + 1 3.2d + 1 - 1 4.d	2.0
1032	The MMU (Memory Management Unit) is a	1. Hardware 2. Software 3. Firmware 4. Malware	1.0
1033	The nature of collaboration is such that all system requirements are defined by consensus of a committee of customers and developers.	1. TRUE 2. FALSE 3. 4.	2.0
1034	The node type for document returns the value ---.	1.2 2.9 3.3 4.8	4.0
1035	The number of auxiliary memory required for a Push Down Machine (PDM) to behave like a Finite State Machine (FSM) is	1. 0 2. 2 3. 4 4. 1	1.0
1036	The number of clock pulses needed to shift one byte of data from input to the output of a 4-bit shift register is.	1.10 2.12 3.16 4.32	3.0
1037	The number of components in a graph with n nodes and 1 edge are	1.n 2.n-2 3.n-1 4.n-3	3.0
1038	The number of components in a graph with n nodes and 1 edge are	1.n 2.n-2 3.n-1 4.n-3	3.0
1039	The number of counters available in internal block diagram of 8253 is	1.2 2.1 3.3 4.4	3.0
1040	The number of states in DFA is -----than the number of states in NFA for the same Language.	1. Greater 2. less 3. greater equal 4. equal	2.0
1041	The number of tokens in the following C statement is  printf("i = %d, &i = %x", i, &i);	2.0	4.0
1042	The operation of processing each element in the list is known as	1.Sorting 2.Merging 3.Inserting 4.Traversal	4.0
1043	The other name for MODE 0 in 8253 timer is	1.software triggered strobe 2.Programmable one shot 3.Interrupt on terminal count 4.Square wave rate generator	3.0

S.NO.	Questions	Choices	Answers
1044	The physical layer concerns with	1. bit-by-bit delivery 2. process to process delivery 3. application to application delivery 4. Hop by hop delivery	1.0
1045	The physical layer is responsible for	1. line coding 2. channel coding 3. modulation 4. all of the mentioned	4.0
1046	The physical layer translates logical communication requests from the _____ into hardware specific operations.	1. data link layer 2. network layer 3. trasnport layer 4. application layer	1.0
1047	The pop() method of the array in javascript does which of the following task ?	1. decrements the total length by 1 2. increments the total length by 1 3. prints the first element but no effect on the length 4. don't return the value of deleted element	1.0
1048	The portion of physical layer that interfaces with the media access control sublayer is called	1. physical signalling sublayer 2. physical data sublayer 3. physical address sublayer 4. none of the mentioned	1.0
1049	The postfix expression for * + a b - c d is?	1.ab + cd - * 2.ab + cd * - 3.ab + - cd * 4.ab cd + - *	1.0
1050	The postfix form of the expression (A+ B)*(C*D- E)*F / G is	1.AB + CD* E - *F *G / 2.AB + CD* E - F **G / 3.AB+ CD*E - FG /** 4.AB + CDE * - * F *G /	3.0
1051	The preorder traversal sequence of a binary search tree is 30,20,10,15,25,23,39,35,42. Which one of the following is the postorder traversal sequence of the same tree?	1.10,20,15,23,25,35,42,39,30 2.15,10,25,23,20,42,35,39,30 3.15,20,10,23,25,42,35,39,30 4.15,10,23,25,20,35,42,39,30	4.0

S.NO.	Questions	Choices	Answers
1052	The process of retaining data for future use is called	1. reading 2. writing 3. storing 4. coding	3.0
1053	The project planner examines the statement of scope and extracts all important software functions which is known as	1. Association 2. Decomposition 3. Planning process 4. ALL	3.0
1054	3.0	1. Another name for component-based development. 2. Another name for component-based development. 3. A high speed adaptation of the linear sequential model. 4. ALL	4.0
1055	The RDBMS terminology for a row is	1.attribute 2.relation 3.degree 4.tuple	4.0
1056	The recognizing capabilities of NDFSM and DFSM	1. may be different 2. must be different 3. must be same 4. none of the mentioned	3.0
1057	The relational model uses some unfamiliar terminology. A tuple is equivalence to a:	1.record 2.field 3.file 4.database	1.0
1058	The removal of process from active contention of CPU and reintroduce them into memory later is known as _____	1. Interrupt 2. Swapping 3. Signal 4. Thread	2.0
1059	The restriction while using the binary search is ?	1.List should be small in number 2.List should be large in number 3.List should be sorted 4.No restriction	3.0
1060	The result evaluating the postfix expression $(10\ 5 + 60\ 6 / * 8 -)$ is	1.284 2.142 3.213 4.71	2.0
1061	The searching technique that takes O (1) time to find a data is	1.Binary Search 2.Linear Search 3.Tree Search 4.Hashing	4.0

S.NO.	Questions	Choices	Answers
1062	The segment number S is legal if	1. S < STBR 2. S > STBR 3. S < STLR 4. S > STLR	3.0
1063	The simplest image processing technique is	1.coordinates transformation 2.intensity transformation 3.spatial transformation 4.domain transformation	1.0
1064	The situation when in a linked list START=NULL is	1.overflow 2.underflow 3.housefull 4.saturated	2.0
1065	The smallest element of an array's index is called its	1.lower bound 2.range D. extract 3.upper bound 4.ion	1.0
1066	The smallest finite automation which accepts the language {x   length of x is divisible by 3} has :	1. 2 states 2. 3 states 3. 4 states 4. 5 states	3.0
1067	The space factor when determining the efficiency of algorithm is measured by	1.Counting the average memory needed by the algorithm 2.Counting the minimum memory needed by the algorithm 3.Counting the maximum memory needed by the algorithm 4.Counting the maximum disk space needed by the algorithm	3.0
1068	4.0	1. Ends with the delivery of the software product 2. Is not more chaotic than the incremental model 3.Do not Include project risks evaluation during each iteration 4.Includes feasibility risks	2.0
1069	The spiral model was originally proposed by	1. IBM 2. Barry Boehm 3. Pressman 4. Royce	2.0
1070	The SQL BETWEEN operator	1. Specifies a range to test 2. specifies between which tables the data is present 3. specifies the columns between which columns the data is present 4. None of the options	1.0
1071	The starting address for counter 0 of 8253 is 0038H, then port address for control word register is	1.44H 2.49H 3.42H 4.46H	3.0

S.NO.	Questions	Choices	Answers
1072	The state diagram	<p>1. depicts relationships between data objects</p> <p>2. depicts functions that transform the data flow</p> <p>3. indicates how data are transformed by the system</p> <p>4. indicates system reactions to external events</p>	1.0
1073	The status that cannot be operated by direct instructions is	1.Z 2.Cy 3.P 4.AC	4.0
1074	The stream insertion operator should be overloaded as	1.friend functions 2.member function 3.non member functions 4.static functions	4.0
1075	The stream insertion operator should be overloaded as	1.friend functions 2.member function 3.non member functions 4.static functions	4.0
1076	The switching method fixes the path from source to destination is _____	1.circuit switching 2.Message Switching 3.Packet switching 4.Frame Relay	1.0
1077	The syntax of Eval is _____	1.[objectName].eval(numeriC) 2.[objectName].eval(string) 3. [EvalName].eval(string) 4.[EvalName].eval(numeriC)	2.0
1078	The system engineering process usually begins with the	<p>1. detailed view</p> <p>2. domain view</p> <p>3. 4.0 element view</p> <p>4. world view</p>	1.0
1079	1.0	<p>1. Function, performance and constraints of a computer-based system</p> <p>2. implementation of each allocated system</p> <p>3. element software architecture</p> <p>4.time required for system simulation</p>	3.0
1080	The tightest upper bound for the worst case performance of quicksort implemented on an array of n elements by always choosing the pivot as the central element is	1.T(n! logn) 2.O(n logn) 3.O(n^2) 4.O(n^3)	3.0
1081	The time complexity to build a heap with a list of n numbers is	1.O(n logn) 2.O(n) 3.O(log n) 4.O(n2)	2.0
1082	The topology with highest reliability is .....	1.ring topology 2.star topology 3.bus topology 4.mesh topology	4.0
1083	The total number of pins for the IC 8255 is	<p>1. 28</p> <p>2. 40</p> <p>3. 30</p> <p>4. 20</p>	2.0
1084	The two statements that can be used to change the flow of control are	1.switch and do-while 2.if and while 3.if and switch 4.break and continue	3.0
1085	The UNION SQL clause can be used with...	<p>1. none of the options</p> <p>2. the SELECT clause only</p> <p>3. the UPDATE clause only</p> <p>4. the DELETE and UPDATE clauses</p>	2.0

S.NO.	Questions	Choices	Answers
1086	The use of traceability tables helps to	1. debug programs following the detection of run-time errors 2. determine the performance of algorithm implementations 3. identify, control, and track requirements changes 4. Analyze design changes	3.0
1087	The value in AL=11011010 after the operation of CBW, the result is	1.AX=1101 1010 1111 1111 2.AX=1101 1010 0000 0000 3.AX=1111 1111 1101 1010 4.AX=0000 0000 1101 1010	3.0
1088	The virtual file system provides us the following	1. Object oriented file implementation 2. Structured programming file implementation 3. Linked file allocation 4. Indexed file allocation	2.0
1089	The work of EU is _____	1. encoding 2. decoding 3. processing 4. calculations	3.0
1090	2.0	1. size of the budget 2. size of the product being built 3. software process being used 4. stakeholders needs	3.0
1091	The worst case running time to search for an element in a balanced binary search tree with $n^*2^n$ elements is	1.theta(n log n) 2.theta(n*2^n) 3.theta(n) 4.theta(log n)	3.0
1092	The worst case running time to search for an element in a balanced in a binary search tree with $n^*2^n$ elements is	1.theta(n log n) 2.theta(n*2^n) 3.theta(n) 4.theta(log n)	3.0
1093	There are n stations in a slotted LAN. Each station attempts to transmit with a probability p in each time slot. What is the probability that only one station transmits in a given time slot?	1. $(1-p)^n \cdot p$ 2. $np(1-p)^{n-1}$ 3. $p(1-p)^{n-1}$ 4. $1-(1-p)^n$	2.0
1094	There is no connection setup phase in _____	1.Frame relay 2.Virtual Circuit Switching 3.Datagram 4.ATM	3.0
1095	Thrashing occurs _____	1. when excessive swapping takes place 2. when you thrash your computer 3. whenever deadlock occurs 4. when no swapping takes place	1.0

S.NO.	Questions	Choices	Answers
1096	Thresholding function in contrast stretching creates	1.binary image 2.high quality image 3.low quality image 4.enhanced image	1.0
1097	To create an alias Objects have to be passed by	1.address 2.reference 3.value 4.field by field	2.0
1098	To Delete an item from a Queue identify the correct set of statements	1.Q[REAR] = item; REAR ++ 2.item = Q[FRONT]; FRONT++ 3.item = Q[REAR]; FRONT ++ 4.item = Q[FRONT]; REAR ++	2.0
1099	To determine the architectural style or combination of styles that best fits the proposed system, requirements engineering is used to uncover	1. algorithmic complexity 2. characteristics and constraints 3. control and data 4. design patterns	2.0
1100	To interface memory with the microprocessor, connect register the lines of the address bus must be added to address lines of the _____ chip.	1. single 2. memory 3. multiple 4. triple	2.0
1101	To operate correctly, starting a ring counter requires	1.presetting all the flip-flops 2.clearing one flip-flop and presetting all the others 3.presetting one flip-flop and clearing all the others 4.clearing all the flip-flops	1.0
1102	Today the increased power of the personal computer has brought about an abandonment of the practice of team development of software	1. True 2. false 3. 4.	1.0
1103	Trigger is a	1.Statement that enables to start any DBMS 2.Statement that is executed by the user when debugging an application program 3.Statement that is executed automatically by the system as a side effect of a modification to the database 4.Condition the system tests for the validity of the database user	3.0
1104	Two computers C1 and C2 are configured as follows. C1 have IP address as 203.197.2.53 and netmask 255.255.128.0. C2 have IP address as 203.197.75.201 and netmask 255.255.192.0. Which one of the following statements is true?	1. C1 and C2 both assume they are on the same network 2. C2 assumes C1 is on same network, but C1 assumes C2 is on a different network 3. C1 assumes C2 is on same network, but C2 assumes C1 is on a different network 4. C1 and C2 both assume they are on different networks.	3.0
1105	Two sets of functional dependencies E and F are equivalent if $E^+ = F^+$ . This statement is	1. True 2. False 3. Cant Say 4.	1.0
1106	Updating a database means	1.deleting database 2.modifying or adding record occurrences 3.revising the file structure 4.reorganizing the database	2.0

S.NO.	Questions	Choices	Answers
1107	Usability questionnaires are most meaningful to the interface designers when completed by	1. customers 2. experienced programmers 3. product users 4. project managers	2.0
1108	Using linked list node representation, inserting a node in general tree is performed efficiently	1.not possible 2.by merging with an existing node 3.after introducing a new link 4.after converting to binary tree	2.0
1109	Using the 8259A, the INT input of the 8086 can be expanded to accomodate up to ----- prioritized interrupt inputs	1.60 2.64 3.16 4.32	2.0
1110	Usually a pure virtual function	1.Will be called only to delete an object 2.Is defined only in derived class 3.Will never be called 4.Has complete function body	2.0
1111	Virtual memory is the portion of _____.	1. RAM 2. Cache Memory 3. Hard Disc 4. None of these	3.0
1112	Voice privacy in GSM cellular telephone protocol is provided by	1. A5/2 cipher 2. b5/4 cipher 3. b5/6 cipher 4. b5/8 cipher	1.0
1113	VOLATILE MEMORY IS _____ ?	1.COMPACT DISK 2.HARD DISK 3.RANDOM ACCESS MEMORY 4.READ ONLY MEMORY	3.0
1114	1.0	1. architecture, interface, component 2. cost, risk, schedule 3. Information, function, behavior 4. NONE	1.0
1115	What assess the risk and your plans for risk mitigation and revise these when you learn more about the risk?	1. Risk monitoring 2. Risk planning 3. Risk analysis 4. Risk identification	1.0

S.NO.	Questions	Choices	Answers
1116	What characteristic of RAM memory makes it not suitable for permanent storage?	1. too slow 2. unreliable 3. it is volatile 4. too bulky	3.0
1117	What do the 'c' and 'v' in argv stands for?	1.'c' means argument count 'v' means argument vector 2.'c' means argument count 'v' means argument vertex 3.'c' means argument configuration 'v' means argument visibility 4.'c' means argument control 'v' means argument vector	1.0
1118	What does /[^]* regular expression indicate ?	1.Match one or more characters that are not open parenthesis 2.Match zero or more characters that are open parenthesis 3.Match zero or more characters that are not open parenthesis 4.Match one or more characters that are open parenthesis	2.0
1119	What does explode function in php do	1.Used to convert a string to an array 2.Used to split a given string into the number of chunks specified 3.Used to split a string by a string 4.Used to split string into two equal halves	1.0
1120	What does microprocessor speed depends on	1.Clock 2.Address bus width 3.Data bus width 4.Size of register	2.0
1121	What does parseFloat(9+10) evaluates to in JavaScript?	1.19 2.910 3.9109 4.91	1.0
1122	What does the following declaration mean? int (*ptr)[10];	1.ptr is array of pointers to 10 integers 2.ptr is a pointer to an array of 10 integers 3.ptr is an array of 10 integers 4.ptr is an pointer to array	2.0
1123	What elements will the following script output? <pre>&lt;?php \$array = array (true =&gt; 'a', 1 =&gt; 'b'); var_dump (\$array); ?&gt;</pre>	1. 1 => 'b' 2. True => 'a', a => 'b' 3. NULL 4. 0 => 'a', 1 => 'b'	3.0
1124	What gets printed? \$str = 'a\b\n'; echo \$str;	1.ab(newline) 2.a\b(newline) 3.a\b\n 4.a\b(newline)	3.0
1125	What happens if no file path is given in include() function?	1.PHP continues to execute the script. 2.Results in a fatal error 3.Include_path is made use of 4.It haults the script.	3.0
1126	What is a Software ?	1. Software is set of programs 2. Software is documentation and configuration of data 3. Software is set of programs and Software is documentation and configuration of data 4. Software is a set of documents.	3.0
1127	What is asynchronous counter.	1.none of them 2.A master clock triggers all the flip-flops at a time 3.all the flip-flop are combined to common clock 4.each flip-flop has its own clock	4.0
1128	What is data encryption standard (DES)?	1. block cipher 2. stream cipher 3. bit cipher 4. none of the mentioned	1.0

S.NO.	Questions	Choices	Answers
1129	What is interframe gap?	1. idle time between frames 2. idle time between frame bits 3. idle time between packets 4. none of the mentioned	1.0
1130	What is meant by parallel-loading the register?	1.Shifting the data in all flip-flops simultaneously 2.Loading data in two of the flip-flops 3.Loading data in all flip-flops at the same time 4.Momentarily disabling the synchronous SET and RESET inputs	3.0
1131	What is the best case for linear search	1.O(n) 2.O(1) 3.O(log n) 4.O(2n)	2.0
1132	What is the code to start displaying the time when document loads?	1.onload = displayTime; 2.window. = displayTime; 3.window.onload = displayTime; 4.window.onload = start;	3.0
1133	What is the condition for resetting(s=0) the S flag in status register?	1.MSB of the result is One 2.MSB of the result is zero 3_LSB of the result is one 4_LSB of the result is zero	2.0
1134	What is the correct CSS syntax for making all the elements bold?	1.p {font-weight:bold;} 2.p style="text-size:bold" 3.p {text-size:bold} 4.p style="font-size:bold">	1.0
1135	What is the correct way to connect to a MySQL database?	1.mysqli_db(host,username,password,dbname); 2.mysqli_connect(host,username,password,dbname); 3.mysqli_open(host,username,password,dbname); 4.mysqli_connect(,,)	2.0
1136	What is the data structures used to perform recursion?	1.list 2.queue 3.stack 4.Tree	3.0
1137	What is the default execution time set in set_time_limit()?	1.20 secs 2.30 secs 3.40 secs 4.50 secs	2.0
1138	What is the default size of a file set in upload_max_filesize ?	1.1 MB 2.2 MB 3.2.5 MB 4.3 MB	2.0
1139	What is the difference between echo and print?	1.They both behave the same. 2.Print can take multiple parameters where as echo cannot 3.Echo can take multiple parameters where as print cannot 4.Print is a function where as echo is not.	3.0
1140	What is the following style an example of? img[alt="Pie"]	1.Attribute Match 2.Exact Value Match 3.Contains Value Match 4.Subcode Match	3.0
1141	What is the highest normal form level satisfied by the following table design? R= {A1,A2,A3,A4,A4} F={A1-> A3, A3->A4} Key ={A1,A2}	1. 1 NF 2. 2 NF 3. 3 NF 4. BCNF	2.0
1142	What is the maximum number of reduce moves that can be taken by a bottom-up parser for a grammar with no epsilon- and unit-production (i.e., of type A -> e and A -> a) to parse a string with n tokens?	1. n/2 2. n-1 3. 2n-1 4. 2^n	2.0
1143	What is the maximum size of data that the application layer can pass on to the TCP layer below?	1. Any size 2. 2^16 bytes-size of TCP header 3. 2^16 bytes 4. 1500 bytes	1.0
1144	What is the minimum number of NAND gates required to implement A + AB' + AB'C?	1.0 2.1 3.2 4.3	1.0
1145	What is the most essential purpose of parenthesis in regular expressions?	1.Define pattern matching techniques 2.Define subpatterns within the complete pattern 3.Define portion of strings in the regular expression 4.All of the mentioned	2.0

S.NO.	Questions	Choices	Answers
1146	what is the need of segmenting the memory in 8086	1.Increase the memory accessibility 2.Increase the memory addressibility 3.easy to retrieve data 4.faster access	2.0
1147	What is the normal order of activities in which traditional software testing is organized? a. integration testing b. system testing c. unit testing d.validation testing	1. a, d, c, b 2. b, d, a, c 3. 3.0c, a, d, b 4. d, b, c, a	1.0
1148	What is the order of the stages in the waterfall mode?	1.  Requirements Definition, System & Software Design, Implementation & Unit Testing, Integration & System Testing, Operation & Maintenance.  2.  Requirements Definition, Integration & System Testing, System & Software Design, Implementation & Unit Testing, Operation & Maintenance.  3.  System & Software Design, Requirements Definition, Operation & Maintenance, Implementation & Unit Testing, Integration & System Testing.  4.  Implementation & Unit Testing, Requirements Definition, System & Software Design, Integration & System Testing, Operation & Maintenance.	1.0
1149	what is the output for the following function? LPAD(salary,10,'*')	1. 10***24000 2. *****24000 3. 24000***** 4. error	2.0
1150	What is the output?  #include <stdio.h> void main() { int a=3,b=2; a=a==b==0; printf("%d,%d",a,b); }	1. 1,2 2. 3,2 3. 0,0 4. 2,3	1.0
1151	What is the purpose of \$_SESSION[]?	1. Used to register a global variable 2. Used to initialize a session 3. Used to store variables of the current session 4. Used to initialize a cookie	3.0
1152	What is the result of the following code snippet? window.location === document.location	1.False 2.True 3.0 4.1	2.0
1153	What is the strpos() function used for?	1.Find the last occurrence of the string within a string 2.Find the first occurrence of the string within a string 3.Find both last and first occurrence 4.Search for all occurrence within a string	2.0
1154	What is the time complexity for binary search	1.O(log n) 2.O(n^2) 3.O(1) 4.O(2n)	1.0
1155	What is the time complexity for insertion sort	1.O(log n) 2.O(n) 3.O(n^2) 4.O(1)	3.0
1156	What is the worst case for Selection sort	1.O(log n) 2.O(2n) 3.O(n) 4.O(n^2)	4.0

S.NO.	Questions	Choices	Answers
1157	What is Wired Equivalent Privacy(WEP)?	1. security algorithm for ethernet 2. security algorithm for wireless networks 3. security algorithm for USB 4. None	2.0
1158	What is WPA?	1. wi-fi protected access 2. wired protected access 3. wired process access 4. wi-fi process access	1.0
1159	What is x+ mode in fopen() used for?	1. Read/Write. Creates a new file. Returns FALSE and an error if file already exists 2. Write only. Creates a new file. Returns TRUE and an error if file already exists 3. Read/Write. Opens and clears the contents of file 4. Write. Opens and clears the contents of file	1.0
1160	What keyword covers unhandled possibilities?	1.other 2.default 3.contingency 4.all	2.0
1161	What kind of schema it is?  <i>Student(sid, sname, dob, address, pincode)</i>	1.Relaional 2.Logical Schema 3.Conceptual Schema 4.External View	1.0
1162	What library do you need in order to process images?	1. GD library 2. ZIP library 3. Win32 API library 4. BOGUS library	1.0
1163	What type of declaration is this:  unsigned num;	1. num is unsigned integer 2. num is unsigned float 3. num is unsigned character 4. Invalid declaration	4.0
1164	What type of register would shift a complete binary number in one bit at a time and shift all the stored bits out one bit at a time?	1.PIPO 2.PISO 3.SIPO 4.SISO	4.0

S.NO.	Questions	Choices	Answers
1165	What will be the output? <pre>#include &lt;stdio.h&gt; int main() {     extern int ok;     printf("value of ok = %d",ok);     return 0; } extern int ok=1000;</pre>	1. Declaration Error 2. value of ok = 1000 3. value of ok = 0 4. Linking Error	2.0
1166	What will be the result of the expression 13 & 25	1.25 2.38 3.9 4.12	3.0
1167	What will be the status of a computer during storage compaction	1. High paging activity 2. Thrashing happens 3. Working set model developed 4. It will sit idle	4.0
1168	What will happen if the first argument of open() is omitted?	1.Error Page 2.Remains in the same page 3.about:blank 4.Open the first page in the history	3.0
1169	What will the following script output? <pre>&lt;?php \$array = array (1, 2, 3, 5, 8, 13, 21, 34, 55); \$sum = 0; for (\$i = 0; \$i &lt; 5; \$i++) { \$array += \$array[\$array[\$i]]; } echo \$sum; ?&gt;</pre>	1. 78 2. 19 3. NULL 4. 5	1.0
1170	What would be the output of the below code fragment? var a = ["s","a","v","e"]; document.write(a.join(""));	1.Undefined 2.save 3.vase 4.S	2.0
1171	1.0	1. true 2. false 3. 4.	1.0
1172	When a new row is inserted the constraints that can be violated are	1. Primary Key constraint 2. Referential Integrity Constraint 3. all of the options 4. Domain Constraint	1.0
1173	When a single item that triggers other data flow along one of many paths of a data flow diagram, characterizes the information flow.	1. 3.0high coupling 2. poor modularity 3. transaction flow 4. transform flow	1.0

S.NO.	Questions	Choices	Answers
1174	When displaying a web page, the application layer uses the	1. HTTP protocol 2. FTP protocol 3. SMTP protocol 4. IMAP Protocol	1.0
1175	When operated in slave mode, the PIC outputs its type number only if the cascaded address received on CAS0-CAS2 matches the address programmed in ----- bits D0-D2	1.ICW1 2.ICW2 3.ICW3 4.ICW4	4.0
1176	When the overall flow in a segment of a data flow diagram is largely sequential and follows straight-line paths, _____ is present.	1. 4.0 low coupling 2. good modularity 3. transaction flow 4. transform flow	3.0
1177	When the pre-order and post-order traversal of a Binary Tree generates the same output, the tree can have maximum	1.Three nodes 2.Two nodes 3.One node 4.Any number of nodes	3.0
1178	When there are infinite distinguishable strings then there cannot be a -----	1. automata 2. finite automata 3. regular expression 4. both finite automata and regular expression	2.0
1179	When there is an indefinite or an infinity value during an arithmetic value computation, javascript	1. Prints an exception error 2. Prints an overflow error 3. Displays “Infinity” 4. Prints the value as such	3.0
1180	When used with the datalist element, what is the list attribute in HTML5 used to accomplish?	1.Local databases 2.Drop down lists 3.Autocompletion 4.Global Databases	3.0
1181	When we concatenate two languages L1 and L2 recognized by machine M1 and M2 we obtain a machine with final state same as that of _____	1. M2 2. M1 and M2 3. M1 4. M1 or M2	2.0
1182	when you were asked to design a relation, you come across a situation, where passport number is to be included for the people. All the students wont be having passport. So what constraint you would be using?	1. Primary Key 2. Not Null 3. Default 4. Unique	4.0

S.NO.	Questions	Choices	Answers
1183	Which of the following is shared between all of the threads in a process? Assume a kernel level thread implementation	1. Register values 2. File descriptors 3. Scheduler priority 4. Local variables	2.0
1184	Which buffer is a parallel to serial converter that receives a parallel byte for conversion into a serial signal and further transmission onto the communication channel.	1. Transmit buffer 2. Receive buffer 3. Data bus buffer 4. Modem control	1.0
1185	Which character function can be used to return a specified portion of a character string?	1. INSTR 2. SUBSTRING 3. SUBSTR 4. POS	3.0
1186	Which command we use to set an image on background?	1. image-background:url('R4R_Logo.jpg') 2. background-image:url('R4R_Logo.jpg') 3. bg-image:url('R4R_Logo.jpg') 4. background-image:href('R4R_Logo.jpg')	2.0
1187	Which Data structure is best suited for the UNDO operation in Windows	1. Both Stack and Queues 2. Queues 3. Stack 4. Arrays	3.0
1188	Which database level is closest to the users?	1. External 2. Conceptual 3. Internal 4. Physical	1.0
1189	Which date function is used to obtain the date of next Wednesday	1. NEXT_DAY 2. LAST_DAY 3. NEXT_DATE 4. All of the options	3.0
1190	4.0	1. Architectural design 2. Component-level design 3. Data design 4. Interface design	3.0

S.NO.	Questions	Choices	Answers
1191	Which directory implementation is used in most of the Operating Systems?	1. Single level directory structure 2. Two level directory structure 3. Tree directory structure 4. Acyclic directory structure	3.0
1192	Which directory implementation method creates more dangling pointers?	1. Single level directories 2. Two level directories 3. Tree Structured Directories 4. Acyclic graph directories	4.0
1193	Which element is used to draw graphics images on a web page?	1.script 2.audio 3.embed 4.canvas	4.0
1194	Which granularity level of testing checks the behavior of module cooperation?	1. Unit Testing 2. Integration Testing 3. Acceptance Testing 4. Regression Testing	2.0
1195	Which header file should be included to use functions like malloc() and calloc()?	1.string.h 2.dos.h 3.memory.h 4.stdlib.h	4.0
1196	Which Instruction word is used to specify the number of stop bits, data bits, parity bit and the baud rate clock factor for the 8251A USART	1.Mode 2.Command followed by Mode 3.Command 4.Mode followed by command	4.0
1197	Which is a major problem with SQL?	1. SQL cannot support object-orientation 2. The same query can be written in many ways, each with vastly different execution plans. 3. SQL syntax is too difficult for non-computer professionals to use 4. SQL creates excessive locks within the database	2.0
1198	Which is not related to deadlock avoidance?	1. Safe State 2. Unsafe State 3. Safe Sequence 4. Resource sequence	3.0

S.NO.	Questions	Choices	Answers
1199	Which is one of the most important stakeholder from the following ?	1. Entry level personnel 2. Middle level stakeholder 3. Managers 4. Users of the software	4.0
1200	Which is the correct way to write a JavaScript array?	1. var txt = new Array(1:"tim",2:"kim",3:"jim") 2. var txt = new Array:1=("tim")2=("kim")3=("jim") 3. var txt = new Array("tim","kim","jim") 4. var txt = new Array="tim","kim","jim"	3.0
1201	Which is used to store critical pieces of data during subroutines and interrupts	1. Stack 2. Queue 3. Accumulator 4. Data register	1.0
1202	Which item is an example of a physical network address?	1.IP address 2.MAC address 3.Workstation name 4.www.proprofs.com	2.0
1203	Which JavaScript function is most useful for finding errors?	1.Confirm 2.Prompt 3.Debug 4.Alert	3.0
1204	Which method bypasses the CPU for certain types of data transfer?	1. Software interrupts 2. Interrupt-driven I/O 3. Polled I/O 4. Direct memory access (DMA)	4.0
1205	Which method is used for loading the driver in Java JDBC.	1. getDriver() method 2. class.forName() 3. createStatement() 4. getConnection()	1.0
1206	Which method is used to search for a substring?	1. stringVariable.substring(subString) 2. stringVariable.find(subString) 3. stringVariable.indexOf(subString) 4. stringVariable.indexOf(charAt(0))	3.0

S.NO.	Questions	Choices	Answers
1207	Which model can be selected if user is involved in all the phases of SDLC?	1. Waterfall Model 2. Prototyping Model 3. RAD Model 4. Prototyping Model and RAD model	3.0
1208	3.0	1. design model 2. implementation model 3. user model 4. client model	2.0
1209	Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?	1. CDMA 2. CSMA/CA 3. ALOHA 4. CSMA/CD	2.0
1210	Which of the below given sorting techniques has highest best-case runtime complexity?	1.bubble sort 2.insertion sort 3.quick sort 4.selection sort	3.0
1211	Which of the following (in file scope) leads to a compile-time error?	1.const int a=90; 2.const int f1() { return 100; } 3.int f2() const { return 200; } 4.const int f3( const int i ) { return 300; }	3.0
1212	Which of the following activities is not one of the four things that need to be accomplished by the generic planning task set?	1. 3.0Develop overall project strategy 2. Identify the functionality to deliver in each software increment 3. Create a detailed schedule for the complete software project 4. Devise a means of tracking progress on a regular basis	4.0
1213	Which of the following addressing modes are suitable for program relocation at run time?  1. Absolute addressing 2. Based addressing 3. Relative addressing 4. Indirect addressing	1. 1 and 4 2. 1 and 2 3. 2 and 3 4. 1,2 and 4	4.0
1214	Which of the following algorithm design technique is used in the quick sort algorithm?	1.Greedy method 2.Backtracking 3.Divide and conquer 4.Dynamic programming	3.0
1215	Which of the following algorithm is Minimum Spanning Tree in graph	1.Dijktra's algorithm 2.AVL Tree algorithm 3.Kruskal's algorithm 4.Merge algorithm	3.0
1216	Which of the following algorithm is used to find the shortest path between two nodes in graph	1.Dijktra's algorithm 2.Prim's algorithm 3.Kruskal's algorithm 4.Merge algorithm	1.0

S.NO.	Questions	Choices	Answers
1217	<p>Which of the following are decidable?</p> <p>I. Whether the intersection of two regular languages is infinite</p> <p>II. Whether a given context-free language is regular</p> <p>III. Whether two push-down automata accept the same language</p> <p>IV. Whether a given grammar is context-free</p>	<p>1. I and II</p> <p>2. I and IV</p> <p>3. II and III</p> <p>4. I and III</p>	3.0
1218	Which of the following attribute is needed for file upload via form?	<p>1. enctype='multipart/form-data'</p> <p>2. enctype='singlepart/data'</p> <p>3. enctype='file'</p> <p>4. enctype='form-data/file'</p>	1.0
1219	Which of the following can be a valid column name?	<p>1. Column</p> <p>2. 1966_Invoices</p> <p>3. Catch_#22</p> <p>4. #Invoices</p>	3.0
1220	Which of the following can't be done with client-side JavaScript?	1. Validating a form 2. Sending a form's contents by email 3. Storing the form's contents to a database file on the server 4. Testing the form	3.0
1221	Which of the following case does not exist in complexity theory?	1. Average case 2. Worst case 3. Best case 4. Null case	4.0
1222	Which of the following command words need to be programmed to operate a single PIC in fully nested mode with an 8086 microprocessor	1. ICW1 and ICW2 2. ICW1, ICW2 and ICW4 3. ICW2 and ICW3 4. ICW1 and ICW4	2.0
1223	Which of the following correctly describes C++ language?	1. Statically typed language 2. Dynamically typed language 3. Both Statically and dynamically typed language 4. Type-less language	4.0
1224	Which of the following describes a handle (as applicable to LR-parsing) appropriately?	<p>1. It is the position in a sentential form where the next shift or reduce operation will occur</p> <p>2. It is non-terminal whose production will be used for reduction in the next step</p> <p>3. It is a production that may be used for reduction in a future step along with a position in the sentential form where the next shift or reduce operation will occur</p> <p>4. It is the production p that will be used for reduction in the next step along with a position in the sentential form where the right hand side of the production may be found</p>	4.0
1225	Which of the following explains cookies nature?	1. Non Volatile 2. Volatile 3. Intransient 4. Transient	4.0
1226	Which of the following file access method needs a relative block number 'n'?	<p>1. Contiguous allocation</p> <p>2. Linked allocation</p> <p>3. Direct access</p> <p>4. Sequential access</p>	3.0

S.NO.	Questions	Choices	Answers
1227	Which of the following function is used to terminate the script execution in PHP?	1. break()  2. quit()  3. die()  4. exit()	3.0
1228	Which of the following function sets first n characters of a string to a given character?	1.strset() 2.strnset() 3.strinit() 4.strcset()	2.0
1229	Which of the following grammar rules violate the requirements of an operator grammar ? P, Q, R are nonterminals, and r, s, t are terminals.  1. $P \rightarrow Q\ R$ 2. $P \rightarrow Q\ s\ R$ 3. $P \rightarrow \epsilon$ 4. $P \rightarrow Q\ t\ R\ r$	1. 1 and 3 only  2. 1 only  3. 2 and 3 only  4. 1,2,3 and 4 only	1.0
1230	which of the following intermediate language can be used in intermediate code generation?	1.Postfix notation and Three address code 2.Quadruples 3.Triples 4.Infix notation and two address code	1.0
1231	Which of the following is a black box testing strategy?	1. All Statements Coverage  2. Control Structure Coverage  3. Cause-Effect Graphs  4. ALL	3.0
1232	Which of the following is a comparison operator in SQL?	1. =  2. LIKE  3. BETWEEN  4. all of the options	4.0
1233	Which of the following is a dynamic model that shows how the system interacts with its environment as it is used?	1. system context model  2. interaction model  3. environmental model  4. both system context and interaction	2.0

S.NO.	Questions	Choices	Answers
1234	Which of the following is a legal expression in SQL?	1. SELECT NULL FROM EMPLOYEE; 2. SELECT NAME FROM EMPLOYEE; 3. SELECT NAME FROM EMPLOYEE WHERE SALARY = NULL; 4. None of the options	2.0
1235	Which of the following is a problem of file management system?	1. difficult to update 2. lack of data independence 3. data redundancy 4. all options given	4.0
1236	Which of the following is a project scheduling method that can be applied to software development?	1. PERT 2. CPM 3. CMM 4. both PERT and CPM	4.0
1237	Which of the following is a wrong example of network layer	1.X.25 level 2-ISO 2.Source routing and Domains Naming Usenet 3.X.25 packet land protocols (PLP-ISO) 4.Internet protocol (I/P) ARPA NET	1.0
1238	which of the following is an incorrect definition inside a class ?	1.void * operator new(size_t size) {} 2.void * operator new() {} 3.void operator delete(void * ptr) {} 4.int operator ++() {}	2.0
1239	which of the following is an incorrect definition inside a class ?	1.void * operator new(size_t size) {} 2.void * operator new() {} 3.void operator delete(void * ptr) {} 4.int operator ++() {}	2.0
1240	Which of the following is false for cin?	1.It is a class of which stream is an object. 2.Using cin, the data can be read from user's terminal. 3.It represents standard input. 4.It is an object of istream class.	1.0
1241	Which of the following is golden rule for interface design?	1. Place the user in control 2. Reduce the user's memory load 3. Make the interface consistent 4. ALL	4.0
1242	Which of the following is lowest in memory hierarchy?	1. Cache memory 2. Secondary memory 3. Registers 4. RAM	3.0

S.NO.	Questions	Choices	Answers
1243	Which of the following is not a binary operator in relational algebra?	1. Join 2. Semi-Join 3. Assignment 4. Project	4.0
1244	Which of the following is not a form of memory ?	1. Instruction cache 2. Instruction register 3. Instruction opcode 4. Translation-a-side buffer	3.0
1245	Which of the following is not a property of a transaction?	1. atomicity 2. consistency 3. dirty read 4. durability	4.0
1246	Which of the following is not a SQA plan for a project?	1. evaluations to be performed 2. amount of technical work 3. audits and reviews to be performed 4. documents to be produced by the SQA group	2.0
1247	Which of the following is not a valid attribute of the INPUT tag?	1.TEXT 2.NAME 3.SIZE 4.MAXLENGTH	4.0
1248	Which of the following is NOT a valid PHP comparison operator?	1.!= 2.>= 3.&& 4.==	3.0
1249	Which of the following is not an example of infrastructure components that may need to be integrated into the software architecture?	1. Communications components 2. Database components 3. 4.0Interface components 4. Memory management components	2.0
1250	Which of the following is not characteristics of a relational database model	1.Complex logical relationships 2.Treelike structure 3.Tables 4.Records	2.0
1251	Which of the following is not considered as a risk in project management?	1. Specification delays 2. Product competition 3. Testing 4. Staff turnover	4.0

S.NO.	Questions	Choices	Answers
1252	Which of the following is not hardware:	1. Magnetic tape 2. Printer 3. VDU terminal 4. Assembler	4.0
1253	Which of the following is not one of Hooker's core principles of software engineering practice?	1. All design should be as simple as possible, but no simpler 2. A software system exists only to provide value to its users. 3. Pareto principle (20% of any product requires 80% of the effort) 4. 3.0 Remember that you produce others will consume	3.0
1254	Which of the following is not one of the principles of good coding?	1. Create unit tests before you begin coding 2. 3.0 Create a visual layout that aids understanding 3. Keep variable names short so that code is compact 4. Write self-documenting code, not program documentation	4.0
1255	Which of the following is not possible using PHP?	1.Deleting files from the server 2.Redirect a visitor to another page 3.Set the value of the window statusbar 4.Obtain the IP address of a Visitor	4.0
1256	Which of the following is not the attribute of FCB?	1. File permissions 2. Program Counter 3. Access Control List 4. Pointers to file control blocks	4.0
1257	Which of the following is not the characteristic of constructor?	1.They should be declared in the public section. 2.They do not have return type. 3.They can not be inherited. 4.They can be virtual.	4.0
1258	Which of the following is the best type of module cohesion?	1. Functional Cohesion 2. Temporal Cohesion 3. Functional Cohesion 4. Sequential Cohesion	3.0
1259	Which of the following is the worst type of module coupling?	1. Control Coupling 2. Stamp Coupling 3. External Coupling 4. Content Coupling	3.0

S.NO.	Questions	Choices	Answers
1260	Which of the following is TRUE?	1. Every subset of a regular set is regular. 2. Every finite subset of a non-regular set is regular. 3. Every finite subset of a non-regular set is regular. 4. Infinite union of finite sets is regular.	1.0
1261	Which of the following is true?	1. The complement of a recursive language is recursive. 2. The complement of a recursively enumerable language is recursively enumerable 3. The complement of a recursive language is either recursive or recursively enumerable 4. The complement of a context-free language is context-free	1.0
1262	Which of the following is TRUE?	1. Every relation in 2NF is also in BCNF 2. A relation R is in 3NF if every non-prime attribute of R is fully functionally dependent on every key of R 3. Every relation in BCNF is also in 3NF 4. No relation can be in both BCNF and 3NF	3.0
1263	Which of the following is true?	1. Segmentation is faster than paging 2. Paging is faster than segmentation 3. Pages are unequal sized pieces 4. Segments are equal sized pieces	2.0
1264	Which of the following is useful in traversing a given graph by breadth first search?	1.List 2.Queue 3.Set 4.Stack	2.0
1265	Which of the following is valid reason for collecting customer feedback concerning delivered software?	1. Do not allows developers to make changes to the delivered increment 2. 2.0Delivery schedule can be revised to reflect changes 3. Developers can not identify changes to incorporate into next increment 4.Delivery schedule can't be revised to reflect changes	4.0
1266	Which of the following is/are the DDL statements?	1. Create 2. Drop 3. Alter 4. All of the options	4.0

S.NO.	Questions	Choices	Answers
1267	Which of the following languages are context-free?  L1 = { $a^m b^n a^m b^n$   m, n ≥ 1} L2 = { $a^m b^n a^m b^n$   m, n ≥ 1} L3 = { $a^m b^n$   m = 2n + 1}	1.L1 and L2 only 2. L1 and L3 only 3. L3 only 4. L1 only	2.0
1268	Which of the following memory allocation scheme suffers from External fragmentation?	1. Segmentation 2. Pure Demand Paging 3. swapping 4. paging	1.0
1269	Which of the following most certainly implies the need for an entire table to implement?	1. A binary relationship 2. A ternary relationship 3. A recursive relationship 4. An identifying relationship	4.0
1270	Which of the following name does not relate to stacks?	1.FIFO lists 2.LIFO list 3.Push-down lists 4.Piles	1.0
1271	Which of the following operation is used if we are interested in only certain columns of a table?	1. PROJECTION 2. SELECTION 3. UNION 4. JOIN	1.0
1272	Which of the following operator can be overloaded through friend function?	1.-> 2.= 3.( ) 4.*	4.0
1273	Which of the following operators has an associativity from Right to Left?	1.+= 2.== 3.<< 4.<=	3.0
1274	Which of the following pattern is the basis of interaction management in many web-based systems?	1. architecture 2. repository pattern 3. model-view-controller 4. different operating system	3.0
1275	Which of the following problems is undecidable?	1. Membership problem for CFGs 2. Ambiguity problem for CFGs. 3. Finiteness problem for FSAs 4. Equivalence problem for FSAs.	2.0

S.NO.	Questions	Choices	Answers
1276	Which of the following problems is undecidable?	1. Deciding if a given context-free grammar is ambiguous. 2. Deciding if a given string is generated by a given context-free grammar 3. Deciding if the language generated by a given context-free grammar is empty 4. Deciding if the language generated by a given context-free grammar is finite.	1.0
1277	Which of the following process is concerned with analyzing the costs and benefits of proposed changes?	1. Change management 2. Version management 3. System building 4. Release management	1.0
1278	Which of the following property allows you to specify an element's position with respect to the browser window?	1.relative 2.fixed 3.static 4.absolute	1.0
1279	Which of the following risk is the failure of a purchased component to perform as expected?	1. Product risk 2. Project risk 3. Business risk 4. Programming risk	1.0
1280	Which of the following risks are derived from the organizational environment where the software is being developed?	1. People risks 2. Technology risks 3. Estimation risks 4. Organizational risks	4.0
1281	Which of the following risks are derived from the software or hardware technologies that are used to develop the system?	1. Managerial risks 2. Technology risks 3. Estimation risks 4. Organizational risks	2.0
1282	Which of the following statements about queues is incorrect?	1.Queues are first-in, first-out (FIFO) data structures 2.Queues can be implemented using arrays 3.Queues can be implemented using linked lists 4.New nodes can only be added at the front of the queue	4.0
1283	Which of the following statements are true in c++?	1.Class members are public by default. 2.Structures can not have functions as members. 3.Classes can not have data as public members. 4.Structures can have functions	1.0

S.NO.	Questions	Choices	Answers
1284	<p>Which of the following statements are TRUE?</p> <p>I. There exist parsing algorithms for some programming languages whose complexities are less than <math>O(n^3)</math>.      II. A programming language which allows recursion can be implemented with static storage allocation.      III. No L-attributed definition can be evaluated in the framework of bottom-up parsing.      IV. Code improving transformations can be performed at both source language and intermediate code level.</p>	<p>1. I and II      2. I and IV      3. III and IV      4. I, II and III</p>	2.0
1285	Which of the following statements best describes the operation of a synchronous up-/down-counter?	<p>1. In general, the counter can be reversed at any point in its counting sequence. 2. The counter can be reversed, but must be reset before counting in the other direction. 3. The counter can count in either direction, but must continue in that direction once started. 4. The count sequence cannot be reversed, once it has begun, without first resetting the counter to zero.</p>	1.0
1286	Which of the following statements explains portability in non-functional requirements?	<p>1. It is a degree to which software running on one platform can easily be converted to run on another platform.      2. It can be enhanced by using languages, OS' and tools that are universally available and standardized.      3. The ability of the system to behave consistently in a user-acceptable manner when operating within the environment for which the system was intended.      4. It is a degree to which software running on one platform can easily be converted to run on another platform as well as it can be enhanced by using languages, OS' and tools that are universally available and standardized.</p>	1.0
1287	Which of the following statements is false?	<p>1. Every NFA can be converted to an equivalent DFA      2. Every non-deterministic Turing machine can be converted to an equivalent deterministic Turing machine      3. Every regular language is also a context-free language      4. Every subset of a recursively enumerable set is recursive</p>	4.0
1288	Which of the following statements is NOT valid about operator overloading?	<p>1. Overloaded operator must have at least one operand of its class type.      2. Only existing operators can be overloaded. 3. The overloaded operators follow the syntax rules of the original operator. 4. The arity of the operator can be changed</p>	3.0
1289	Which of the following statements is NOT valid about operator overloading?	<p>1. Overloaded operator must have at least one operand of its class type.      2. Only existing operators can be overloaded. 3. The overloaded operators follow the syntax rules of the original operator. 4. The arity of the operator can be changed</p>	4.0
1290	Which of the following statements is true?	<p>1. An INPUT field of type password provides excellent security 2. An INPUT field of type password provides a masked field but no real security 3. A maximum length can not be set for a password field 4. A password INPUT field can only be included in a FORM that uses the get METHOD</p>	4.0
1291	Which of the following statements is true?	<p>1. Quadruples have some disadvantages over triples notation for an optimizing compiler 2. For optimizing compiler, moving a statement that defines a temporary value requires us to change all references to that statements. It is an overhead for triples notation 3. For optimizing compiler, triples notation has important benefit where statements are often moved around as it incurs no movements or change 4. All the statements are false</p>	2.0
1292	Which of the following statements is/are TRUE for an undirected graph? P: Number of odd degree vertices is even, Q: Sum of degrees of all vertices is even	1. P Only 2. Q Only 3. Both P and Q 4. Neither P nor Q	1.0
1293	Which of the following statements is/are TRUE for an undirected graph? P: Number of odd degree vertices is even, Q: Sum of degrees of all vertices is even	1. P Only 2. Q Only 3. Both P and Q 4. Neither P nor Q	1.0

S.NO.	Questions	Choices	Answers
1294	Which of the following strategies means that the impact of the risk will be reduced?	1. Avoidance strategies 2. Minimization strategies 3. Contingency plans 4. ALL	2.0
1295	Which of the following system calls results in the sending of SYN packets?	1. socket 2. bind 3. listen 4. connect	4.0
1296	Which of the following term is best defined by the statement “The creation of a new codeline from a version in an existing codeline”?	1. Branching 2. Merging 3. Codeline 4. Mainline	1.0
1297	Which of the following term is best defined by the statement: “Derive traceability information to maximize information hiding in the design.”?	1. Underestimated development time 2. Organizational restructuring 3. Requirements changes 4. None	3.0
1298	Which of the following term is best defined by the statement: “The underlying technology on which the system is built is superseded by new technology.”?	1. Technology change 2. Product competition 3. Requirements change 4. None	1.0
1299	Which of the following term is best defined by the statement: “There will be a change of organizational management with different priorities.”?	1. Staff turnover 2. Technology change 3. Management change 4. Product competition	3.0

S.NO.	Questions	Choices	Answers
1300	Which of the following traits need to exist among the members of an agile software team?	1. Competence 2. Decision-making ability 3. Mutual trust and respect 4. ALL	4.0
1301	Which of the following tree may have smaller elements in its left subtree and larger element in its right subtree	1.B+ Tree 2.AVL Tree 3.Binary tree 4.Binary search Tree	4.0
1302	Which of the following ways below is correct to write a CSS?	1.p {color:red;text-align:center}; 2.p {color:red;text-align:center} 3.p {color:red;text-align:center;} 4.p (color:red;text-align:center;)	3.0
1303	Which of the following would cause quickest access	1. direct access from a magnetic tape 2. direct access from a hard disk 3. direct access from a floppy disk 4. direct access from a cassette tape	2.0
1304	Which of the regular expressions given below represent the following DFA?  I) $0^*1(1+00^*)^*$ II) $0^*1^*1+1^*0^*$ III) $(0+1)^*$	1. I and II only 2. I and III only 3. II and III only 4. I,II,III	3.0
1305	Which of these contains an executable statement?	1.// var a = 0; // var b = 0; 2./* var a = 0; // var b = 0; */ 3./* var a = 0; */ var b = 0; 4.// var a = 0; /* var b = 0; */	3.0
1306	Which of these does not belong to the basic principles of good product design ?	1. Adequacy 2. Feasibility 3. Portability 4. Economy	4.0
1307	Which of these framework activities is not normally associated with the user interface design processes?	1. cost estimation 2. interface construction 3. interface validation 4. user and task analysis	3.0

S.NO.	Questions	Choices	Answers
1308	Which of these is incorrect ?	1. Software engineering belongs to Computer science 2. Software engineering is a part of more general form of System Engineering 3. Computer science belongs to Software engineering 4. Software engineering is concerned with the practicalities of developing and delivering useful software	3.0
1309	Which of these is not an element of an object-oriented analysis model?	1. Behavioral elements 2. Class-based elements 3. Data elements 4. Scenario-based elements	4.0
1310	Which of these sets of HTML5 attributes can be used for form validation?	1.required, pattern, min and max 2.auto, fixed, number 3.number, text, currency 4.input, radio,checkbox	1.0
1311	Which one is not a self complementary code?	1.8 4 -2 -1 2.4 8 1 2 3.4 4 3 -2 4.2 4 2 1	3.0
1312	Which one of the following is currently the most popular data model?	1.Network Model 2.Object Model 3.Notation Model 4.Relational Model	4.0
1313	Which one of the file allocation scheme cannot be adopted for dynamic storage allocation	1. Linked allocation 2. Fixed Indexed allocation 3. Variable Indexed allocation 4. Contiguous allocation	2.0
1314	Which one of the following algorithm is not used in asymmetric-key cryptography?	1. RSA algorithm 2. diffie-hellman algorithm 3. electronic code book algorithm 4. ECC	3.0
1315	Which one of the following allows a user at one site to establish a connection to another site and then pass keystrokes from local host to remote host?	1. HTTP 2. FTP 3. telnet 4. none of the mentioned	3.0
1316	Which one of the following correctly describes the meaning of 'namespace' feature in C++?	1.namespaces provide facilities for organizing the names in a program to avoid name clashes 2.Namespaces refer to space between the names in a program 3.Namespaces refer to the memory space allocated for names used in a program 4.Namespaces refer to the space for names.	1.0

S.NO.	Questions	Choices	Answers
1317	Which one of the following event is not possible in wireless LAN.	1. collision detection 2. Acknowledgement of data frames 3. multi-mode data transmission 4. none of the mentioned	1.0
1318	Which one of the following is a cryptographic protocol used to secure HTTP connection?	1. stream control transmission protocol (SCTP) 2. transport layer security (TSL) 3. explicit congestion notification (ECN) 4. resource reservation protocol	2.0
1319	Which one of the following is a requirement that fits in a developer's module ?	1. Availability 2. Testability 3. Usability 4. Flexibility	2.0
1320	Which one of the following is an internet standard protocol for managing devices on IP network?	1. dynamic host configuration protocol 2. simple network management protocol 3. internet message access protocol 4. media gateway protocol	2.0
1321	Which one of the following is FALSE?	1.  A basic block is a sequence of instructions where control enters the sequence at the beginning and exits at the end.  2.  Available expression analysis can be used for common subexpression elimination.  3.  Live variable analysis can be used for dead code elimination.  4.  $x = 4 * 5 \Rightarrow x = 20$ is an example of common subexpression elimination.	2.0

S.NO.	Questions	Choices	Answers
1322	Which one of the following is FALSE?	1. There is unique minimal DFA for every regular language 2. Every NFA can be converted to an equivalent PDA 3. Complement of every context-free language is recursive 4. Every nondeterministic PDA can be converted to an equivalent deterministic PDA	4.0
1323	Which one of the following is not a step of requirement engineering?	1. Elicitation 2. Design a model 3. Analysis 4. Documentation	2.0
1324	Which one of the following is not a windows file system?	1. FAT 2. NTFS 3. FAT32 4. EXT	4.0
1325	Which one of the following is not an application layer protocol?	1. media gateway protocol 2. dynamic host configuration protocol 3. resource reservation protocol 4. session initiation protocol	3.0
1326	Which one of the following is not correct?	1. application layer protocols are used by both source and destination devices during a communication session 2. application layer protocols implemented on the source and destination host must match 3. both the options 4.	3.0
1327	Which one of the following is not the process of Deadlock Recovery?	1. Killing a process 2. Rollback to the previous state 3. Selecting a Victim 4. Delaying the process	4.0

S.NO.	Questions	Choices	Answers
1328	Which one of the following is not the responsibility of the DBA?	1.provide security 2.develop applications 3.periodically tunes the database 4.restores the system after a failure	2.0
1329	Which one of the following is the recurrence equation for the worst case time complexity of the Quicksort algorithm for sorting $n \geq 2$ numbers? In the recurrence equations given in the options below, c is a constant.	1. $T(n)=2T(n/2)+cn$ 2. $T(n)=T(n-1)+T(0)+cn$ 3. $T(n)=T(n/2)+cn$ 4. $T(n)=2T(n-2)+cn$	1.0
1330	Which one of the following is the very first task executed by a session enabled page?	1.Delete the previous session 2.Start a new session 3.Check whether a valid session exists 4.Handle the session	3.0
1331	Which one of the following is True at any valid state in shift-reduce parsing?	1. Viable prefixes appear only at the bottom of the stack and not inside 2. Viable prefixes appear only at the top of the stack and not inside 3. The stack contains only a set of viable prefixes 4. The stack never contains viable prefixes	3.0
1332	Which one of the following is used as the start frame delimiter in ethernet frame?	1. 10101010 2. 10101011 3. 00000000 4. 11111111	2.0
1333	Which one of the following languages over the alphabet {0,1} is described by the regular expression: $(0+1)^*0(0+1)^*0(0+1)^*$ ?	1. The set of all strings containing the substring 00. 2. The set of all strings containing at most two 0's. 3. The set of all strings containing at least two 0's. 4. The set of all strings that begin and end with either 0 or 1.	3.0
1334	Which one of the following models is not suitable for accommodating any change?	1. Build & Fix Model 2. Prototyping Model 3. RAD model 4. Waterfall Model	4.0
1335	Which one of the following modulation scheme is supported by WiMAX?	1. binary phase shift keying modulation 2. quadrature phase shift keying modulation 3. quadrature amplitude modulation 4. all of the mentioned	4.0

S.NO.	Questions	Choices	Answers
1336	Which one of the following protocol delivers/stores mail to receiver server?	1. simple mail transfer protocol 2. post office protocol 3. internet mail access protocol 4. hypertext transfer protocol	1.0
1337	Which one of the following regular expressions over {0, 1} denotes the set of all strings not containing 100 as a substring (a) 0*(11)*0* (b) (0*1010)* (c) 0*1*010 (d) 0*(10)*01*	1. a and b 2. b and c 3. only c 4. only b	14.0
1338	Which one of the following statements is FALSE?	1. Any relation with two attributes is in BCNF 2. A relation in which every key has only one attribute is in 2NF 3. A prime attribute can be transitively dependent on a key in a 3 NF relation. 4. A prime attribute can be transitively dependent on a key in a BCNF relation.	4.0
1339	Which one of the following uses 8B/6T encoding scheme	1.100 Base-T1 2.100 Base-T4 3.100 Base TX 4.100 Base-FX	2.0
1340	Which property is used to obtain browser vendor and version information?	1.modal 2.version 3.browser 4.navigator	4.0
1341	Which protocol is a signalling communication protocol used for controlling multimedia communication sessions?	1. session initiation protocol 2. session modelling protocol 3. session maintenance protocol 4. none of the mentioned	1.0
1342	Which question no longer concerns the modern software engineer?	1. Why does computer hardware cost so much? 2. Why does software take a long time to finish? 3. Why does it cost so much to develop a piece of software? 4. Why can't software errors be removed from products prior to delivery?	1.0
1343	Which searching technique is better, if unsorted array is given as input	1.Radix search 2.Linear search 3.Binary search 4.Indexd sequential search	2.0
1344	Which segments of a seven-segment display would be active to display the decimal digit 2?	1.a, c, d, f, and g 2.a, b, c, d, and g 3.a, b, d, e, and g 4.a, b, c, d, e, and f	3.0

S.NO.	Questions	Choices	Answers
1345	Which SQL functions is used to count the number of rows in a SQL query?	1. Sum 2. Count 3. Max 4. ALL	2.0
1346	Which statement does not require semicolon?	1. goto xyz 2. int x = 20 3. #define MAX 100 4. do {... }while(count<=100)	3.0
1347	Which statement is true:	1.Standard form must consists of minterms 2.All standard form are canonical forms 3.Canonical form can consist of a term with a literal missing 4.All canonical form are standard form	1.0
1348	Which transmission media has the highest transmission speed in a network?	1.coaxial cable 2.twisted pair cable 3.optical fiber 4.electrical cable	3.0
1349	Which of these is a stand alone tag?	1.form 2.frame 3.table 4.anchor	2.0
1350	While inserting the elements 71,65,84,69,67,83 in an empty binary search tree(BST)in the sequence shown, the element in the lowest level is	1.65 2.67 3.83 4.69	2.0
1351	Why 'critical section' is not imposed on file systems instead 'file locks' when more than one process tries to access the file?	1.Time consuming 2.Process entered in to critical section may close the file 3.we cannot satify the three conditions of mutual exclusion, progress and bounded waiting 4.we cannot use semaphore	3.0

S.NO.	Questions	Choices	Answers
1352	WiMAX MAC layer provides an interface between	1. higher transport layers and physical layer 2. application layer and network layer 3. data link layer and network layer 4. none of the mentioned	1.0
1353	WiMAX provides	1. simplex communication 2. half duplex communication 3. full duplex communication 4. none of the mentioned	2.0
1354	WiMAX stands for	1. wireless maximum communication 2. worldwide interoperability for microwave access 3. worldwide international standard for microwave access 4. none of the mentioned	2.0
1355	WiMAX uses the	1. orthogonal frequency division multiplexing 2. time division multiplexing 3. space division multiplexing 4. all of the mentioned	1.0
1356	Wireless transmission can be done via	1. radio waves 2. microwaves 3. infrared 4. all of the mentioned	4.0
1357	Write Through technique is used in which memory for updating the data _____.	1. Virtual memory 2. Main memory 3. Auxiliary memory 4. Cache memory	4.0
1358	You can find the element you want to manipulate by _____ way?	1.getElementById() 2.getElementsByTagName() 3.getElementsByClassName() 4.All of the these	4.0

S.NO.	Questions	Choices	Answers
1359	You have an array of n elements. Suppose you implement quicksort by always choosing the central element of the array as the pivot. Then the tightest upper bound for the worst case performance is	1.O(log n) 2.O(n) 3.O( $n^2$ ) 4.O(1)	3.0
1360	You have to sort a list L consisting of a sorted list followed by a few “random” elements. Which of the following sorting methods would be especially suitable for such a task?	1.Bubble sort 2.Selection sort 3.Quick sort 4.Insertion sort	4.0
1361	You need to check the size of a file in PHP function. \$size = X(filename); Which function will suitably replace 'X'?	1. filesize 2. size 3. sizeoffile 4. getSize	1.0
1362	‘Aging registers’ are _____.	1. Counters which indicate how long ago their associated pages have been referenced. 2. Registers which keep track of when the program was last accessed 3. Counters to keep track of last accessed instruction 4. Counters to keep track of the latest data structures referred	1.0

1. The major source of data for other systems are:

**ANS. Transaction processing systems**

2. A very dilute solution is prepared by dissolving ' $x_1$ ' mole of solute in ' $x_2$ ' mole of a solvent. The mole fraction of solute is approximately equal to

ANS.  $x_1/x_2$

3. Finite automata recognizes -----grammars

Ans. Regular

4. The system having memory elements are called.

Ans. Flip-Flop

5. Sets in morphology are referred to as image's

A. objects

6. An unambiguous grammar has

**has same leftmost and rightmost derivation**

7. A metal oxide is reduced by heating it in a stream of hydrogen. After complete reduction, it is found that 3.15 gm of the oxide has yielded 1.05 gm of the metal. It may be inferred that the **ANS: equivalent weight of the metal is 4**

8. Thresholding function in contrast stretching creates ANS: binary image

9. What is an Accumulator? In a computer's central processing unit, an accumulator is a register in which intermediate arithmetic and logic results are stored.

- 10.

All member functions are \_\_\_\_\_ to its class by default. **ANS: INLINE AND private**

- 11.

Having more than one constructor in a class is **ANS: Constructor Overloading**

- 12.

Which directory implementation is used in most Operating System? **ANS Tree directory structure**

13

Given an arbitrary non-deterministic finite automaton (NFA), with N states, the maximum number of states in an equivalent minimized DFA is at least.

ANS  $2^N$

14. In a BCD-to-seven-segment converter, why must a code converter be utilized?

**ANS. to convert the 4-bit BCD into 7-bit code**

**15.**

The simplest image processing technique is

Ans : preprocessing , enhancement, segmentation, extraction, classification

**17.**

Which of the following is a complete function? **ANS.** `int funct(int x) { return x=x+1; }`

**18.**

Which of the following scheduling algorithm comes under preemptive scheduling?

**19.**

Ans : round robin

How many select lines would be required for an 8-line-to-1-line multiplexer?

**21.**

**ANS:3**

**22.**

Weight of 56 litres of ammonia at N.T.P. is \_\_\_\_\_ gm. **ANS: 42.5**

Given the language  $L = \{ab, aa, baa\}$ , which of the following strings are in  $L^*$ ? **ANS (C)** 1, 2 and 4

....1) abaabaaabaa

....2) aaaabaaaa

....4) baaaaabaa

**23.** First derivative approximation says that values of constant intensities must be **ANS: 0**

**23.** Heat of \_\_\_\_\_ of a fuel is called its calorific value.

24. External Fragmentation of the file system ..... when free memory is separated into small blocks and is interspersed by allocated memory. It is a weakness of certain storage allocation algorithms

25.

Some code optimizations are carried out on the intermediate code because

**ANS: they enhance the portability of the compiler to other target processors**

26.

Overloading the function operator..... you are creating an operator function that can be passed an arbitrary number of parameters.

27.

28. Functions that combines to produce  $f(x,y)$  **ANS: illuminance and reflectance**

One can safely state that the output lines for a demultiplexer are under the direct control of the: **ANS input data select lines**.

29.

30. The following is not a Relational Model Constraint **ANS:Domain,Referential Entity,Key**

What is the maximum number of reduce moves that can be taken by a bottom-up parser for a  
**ANS: ) n-1**

31. Maximum work that could be secured by expanding the gas over a given pressure range is the \_\_\_\_\_ work. ANS: **isothermal**

32. Reflection and translation of the image objects are based on **ANS: Structuring Element**

33. A property which is not true for classes is that they **ANS: bring together all aspects of an entity in one place.**

34. A friend function to a class A cannot access **ANS: The data members of the derived class of A**

35.

The term m45 should be made up of at least \_\_\_\_\_ literals.

36. The type of Interpolation where for each new location the intensity of the immediate pixel is assigned is **ANS: nearest neighbour interpolation**

37. Relations produced from an E - R model will always be in **ANS: 3 NF**

38. High \_\_\_\_\_ is an undesirable property for a good refrigerant. **ANS: viscosity**

39. Which one of the following is a top-down parser? **ANS: Recursive descent parser.**

40. Transforming the difference between adjacent pixels is called **ANS: mapping**

41. ASCII, EBCDIC, and Unicode are examples of ----- **ANS: popular character coding systems.**

42. What will be the output of the following code #include void main() { int i; int a[3]=5; for (i=2;i>=0;i--) { printf(?%d\n?,a[i]); } } **ANS: Error**

43.

$$\frac{\Delta H}{R} \left[ \frac{1}{T_1} - \frac{1}{T_2} \right]$$

The ratio of equilibrium constants ( $K_p_2/K_p_1$ ) at two different temperatures is given by

44. A primary key, if combined with a foreign key creates **ANS: a) Parent-Child relation ship between the tables that connect them**

Which of the following derivations does a top-down parser use while parsing an input string? The input is assumed to be scanned in left to right order.

**(a) Leftmost derivation**

A cyclic engine exchanges heat with two reservoirs maintained at 100 and 300°C respectively. The maximum work (in J) that can be obtained from 1000 J of heat extracted from the hot reservoir is **ANS: 349**

---

47. SR Flip flop can be converted to T-type flip-flop if ? **ANS: S and R are connected to Q and Q' respectively**

---

48. In C++, dynamic memory allocation is achieved with the operator **ANS: new**

---

49. An LALR(1) parser for a grammar G can have shift-reduce (S-R) conflicts if and only if **ANS: the LR(1) parser for G has S-R conflicts**

---

50. Network models are complicated by physical keys, but the relation model **is Ans : OPTION A, faster because it uses logical keys**

51. Images quantised with insufficient brightness levels will lead to the occurrence of

**ANS: False Contours**

52. An advantage of the database approach is **ANS: Data is integrated and can be accessed by multiple programs.**

53. Multiplication of a positive integer by a power of two can be replaced by left shift, which executes faster on most machines. This is an example of .....bitwise operators

53. Which is not a proper prototype? **ANS: double funct(char x)**
54. With increasing flow rate, the hydraulic efficiency of a centrifugal pump **ANS: monotonically decreases.**
55. Register is a ? **ANS: Temporary storage unit within the CPU having dedicated or general purpose use**
56. A. If the inner region of the object is textured then approach we use is **ANS: similarity**
57. For which of the following flip-flop the output clearly defined for all combinations of two inputs? **ANS:J-K FLIP FLOP**
58. Variables inside parenthesis of functions declarations have \_\_\_\_\_ level access. **ANS: Local**
59. When we concatenate two languages L1 and L2 recognized by machine M1 and M2 we obtain a machine with final state same as that of ..... **L1 U L2**
- 60.

61. Which of the following is not characteristics of a relational database model **ANS: treelike structure**
62. Dimension of absolute viscosity is **ANS: ML<sup>-1</sup>T<sup>-1</sup>**
63. Intensity can be converted to color transformation by assigning colors to **ANS: intensity levels**
64. Manager salary details are hidden from the employee. This is **ANS: Conceptual level data hiding**
65. For a particle settling in water at its terminal settling velocity, which of the following is true? **ANS: Weight = buoyancy drag**
66. Salt and pepper noise also referred to the term **ANS: spike noise**
67. An SR flip flop cannot accept the following input entry **ANS: Both inputs one**
68. The number of states in a machine M recognizing L<sub>1</sub>UL<sub>2</sub> will be \_\_\_\_\_ where n is the number of states in M<sub>1</sub> and m is the number of states in M<sub>2</sub>.
69. Which of the following is the insertion operator? **ANS: <<**
70. The main difference between JK and RS flip-flop is that? **ANS: JK flip-flop accepts both inputs as 1**
71. The location of centre of pressure, which defines the point of application of the total pressure force on the surface, can be calculated by applying the principle of moments according to which "sum of the moment of the resultant force about an axis is equal to the sum of the components about the same axis". The centre of pressure of a rectangular surface (of width 'w') immersed vertically in a static mass of fluid is at a depth of (where, y = depth of the liquid)
72. If there is a complete DFA M<sub>1</sub> recognizing a language L<sub>1</sub> and has m states out of which two are final states then the machine M recognizing L<sub>1</sub> complement will have \_\_\_\_\_ final states.

73. Image compression is **ANS: reduction of data/image redundancy**
74. If you assign a default value to any variable in a function prototype's parameter list, then ANS : all parameters to the right of that variable must have default values
75. Trigger is a **ANS: is a special kind of a store procedure that executes in response to certain action on the table like insertion, deletion or updation of data.**

76. Normalisation of database is used to **ANS: reduce data redundancy and improve data integrity.**

77. Radix of binary number system is \_\_\_\_? **ANS: 2**

78. Bipolarb impulse noise is also called **ANS: a. salt and pepper noise**

79. Assuming flow to be laminar, if the diameter of the pipe is halved, then the pressure drop will  
**ANS: INCREASE**

80. If M1 machine recognizing L with n states, then M2 recognizing  $L^*$  constructed Using Thompson construction will have ----- states.

81. What does the following declaration mean?

`int (*ptr)[10];` **ANS: declare ptr as pointer to array 10 of int"**

82. Which of the following calls a function named `displayName`, passing it no actual arguments? **ANS: displayName();**

83.

Updating a database means **ANS: modifying or adding record occurrences**

84.

If  $d_p$  is the equivalent diameter of a non-spherical particle,  $V_p$  its volume and  $s_p$  its surface area, then its sphericity is  $\Phi_s$  is defined by **ANS :  $\Phi_s = 6 V_p/d_p s_p$**

85. For.....value of Q, the Contra harmonic mean filter eliminates pepper noise. **ANS: POSITIVE**

86. which of the following intermediate language can be used in intermediate code generation? **ANS: SYNTAX TREE**

87.

Which of the following is minimum error code? **ANS: GRAY CODE**

88.

If you want to use a class to define objects in many different programs, you should define the class in a C++ \_\_\_\_\_ File **ANS: Header**

89. Pick out the wrong statement

90. **Additive rule** .....When two events, A and B, are mutually exclusive, the probability that A or B will occur is the sum of the probability of each event. ... The probability that A or B will occur is the sum of the probability of each event, minus the probability of the overlap.  $P(A \text{ or } B)$

92. The relational model uses some unfamiliar terminology. A tuple is equivalence to a: **ANS: record**

93. A finite automata that will accept only string X of length n will have \_\_\_\_\_ many states

When used with an IC, what does the term "QUAD" indicate? **ANS: 4 circuits**

94.

Dust collection efficiency of electrostatic precipitator can be as high as 99.9%. Maximum temperature and pressure of dust laden gas that can be cleaned in an electrostatic precipitator is respectively **ANS: 1000°C and 10 atm**

95. Which of the following suffices to convert an arbitrary CFG to an LL(1) grammar? **ANS: None of the above**

96. Adding 1001 and 0010 gives output of **ANS: 1011**

97.

98. For efficient grinding, ball mills must be operated **ANS: at a speed less than the critical speed**

99. One operation that is not given by magnitude comparator **ANS: addition**

100. How will you free the allocated memory ? **ANS: free(). AND DELETE**

101. Desirable properties of relational database design include **ANS: All of them**

102. Digital video is sequence of **ANS: frames**

103.

A relational database is

104. PDF in image processing is called **ANS: probability density function**

Many programmers separate a class into two files: **ANS: one for the declarations and one for the implementations**

105.

The CFG

s---> as | bs| a | b

is equivalent to regular expression **ANS: (a + b) (a + b)\***

106. When a hot metal piece is left to cool in air the rate of cooling of the outer layer will be

107.  **$T(t) = T_s + (T_o - T_s) e^{(-kt)}$**

$T(t)$  = temperature of an object at a certain time (Kelvin, K)

$t$  = time (s)

$T_s$  = temperature of the surroundings (Kelvin, K)

$T_o$  = starting temperature of the object (Kelvin, K)

$k$  = a cooling constant, specific to the object (1/s)

If a language is denoted by a regular expression

$L = (x)^* (x \mid y \mid x)$ ,

then which of the following is not a legal string within  $L$ ? **ANS: x y x y x**

108. Dilation-Morphological image operation technique is used to **ANS: expands brighter areas of the image**

109.

Magnitude comparator compares using operation of **ANS: XNOR gate**

110.

Files whose names end in .h are called \_\_\_\_\_ files **ANS: header**

111.

A software package designed to store and manage databases **ANS: DBMS**

112.

Number of final state require to accept  $\Phi(\phi)$  in minimal finite automata. **ANS: NONE OF THE MENTIONED. (ZERO)**

113. Which image processing technique is used to eliminate electronic noise by mathematical process

**ANS:Frame averaging**

114. Which one of the following is currently the most popular data model? **ANS: relational**

**database model**

115. Overloading involves writing two or more functions with **ANS. the same name and different argument lists**

116. Boolean algebra is also called **ANS: switching algebra**

117. In a slab under steady state conduction if the thermal conductivity increases along the thickness, the temperature gradient along the direction will become **ANS : SMALLER**

118. BCD to seven segment is a **ANS: Decoding process**

119. What kind of schema it is?

Student(sid, sname, dob, address, pincode)

120. -----is used to check whether the language is not regular. **ANS: pumping lemma.**

121. The temperature of a gas stream is to be measured by a thermocouple whose junction can be approximated as 1-mm-dia sphere. The properties of the junction are  $k = 35 \text{ W/m}^\circ\text{C}$ ,  $\rho = 8500 \text{ kg/m}^3$ , and  $C_p = 320 \text{ J/kg}^\circ\text{C}$ , and the convection heat transfer coefficient between the junction and the gas is  $h = 210 \text{ W/m}^2 \text{ }^\circ\text{C}$ . The time taken by the thermocouple to read 99 percent of the initial temperature difference **ANS: 10S**

122. Usually a pure virtual function **ANS: is defined only in derived class.**

123. For edge detection we use **ANS: first derivative**

124.

Fluid motion in free convection scenario is not induced by

125.

What is an ALU? **ANS: LU is a unit in Central Processing Unit in a computer system that is responsible for arithmetic calculations and logical operations**

126.

Let  $L$  be a set accepted by a nondeterministic finite automaton. The number of states in non-deterministic finite automaton is  $|Q|$ . The maximum number of states in equivalent finite automaton that accepts  $L$  is

**ANS:  $2^{|Q|}$**

127. In which technique which is used to determine changes between two images ? **ANS: Image differencing**

128. Two access specifiers in C++ are

**ANS: Access specifiers (public, protected, private) i**

129.

In the architecture of a database system external level is the **ANS: D. view level**

130.

An electrically heated plate dissipates heat by convection at a rate of  $8000 \text{ W/m}^2$  into the ambient air at  $25^\circ\text{C}$ . If the surface of the hot plate is  $125^\circ\text{C}$ , the heat transfer coefficient for convection between plate and air

**ANS:  $80\text{W/M}^2$  CELCIUS**

131.

What is the minimum number of states needed to a DFA over  $\Sigma = \{a, b\}$  which accept those words from  $\Sigma$  such that the number of a is even and the number of b is divisible by three.

132. \_\_\_\_\_ is a logical unit of access to a DBMS

133. Decimal number 9 in Gray code is **ANS: 1101**

134. The library function used to find the last occurrence of a character in a string is **ANS: strrchr()**

135. .....should be serious consideration prior to the use of derivatives in applications where noise is likely to be present. **ANS: IMAGE SMOOTHING**

136. The RDBMS terminology for a row is **Ans. tuple**

137. \_\_\_\_\_ programs automatically connects to web sites and download documents and save them to local drive **ANS: Web Downloading Utilities**

138. A pixel p at coordinate (x,y) has four horizontal and vertical neighbors whose coordinates are given by:

**ANS: (x+1, y) (x-1, y) (x, y+1) & (x, y-1)**

139.

Which of the following statements is/are FALSE?

- (1) For every non-deterministic Turing machine, there exists an equivalent deterministic Turing machine.
- (2) Turing recognizable languages are closed under union and complementation.

- (3) Turing decidable languages are closed under intersection and complementation
- (4) Turing recognizable languages are closed under union and intersection.

**ANS: 2 only**

140. Virtual memory is \_\_\_\_\_

**ANS: An illusion of extremely large main memory**

141. Assuming sun to be a black body emitting radiation with maximum radiation intensity at  $\lambda = 0.5 \mu\text{m}$ , the total emissive power of the sun is **ANS:  $5.47 * 10^7 \text{ W/m}^2$**

142.

A Turing machine that accepts every string of the language and does not accept strings that are not in the language is called as,

143. A one to many relationship (of table A to Table B) is

144. For radiation heat exchange between two large parallel plates having the same area of exposure, the value of average emissivity IS

145. The most common example of 2D interpolation is image **ANS: resizing**

146. How many possible outputs would a decoder have with a 6-bit binary input? **ANS: 64**

147. Given the code

```
String s1 = ? VIT? ;  
String s2 = ? VIT ? ;  
String s3 = new String ( s1);  
Which of the following would equate to true?
```

**ANS: (A) s1 == s2  
(D) s1.equals(s2)  
(E) s3.equals(s1)**

148. Power law transformation is useful in **ANS: MRI**

149. What is the condition for setting the Overflow flag in status register  
Ans : arithmetic overflow, 2's complement bits overflow

150

.\_\_\_\_\_ datastructure used in pushdown automata. **ANS: STACK**



150. \_\_\_\_\_ datastructure used in pushdown automata.

## STACK

---

151. \_\_\_\_\_ is referred to as Static Web (NOT Found)

A static web page (sometimes called a flat page/stationary page) is a [web page](#) that is delivered to the user exactly as stored,

152. An Entity from an ER diagram can be represented in the relational model by a

## RELATION

153. Baffles are used in a shell and tube exchangers (not found)

Baffles are used in a heat exchanger because they: Hold tubes in position (preventing sagging), both in production and operation. Prevent the effects of vibration, which is increased with both fluid velocity and the length of the exchanger. Direct shell-side fluid flow along tube field.

154. Which one of the following is not the responsibility of the DBA?

to design application programs

155. 16.67 kg/s of the product at 700 °C ( $C_p = 3.6 \text{ kJ/kg } ^\circ\text{C}$ ) in a chemical plant, are to be used to heat 20 kg/s of the incoming fluid entering at 100° C ( $C_p = 4.2 \text{ kJ/kg } ^\circ\text{C}$ ). If the overall heat transfer coefficient is 1 kW/m<sup>2</sup> °C and the installed heat transfer surface is 42 m<sup>2</sup>, the hot & cold fluids outlet temperatures for the counter-flow is

$$tc_2=539.132K=266.132^\circ\text{C} \quad tc_2=528.281K=255.281^\circ\text{C}$$

156. What is the status of the inputs S0, S1, and S2 of the 74151 eight-line multiplexer in order for the output Y to be a copy of input I5?

S0=1,  
S1=0,S2=1

157. The correction of power law response is called  
gamma correction

158. How do you write "Hello World" in PHP?

---

```
echo "Hello World";
```

---

159. Automaton accepting the regular expression of any number of a 's is:  
a\*

---

160. According to penetration theory, mass transfer coefficient is proportional to  
 $D_e^{1/2}$

---

161. Given the basic ER and relational models, which of the following is INCORRECT?

In a row of a relational table, an attribute can have more than one value

162. What does JSP stand for?

Java Server Pages

163 Two automata are equal when  
they have the same set of execution paths.

---

164. In the formula  $g(x,y) = T[f(x,y)]$ , T is the  
transformation function

---

165. The mechanism that bring a page into memory only when it is needed is called \_\_\_\_\_  
DEMAND PAGING

---

166.

The embedded c program is converted by cross compiler to  
ANSWER cross platform machine code/binary code

---

167. What are the parameters of the service method?

The Parameteres of the service method are HttpServletRequest and HttpServletResponse objects

---

168. Fenske equation determines the

The Fenske equation in continuous fractional distillation is an equation used for calculating the minimum number of theoretical plates

169. Which of the following is TRUE?

---

170. The negative numbers in the binary system can be represented by

## 2'S COMPLEMENT

171. Wavelet series equation is the sum of  
scaling coefficient    detail coefficient

172. A MRA stands for  
Multiple Regression Analysis

173. Which one of the following statements if FALSE?

174. When an instruction is read from the memory, it is called  
instruction cycle

175. HETP is numerically equal to HTU only when operating line  
is parallel to equilibrium lines

176. Which of these methods has no restrictions on content size when a form is submitted.  
post

177. The regular expression  $0^*(10^*)^*$  denotes the same set as

---

(1\*0)\*1\*

178. If a register containing binary data (11001100) is subjected to arithmetic shift left operation, then the content of the register after 'ashl' shall be

10011000

179. First derivative approximation says that values along the ramp must be  
zero

180. Flash distillation is  
flash distillation is used to desalinate seawater so it is fit for human consumption

---

181. Let E1 and E2 be two entities in an E/R diagram with simple single-valued attributes. R1 and R2 are two relationships between E1 and E2, where R1 is one-to-many and R2 is many-to-many. R1 and R2 do not have any attributes of their own. What is the minimum number of tables required to represent this situation in the relational model?

3

---

182. Which of the following statement is true?

---

183. The following function computes the maximum value contained in an integer array

```
p[ ] of size n (n >=
1). intmax(int *p,
int n) { int a=0,
b=n-1;
while (_____) {
if (p[a] <= p[b]) { a =
a+1; } else { b = b-1; }
}
return p[a];
}
```

The missing loop condition is

b != a

---

184. Consider the following recursive C function.

```
Void get (int n)
```

```
{if (n<1)
return; get (n-
1)

get (n-3)
:printf
("%d",n);
```

If get(6) function is being called in main () then how many times will the get() function be invoked before returning to the main ( ) ?

25

---

185.

Which of the following regular expression denotes a language comprising of all possible strings over  $\Sigma = \{a,b\}$  of length n where n is a multiple of 3?

{S->bS,S->b,S->aA,S->bA,A->aB,B->bB,B->aS,S->a}

186. Select operation in SQL is equivalent to

(D) the projection operation in relational algebra, except that select in SQL retains duplicates

187. The binary value for 0.4375 is

0.0111

188. The Lewis number of a mixture is defined as

NSc/NPr

189. The principle energy source for images

electro magneticspectruM

190. Grant and revoke are ..... statements.

DCL

191. Purpose of Pseudo color processing (NOT FOUND)

Pseudo-color processing is a technique that maps each of the grey levels of a black and white image into an assigned color

192. In computers, subtraction is generally carried out by \_\_\_\_\_.

2'S COMPLEMENT

193. Which of the following is/are example(s) of stateful application layer protocols? (i)HTTP

(ii)FTP

(iii)TCP

(iv)POP3

24

194. A language is represented by a regular expression  $(a)^*(a+ba)$ . Which of the following string does not belong to the regular set represented by the above expression.

ababa

195. An example of minimum boiling azeotrope at 1atm is \_\_\_\_\_  
ethanol-water

---

196. Adding primary colors to form **Secondary Color**

197 The lexical analysis for a modern language such as Java needs the power of which one of the following machine models in a necessary and sufficient sense? **Finite State Automata**

198 Floating point representation is used to store **real integers**

199. **Alter** command can be used to modify a column in a table

---

200. #include  
int main ()  
{  
static int a[]={10, 20, 30 40, 50}; static  
int \*p[]={ a, a+3, a+4, a+1, a+2}; int  
\*\*ptr=p;  
ptr++;  
printf ("%d%d", ptr p, \*\*ptr);  
}

The output of the program is **140**

201. Flooding results in **shortest delay**

202. Formula  $pr = n/MN$  represents the **coding redundancy**

203. What will be the output of the following C program?

```
void count(int n){  
static int d=1;  
printf("%d ", n);  
printf("%d ", d);  
d++;  
if(n>1) count(n-1);  
printf("%d ", d);  
}  
void main(){  
count(3);  
}
```

204. Overall tray efficiency is the ratio of **Not Found**

---

205. Data independence means i.) Programs are not dependent on the physical attributes of data  
ii.) Programs are not dependent on the logical attributes of data

---

206. A Stack-organised Computer uses instruction of **ZERO ADDRESSING**

---

207. A minimum state DFA accepting the language  $L=\{w/w \text{ belongs } \{0,1\}^*\}$  number of 0s and 1s in w are divisible by 3 and 5, respectively has **15 States**

208. A Standard rate of showing frames in a video per second are **24 FPS (Frame per second)**

---

209. Content of the program counter is added to the address part of the instruction in order to obtain the effective address is called. **Relative Address Mode**

---

210. Consider the following program:

```
intf(int *p, int n)
{
if (n <= 1) return 0;
else return max ( f (p+1, n-1),p[0]-p[1]);
}
intmain()
{
inta[] = {3,5,2,6,4};
printf("%d", f(a,5));
}
```

The value printed by this program is **3**

---

211. Which of the following is/are undecidable? **ANS :---- 2and 3**

1.  $G$  is a CFG. Is  $L(G) = \Phi$ ?
  2.  $G$  is a CFG. Is  $L(G) = \Sigma^*$ ?
  3.  $M$  is a Turing machine. Is  $L(M)$  regular?
  4.  $A$  is a DFA and  $N$  is an NFA. Is  $L(A) = L(N)$ ?
- 

212. DCL stands for **Data Control Language**

213. Which of the following liquid-vapor contacting devices provides maximum contact surface area for a particular duty? **Wetted wall column**

---

**214.** To prevent any method from overriding, the method has to declared as, **final**

---

**215.** Which of the following problems are decidable? **3 and 4**

- 1) Does a given program ever produce an output?
  - 2) If  $L$  is a context-free language, then, is  $\overline{L}$  also context-free?
  - 3) If  $L$  is a regular language, then, is  $\overline{L}$  also regular?
  - 4) If  $L$  is a recursive language, then, is  $\overline{L}$  also recursive?
-

216. From among the following, choose one which is not an exothermic process?

Catalytic cracking

---

217. Negative of the image having intensity values [0,L-1] is expressed by

s=L-1-r

---

218. ....**Constraints**... is preferred method for enforcing data integrity

---

219. -24 is 2's complement form is **11101000**

---

220. Zero address instruction format is used for **Stack Organised Structure/Architecture**

---

221. A catalyst

---

222. In the sense of predicate two regions of the image must be **different**

---

223. Which of the following are decidable?

I. Whether the intersection of two regular languages is infinite

**II. Whether a given context-free language is regular**

III. Whether two push-down automata accept the same language

**IV. Whether a given grammar is context-free**

---

224. A Search engine can serve as **Not Found**

---

225. Which of the following is not a binary operator in relational algebra?

**Cartesian product is relational binary operator**

---

226. Which of the following problems is undecidable?

**Repeated**

---

227. The principle tools used in image processing for a broad spectrum of applications **Spatial Filtering**

---

228. A **ALU** registrar stores the intermediate arithmetic and logic results in it.

---

229. Which of the following is/are the DDL statements? **Answer is D**

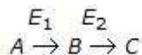
- A.) Create
  - B.) Drop
  - C.) Alter
  - D.) All of the above
- 

230. Consider the following C program.

```
#include
int f1 (void)
;int f2 void ;
int x 10;
int main ()
{
int x=1;
x+=f1() + f2() + f3() + f2()
; printf("%d", x);
return 0;
}
int f1(){int x=25; x++; return x;}
int f2(){static int x =50; x++; return x;}
int f3(){x*=10; return x};
```

The output of the program is **230**.

231. In a consecutive reaction system as shown below, when  $E_1$  is much greater than  $E_2$ , the yield of  $B$  increases with the



232. The special memory used to store the micro routines of a computer is \_\_\_\_\_.

The special memory used to store the micro routines of a computer is \_\_\_\_\_

- a) Control table
- b) Control store**
- c) Control mart
- d) Control shop

233. A batch reactor is suitable for **Liquid phase reactions**

234. Which of the following problems is undecidable? **Repeat**

235. Which database level is closest to the users?

- a.) External**
- b.) Physical
- c.) Logical
- d.) Conceptual

---

236. Consider the function func shown below:

```
intfunc(intnum)
{ int
count = 0;
while (num)
{ count++;
num>>= 1;
}
return (count);
}
```

The value returned by func(435) is

Answer --- **9**

- 
237. A No of gray levels in an image are in power of  **$2^k$**   $k=1,2,3\dots$
238. Second derivatives are zero at points on  
A.) **Ramp**  
B.) Step  
C.) Constant  
D.) Edge
- 
239. The processor 80386/80486 and the Pentium processor uses \_\_\_\_\_ bits address bus: **32**
- 
240.  $S \rightarrow aSa \mid bSb \mid a \mid b$ ; The language generated by the above grammar over the alphabet {a,b} is the set of  
**All odd length palindromes.**
- 
241. .... data type can store unstructured data **RAW**
- 
242. Consider the following C program segment.  
include  
intmain()  
{char sl [7] = "1234", \*p;  
p=sl+2;  
\*p='0';  
printf ("%s",sl)  
}  
What will be printed by the program? **1204**
243. For a heterogeneous catalytic reaction  
**Free energy of activation is lowered in the presence of catalyst, which remains unchanged at the end of reaction.**
- 
244. The rate of the chemical reaction  $A \rightarrow B$  doubles as the concentration of  $A$  i.e.,  $CA$  is doubled. If rate of reaction is proportional to  $CA^n$ , then what is the value of  $n$  for this reaction
245. The sum of cosines and sines coefficient multiplied is **Fourier Series**

---

246. Which of the following is correct for a gated D flip-flop?

**Q output follows the input D when the enable is HIGH**

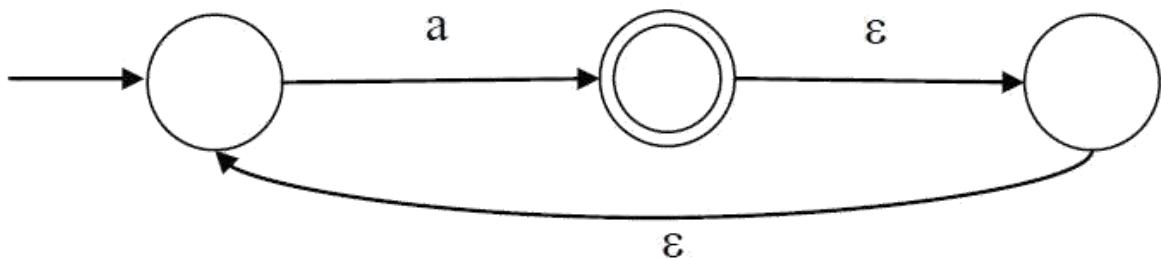
---

247. A table can have only one **Primary Key**

---

248. What is the complement of the language accepted by the NFA shown below?

**Answer is option (B.) epsilon**



- (A)  $\emptyset$       (B)  $\{\varepsilon\}$       (C)  $a^*$       (D)  $\{a, \varepsilon\}$

**249.** Which one is the first search engine in internet? **Archie in 1990 by Elan Emtage**

---

**250.** For a homogeneous reaction of nth order, the dimension of the rate constant is given by  
**(concentration)<sup>1-n</sup>/(time)**

**249.** For a homogeneous reaction of nth order, the dimension of the rate constant is given by  
**ANSWER (concentration)<sup>1-n</sup>/(time)**

---

**250.** When a new row is inserted the constraints that can be violated are  
**PRIMARY KEY, NOT NULL, UNIQUE KEY**

---

**251.** What type of register would shift a complete binary number in one bit at a time and shift all the stored bits out one bit at a time?

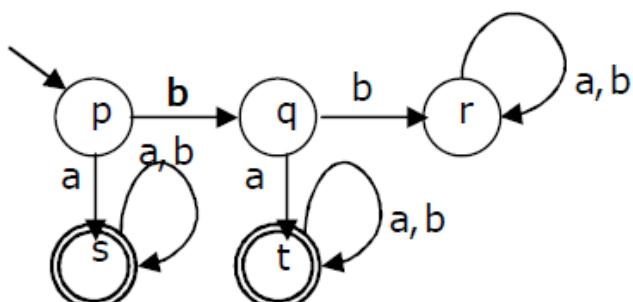
3. What type of register would shift a complete binary number in one bit at a time and shift all the stored bits out one bit at a time?

- [A]. PIPO
- [B]. SISO
- [C]. SIPO
- [D]. PISO

**Answer:** Option B

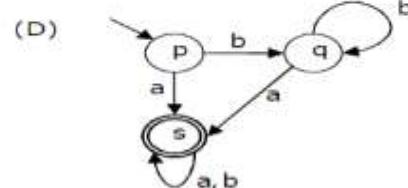
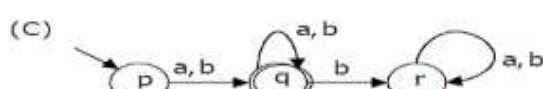
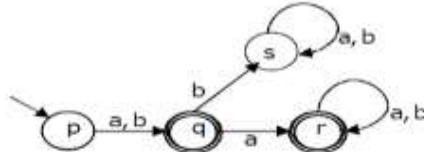
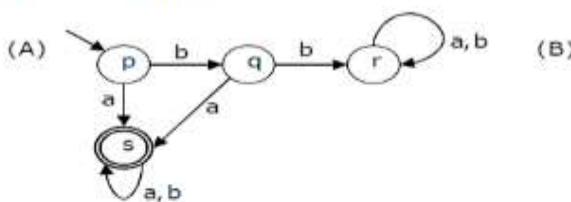
---

**252.** A deterministic finite automaton (DFA) D with alphabet {a,b} is given below



Which of the following finite state machines is a valid minimal DFA which accepts the same language as D?

**Which of the following finite state machines is a valid minimal DFA which accepts the same language as D?**



Answer (A)

Options (B) and (C) are invalid because they both accept 'b' as a string which is not accepted by given DFA. D is invalid because it accepts  $bb+a$  which are not accepted by given DFA.

---

253. Sockets originate from UNIX

---

254. An image is characterized by ITS QUALITY

**256.** Which of the following is not a property of a transaction?  
Except ACID properties

---

**257.** Which one of the following languages over the alphabet {0,1} is described by the regular expression:  $(0+1)^*0(0+1)^*0(0+1)^*$ ?  
(C) The set of all strings containing at least two 0's.

---

**258.** Digitizing the coordinate values is called  
Sampling

---

**259.** The number of full and half-adders required to add 16-bit numbers is

- A. 8 half-adders, 8 full-adders
- B. 1 half-adder, 15 full-adders
- C. 16 half-adders, 0 full-adders
- D. 4 half-adders, 12 full-adders

(B)because for LSB addition we do not need a full adder

---

**260.** The fractional volume change between no conversion and complete conversion, for the isothermal gas phase reaction,  $2A \rightarrow R$ , is

---

**261.** What will be printed as the output of the following program?

```
public class testincr
{
public static void main(String args[])
{
int i = 0;
i = i++ + i;
System.out.println(" I = " +i);
}
}
```

} ans:1

---

**262.** With increase in the order of reaction (for all positive reaction orders), the ratio of the volume of mixed reactor to the volume of plug flow reactor (for identical feed composition, flow rate and conversion)

**ANSWER** always one

---

**263.** An object of class A receives a message with an argument that is an instance of class B. Identify the type of relationship between class A and Class B:

---

**264.** Consider the languages  $L_1 = \Phi$  and  $L_2 = \{ a \}$ . Which one of the following represents  $L_1 L_2^* \cup L_1^*$ ?

- (A)  $\{\epsilon\}$       (B)  $\Phi$       (C)  $a^*$       (D)  $\{\epsilon, a\}$

---

**ANSWER (A).**  $\{\epsilon\}$

---

**265.** A graphical HTML browser resident at a network client machine Q accesses a static HTML webpage from a HTTP server S. The static HTML page has exactly one static embedded image which is also at S. Assuming no caching, which one of the following is correct about the HTML webpage loading (including the embedded image)?

- (A) Q needs to send at least 2 HTTP requests to S, each necessarily in a separate TCP connection to server S  
(B) Q needs to send at least 2 HTTP requests to S, but a single TCP connection to server S is sufficient  
(C) A single HTTP request from Q to S is sufficient, and a single TCP connection between Q and S is necessary for this  
(D) A single HTTP request from Q to S is sufficient, and this is possible without any TCP connection between Q and S

**Answer: (B)**

**266.** Histogram Equalisation is mainly used for \_\_\_\_\_ image enhancement

---

**267.** A 2 bit binary multiplier can be implemented using

2 input XORs and 4 – input AND gates only

- . A 2 bit binary multiplier can be implemented using

[A]. 2 inputs ANDs only

[B]. 2 I/P XOR and 4 I/P AND gate only

[C]. two 2 inputs NORs and One XNOR gate

[D]. XOR gates and shift registers

**Answer:** Option B

265 Dynamic range of imaging system is a ratio where the upper limit is determined by

- a) Saturation
- b) Noise
- c) Brightness
- d) Contrast
- a)saturation

---

**268.** Which of the following is the dynamic characteristics of an instrument?

**ANSWER** Fidelity

---

**269.** The number of tokens in the following C statement is (GATE 2000)

```
printf("i = %d, &i = %x", i, &i); 10
```

The number of tokens in the following C statement is

```
printf("i=%d, &i=%x", i, &i);
```

- A. 3
- B. 26
- C. 10
- D. 21

10

**270. Foreign Key is A COLUMN CONTAINING PRIMARY KEY OF ANOTHER TABLE**

- 271.** In a compiler, keywords of a language are recognized during  
In a compiler, keywords of a language are recognized during  
**(A)** parsing of the program  
**(B)** the code generation  
**(C)** the lexical analysis of the program  
**(D)** dataflow analysis

**Answer:** (C)

**Explanation:** Lexical analysis is the process of converting a sequence of characters into a sequence of tokens. A token can be a keyword.

**272.** Consider the following program in C language:

```
#include
main()
{
int i;
int *pi = &i;
scanf(?%d?,pi);
printf(?%d\n?, i+5);
}
```

Which one of the following statements is TRUE?

**ANSWER (D)** On execution, the value printed is 5 more than the integer value entered.

- 273.** In a conceptual model for a university, which of the following could most appropriately be represented via a recursive relationship?

**ANSWER (b)Course prerequisites**

- 274.** Flow rate through an orifice is \_\_\_\_\_ the pressure differential

**275.** VOLATILE MEMORY IS \_\_\_\_\_? RAM

---

**276.** Histogram Equalisation is mainly used for \_\_\_\_\_ IMAGE ENHANCEMENT

---

**277.**

```
#include
using namespace std;
int main()
{
int x=20;
if(!x)&&x)
cout<<x;
else
{
x=10;
cout<<x;
return 0;
}
}
```

ANSWER 20

---

**278.** A J-K flip-flop is in a "no change" condition when \_\_\_\_\_.(J=0 K=0) BOTH ARE 0

---

**279.** Emf developed by a thermocouple while measuring a temperature of 400°C is 22 mV. The type of thermocouple used is

---

**280.** The simple way to compression is removing INTERLEAVED MEMORY SPACES

---

**281.** For the grammar below, a partial LL(1) parsing table is also presented along with the grammar. Entries that need to be filled are indicated as E1, E2, and E3.  $\epsilon$  is the empty string, \$ indicates end of input, and, | separates alternate right hand sides of productions.

$S \rightarrow aA bB \mid bA aB \mid \epsilon$   
 $A \rightarrow S$   
 $B \rightarrow S$

	a	b	\$
S	E1	E2	$S \rightarrow \epsilon$
A	$A \rightarrow S$	$A \rightarrow S$	error
B	$B \rightarrow S$	$B \rightarrow S$	E3

$S \rightarrow aA bB \mid bA aB \mid \epsilon$

$A \rightarrow S$

$B \rightarrow S$

	a	b	\$
S	<b>E1</b>	<b>E2</b>	$S \rightarrow \epsilon$
A	$A \rightarrow S$	$A \rightarrow S$	error
B	$B \rightarrow S$	$B \rightarrow S$	<b>E3</b>

(A) FIRST(A) = {a, b,  $\epsilon$ } = FIRST(B)

FOLLOW(A) = {a, b}

FOLLOW(B) = {a, b, \$}

(B) FIRST(A) = {a, b, \$}

FIRST(B) = {a, b,  $\epsilon$ }

FOLLOW(A) = {a, b}

FOLLOW(B) = {\$}

(C) FIRST(A) = {a, b,  $\epsilon$ } = FIRST(B)

FOLLOW(A) = {a, b}

FOLLOW(B) =  $\emptyset$

(D) FIRST(A) = {a, b} = FIRST(B)

FOLLOW(A) = {a, b}

FOLLOW(B) = {a, b}

**(A) A**

**(B) B**

**(C) C**

**(D) D**

**Answer: (A)**

285 Which of the following most certainly implies the need for an entire table to implement? Which of the following most certainly implies the need for an entire table to implement?

- A binary relationship
- **A ternary relationship**
- A recursive relationship
- An identifying relationship

**282.** A set of possible data values is called DOMAIN

**283.** A ring counter is same as.

A ring counter is a Shift Register (a cascade connection of flip-flops) with the output of the last flip flop connected to the input of the first. It is initialised such that only one of the flip flop output is 1 while the remainder is 0. The 1 bit is circulated so the state repeats every n clock cycles if n flip-flops are used. The "MOD" or "MODULUS" of a counter is the number of unique states. The MOD of the n flip flop ring counter is n.

It can be implemented using [D-type flip-flops](#) (or JK-type flip-flops).

**284.** Consider the following function written the C programming language.

```
void foo (char * a ) {  
if (* a & & * a !=') {  
putchar (*a);  
}  
}  
}
```

The output of the above function on input 'ABCD EFGH' is

**289** The grammar  $S \rightarrow aSa \mid bS \mid c$  is

(A) LL(1)	but	not	LR(1)
(B) LR(1)but		not	LR(1)
(C) Both		LL(1)and	LR(1)
(D) Neither		LL(1)nor	LR(1)

**Answer:(C)**

**Explanation:**

```
First(aSa) = a
```

```
First(bS) = b
```

```
First(c) = c
```

All are mutually disjoint i.e no common terminal  
between them, the given grammar is LL(1).

As the grammar is LL(1) so it will also be LR(1) as LR parsers are  
more powerful than LL(1) parsers. and all LL(1) grammar are also LR(1)  
So option C is correct.

**290** For finding lines at angle 45 we use mask of values

**MCQ.** For finding lines at angle 45 we use mask of values

- A. [-1 -1 -1; 2 2 2; -1 -1 -1]
- B. [2 -1 -1; -1 2 -1; -1 -1 2]
- C. [-1 2 -1; -1 2 -1; -1 2 -1]
- D. [-1 -1 2; -1 2 -1; 2 -1 -1] ans b

---

**291** Which is the most suitable instrument for measuring pressure below 3 microns ?

---

**292** A shift register can be used for.

- Shift registers are commonly used in converters that translate parallel data to serial data, or vice-versa. Shift registers can also function as delay circuits and digital pulse extenders.
- 

**293** Identify an unbounded input from inputs whose transfer functions are given below

- $1/S^2$
- 

**294** Which of the following is a problem of file management system?

- a. difficult to update
- b. lack of data independence
- c. data redundancy
- d. program dependence
- e. all of above

e

---

**295** Match all items in Group 1 with correct options from those given in Group 2.

**Group 1**

**Group 2**

P. Regular expression      1. Syntax analysis

Q. Pushdown automata      2. Code generation

R. Dataflow analysis      3. Lexical analysis

S. Register allocation      4. Code optimization

**(B)** P-3, Q-1, R-4, S-2

---

**296.** Smoothing filters are mostly used in BLURRING and NOISE REDUCTION

---

**297.** A set of documents in which a given document can contain text, graphics video and audio clips as well as embedded references to other documents world wide web pages are called as

-----HYPERMEDIA DOCUMENTS

---

**298.** Consider the following code segment.

```
x = u - t;  
y = x * v;  
x = y + w;  
y = t - z;  
y = x * y;
```

The minimum number of total variables required to convert the above code segment to static single assignment form is

## ANSWER 10

---

299. Foreign Key can be null

---

300. A synchronous sequential circuit is made up of. **Flip flops and combinational gates**

---

301. Given the following structure template, choose the correct syntax for accessing the 5th subject marks of the 3rd student:

```
struct stud  
{  
    int marks[6];  
    char sname[20];  
    char rno[10];  
    }s[10];
```

---

302. "A control system is unstable, if the open loop frequency response exhibits an amplitude ratio exceeding unity at the crossover frequency." This is \_\_\_\_\_ criterion

## BODE STABILITY

---

303. A Consider we are extracting an 8 bit plane from an 8bit image. Then which two bit plane contain the most significant information

**first 2 bits from msb**

304. Convolution of two functions means rotating one function at angle of 180

---

305. Consider the intermediate code given below:

1. i = 1
2. j = 1
3. t1 = 5 \* i
4. t2 = t1 + j

```
5. t3 = 4 * t2  
6. t4 = t3  
7. a[t4] = -1  
8. j = j + 1  
9. if j <= 5 goto(3)  
10. i = i + 1  
11. if i < 5 goto(2)
```

The number of nodes and edges in the control-flow-graph constructed for the above code, respectively, are

**ANSWER (B) 6 and 7**

---

**306.** Use of *I*-control along with *P*-control facilitates

..Elimination of offset

---

**307.** How is a J-K flip-flop made to toggle? J=1,K=1

---

**308.** Consider the following C code segment:

```
int a, b, c = 0;  
void prtFun(void);  
main()  
{ static int a = 1; /* Line 1 */  
prtFun();  
a += 1;  
prtFun()  
printf("\n %d %d ", a, b);  
}  
void prtFun(void)  
{ static int a=2; /* Line 2 */  
int b=1;  
a+=++b;  
printf("\n %d %d ", a, b);  
}
```

What output will be generated by the given code segment if:

Line 1 is replaced by auto int a = 1;

Line 2 is replaced by register int a = 2;

(D) 4 2

4 2

2 0

**309.** ----- is the minimal super key . CANDIDATE KEY

---

**310.** If there are n relations how many number of join conditions has to be applied to retrieve the data from all the n relations?

**311.** Consider the following C code segment.

```
for (i = 0, i<n; i++)
{
    for (j=0; j<n; j++)
    {
        if (i%2)
        {
```

```
        x += (4*j + 5*i);
        y += (7 + 4*j);
    }
}
```

Which one of the following is false? ANSWER (D). There is scope of dead code elimination in this code

---

**312.** continuous image is digitised at \_\_\_\_\_ points..**SAMPLING**

---

**313.** Consider the following program:

```
int f(int *p, int n)
{
if (n <= 1) return 0;
else return max ( f (p+1, n-1),p[0]-p[1]);
}
int main()
{
int a[] = {3,5,2,6,4};
printf("%d", f(a,5));
}
```

The value printed by this program is

- (A) 2
- (B) 3
- (C) 4
- (D) 5

**Answer: (B)**

**314.** The unit step response of the transfer function  $1/(s^2 + 2s + 3)$

---

**315.** How many different states does a 3-bit asynchronous counter have? 8

---

**316.** Consider the following program in C language:

```
main()
{
int i;
int *pi = &i;
scanf("%d",pi);
printf("%d\n", i+5);
}
```

Which one of the following statements is TRUE? Which one of the following statements is TRUE? ANSWER (D) On execution, the value printed is 5 more than the integer value entered.

---

**317.** Which of the systems having following transfer functions is stable?

---

**318.** Which relational algebra query will return employees (i.e., EmpID) who work on all projects?

(b)

$\Pi \text{EmpID}, \text{ProjID} (\text{Works}) \div \pi \text{ProjID} (\text{Project})$

---

**319.** Principal sensing categories in eyes

---

**320.** Some code optimizations are carried out on the intermediate code because

Some code optimizations are carried out on the intermediate code because

- (A) they enhance the portability of the compiler to other target processors
- (B) program analysis is more accurate on intermediate code than on machine code
- (C) the information from dataflow analysis cannot otherwise be used for optimization
- (D) the information from the front end cannot otherwise be used for optimization

**Answer:** (A)

---

---

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- (A) they enhance the portability of the compiler to other target processors
- (B) program analysis is more accurate on intermediate code than on machine code
- (C) the information from dataflow analysis cannot otherwise be used for optimization
- (D) the information from the front end cannot otherwise be used for optimization

**Answer:** (A)

---

---

**321.** How many flip-flops are required to construct a mod10 counter?

**322.** Which one of the following is FALSE?

---

**323.** Direct costs component of the fixed capital consists of on-site and off site costs

---

**324.** First derivative approximation says that values of constant intensities must be  
Answer 0

---

**325.** \_\_\_\_\_ produces the relation that has attributes of R1 and R2  
Que. \_\_\_\_\_ produces the relation that has attributes of R1 and R2.

- a. Cartesian product
- b. Difference
- c. Intersection
- d. Product

**Answer:**Cartesian product

---

**326.** How many flip-flops are required to make a MOD-32 binary counter?5

---

**327.** Which method is used for loading the driver in Java JDBC.

Class.forName() method.

---

**328.** Which of the following operation is used if we are interested in only certain columns of a table?  
PROJECTION

---

**329.** The ratio of working capital to total capital investment for most chemical plants (except for non-seasonal based products) is in the range of \_\_\_\_\_ percent

10 to 20

---

**330.** Every run length pair introduce new ->intensity

---

**331.** It is difficult to design asynchronous sequential circuit because. Generally they involve stability problem

---

**332.** Which of the following input controls that cannot be placed using <input>tag?

---

**333.** One of the purposes of using intermediate code in compilers is to

One of the purposes of using **intermediate code** in compilers is to :

- (A) make parsing and semantic analysis simpler.
- (B) improve error recovery and error reporting
- (C) increase the chances of reusing the machine-independent code optimizer in other compilers.
- (D) improve the register allocation.

- [Explanation](#)

**ANSWER : (C)**

**EXPLANATION :**

Intermediate code is **machine independent code** which makes it easy to **re-target** the compiler to generate code for newer and **different processors**.

---

**334.** Memory elements in clocked sequential circuits are called. FLIP FLOPS

---

**335.** Scheduling provides information about the

time of starting of job and also about how much work should be completed during a particular period.

---

**336.** Consider the following two sets of LR(1) items of an LR(1) grammar.

X → c.X, c/d

X → .cX, c/d

X → .d, c/d

X → c.X, \$

X -> .cX, \$

X -> .d, \$

Which of the following statements related to merging of the two sets in the corresponding LALR parser is/are FALSE?

1. Cannot be merged since look aheads are different.
2. Can be merged but will result in S-R conflict.
3. Can be merged but will result in R-R conflict.
4. Cannot be merged since goto on c will lead to two different sets.

Answer All the above options

---

**33** Which of the following in HTML is used to left align the content inside a table cell? Left align  
**7.**

---

**33** Duality principle is used when SE is  
**8.** **MCQ.** Duality principle is used when SE is

- A. square
- B. symmetric**
- C. asymmetric
- D. translated

---

**33** Join is equal to  
**9.** 3) The natural join is equal to

- A. Cartesian Product
- B. Combination of Union and Cartesian product
- C. Combination of selection and Cartesian product
- D. Combination of projection and Cartesian product

---

**34** A Steps for converting an analog image to digital :SAMPLING AND QUANTIZATION  
**0.**

---

**34** Which of the following is the costliest material of construction used in pressure vessel construction ?  
**1.** **Titanium**

---

---

**34** Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join is:  
M\*N

---

**343.**

Popular application of flip-flop are. Counters, registers, frequency divider circuit and data transfer

**344.**

```
#include <stdio.h>
```

```
int main()
{
    int a=10;
    int b=2;
    int c;

    c=(a & b);
    printf("c= %d",c);
```

```
    return 0;  
}
```

Find the output.

---

**345.** Which of the following statements are TRUE?

- I. There exist parsing algorithms for some programming languages whose complexities are less than  $O(n^3)$ .
- II. A programming language which allows recursion can be implemented with static storage allocation.
- III. No L-attributed definition can be evaluated in the framework of bottom-up parsing.
- IV. Code improving transformations can be performed at both source language and intermediate code level.

**(B) I and IV**

---

**346.**

Image negatives a gray level transformation is defined as:  $s=L-i-r$

---

**347.**

```
#include <stdio.h>  
  
#define MOBILE 0x01  
#define LAPPY 0x02  
  
int main()  
{  
    unsigned char item=0x00;
```

```
    item |=MOBILE;  
    item |=LAPPY;
```

```
printf("I have purchased ...:");

if(item & MOBILE){

    printf("Mobile, ");
```

```
    }

    if(item & LAPPY){

        printf("Lappy");

    }

}

return 1;
```

### I have purchased ...:Mobile, Lappy

---

**348.** Pick out the wrong statement pertaining to the use of valve tray, sieve tray and bubble cap trays in continuous distillation column.

---

**349.** Synchronous counters eliminate the delay problems encountered with asynchronous (ripple) counters because the. **input clock pulses are not used to activate any of the counter stages**

---

**350.** Select the conflicting operation:

---

**351** Which of the following describes a handle (as applicable to LR-parsing) appropriately?

- A. It is the position in a sentential form where the next shift or reduce operation will occur
- B. It is non-terminal whose production will be used for reduction in the next step
- C. It is a production that may be used for reduction in a future step along with a position in the sentential form where the next shift or reduce operation will occur
- D. It is the production pp that will be used for reduction in the next step along with a position in the sentential form where the right hand side of the production may be found

D

---

**351.** Which of the following is not a valid assumption in continuous binary distillation for calculating the number of equilibrium stages by Mc-Cabe-Thiele's method ?

Reflux is not a saturated liquid.

---

**352.**

The clock signals are used in sequential logic circuits to :: **to synchronize events in various parts of a system**

In the operation `read_item(x)`, what does `x` mean?

**read** the data item named **x**

354

```
int main()
{
    char flag=0x0f;

    flag &= ~0x02;
    printf("%d",flag);

    return 0;
}
```

Predict the output.

[13](#)

---

**353.** The grammar  $A \rightarrow AA \mid (A) \mid \epsilon$  is not suitable for predictive-parsing because the grammar is left recursive

---

**354.** Fourier spectrum of noise is constant, the noise usually:white noise

---

**355.**

```
#include <stdio.h>
int main()
{
    int a=10;
    if(a==10)
    {
        printf("Hello... ");
        break;
        printf("Ok");
    }
    else
    {
        printf("Hi");
    }
    return 0;
}
```

Find the output.

---

**356.** Consider the relation  $R1(\text{employee\_name}, \text{project\_name}, \text{dependent\_name})$ . If  $\{\{\text{employee\_name} \rightarrow\!\!>\!\!> \text{project\_name}\}, \{\text{employee\_name} \rightarrow\!\!>\!\!> \text{dependent\_name}\}\}$ , what is the highest normal form it satisfies?

**357.**

is. The number of clock pulses needed to shift one byte of data from input to the output of a 4-bit shift register **(16)**

---

**358.** The harmonic mean filter works well for.....but fails for pepper noise. Answer Salt noise

---

**359.** Tube side pressure drop in a 1-2 heat exchanger (for turbulent flow of fluids through the tubes) is about \_\_\_\_\_ times, that in a 1-1 heat exchanger having the same size & number of tubes and operated at the same liquid flow rate

---

**360.** Consider the grammar

$$S \rightarrow (S) \mid a$$

Let the number of states in SLR(1), LR(1) and LALR(1) parsers for the grammar be  $n_1$ ,  $n_2$  and  $n_3$  respectively. The following relationship holds good

---

```
361. #include
int main()
{
    if( (-100 && 100)|| (20 && -20) )
        printf("%s", "Condition is true.");
    else
        printf("%s", "Condition is false.");
    return 0;
}
```

Find the output

---

362. If the pixels can not be reconstructed without error mapping is said to be **IRREVERSIBLE**

---

363. What is asynchronous counter. (**RIPPLE COUNTER** )

---

364. To keep the power input constant for a stirred vessel operating under fully developed turbulent flow conditions (constant power number), if the impeller diameter is increased by 20%, the impeller speed should be decreased by a factor of

---

365. Which of the following grammar rules violate the requirements of an operator grammar ? P, Q, R are nonterminals, and r, s, t are terminals.

1.  $P \rightarrow Q\ R$
  2.  $P \rightarrow Q\ s\ R$
  3.  $P \rightarrow \epsilon$
  4.  $P \rightarrow Q\ t\ R\ r$
- 

369. If  $x \rightarrow y$  then  $y \rightarrow x$ . This statement is **REFLEXIVITY**

---

```
370. #include
#define TRUE 1
int main()
{
    if(TRUE)
        printf("1");
        printf("2");
    else
        printf("3");
        printf("4");
    return 0;
}
```

Find the output.

**ERROR : misplaced if/illegal else without matching if.**

You can use only one statement within the if( )without parenthesis {...}

371. In \_\_\_\_\_ image we notice that the components of histogram are concentrated on the low side on intensity scale. DARK

**372.** Consider the grammar with the following translation rules and E as the start symbol.

$E \rightarrow E1 \# T \{ E.value = E1.value * T.value \}$

|  $T \{ E.value = T.value \}$

$T \rightarrow T1 \& F \{ T.value = T1.value + F.value \}$

|  $F \{ T.value = F.value \}$

$F \rightarrow \text{num} \{ F.value = \text{num.value} \}$

Compute E.value for the root of the parse tree for the expression:  $2 \# 3 \& 5 \# 6 \& 4$ .

**373.**

A relation R is said to be in 2NF when it does not have

**PARTIAL DEPENDENCIES**

**374.**

Oxidation of  $\text{SO}_2$  to  $\text{SO}_3$  is favoured by

**375.** low temperature and high pressure

**376.** What is meant by parallel-loading the register? **loading data in all the flip flops simultaneously**

{

```
#include <stdio.h>
int main()

    int pn=100;
    if(pn>20)
        if(pn<20)
            printf("Heyyyyy");
        else
            printf("Hiiiii");
    return 0;
}
```

Find the output.

**377.** Two sets of functional dependencies E and F are equivalent if  $E^+ = F^+$ . This statement is

**378.** Paper pulp produced by kraft/sulphate process is kraft pulping or sulfateprocess

---

**379.** The type of Histogram Processing in which pixels are modified based on the intensity distribution of the image is called \_\_\_\_\_ .**global**

---

**380.** What is the condition for resetting(s=0) the S flag in status register?

---

**381.** In a bottom-up evaluation of a syntax directed definition, inherited attributes can

- In a bottom-up evaluation of a syntax directed definition, inherited attributes can
- (A) always be evaluated
  - (B) be evaluated only if the definition is L-attributed
  - (C) be evaluated only if the definition has synthesized attributes
  - (D) never be evaluated

**Answer:** (B)

**382.** Claude process of gas liquefaction employs

**383.** #include  
int main()  
{  
 int a=10;  
 if(10L == a)  
 printf("10L");  
 else if(10==a)  
 printf("10");  
 else  
 printf("0");  
 return 0;  
}

Find the output.

**10L**

---

**384.** An image is considered to be a function of  $a(x,y)$  where  $a$  represents amplitude of image

---

**385.** What type of register would shift a complete binary number in one bit at a time and shift all the stored bits

serial-in, parallel-out

out one bit at a time?

---

**386.** Consider the grammar shown below.

$S \rightarrow C\ C$

$C \rightarrow c\ C \mid d$

The grammar is

---

**387.** IF Y is a subset of X then

---

**388.** Consider the translation scheme shown below

$S \rightarrow T\ R$

$R \rightarrow +\ T\ \{print\ ('+')\};\ R \mid \epsilon$

$T \rightarrow num\ \{print\ (num.val)\};$

Here num is a token that represents an integer and num.val represents the corresponding integer value. For an input string '9 + 5 + 2', this translation scheme will print

**389.** Discontinuity based segmentation can be done by

**390.** Spurious tuples are formed because of

A **spurious tuple** is a record **produced** as a result of a join on two or more tables where the joining fields are neither a primary or foreign keys

---

391

Which of the following statements best describes the operation of a synchronous up-/down-counter?

**In general the counter can be reversed at any point in its counting sequence**

**391.** #include  
void main(){  
    unsigned char c=290;  
    printf("%d",c);  
}

Find the output 34

---

**392.**

Viscose rayon is chemically

---

**393.**

Nearest neighbor interpolation method produces:: “nearest” neighbouring pixel, and assumes the intensity value of

**394.** it.

} #include <stdio.h>  
**void** main(){  
    int a=0;  
    a=5||2|1;  
    **printf**("%d",a);

Find the output. 1

**396.**    Query Tree uses  
RELATIONAL OPERATORS

---

**397.**    Which one of the following is True at any valid state in shift-reduce parsing?

**The stack contains only a set of viable prefixes**

---

**398.**    Epoxy resin

---

**399.**    Which segments of a seven-segment display would be active to display the decimal digit 2? abdeg

---

---

**400.** #include  
int main(){  
    float a=125.50;  
    int b=125.50;  
    char c='A';  
  
    printf("%d,%d,%d\n",sizeof(a),sizeof(b),sizeof(125.50));  
    printf("%d,%d\n",sizeof(c),sizeof(65));  
    return 0;  
}

What will be the output on a 32 bit compiler.

---

**ANS: 4,4,8**

**1,4**

**401.** In a 7 bit gray level image, the negative of gray level 50 is **ANS: 205**

---

**402.** \_\_\_\_\_ process is used for the manufacture of sodium carbonate by ammonia soda process. **ANS: Solvay process**

---

**403.** Match the following:

List-I

- A. Lexical analysis
- B. Parsing
- C. Register allocation
- D. Expression evaluation

List-II

- 1. Graph coloring
- 2. DFA minimization
- 3. Post-order traversal
- 4. Production tree

Codes:

A B C D

- (a) 2 3 1 4
- (b) 2 1 4 3
- (c) 2 4 1 3
- (d) 2 3 4 1

**ANS : P-2, Q-4, R-1, S-3**

---

**404.** What is the minimum number of NAND gates required to implement  $A + AB' + AB'C$ ? **ANS: 0**

---

**405.** What is the highest normal form level satisfied by the following table design?  $R=\{A1,A2,A3,A4,A5\}$   $F=\{A1 \rightarrow A3, A3 \rightarrow A4\}$  Key = {A1,A2}

---

**406.** If  $X \rightarrow Y$  and  $X \rightarrow Z$  then  $X \rightarrow YZ$

---

**407.**

```
#include
int main()
{
    int ok=-100;
    -100;
    printf("%d",ok);
    return 0;
}
```

Find the output. **-100**

---

**408.** Discontinuity approach of segmentation depends upon  
**ABRUPT CHANGES**

---

**409.** A certain 5-bit self-complementary code is used to represent the 10 decimal digits 0 through 9. Given that (246) in decimal is represented as 00010 00100 00110 in this code, what is the representation for (375)?

---

**410.** Frasch process is for **The Frasch process is a method to extract sulfur from underground deposits. It is the only economic method of recovering sulfur from elemental deposits**

---

**411.** Among simple LR (SLR), canonical LR, and look-ahead LR (LALR), which of the following pairs identify the method that is very easy to implement and the method that is the most powerful, in that order?

**SLR, canonical LR**

---

**412.** Cumene is the starting material for the production of ANS: **phenol and acetone**

---

**413.** How many flip-flops are required to make a MOD-32 binary counter? **5**

---

**414.** Discontinuity approach of segmentation depends upon **abrupt changes**

---

**415.** X->Y, XY->Z infers **X->Z**

---

**416.** Consider the following Syntax Directed Translation Scheme (SDTS), with non-terminals {S, A} and terminals {a, b}.

S	→	aA	{ print 1 }
S	→	a	{ print 2 }
A	→	Sb	{ print 3 }

Using the above SDTS, the output printed by a bottom-up parser, for the input **aab is 231**

---

**417.**

```
#include
enum numbers
{
    zero, one, two, three , four=3,five,six,seven=0,eight
};
void main()
{
    printf("%d,%d,%d,%d,%d,%d,%d,%d",zero,one,two,three,four,five,six,seven,eight);
}
```

What will be the output. **0,1,2,3,3,4,5,0,1**

---

**418.**

```
#include <stdio.h>
int main(){
    int a,b,c;
    a=0x10; b=010;
    c=a+b; printf("\nAddition is=%d",c); return 0;
```

419. To operate correctly, starting a ring counter requires

Presetting one flip-flop and clearing all others

---

420. An engineer is tasked to verify a software release for a mission critical system. The plan is for the release of software for verification to occur on a Monday, with verification complete the following Friday. The release turns out not to be available until Thursday. The best route for the engineer is to:

[a] verify release criteria regardless of time line.

---

421.

- (A)  $S \rightarrow AB$   
 $A \rightarrow Aa \quad | \quad b$   
 $B \rightarrow c$
- (B)  $S \rightarrow Ab \quad | \quad Bb \quad | \quad c$   
 $A \rightarrow Bd \quad | \quad \epsilon$   
 $B \rightarrow e$
- (C)  $S \rightarrow Aa \quad | \quad B$   
 $A \rightarrow Bb \quad | \quad Sc \quad | \quad \epsilon$   
 $B \rightarrow d$
- (D)  $S \rightarrow Aa \quad | \quad Bb \quad | \quad c$   
 $A \rightarrow Bd \quad | \quad \epsilon$   
 $B \rightarrow Ae \quad | \quad \epsilon$

**ANS:B**

---

422. Given the functional dependencies, {AB → CDE and A → E}, for relation schema R = (A,B,C,D,E) we can infer the following:

---

423. #include  
int main()  
{  
 int var=250;  
 printf("value of var = %d\n",var);  
 200+50;

"includehelp.com";

```

printf("%s\n","includehelp");
return 0;
}

```

Find the output **value of var = 250**

**includehelp**

**424.**

$$L_1 = \{0^p 1^q 0^r \mid p, q, r \geq 0\}$$

$$L_2 = \{0^p 1^q 0^r \mid p, q, r \geq 0, p \neq r\}$$

Consider the following languages.

Which one of the following statements is FALSE?

(B)  $L_1 \cap L_2$  is context-free.

---

**425.** ASCII, EBCDIC, and Unicode are examples of ----- **ALPHANUMERIC CODES**

---

**426.** Cartesian product in relational algebra is **CROSS JOIN**

---

**427.** The set of fundamental assumptions about what products the organization should produce, how and where it should produce them, and for whom they should be produced is **CULTURE**

---

**428.** Represent the decimal number 937.25 to Excess-4 form

---

**429.** DML is provided for **MANIPULATION AND PROCESSING OF DATABASE**

---

**430.** Consider the CFG with {S,A,B} as the non-terminal alphabet, {a,b} as the terminal alphabet, S as the start symbol and the following set of production rules

S --> aB      S --> bA

B --> b      A --> a

B --> bS      A --> aS

B --> aBB      A --> bAA

Which of the following strings is generated by the grammar?

**A. aabbab**

---

**431.** The set of fundamental assumptions about what products the organization should produce, how and where it should produce them, and for whom they should be produced is **CULTURE**

---

**432.** Find the output:

```
#include
```

```
int main()
{
    int a=100;
    printf("%d\n"+1,a);
    printf("Value is = %d"+3,a);
    return 0;
}
d
ue is = 100
```

**433.** The language  $L = \{0^i 2 1^i \mid i \geq 0\}$  over the alphabet  $\{0, 1, 2\}$  is: **ANS: is recursive and is a deterministic CFL.**

---

**434.** Which one is not a self complementary code?

The 2421, the excess-3 and the 84-2-1 codes are examples of self-complementing codes. Such codes have the property that the 9's complement of a decimal number is obtained directly by changing 1's to 0's and 0's to 1's (i.e., by complementing each bit in the pattern). For example, decimal 395 is represented in the excess-3 code as 0110 1100 1000. The 9's complement of 604 is represented as 1001 0011 0111, which is obtained simply by complementing each bit of the code (as with the 1's complement of binary numbers).

**435.** What will be the output?

```
#include <stdio.h>
int main()
{
    extern int ok;
    printf("value of ok = %d",ok);
    return 0;
}
extern int ok=1000;    ANS:1000
```

**436.** In CMM, the life cycle activities of requirements analysis, design, code, and test are described in **Software Product Engineering**

---

**437.** ODBC stands for **Open Data Base Connectivity**

---

**438.** The decimal equivalent of hexadecimal number ‘A580’ is **42368**

---

**439.** Which of the following is/are main parameters that you should use when computing the costs of a software development project?

---

6. Which of the following is/are main parameters that you should use when computing the costs of a software development project?

- a) travel and training costs
- b) hardware and software costs
- c) effort costs (the costs of paying software engineers and managers)
- d) all of the mentioned

 View Answer

Answer: d

**440.**

(A)

$S \rightarrow AC|CB$   
 $C \rightarrow aC\ b|a|b$   
 $A \rightarrow a\ A|\epsilon$   
 $B \rightarrow B\ b|\epsilon$

(B)  $S \rightarrow aS|Sb|a|b$

(C)

$S \rightarrow AC|CB$   
 $C \rightarrow aC\ b|\epsilon$   
 $A \rightarrow a\ A|\epsilon$   
 $B \rightarrow B\ b|\epsilon$

(D)

$S \rightarrow AC|CB$   
 $C \rightarrow aC\ b|\epsilon$   
 $A \rightarrow a\ A|a$   
 $B \rightarrow B\ b|b$

**ANS: D**

---

**441.** Architecture of the database can be viewed as **THREE LEVELS**

---

**442.** Find the output:

```
#include <stdio.h>
int main()
{
    int a=23;
    ;
    ;printf("%d",a);
    ;
    return 0;
}
```

**ANS: 23**

**443.** Following can be used to implement a SOP function without changing it into minterms

---

**444.** #include  
int main()  
{  
 int intVar=24;  
 static int x=intVar;  
 printf("%d,%d",intVar,x);  
 return 0;  
}

Find the output of this program, (program name is: static\_ec.c) **ANS: ERROR: Illegal Initialization**

---

**445.** Which one of the following models is not suitable for accommodating any change?

**WATERFALL MODEL**

---

**446.** In case of entity integrity, the primary key may be

**NOT NULL**

---

**447.** The language  $\{a^m b^n C^{m+n} \mid m, n \geq 1\}$  is  
**CONTEXT FREE BUT NOT REGULAR**

---

**448.** In an E-R diagram attributes are represented by **ELLIPSE**

---

**449.** The three key levels at which responsibility can be defined is at the \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

1. **Top level / Administrative level**
  2. **Middle level / Executory**
  3. **Low level / Supervisory / Operative / First-line managers**
- 

**450.** #include <stdio.h>

```
int main()
{
    int a=15;
    float b=1.234;
    printf("%*f",a,b);
    return 0;
}
```

Predict the output? ANS: **1.234000**

---

**451.** A comparison between ring and Johnson counters indicates that: Like a **ring counter** a **Johnson counter** is a shift register fed back on its' self. It requires half the stages of a comparable **ring counter** for a given division ratio. If the complement output of a **ring counter** is fed back to the input instead of the true output, a **Johnson counter** results.

**ANS:** a johnson counter has an inverted feedback path

---

**452.** The language accepted by a Pushdown Automation in which the stack is limited to 10 items is best described as  
The language accepted by a Pushdown Automaton in which the stack is limited to 10 items is best described as

- A. Context free
- B. Regular
- C. Deterministic Context free
- D. Recursive

**ANS)B REGULAR**

---

**453.** Usecase analysis focuses upon **ACTORS**

---

- 
- 454.** One application of a digital multiplexer is to facilitate:  
**Parallel to serial data conversion**
- 

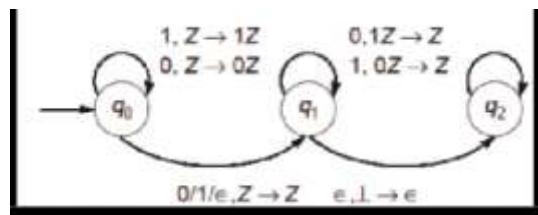
**455.** #include <stdio.h>  
int main()  
{  
 float a,b;  
 a=3.0f;  
 b=4.0f;  
 printf("%.0f,% .1f,% .2f",a/b,a/b,a/b);  
 return 0;  
}

Find the output. **ANS: 1,0.8,0.75**

---

- 456.** In an E-R diagram an entity set is represent by a **RECTANGLE**
- 

- 457.** Consider the NPDA  $\langle Q = \{q_0, q_1, q_2\}, \Sigma = \{0, 1\}, \Gamma = \{0, 1, \perp\}, \delta, q_0, \perp, F = \{q_2\} \rangle$ , where (as per usual convention)  $Q$  is the set of states,  $\Sigma$  is the input alphabet,  $\Gamma$  is stack alphabet,  $\delta$  is the state transition function,  $q_0$  is the initial state,  $\perp$  is the initial stack symbol,
-



Which one of

and F is the set of accepting states, The state transition is as follows:

the following sequences must follow the string 101100 so that the overall string is accepted by the automaton?

**ANS: 10010**

457

Flip-flop excitation tables shows **that minimum inputs that are necessary to generate a particular next state**

**458.** Which of the following languages are context-free?

$$L1 = \{a^m b^n a^n b^m \mid m, n \geq 1\}$$

$$L2 = \{a^m b^n a^m b^n \mid m, n \geq 1\}$$

$$L3 = \{a^m b^n \mid m = 2n + 1\}$$

**ANS: L 1 and L 3 only**

**459.** Count function in SQL returns the number of  
**NUMBER OF ROWS**

**460.** What type of declaration is this:

unsigned num;

unsigned integer

**461.** An engineer is tasked to verify a software release for a mission critical system. The plan is for the release of software for verification to occur on a Monday, with verification complete the following Friday. The release turns out not to be available until Thursday. The best route for the engineer is to:

**[a] verify release criteria regardless of time line.**

463

Which of the following is a legal expression in SQL?

- (1) Admission scheduler
- (2) Dispatcher scheduler

- (3) Swapping scheduler
- (4) Process scheduler
- (5) Path scheduler

**Ans. (2) Dispatch scheduler is a legal expression in SQL.**

**462.** Let G be the CFG, l be the number of left most derivations, r be the number of right most derivations and P be the number of parse trees. Assume l, r and P are computed for a particular string. For a given CFG 'G' and given string 'w', what is the relation between l, P, r?

**I = P = r**

**463.** Which statement does not require semicolon?

ANS: #define MAX 1000

**464.** Which one of the following is a valid project Key Performance Indicator (KPI)?

- a. Staff appraisals. b. Management buy in. c. Milestone achievement. d. Master schedule.

ANS C

---

**465.** How is a J-K flip-flop made to toggle? J=1,K=1

---

**466.** Find the output:

```
#include <stdio.h>
void main()
{
    const char var='A';
    ++var;
    printf("%c",var);
}
```

ANS: ERROR

**467.** Calculate the person months for a project that was completed in two months with two people working on it.

---

**468.** Which of the following is a comparison operator in SQL?

<, <=, >, >=, =, <>, !=, <=, >=

**469.** Consider 2 scenarios:

C1: For DFA ( $\varphi$ ,  $\Sigma$ ,  $\delta$ ,  $q_0$ ,  $F$ ),

if  $F = \varphi$ , then  $L = \Sigma^*$

C2: For NFA ( $\varphi$ ,  $\Sigma$ ,  $\delta$ ,  $q_0$ ,  $F$ ),

if  $F = \varphi$ , then  $L = \Sigma^*$

Where  $F$  = Final states set

$\varphi$  = Total states set

Choose the correct option ?

(C) C1 is true, C2 is false

---

**470.** The combination of Sixteen adjacent squares in four variable K-map represent the function equal to

One square represents one minterm, giving a term with four literals.

Two adjacent squares represent a term with three literals.

Four adjacent squares represent a term with two literals.

Eight adjacent squares represent a term with one literal.

Sixteen adjacent squares produce a function that is always equal to 1.

## ANS 1

**471.** Given the language  $L = \{ab, aa, baa\}$ , which of the following strings are in  $L^*$ ?

- 1) abaabaaaabaa
- 2) aaaabaaaa
- 3) baaaaabaaaab
- 4) baaaaabaa

1 2 AND 4

---

**472.** Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join is:

$M^N$

---

**473.** K-map follow following code for marking adjacent variables

---

GREY CODE

**474. FIND THE OUTPUT:**

```
#include <stdio.h>
void main()
{
    int x=10;
    x+=(x++)+(++x)+x;
    printf("%d",x);
}
```

**ANS: 45**

**475.** Functional requirements of a system is modelled using **USE CASES**

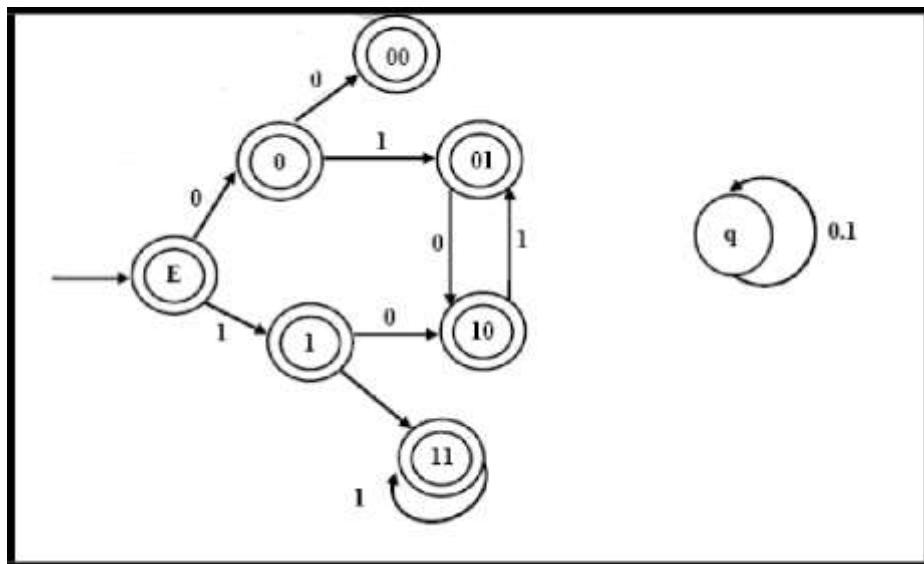
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**476.** Who owns the Project Management Plan (PMP)?

Project Management Institute

---

**477.** Consider the set of strings on  $\{0,1\}$  in which, every substring of 3 symbols has at most two zeros. For example, 001110 and 011001 are in the language, but 100010 is not. All strings of length less than 3 are also in the language. A partially completed DFA that accepts this language is shown below.



The missing arcs in the DFA are

	00	01	10	11	q
00		1			0
01				1	
10	0				
11			0		

**ANS:**

**478.** A B-tree of order  $m$  has maximum of \_\_\_\_\_  $m$  \_\_\_\_\_ children

---

**479. PREDICT THE OUTPUT:**

```
#include <stdio.h>
void main()
{
    int a=10,b=2,x=0;
    x=a+b*a+10/2*a;
```

```
    printf("value is =%d",x);  
}
```

---

**ANS: 80**

**480.** The total number of pins for the IC 8255 is

40

---

**481.** Definition of a language L with alphabet {a} is given as following.

  
 $L = \{ a^k \mid k > 0, \text{ and } n \text{ is a positive integer constant} \}$

What is the minimum number of states needed in DFA to recognize L?

**ANS:** N+1

---

**482.** How many stages are there in process improvement? **ANS: 6**

---

**483.** The IC 8237 is a  
DMA CONTROLLER

---

**484.** SELECT department\_id, COUNT(last\_name) FROM employees;

---

**485.**

```
#include <stdio.h>
void main()
{
    unsigned short var='B';
    var+=2;
    var++;
    printf("var : %c , %d ", var,var);
}
```

Find the output

**ANS:** var : E, 69

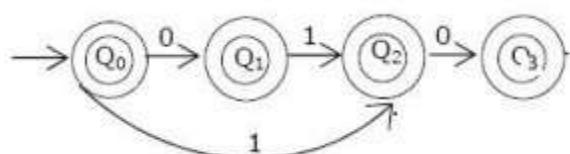
**486.** Let w be any string of length n is  $\{0,1\}^*$ . Let L be the set of all substrings of w. What is the minimum number of states in a non-deterministic finite automaton that accepts L?

Let w be any string of length n is  $\{0,1\}^*$ . Let L be the set of all substrings of w. What is the minimum number of states in a non-deterministic finite automaton that accepts L?

(A) n-1  
(B) n  
(C) n+1  
(D) 2n-1

**Answer:** (C)

**Explanation:** We need minimum n+1 states to build NFA that accepts all substrings of a binary string. For example, following NFA accepts all substrings of "010" and it has 4 states.



---

**487.** SELECT department\_id, AVG(salary) FROM employees WHERE AVG(salary) > 8000 GROUP BY department\_id

ANS: ERROR AT – WHERE AVG(salary)>8000 because cannot use group function in the where clause.

**490.** IC 8237 has -----many pins 40

---

**491.** Find the output:

```
#include <stdio.h>
void main()
{
    char var=10;
    printf("var is = %d",++var++);
}
```

**ERROR : L-Value required.**

**492.** Effective software project management focuses on four P's which are

**People, product, process, project**

---

**493.** Which one of the following is FALSE?

---

**494.** IC 8257 has -----4-----many channels for data transfer

---

**495.** what is the output for the following function? LPAD(salary,10,'\*')

ANS: LPAD (salary, 10,'\*')---->>> \*\*\*\*24000

---

**496.** Find the output:

```
#include<stdio.h>
Void main()
{int x=(20 || 40)&& (10); printf("x= %d",x);
 }
```

ANS: **x=1**

**497** What is the recommended distribution of effort for a software project?

**ANS: 40-20-40**

---

**498**The MC 1488 is

*The MC1488 is a monolithic quad line driver designed to interface data*

*terminal equipment with data communications*

---

**499**State the acronym of POMA in software project management

**Planning ,organization,monitoring, Adjusting**

---

**500**

Given the following state table of an FSM with two states A and B, one input and one output:

Present State State A	Present State B	Input	Next State A	Next State B	Output
0	0	0	0	0	1
0	1	0	1	0	0
1	0	0	0	1	0
1	1	0	1	0	0
0	0	1	0	1	0
0	1	1	0	0	1
1	0	1	0	1	1
1	1	1	0	0	1

If the initial state is A=0, B=0, what is the minimum length of an input string which will take the

**500.** machine to the state A=0, B=1 with Output = 1?

Given the following state table of an FSM with two states A and B, one input and one output:

Present State State A	Present State B	Input	Next State A	Next State B	Output
0	0	0	0	0	1
0	1	0	1	0	0

ANSWER (A). 3

501. `SELECT last_name, SYSDATE-hire_date FROM employees;`

Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

`SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS`

`FROM employees`

`WHERE department_id = 90;`

(\*)

`SELECT last name, (SYSDATE-hire_date)/7 DISPLAY`  
`WEEKS`

`FROM employees`

`WHERE department id = 90;`

`SELECT last_name, # of WEEKS`

`FROM employees`

`WHERE department_id = 90;`

`SELECT last_name, (SYSDATE-hire_date)AS WEEK`

`FROM employees`

`WHERE department_id = 90;`

Correct

---

502. #include <stdio.h>  
void main()  
{  
 int x;  
 x= (printf("AA")||printf("BB"));  
 printf("%d",x);  
 printf("\n");  
  
 x= (printf("AA")&&printf("BB"));  
 printf("%d",x);  
}

Find the output

ANSWER

AA1

AABB1

---

503. The fundamental notions of software engineering does not account for ?

ANSWER Software Validation

---

504. The IC Number for USART is -----

ANSWER 8251

---

505. Which of the following statements is false?

---

506. SELECT employee\_id, last\_name FROM employees WHERE salary = (SELECT MIN(salary) FROM employees GROUP BY department\_id);

---

507. What is the output?

```
#include <stdio.h>
void main()
{
    int a=3,b=2;
    a=a==b==0;
    printf("%d,%d",a,b);
}
```

ANSWER 1,2

---

508. when you were asked to design a relation, you come across a situation, where passport number is to be included for the people. All the students wont be having passport. So what constraint you would be using?

**ANS:** Cant use not null, cant use primary key. Can use unique, can use >DEFAULT< most likely

---

**509.** The IC 8251 A has -----many pins

**ANSWER 29**

---

**510.** Which of the following are regular sets?

---

\_\_\_\_\_

- I.  $\{a^n b^{2m} \mid n \geq 0, m \geq 0\}$   
 II.  $\{a^n b^m \mid n = 2m\}$   
 III.  $\{a^n b^m \mid n \neq m\}$   
 IV.  $\{x y \mid x, y \in \{a, b\}^*\}$

---

ANSWER (A). I and IV only  
 $\{anb2m \mid n \geq 0, m \geq 0\} \cup \{anb2m \mid n \geq 0, m \geq 0\}$   
 $\{x y \mid x, y \in \{a, b\}^*\} \cup \{x y \mid x, y \in \{a, b\}^*\}$

511. #include <stdio.h>  

```
void main(){
    int intVar=20,x;
    x= ++intVar,intVar++,++intVar; printf("Value
of intVar=%d, x=%d",intVar,x);
}
```

Find the output

---

ANSWER intVar=23,x=21

512. Which one of the following statements best defines the purpose of a Product Breakdown Structure (PBS)?

ANSWER (a). To define the hierarchy of deliverables that are required to be produced on the project.

---

513. Which of the following is not a technology driver for an information system?

ANSWER (C) knowledge asset management

---

514. create table student\_\$( id number(4), namee varchar2(10)); reponse would be

---

515. #include <stdio.h>  

```
int main(){
    char val=250;
    int ans;
    ans= val+ !val + ~val +
    ++val; printf("%d",ans);
    return 0;
}
```

Find the output.

ANSWER -2

---

516. Which of the following is TRUE?

517. The IC 8279 has -----many pins

ANSWER 40

---

**518.** Which of the following languages is regular?

ANSWER (C).  $\{wxwR \mid x, w \in \{0,1\}^+\} \{wxwR \mid x, w \in \{0,1\}^+\}$

---

(A)  $\{ww^R \mid w \in \{0,1\}^+\}$

(B)  $\{ww^Rx \mid x, w \in \{0,1\}^+\}$

(C)  $\{wxw^R \mid x, w \in \{0,1\}^+\}$

(D)  $\{xww^R \mid x, w \in \{0,1\}^+\}$

---

519. The IC 8254 has -----many pins

Answer 24

---

520. With SQL, how can you insert "Olsen" as the "LastName" in the "Persons" table?

ANSWER (A) `INSERT INTO Persons (LastName) VALUES ('Olsen')`

---

521. During a software development project two similar requirements defects were detected. One was detected in the requirements phase, and the other during the implementation phase. Which of the following statements is mostly likely to be true?

ANSWER (B). The most expensive defect to correct is the one detected during the implementation phase.

---

522. `#include <stdio.h>`

```
int main(){
    float a;
    (int)a= 10;
    printf("value of
    a=%d",a); return 0;
}
```

Find the output

ANSWER L-value required

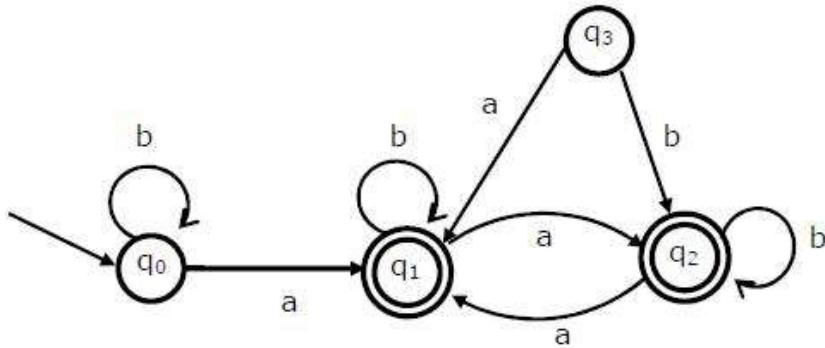
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523. Assuming today is , 10 July 2000, what is returned by this statement: `SELECT to_char>Last_DAY(sysdate), 'DD-MON-RR') FROM dual;`

**ANS. 31-Jul-00**

---

524.



525. The IC 8254 has -----many 16 bit counters

ANSWER 3

---

526. `#include`

```
<stdio.h> int main(){
    int x; x=100,30,50;
    printf("x=%d\n",x);
    x=(100,30,50);
    printf("x=%d\n",x);
    return 0;
}
```

Find the output

## ANSWER

---

x=100

x=50

527. Consider a software program that is artificially seeded with 100 faults. While testing this program, 159 faults are detected, out of which 75 faults are from those artificially seeded faults. Assuming that both are and seeded faults are of same

nature and have same distribution, the estimated number of undetected real fault is

**ANSWER (A). 28**

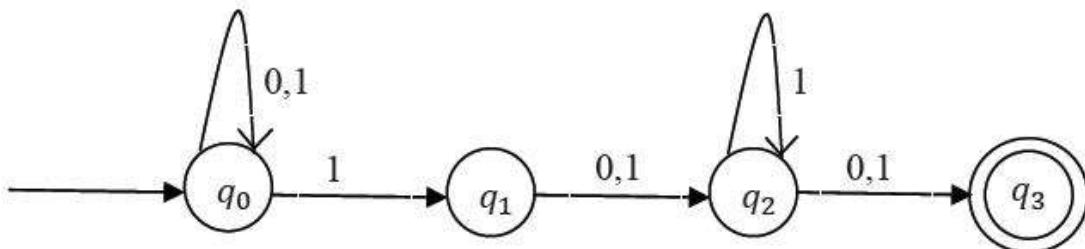
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**528.** Each counter of IC 8254 can work in -----differnt modes of operation

**ANSWER 6**

---

**529.** Consider the finite automaton in the following figure.



What is the set of reachable states for the input string 0011?

**ANSWER (A). {q0,q1,q2}**

---

**530.** System reactions to external events is depicted by

**ANSWER state diagram**

---

**531.** #include <stdio.h>

```
int main()
{
    int i=-1,j=-1,k=0,l=2,m;
    m=i++&&j++&&k++||l++;
    printf("%d %d %d %d
    %d",i,j,k,l,m); return 0;
}
```

Find the output

**ANSWER 0 0 1 3 1**

---

**532.** Which character function can be used to return a specified portion of a character string?

**Answer: SUBSTR**

---

**533.** #include <stdio.h>

```
int main()
{
    int var;
    var=-10;
    printf("value of var=
    %d\n",var); var+=+10;
    printf("value of var=
    %d\n",var); return 0;
}
```

Find the output

**ANSWER**

value of var =10  
value of var =10

---

534. Waterfall model of software development is also termed as

ANSWER linear sequential model

---

535. The difference between the Drop SQL clauses is:

**DELETE Statement:** This command deletes only the rows from the table based on the condition given in the where clause or deletes all the rows from the table if no condition is specified. But it does not free the space containing the table.

**TRUNCATE statement:** This command is used to delete all the rows from the table and free the space containing the table.

The SQL DROP command is used to remove an object from the database. If you drop a table, all the rows in the table is deleted and the table structure is removed from the database. Once a table is dropped we cannot get it back, so be careful while using DROP command. When a table is dropped all the references to the table will not be valid

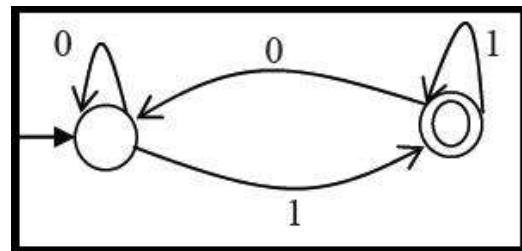
---

536. NOR Gate does NOT follow

ANSWER associative and distributive

---

537.



Which of the regular expressions given below represent the following DFA?

I)  $0^*1(1+00^*1)^*$

II)  $0^*1^*1+11^*0^*1$

III)  $(0+1)^*1$

ANSWER II and III only

---

538. #include  
<stdio.h> int main()  
{  
 int x,y;  
  
 x=(100,200);  
 y=100,200;  
  
 printf("x=%d,y=%d",x,y);  
  
 return 0;  
}

Find the output

ANSWER x=200,y=100

---

539. Which statement is true:

---

540. The length of the shortest string NOT in the language (over  $\Sigma = \{a, b\}$ ) of the following regular expression is \_\_\_\_\_.

a\*b\*(ba)\*a\*

ANSWER length=3,bab

---

541. Extreme Programming process model includes framework ac\_vi\_es such as

ANSWER planning, design, coding, testing

---

542. The UNION SQL clause can be used with...

ANSWER The select clause only

543. Which is a major problem with SQL?

SQL cannot support object-orientation

b) The same query can be written in many ways, each with vastly different execution plans.

c) SQL syntax is too difficult for non-computer professionals to use

d) SQL creates excessive locks within the Oracle database

**Answer B: the declarative nature of SQL makes it possible to write an individual query in many different forms, each with identical results.**

**For example, a query he can be written with a standard join, a non-correlated sub-query or a correlated sub-query, each producing identical results but with widely varying internal execution plans.**

---

---

544. Important capability needed for an agile software developer is  
Both provide processes, tools, and techniques  
Both require a disciplined approach to software development  
Each has strengths and weaknesses  
Agile methodologies address many situations for which Plan-driven methodologies are not well suited  
Agile is still a disciplined approach to software development but with an emphasis on different aspects of the process!  
Plan driven emphasizes formal communications and control  
Agile emphasizes continual communication and ability to adapt to changes and uncertainty  
Highly iterative to achieve quality over lots of gates to control quality  
Inspect work as it is being done over Inspect product when it is complete  
Start with a goal of filling a need over Start by predicting what will be delivered

---

545. Arrange the operators according to their precedence: +, %, ->, =

---

ANSWER  $->, %, +, =$

---

546. The clock signals are used in sequential logic circuits to

---

ANSWER Synchronize events in various parts of the system

---

547. Consider the regular language  $L = (111 + 11111)^*$ . The minimum number of states in any DFA accepting this language is:

ANSWER 9

---

548. Which SQL function is used to count the number of rows in a SQL query?

ANSWER `count()` function

---

549. In which phase is Agile Modeling(AM) carried out

ANS: Inception phase

---

550. Find the output

```
#include <stdio.h>

int main()
{
    int x=65;
    const unsigned char c=(int)x;

    printf("%c\n",c);

    return 0;
}
```

ANSWER 'A'

---

551. The smallest finite automaton which accepts the language  $\{x \mid \text{length of } x \text{ is divisible by 3}\}$  has :

ANSWER 3 states

---

552. A binary code that progresses such that only one bit changes between two successive codes is:

**ANSWER gray code**

---

553. #include <stdio.h>

```
int main()
{
    int x=2.3;
    const char c1=(float)x;
    const char c2=(int)x;

    printf("%d,%d\n",c1,c2);

    return 0;
}
```

Find the output

ANSWER 2,2

---

**554.** A software requirements specification (SRS) document should avoid discussing which one of the following?

**ANSWER** design specification

---

**555.** The SQL BETWEEN operator

**ANS:** The BETWEEN operator selects values within a given range.

---

**556.** In a BCD-to-seven-segment converter, why must a code converter be utilized?

**ANSWER** to convert the 4-bit BCD into 7-bit code

---

**557.** Consider a DFA over  $\Sigma = \{a, b\}$  accepting all strings which have number of a's divisible by 6 and number of b's divisible by 8. What is the minimum number of states that the DFA will have?

**ANSWER 48**

---

**558.** #include <stdio.h>

```
int main()
{
    char *text="Hi Babs.";
    char x=(char)(text[3]);
    printf("%c\n",x);
    return 0;
}
```

Find the output

**ANSWER 'B'**

---

**559.** \_\_\_\_\_ is the 1st step in the testing process

**ANSWER** requirement analysis

**560.** How many select lines would be required for an 8-line-to-1-line multiplexer?

**ANSWER 3**

**561.** How many minimum states are required in a DFA to find whether a given binary string has odd number of 0's or not, there can be any number of 1's.

**ANSWER 2**

**562.** The function used to remove the leading spaces

**ANSWER** trim()

**563.** One can safely state that the output lines for a demultiplexer are under the direct control of the:

**ANSWER** input data select lines.

**564.** Which date function is used to obtain the date of next Wednesday

**Most likely** DATEADD()

---

565. #include <stdio.h>

```
int main()
{
    int x=65;
    const unsigned char c=(int)x;
```

```
printf("%c\n",c);
return 0;
}
Find the output
```

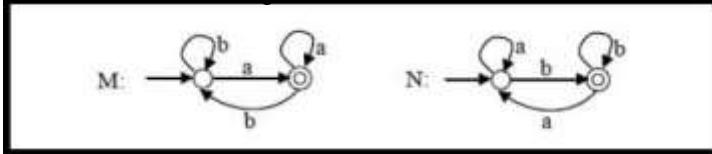
ANSWER 'A'

---

566. Which of the following is not a Life-critical System?

---

567. Consider the DFAs M and N given above. The number of states in a minimal DFA that accepts the language  $L(M) \cap L(N)$  is



---

ANSWER 1

---

568. What is the maximum number of reduce moves that can be taken by a bottom-up parser for a grammar with no epsilon- and unit-production (i.e., of type  $A \rightarrow \epsilon$  and  $A \rightarrow a$ ) to parse a string with  $n$  tokens?

---

ANSWER  $n-1$

---

569. This is a software development process model  
**Waterfall, Prototyping, Incremental, Spiral, Iterative Development, Agile, Reuse Oriented**

---

570. #include <stdio.h>

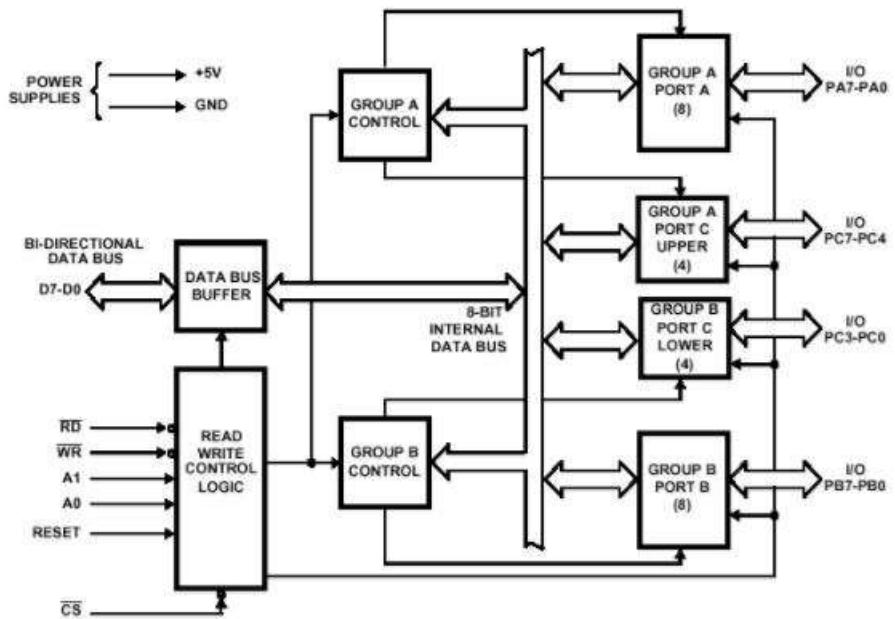
```
int main()
{
    char *text="Hi Babs.";
    char x=(char)(text+3);
    printf("%c\n",x);
    return 0;
}
Find the output
```

ANSWER error:warning – cast from pointer to integer

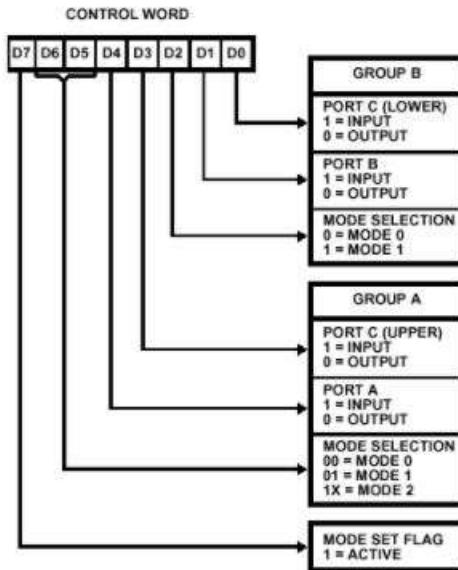
---

571. Insert into Emp(101, 'XXX') gives the following error

572. Identify the proper data direction and modes of operation of the 8255 ports if the control word written into it is 9BH.



Block Diagram of the 8255 Programmable Peripheral Interface (PPI)



Mode Definition Format

573. The following SQL is which type of join: SELECT CUSTOMER\_T.CUSTOMER\_ID, ORDER\_T.CUSTOMER\_ID, NAME, ORDER\_ID FROM CUSTOMER\_T,ORDER\_T ;

**ANSWER** cartesian join

574. #include <stdio.h>  
void main()

```
{  
    int a=10;  
    switch(a){  
        case 5+5:  
            printf("Hello\\n");  
        default:  
            printf("OK\\n");  
    }  
}
```

Find the output

ANSWER

Hello

---

575. Which of the following command words need to be programmed to operate a single PIC in fully nested mode with an 8086 microprocessor

**ANS: SFNM Special fully nested mode is selected, if SFNM = 1.**

**IN OPTIONS- BIT 4 AND BIT 0 IS SET TO 1**

---

576. Consider the following two sets of LR(1) items of an LR(1) grammar.

X → c.X, c/d

X → .cX, c/d

X → .d, c/d

X → c.X, \$

X → .cX, \$

X → .d, \$

Which of the following statements related to merging of the two sets in the corresponding LALR parser is/are FALSE?

1. Cannot be merged since look aheads are different.
2. Can be merged but will result in S-R conflict.
3. Can be merged but will result in R-R conflict.
4. Cannot be merged since goto on c will lead to two different sets.

ANSWER 1,2,3,4

---

577. Software Specification is the process where

**A software requirements specification (SRS) is a description of a software system to be developed. It lays out functional and non-functional requirements, and may include a set of use cases that describe user interactions that the software must provide.**

---

578. What is the type of software design that defines interfaces between system components?

**system architecture**

---

**579.** When operated in slave mode, the PIC outputs its type number only if the cascaded address received on CAS0-CAS2 matches the address programmed in ----- bits D0-D2

---

**580.** Which of the following can be a valid column name?

**ANSWER** Catch\_#22

---

**581.**

$\{a^p \mid p \text{ is a prime}\}^*$

Which of the following is true for the language

**ANSWER**

(D) It is neither regular nor context-free, but accepted by a Turing machine

---

582. #include <stdio.h>  
void main()  
{  
 int a=2;  
 switch(a)  
 {  
 printf("Message\n");  
 default:  
 printf("Default\n");  
 case 2:  
 printf("Case-  
2\n"); case 3:  
 printf("Case-3\n");  
 }  
 printf("Exit from switch\n");  
}

Find the output

ANSWER

**Case-2**

**Case-3**

**Exit from switch**

---

583. If L and L' are recursively enumerable, then L is

ANSWER recursive

---

584. #include <stdio.h>  
void main()  
{  
 int a=2;  
 int b=a;  
  
 switch(b)  
 {  
 case a:  
 printf("Case-a\n"); break;  
 case 3:  
 printf("Case-3\n"); break;  
 default:  
 printf("No option\n"); break;  
 }  
 printf("Exit from switch");  
}

Find the output

ANSWER Error: case expression not constant.

---

585. If the PIC outputs the type number of C8H, the CPU will retrieve the vector stored in the address -----

CH8 is 11001000

---

**586.** What is a type of software design that designs system data structures to be used in a database? The term database design can be used to describe many different parts of the design of an overall database system. Principally, and most correctly, it can be thought of as the logical design of the base data structures used to store the data.

**587.** Which of the following is shared between all of the threads in a process? Assume a kernel level thread implementation

**ANSWER file descriptors**

**588**1. What is an advantage of incremental delivery?

- a) Customer can respond to each increment
- b) Easier to test and debug
- c) It is used when there is a need to get a product to the market early
- d) Easier to test and debug & It is used when there is a need to get a product to the market early

[View Answer](#)

Answer: d

Explanation: Incremental Model is generally easier to test and debug than other methods of software development because relatively smaller changes are made during each iteration and is popular particularly when we have to quickly deliver a limited functionality system. However, option “a” can be seen in other models as well like RAD model, hence option “d” answers the question.

589. #include <stdio.h>  
void main()  
{  
 short day=2;  
 switch(day)  
 {  
 case 2: || case 22:  
 printf("%d nd",day);  
 break;  
 default:  
 printf("%d  
th",day); break;  
 }  
}

Find the output

**ANSWER syntax error**

---

590. Which Instruction word is used to specify the number of stop bits, data bits, parity bit and the baud rate clock factor for the 8251A USART

**ANS: Mode instruction**

---

591. Let L1 be a recursive language, and let L2 be a recursively enumerable but not a recursive language. Which one of the following is TRUE?

L1' --> Complement of L1

L2' --> Complement of L2

**ANSWER (B).** L<sub>1</sub>' is recursive and L<sub>2</sub>' is not recursively enumerable

---

592. Round Robin scheduling is the strategy of temporarily suspending a running process time slices (also known as time quanta)[3] are assigned to each process in equal portions and in circular order, handling all processes without priority (also known as cyclic executive).

593. Which of the following is true?

594. An incorrectly typed command will cause the operating system to display

Sometimes you may type a command incorrectly, causing Linux to display an error message. For example, suppose you typed dat instead of date:

root@desktop:/root#  
dat  
bash: dat: command not found

595. #include <stdio.h>  
void main()  
{  
 short a=2;  
 switch(a)

```
{  
    case 1L:  
        printf("One\n");  
        break;  
    case 2L:  
        printf("Two\n");  
        break;  
    default:  
        printf("Else\n");  
        break;  
}  
}
```

Find the output

ANSWER 2

---

596. The interrupt cycle ends when the ..... instruction is executed

---

597 Which activity most easily lends itself to incremental design?

ANS: Testing

---

598. With a single resource, deadlock occurs,

ANSWER none of the above

---

599. A 32-bit address bus allows access to a memory of capacity

ANSWER more than 4 GB

---

600. #include <stdio.h>

```
void main(){
    static int staticVar; int j; for(j=0;j<=5;j+=2) switch(j){
        case 1: staticVar++; break;
        case 2: staticVar+=2;
        case 4: staticVar%=2; j=-1; continue;
        default: --staticVar; continue;
    }
    printf("%d",staticVar);
}
```

Find the output

ANSWER 0

598. 600. #include <stdio.h>

```
void main(){
    static int staticVar; int j;
    for(j=0;j<=5;j+=2) switch(j){
        case 1: staticVar++; break;
        case 2: staticVar+=2;
        case 4: staticVar%=2; j=-1;
            continue;
        default: --staticVar; continue;
    }
    printf("%d",staticVar);
}
```

Find the output

Answer-0

598. 600. #include <stdio.h>

```
void main(){
    static int staticVar; int j;
    for(j=0;j<=5;j+=2) switch(j){
        case 1: staticVar++; break;
        case 2: staticVar+=2;
        case 4: staticVar%=2; j=-1;
            continue;
        default: --staticVar; continue;
    }
    printf("%d",staticVar);
}
```

}

Find the output

Answer-0

601. 601. System prototypes allow users Answer to communicate

601. 602.  $baa^*c$  denotes the set

Answer  $\{ba^n c | n \geq 1\}$

601. 603. #include <stdio.h>

```
void main()
{
    int a=2; switch(a/2*1.5)
    {
        case 1: printf("One..."); break;
        case 2: printf("Two..."); break;
        default: printf("Other... ");
        break;
    }
}
```

Find the output

Answer- 1. Error

604. 604. Software prototyping helps

605.

606. Answer

604. 605. A quadruple is a record structure with \_\_\_\_\_ fields.

Answer FOUR

604. 606. Use of \_\_\_\_\_ allows for some processes to be waiting on I/O while another process executes.

Answer DISPATCHER

604. 607. In 8086 microprocessor one of the following statements is not true

Answer coprocessor is interfaced in min mode.

604. 608. \_\_\_\_\_ OS pays more attention on the meeting of the time limits.

Answer Real Time

604. 609. The \_\_\_\_\_ ensures that only one IC is active at a time to avoid a bus conflict caused by two ICs writing different data to the same bus

## Answer address decoder

610. 610. What is NOT part of the design process

## Answer Evaluate candidate solutions

610. 611. #include <stdio.h>  
void main(){ int a=1; switch(a/2)  
{  
 case NULL:  
 printf("Case NULL\n"); break;  
 case 0:  
 printf("Case ZERO\n"); break;  
 default:  
 printf("DEFAULT\n");  
 break;  
}  
}

Find the output

Answer Error

612. 612. An optimizing compiler

Answer optimised the code

612. 613. #include <stdio.h>  
int main()  
{  
 int i;  
 for(i=0; i< 5; i++)  
 {  
 if(i\*i > 30 ) goto lbl;  
 else printf("%d",i);  
 lbl:  
 printf("IHelp ");  
 }  
 return 0;  
}

Find the output

Answer

1.0IHelp 1IHelp 2IHelp 3IHelp 4IHelp

614. 614. The purpose of a TLB is

Answer is a memory cache that stores recent translations of virtual memory to physical addresses for faster retrieval. When a virtual memory address is referenced by a program, the search starts in the CPU. First, instruction caches are checked.

**614. 615.** In the types of Three-Address statements, copy statements of the form  $x := y$  means

**Answer**  $y$  copied into  $x$

**614. 616.** Which of the following is not a part/product of requirements engineering?

**Answer** design

**614. 617.** How many operating modes are available in 8253A.

**Answer** 6

**614. 618.** What takes the fundamental process activities of specification, development, validation, and evolution and represents them as separate process phases such as requirements specification, software design, implementation testing, and so on?

**Answer** PLAN DRIVEN WATERFALL MODEL

**619. 619.** A view is a

**Answer** A view is a virtual table which results of executing a pre-compiled query

**619. 620.** The set of all strings over the alphabet {a,b} (including epsilon) is denoted by

**Answer**

**619. 621.** #include <stdio.h>

```
#define TRUE 1 int main()
{
    switch(TRUE)
    {
        printf("Hello");
    }
}
```

Find the output

**Answer** NO OUTPUT

**622. What does microprocessor speed depends on**

**Answer** The processing speed depends on DATA BUS WIDTH OR ADDRESS BUS.

**623. 623.** Which one of the following languages over alphabet {0,1} is described by the regular expression:  $(0+1)^*0(0+1)^*0(0+1)^*$ ?

**Answer** The set of all strings containing at least two 0's.

**623. 624.** #include < stdio.h >

```
void main()
{
    unsigned char var=0; for(var=0;var<=255;var++)
    {
        printf("%d ",var);
    }
}
```

}

Find the output

**Answer** 1. 0 1 2 ... infinite times

**625. 625.** What is based on the idea of developing an initial implementation, exposing this to user comment and evolving it through several versions until an adequate system has been developed?

**Answer** Evolutionary development OR INCREMENTAL DEVELOPMENT/BEST

**625. 626. The best index for exact match query is**

**Answer**

**625. 627.** The status that cannot be operated by direct instructions is

**Answer** AC

**625. 628.** How many transistors does the 8086 have

**Answer** 29,000 transistors

**625. 629.** How many DFAs exit with two states over the input alphabet (a,b)

**Answer** 64

**625. 630. Passing the request from one schema to another in DBMS architecture is called as \_\_\_\_\_**

**Answer** Mappings

**625. 631. Which is not part of the waterfall method?**

**Answer**

```
625. 632. #include <stdio.h>
void main()
{
    char cnt=0; for(;cnt++;printf("%d",cnt)) ;
    printf("%d",cnt);
}
```

Find the output

**Answer** 1

```
633. #include <stdio.h> void main()
{
    int i=1; while (i<=5)
    {
        printf("%d",i); if (i==5)
            goto print;
        i++;
    }
}
```

```
    }
}
fun()
{
    print:
        printf("includehelp.com");
}
```

Find the output

Answer error

634. 634. The maximum number of superkeys for the relation schema R(E,F,G,H) with E as the key is

Answer 8

634. 635. The first processor to include Virtual memory in the Intel microprocessor family was

Answer 80286

634. 636. Which one of the following regular expressions over {0,1} denotes the set of all strings not containing 100 as a substring?

Answer.  $0^*(10+1)^*$

634. 637. This software process model takes the fundamental activities of specification, development, validation, and evolution and represents them as separate process phases such as requirements specification, software design, implementation, testing, and so on

Answer waterfall , plan driven

638. Find the output

```
#include < stdio.h >
int main()
{
    int tally=0; for(;;)
    {
        if(tally==10)
            break;
        printf("%d ",++tally);
    }
    return 0;
}
```

Answer 1. 0 1 2 3 ... infinite times

639. 639. Which statement best describes a benefit of Incremental development over the waterfall model

Answer Advantages-

- Generates working software quickly and early during the software life cycle.

- This model is more flexible – less costly to change scope and requirements.
- It is easier to test and debug during a smaller iteration.
- In this model customer can respond to each built.
- Lowers initial delivery cost.
- Easier to manage risk because risky pieces are identified and handled during it'd iteration.

**639. 640.** The ESC instruction of 8086 may have two formats. In one of the formats, no memory operand is used.

Under this format, the number of external op-codes (for the co- processor) which can be specified is

**Answer** 128

**641.**

**Assume that a table R with 1000 records is to be joined with another table S with 10000 records. What is the maximum number of records that would result in if we join R with S and the equi-join attribute of S is the primary key?**

**Answer**

**642. 642.** The number of states in DFA is -----than the number of states in NFA for the same Language.

**Answer** A.  $m \leq 2^n$

**642. 643. If M1 machine recognizing L with n states, then M2 recognizing  $L^*$  constructed Using Thompson construction will have ----- states.**

**Answer**

**642. 644. Consider a schedule S1 given below;**

**R1(A); W1(A); R2(B); R2(A); R1(B); W2(A+B); W1(B); where R1 and W1 are read and write operations of transaction T1 and R2 and W2 are read and write operations of transaction T2.**

**Which of the following is correct regarding schedule S1?**

**Answer.**

**612. 645.** In incremental development system structure tends to \_\_\_\_\_ as many new increments are added.

**Answer DEGRADE**

**612. 646.** DB, DW and DD directives are used to place data in particular location or to simply allocate space without preassigning anything to space. The DW and DD directives are used to generate

**Answer offsets of full address of labels and variables**

```
647. #include <stdio.h> void main()
{
    int tally; for(tally=0;tally<10;++tally)
    {
        printf("#");
        if(tally>6)
            continue;
        printf("%d",tally);
    }
}
```

Find the output

**Answer** 1. #0#1#2#3#4#5#6##

**648.** #include <stdio.h> void main()

```
{
    int i,j,charVal='A';

    for(i=5;i>=1;i--)
    {
        for(j=0;j< i;j++)
            printf("%c ",(charVal+j)); printf("\n");
    }
}
```

Identify the output

**Answer**

A B C D E  
A B C D  
A B C  
A B  
A

**649. When FA M is given which recognizes language L and reverse of L is found by using M then there can be**

**Final states**

**Answer**

**650. 650.** The Hardware mechanism that enables a device to notify the CPU is called \_\_\_\_\_.

**Answer INTERRUPT**

**650. 651.** In reuse-oriented software engineering the last stage is \_\_\_\_\_.

## Answer Maybe Manage

650. 652. In a microprocessor, the service routine for a certain interrupt starts from a fixed location of memory which cannot be externally set, but the interrupt can be delayed or rejected. Such an interrupt is

**Answer** maskable and vectored

650. 653. In the running state

**Answer** only the process which has control of the processor is found

650.

651.

652.

**653.654. When there is complete DFA with Five states out of which two are final states if F is modified such that it recognizes complement of the original language then there will be at least \_\_\_\_\_ final states.**

**Answer**

650.655. In incremental delivery the \_\_\_\_\_ services are typically delivered first

**Answer** core product

650. 656. The -----is neither an input nor an output; it is an internal bit programmed via the PC4(Port A) or PC2(Port B) bits

**Answer** INTE (Interrupt enable)

```
650. 657. #include <stdio.h>
void main()
{
    int cnt=1; while(cnt>=10)
    {
        printf("%d ",cnt);
        cnt+=1;
    }
    printf("\nAfter loop cnt=%d",cnt); printf("\n");
}
```

Find the output

**Answer** After loop cnt=1

**658.658. Software specifications are intended to communicate the system needs \_\_\_\_\_**

**Answer** Maybe Functions

**658.659. The number of states in a machine M recognizing L1UL2 will be \_\_\_\_\_ where n is the number of states in M1 and m is the number of states in M2 .**

## Answer

660. #include  
#define TRUE 1 int main()  
{  
    int loop=10;  
    while(printh("Hello ") && loop--);  
}

Find the output

Answer Hello(11 times)

661. 661. \_\_\_\_ bit in ICW1 indicates whether the 8259A is cascade mode or not

Answer. SNGL=0

661. 662. The kernel keeps track of the state of each task by using a data structure called \_\_\_\_

Answer PROCESS CONTROL BLOCK

661. 663. Number of the times the instruction sequence below will loop before coming out of loop is, MOV AL, 00h A1: INC AL JNZ A1

Answer 256

661. 664. #include <stdio.h>  
int main()  
{  
    static int var[5]; int count=0;  
  
    var[++count]=++count;  
    for(count=0;count<5;count++) printf("%d  
        ",var[count]);  
  
    return 0;  
}

Find the output

Answer 00200

665. 665. How many two state FA can be drawn over alphabet{0,1} which accepts  $(0+1)^*$

Answer 20 WITH 2 STATES

665. 666. What is the most common approach for the development of application system now?

## Answer

665. 667. \_\_\_\_\_ does the job of allocating a process to the processor.

Answer DISPATCHER

**665. 668.** 8086 microprocessor is interfaced to 8253 a programmable interval timer. The maximum number by which the clock frequency on one of the timers is divided by

**Answer**

$2^{16}$

**665. 669.** Which of the following four activities that may be a part of the design process for information systems is where you design the system data structures and how these are to be represented?

**Answer**

**Architectural design**  
**Interface design**  
**Component design**  
**Database design**

**670.**  $(a+b)(cd)^*(a+b)$  denotes the following set

**Answer**  $\{A(CD)NA|N=1\}?\{B(CD)NB|N=1\}$

**671. 671.** In interactive environments such as time-sharing systems, the primary requirement is to provide reasonably good response time and in general, to share system resources equitably. In such situations, the scheduling algorithm that is most popularly applied is \_\_\_\_\_.

**Answer** Round Robin Scheduling

**671. 672.** #include <stdio.h>  
int main()  
{  
 int MAX=10; int array[MAX];  
 printf("size of array is = %d", sizeof(array)); return 0;  
}

Find the output

**Answer** size of array is 40

**673. 673. What is a software process model?**

**Answer**

**673. 674. When there is more than one final state in the reduced FA, then its regular expression will contain \_\_\_\_\_ operator surely**

**Answer**

675. 675. In the multi-programming environment, the main memory consisting of \_\_\_\_\_ number of process.

Answer more than one

675. 676. #include <stdio.h>  
#define MAX 10 int main()  
{ int array[MAX]={1,2,3},tally;  
for(tally=0;tally< sizeof(array)/sizeof(int);tally+=1) printf("%d ",\*(tally+array));  
return 0;  
}

Find the output

Answer 1230000000

677. 677. LOCK prefix is used most often

Answer during interrupt servicing.

677. 678. A data structure where elements can be added or removed at either end but not in the middle

Answer Dequeue

677. 679. In Priority Scheduling a priority number (integer) is associated with each process. The CPU is allocated to the process with the highest priority (smallest integer = highest priority). The problem of, Starvation ? low priority processes may never execute, is resolved by \_\_\_\_\_.

Answer Aging

677. 680. #include <stdio.h>  
int main()  
{ static int x[]={A,B,C,D,E},tally; for(tally=0;tally< sizeof(x)/sizeof(int) ; tally+=1)  
printf("%c,%c,%c\n",\*(x+tally)+1,x[tally]+1,\*(tally+x)+1);  
return 0;  
}

Find the output

Answer

B B B  
C C C  
D D D  
E E E  
F F F

680. #include <stdio.h>  
int main()  
{ static int x[]={A,B,C,D,E},tally; for(tally=0;tally< sizeof(x)/sizeof(int) ; tally+=1)  
printf("%c,%c,%c\n",\*(x+tally)+1,x[tally]+1,\*(tally+x)+1);  
return 0;  
}

Find the output

Answer

B B B  
C C C  
D D D  
E E E  
F F F

801. Activities such as documentation and software configuration management are what kind of process activities?

Answer: Software design management.

These are typically made by a software administrator

682. In 8086 microprocessor the following has the highest priority among all type interrupts

Answer NMI

683. The Epsilon-Closure of any state q will contain the state \_\_\_\_\_ irrespective of q.

answer

Epsilon-Closure of q, means all states reachable from q with epsilon moves, including q itself.  
In equivalent NFA, initial states and final states remains unchanged.

Epsilon Nfa to nfa no. of initial states and final states remains unchanged.

684. CPU Scheduling is the basis of \_\_\_\_\_ operating system

Answer MULTIPROGRAMMING

685. \_\_\_\_\_ has a dedicated communication path between stations

Answer CIRCUIT SWITCHING NETWORKS

686. \_\_\_\_\_ signal prevent the microprocessor from reading the same data more than one

Answer HANDSHAKING

687. #include <stdio.h>  
int main()  
{ static int array[]={10,20,30,40,50}; printf("%d...%d", \*array, \*(array+3)\* \*array); return 0;  
}

Find the output

Answer 10....400

688. What is the order of the stages in the waterfall model?

Answer:

Requirements, design, implementation, verification, maintenance

689. A major problem with priority scheduling is \_\_\_\_\_.

Answer. Starvation

690. The Epsilon-Closure of any state q will contain the state \_\_\_\_\_ irrespective of q.

answer

Epsilon-Closure of q, means all states reachable from q with epsilon moves, including q itself.  
In equivalent NFA, initial states and final states remains unchanged.

Epsilon Nfa to nfa no. of initial states and final states remains unchanged.

**691.** Which buffer is a parallel to serial converter that receives a parallel byte for conversion into a serial signal and further transmission onto the communication channel.

**Answer** Transmit Buffer

```
692. #include <stdio.h>
int main()
{ int a[5]={1,2,3,4,5},b[5]={10,20,30,40,50},tally;
for(tally=0;tally< 5;++tally) *(a+tally)=*(tally+a)+ *(b+tally);
    for(tally=0;tally< 5;tally++) printf("%d
",*(a+tally));
    return 0;
}
```

Find the output

**Answer** 11 22 33 44 55

**693.** Identify the accurate control word for operate counter 0, Read/Write LSB only, Mode 2, BCD countdown.  
**Answer:**

D5	D4	R/L defination
0	0	counter 0
0	1	LSB
1	1	RSB

```
694. #include <stdio.h>
int main()
{ int a[5]={0x00,0x01,0x02,0x03,0x04},i; i=4;
    while(a[i])
    {
        printf("%02d ",*a+i); --i;
    }
    return 0;
}
```

Find the output

**Answer** 04 03 02 01

**695.** 695. \_\_\_\_\_ scheduler selects the jobs from the pool of jobs and loads into the ready queue.

**Answer** LONG TERM

**695.** 696. \_\_\_\_\_ is an initial version of a software system that is used to demonstrate concepts, try out design options, and find out more about the problem and its possible solutions.

**Answer** PROTOTYPE

**697.** The minimum length for strings in the regular expression  $(10^* + 001^*)^*$  is \_\_\_\_\_

Answer: 2

**698.** \_\_\_\_\_ messages are typically used for diagnostic or control purposes or generated in response to errors in IP operations.

Answer ICMP

**699.**

```
#include <stdio.h>
int main()
{
    char X[10]={'A'},i; for(i=0; i<10; i++)
        printf("%d ",X[i]); return 0;
}
```

Find the output

Answer 65 0 0 0 0 0 0 0 0 0

**700.** Which directory implementation is used in most of the Operating Systems?

Answer Tree Directory System

**701.** A variable P is called pointer if

Answer: P contains the address of an element in DATA.

**702.** The ..... instruction is used to specify the number of stop bits, data bits, parity bit, and baud rate clock factor for the 8251 UART

Answer: Mode instruction

---

**703.** Pick an incorrect declaration:

1. int x[5];
2. int x[5]={1,2,3,4,5};
3. int x[5] = {1,2}
4. int x[];

Answer: 4

---

**704.** Which of the following regular expression denotes a language comprising of all possible strings over {a,b} of length n where n is a multiple of 3?

Answer:  $((a + b)(a + b)(a + b))^*$

705. \_\_\_\_\_ appends to the address a slash character and the decimal number of leading bits of the routing prefix.

Answer: CIDR

706. Using the 8259A, the INT input of the 8086 can be expanded to accomodate up to ----- prioritized interrupt inputs

Answer: eight vectored **priority**

707. **Resource locking** \_\_\_\_\_.

Answer: In computer science, a **lock** or mutex (from mutual exclusion) is a synchronization mechanism for enforcing limits on access to a **resource** in an environment where there are many threads of execution. A **lock** is designed to enforce a mutual exclusion concurrency control policy.

708. If AI = 7FH and instruction ADD AL,1 is given, specify the contents of the six status flag

Answer: 80H

709. \_\_\_\_\_ algorithm is used for the flow control of data between sender and receiver.

Answer: Flow control

710. The difference between linear array and a record is

Answer: An array is suitable for homogeneous data but the data but the data items in a record may have different data type

In a record, there may not be a natural ordering in the opposed to linear array

A record form a hierarchical structure but a linear array does not

711. Which one of the following correctly describes the meaning of 'namespace' feature in C++?

Answer: namespaces provide facilities for organizing the names in a program to avoid name clashes

712. Which of the following is not the attribute of FCB?

Offset	Byte size	Contents
00	1	Drive number — 0 for default, 1 for A:, 2 for B:, ...
01	8	File name and <u>extension</u> — together these form a <u>8.3 file name</u> .
09	3	
0C	20	Implementation dependent — should be initialised to zero before the FCB is opened.
20	1	Record number in the current section of the file — used when performing <u>sequential access</u> .
21	3	Record number to use when performing <u>random access</u> .

---

---

**713.** \_\_\_\_\_ cryptography refers to encryption methods in which both the sender and receiver share the same key.

Answer: Secret Key

---

**714.** The starting address for counter 0 of 8253 is 0038H, then port address for control word register is

Answer: 58

---

**715.** Which of the following language feature is not an access specifier in C++?

Answer: internal

---

**716.** Consider the regular language  $L = (111 + 11111)^*$ . The minimum number of states in any DFA accepting the language is

Answer: 9

---

**717.** A tree sturctured file directory system

Answer: A tree sturctured file directory system

---

**718.** Which of the following is not a type of constructor?

Answer: Friend conductor

---

**719.** Which one of the file allocation scheme cannot be adopted for dynamic storage allocation

Answer: **File System** Interface

---

**720.** The counters of 8253 can be operated in ----- modes of operation.

Answer: 6

---

**721.** The postfix expression for  $* + a b - c d$  is?

Answer:  $Ab+cd-*$

---

**722.** \_\_\_\_\_ is responsible for the final encapsulation of higher-level messages into frames that are sent over the network using the physical layer.

Answer: CIDR addressing scheme

**723. Calculate the block number in free storage management of files system with number of bits per word is 8, the bit vector is 0001101010101, offset of first 1 bit is 3**

Answer: 59

---

**724.** In C++, dynamic memory allocation is accomplished with the operator \_\_\_\_\_

Answer: new

**725.** The switching method fixes the path from source to destination is \_\_\_\_\_

Answer: Routing Table Lookup

**726.** Which of the following algorithm design technique is used in the quick sort algorithm?

Answer: **Divide And Conquer**

**727.** The other name for MODE 0 in 8253 timer is

Answer: Interrupt on terminal count

**728.** Given the frequency  $f=1.5\text{MHz}$  for 8253 timer the value of time period T is

Answer: 1D4CH

**729.** Which directory implementation method creates more dangling pointers?

---

Answer:Acyclic-Graph Directories

---

730. There is no connection setup phase in \_\_\_\_\_

Answer: **Datagram transmissions**

---

**731.** Which of the following is useful in traversing a given graph by breadth first search?

Answer: queue and list (either can be used, but mainly list is used)

**732.** Which of the following is false for cin?

Answer: It is a class of which stream is an object.

**733.** The minimum number of arithmetic operations required to evaluate the polynomial  $P(X) = X^5 + 4X^3 + 6^X + 5$  for a given value of X using only one temporary variable.

Answer: mul = pair of brackets 44

add = num of signs 33

total 7

**734.** An activity is said to be critical if slack time is equal to

Answer: 0

**735.** The number of counters available in internal block diagram of 8253 is

Answer: 3

**736.** The members of a class, by default, are

Answer: public

**737.** In access lists and groups which one of the following is correct for the 'RWX' notation of the order 'group, owner, public'

**Answer:** r means read w means write, and x means eXecute

**738.** The internal block diagram of 80286 contains ---- functional parts.

Answer: 4

**739.** The call to the parameterized constructor of base class in the derived class

Answer: Base class Parameterized Constructor in Derived class Constructor

**740.** Which one of the following is not a windows file system?

Answer: Windows makes use of the FAT, NTFS, exFAT, Live File System and ReFS file systems

**741.** Evolutionary software process models

Answer: Evolutionary Software Process Model Evolutionary software models are iterative

**742.** You have to sort a list L consisting of a sorted list followed by a few "random" elements.Which of the following sorting methods would be especially suitable for such a task?

Answer:Insertion sort

**743.** FAT file system is

Answer:The FileAllocation Table (FAT) file system is a simple file system originally designed for small disks and simple folder structures.

**744.** The 16-bit stack segment value is 5D27H and the offset is 2C30H. calculated physical address is -----

Answer: 8957

**745.** Why 'critical section' is not imposed on file systems instead 'file locks' when more than one process tries

to access the file?

Answer: It cannot be executed by ***more than one process***

---

**746.** The spiral model of software development

Answer: The spiral model is a risk-driven process model

---

**747.** Which of the following statements is NOT valid about operator overloading.

Answer: “::” symbol

**748.** The best way to conduct a requirements validation review is to

Answer: use a checklist of questions to examine each requirement

**749.** What is the return type of the conversion operator function?

Answer: no return type

**750.** Specify the 2 library functions to dynamically allocate memory?

Answer: `malloc()` and `calloc()`

**751.** The virtual file system provides us the following

Answer: VFS is to allow client applications to access different types of concrete file systems in a uniform wa

**752.** Given the Extra segment ES = 52B9H and the offset BX=D470H. Calculated physical address  
is -----

Answer: 12729

**753.** If the disk size is  $2^{30}$  bytes and block size is  $2^{12}$  bytes then find how many such blocks are there?

Answer: 20.

**754.** The use of traceability tables helps to

Answer: identify, control, and track requirements changes

**755** Identify the addressing mode for the instruction MOV AH,47H

Answer: memory-**addressing modes**

**756.** Which of the following statements is/are TRUE for an undirected graph?P: Number of odd degree vertices  
is even,Q: Sum of degrees of all vertices is even

Answer: both are correct

**757.** If the class name is X, what is the type of its "this" pointer?

Answer: X&

**758.** To Delete an item from a Queue identify the correct set of statements

Item = Q[FRONT]; FRONT++;

**759.** Which of these is not an element of an object-oriented analysis model?

The principals of objects, encapsulation, inheritance, and polymorphism are the foundation for object-oriented systems development. To understand and express the essential and interesting features of an application in the complex real world, an object-oriented model is built around objects. An object encapsulates both data and behavior, implying that analysts can use the object-oriented approach for both data modeling and process modeling.

---

**760.** Which of the following file access method needs a relative block number 'n'?

Answer: Direct Access

---

**761.** The 16-bit data segment value is 1000H and the offset is 2000H. calculated physical address is -----

Answer: 3000

---

**762.** If a constructor function is defined in private section of a class, then

Answer:

a) **The object cannot be created**

b) Only member functions and friends may declare objects of the class

---

**763.** \_\_\_\_\_ gives the number of bits that can be transmitted over a network in a fixed time period.

Answer: data communications

---

**764.** The stream insertion operator should be overloaded as

Answer: As an input or output operator

**765.** Given the Code segment CS = 1000H and the offset BX=0050H. Calculated physical address is -----  
Answer: 1050

**766.** What is the data structures used to perform recursion?

Answer::stack

**767.** \_\_\_\_\_ is a basic unit of CPU utilization

Answer:: thread

**768.** \_\_\_\_\_ is assigned to an organization by a global authority.

Answer:ICANN

**769.** class A { int a; static float b; } ; What is the size of class A?  
answer:4bytes

**770.** The restriction while using the binary search is ?

Answer:The data should be in sorted form

**771.** If AL=C0H, Determine the content of the register AL after SAL AL,1 instruction is executed.

Answer:C1h

**772.** Parallelism and concurrency is fully achieved in which of the following thread model  
Answer: memory consistency *model*

**773.** Data Members of the base class that are marked private:

Answer:Can only be accessed in the base class

**774.** Which Data structure is best suited for the UNDO operation in Windows

Answer:: stack

**775.** \_\_\_\_\_ should keep track of multiple file downloads requested by a particular FTP application, or multiple telnet connections from a single terminal client, or web page retrievals from a web server.

Answer:: TELNET

**776.** Assume the base address of CS is 3000H and IP is 2000H. Calculate the memory address.  
Answer:5000H

**777.** The high paging activity is called \_\_\_\_\_

Answer:Thrashing

**778.** Virtual memory is \_\_\_\_\_

Answer: An illusion of extremely large main memory

**779.** In linear search algorithm the Worst case occurs when

Answer: Item is the last element in the array or is not there at all

**780** Class IP addresses are used for large organizations

Answer: Class A

---

**781.** Identify different segments in a program

- a.Text segment, B. initialized data segment, C. uninitialized data segment, D. Stack, E. Heap
-

**782.** Which of the following (in file scope) leads to a compile-time error?

Answer: NUM\_TYPES

**783.** Simple network management protocol (SNMP) is implemented with a daughter board in

Answer: The hubs

**784.** The default copy constructor performs

Answer: Shallow copy

**785.** what is the need of segmenting the memory in 8086

answer: 8086 uses 20bit address bus, but its internal registers are 16bit. Hence segmentation helps addressing

**786.** An unambiguous grammar has

Answer: has a unique leftmost derivation or parse tree

**787.** \_\_\_\_\_ states that Optimal Replacement algorithm

Answer: Belady's Anomaly

**788.** The entity relationship diagram

Note: Read the figure and draw the diagram. There is no answer for this question

**789.** Which of the following statements about queues is incorrect?

Note: there is no definite answer for this

**790.** The value in AL=11011010 after the operation of CBW, the result is

Answer:-2 decimal

**791.** \_\_\_\_\_ is a high speed cache used to hold recently referenced page table entries a part of paged virtual memory

Answer: Translation Lookaside buffer

**792.** which of the following is an incorrect definition inside a class ?

note: the answer depends on the option.

**793. The state diagram**

**Answer:**

A state diagram is a type of diagram used in computer science and related fields to describe the behavior of systems. State diagrams require that the system described is composed of a finite number of states; sometimes, this is indeed the case, while at other times this is a reasonable abstraction.

**794.** In a virtual memory environment

Answer: idealized abstraction of the storage resources that are actually available on a given machine

**795.** Which one of the following is the correct way to declare a pure virtual function?

---

Answer: virtual void Display(void) = 0;

---

796. Which of the following statements is/are FALSE?

Note : depends on the question

---

797. Given CF=0, BX=00111011 01110101 ROR BX,1. The result is

Answer: 10101110 11011100

---

**798.** If all page frames are initially empty, and a process is allocated 3 page frames in real memory and references its pages in the order 1 2 3 2 4 5 2 3 2 4 1 and the page replacement is FIFO, the total number of page faults caused by the process will be \_\_\_\_\_

Answer:9

**799.** Which of the following is not a form of memory ?

Answer: instruction opcode

**800.** If you have an empty queue and you insert characters 'r', 'a', 't' (in this order only), what is the order of the characters when you dequeue all the elements?

Answer: rat

---

**801.** If you have an empty queue and you insert characters 'r', 'a', 't' (in this order only), what is the order of the characters when you dequeue all the elements?

Answer: rat

---

**802.** Usually a pure virtual function

Answer: A pure virtual function or pure virtual method is a virtual function that is required to be implemented by a derived class if the derived class is not abstract. Classes containing pure virtual methods are termed "abstract" and they cannot be instantiated directly.

**803.** Mode of communication in which transmission takes place in both directions, but only in one direction at a time is called.....

Answer :HALF DUPLEX

---

**804.** Network operating system that does not support symmetric multi-processing (SMP) is

Answer: Systolic array

---

**805.** In the absolute the addressing mode

The term addressing modes refers to the way in which the operand of an instruction is specified. Information contained in the instruction code is the value of the operand or the address of the result/operand. Following are the main addressing modes that are used on various platforms and architectures.

---

**805.**

\_\_\_\_\_ memory management scheme will produce least fragment

Answer: operating system memory management

---

**806.** Which of the following operator can be overloaded through friend function?

Answer: () and [] and ->

**807.** Which of the following statement is false?

Note: depends on the question

---

**808.** The topology with highest reliability is .....

Answer: mesh topology

---

**809.** If class A is friend of class B and if class B is friend of class C, which of the following is true?

Answer: NONE OF THE ABOVE

---

**810.** The language is  $L=\{0^p 1^q 0^r \mid p,q,r \geq 0, p \neq r\}$  is

answer: context free language

---

**811.** Which of the following addressing modes are suitable for program

relocation at run time?

1. Absolute addressing
2. Based addressing
3. Relative addressing
4. Indirect addressing

Answer: BASED AND RELATIVE

---

812. Replace the page that has not been used for the longest period of time. This principle is adopted by

Answer: least recently used

813. The access method used for magnetic tape is

Answer: sequential

814. A page fault occurs

An interrupt that occurs when a program requests data that is not currently in real memory. The interrupt triggers the operating system to fetch the data from a virtual memory and load it into RAM. An invalid page fault or page fault error occurs when the operating system cannot find the data in virtual memory.

815. Bit stuffing refers to .....

Answer: inserting a 0 in user stream to differentiate it with a flag

816. Which of the following is not the characteristic of constructor?

Answer: they can be virtual

817. Which of the following conversion is not possible (algorithmically)? .....

Answer: NON DETERM PDA TO DETERM PDA

818. A static data member is given a value .....

Answer: outside the class definition

819. The minimum number of arithmetic operations required to evaluate the polynomial  $P(X)=X^5+4X^3+6X+5$  for a given value of X using only one temporary variable. ....

Answer: 7

820. In which topology, if there are n devices in a network, each device has n-1 ports for cables?

Answer: mesh network

821. Routine is not loaded until it is called. All routines are kept on disk in a relocatable load format. The main program is loaded into memory & is executed. This type of loading is called

Answer: DYNAMIC LINKING

822. The language that the computer can understand and execute is called  
answer:machine language

---

823. Information retrieval is faster from .....  
answer:hard disk

---

824. A network that contains multiple hubs is most likely configured in which topology? .....  
Answer:TREE

---

825.

Write the regular expression to denote the language L over  $\{a,b\}$  such that all the strings do not contain the substring "ab".

Note: check the options

---

826. How many instances of an abstract class can be created? .....

Answer: 0

827. The mechanism that brings a page into memory only when it is needed is called \_\_\_\_\_

Answer: demand paging

828. How many nodes in a tree have no ancestors.....

answer: 1

829. In context of OSI or TCP/IP computer network models, which of the following is false?

Note: check the options

830. Demand paged memory allocation

Demand paging (as opposed to anticipatory paging) is a method of virtual memory management. ... It follows that a process begins execution with none of its pages in physical memory, and many page faults will occur until most of a process's working set of pages is located in physical memory.

831. What will be the result of the expression  $13 \& 25$  .....

Answer: 9

832. A Winchester disk is a .....

Answer: disk stack

833. Function templates can accept .....

Answer: only parameters of the basic type

834. Which of the following is not hardware:

Answer: assembler

835. Thrashing occurs \_\_\_\_\_

thrashing occurs when a computer's virtual memory subsystem is in a constant state of paging, rapidly exchanging data in memory for data on disk, to the exclusion of most application-level processing.

836. Which one of the following uses 8B/6T encoding scheme .....

Answer: 100 BASE T4

837. Which of the following regular expression identities are true?

Noye: depedns on the options

---

838 The number of components in a graph with n nodes and 1 edge are

Answer:  $n-k+1$

---

839. Multiple choice examination answer sheets can be evaluated automatically by .....

Answer: optical mark reader

---

**840.** A packet switching network

Packet-switched describes the type of network in which relatively small units of data called packets are routed through a network based on the destination address contained within each packet. Breaking communication down into packets allows the same data path to be shared among many users in the network.

**841.** The removal of process from active contention of CPU and reintroduce them into memory later is known as

Answer: SWAPPING

**842.** In which case is it mandatory to provide a destructor in a class? .....

Answer: Class whose objects will be created dynamically

**840.** A packet switching network (Packet-switched describes the type of network in which relatively small units of data called packets are routed through a network based on the destination address contained within each packet. Breaking communication down into packets allows the same data path to be shared among many users in the network.)

**841.** The removal of process from active contention of CPU and reintroduce them into memory later is known as

SWAPPING

**842.** In which case is it mandatory to provide a destructor in a class? ..... Class whose objects will be created dynamically

**843.** If we create a file by 'ifstream', then the default mode of the file is \_\_\_\_\_ ios :: in

**844.** Paging \_\_\_\_\_ In computer operating systems, paging is a memory management scheme by which a computer stores and retrieves data from secondary storage[a] for use in main memory.[1] In this scheme, the operating system retrieves data from secondary storage in same-size blocks called pages. Paging is an important part of virtual memory implementations in modern operating systems, using secondary storage to let programs exceed the size of available physical memory.

**845.** Which of the following would cause quickest access .....direct access from hard disk

**846.** The main purpose of a data link content monitor is to .....detect problems in protocols

**847.** Which of the following statement is false?

**848.** Which of the following memory allocation scheme suffers from External fragmentation?  
.....SEGMENTATION

A. Assume that we have constructor functions for both base class and derived class. Now consider the declaration in main( ). Base \* P = New Derived; in what sequence will the constructor be called ?  
..... Base class constructor followed by Derived class constructor

849.

850. The process of retaining data for future use is called .....STORING

851. Which of the following is a wrong example of network layer ...X.25 LEVEL ISO...

852. The number of components in a graph with n nodes and 1 edge are

853. Logical addressing is used in \_NETWORK\_\_\_\_ layer

854. Magnetic tapes are good storage media for

Back up and high volume data

855. Consider two strings A ='qpqr' and B = 'pqprqrp'. Let x be the length of the LCS between A and B and let y be the number of such longest common subsequences between A and B. Then  $x + 10y = 34$ (answer)

856. A system uses FIFO policy for page replacement. It has 4 page frames with no pages loaded to begin with. The system first accesses 100 distinct pages in some order and accesses the same 100 pages but now in the reverse order how many page faults will occur? **196(answer)**

---

857. **class n{ public: int \*a;}o,p; assigning o=p is called?**

---

858. overloading + operator requires return type as object because, **operator overloading is only fr objects**

---

859.

The MMU (Memory Management Unit) is a..... paged memory management unit (**PMMU**), is a computer hardware unit having all memory references passed through itself, primarily performing the translation of virtual memory addresses to physical addresses. **Address translation**

---

860. Floating point representation is used to store .....real integer

---

861. \_\_\_\_\_ functions as a request-response protocol in the client-server computing model. **HTTP**

---

862. A grammar that produces more than one parse tree for some sentence is called **AMBIGUOUS**

---

863. **To create an alias Objects have to be passed by**

---

864. Pee hole optimization .....constant folding

---

865. In computers, subtraction is generally carried out by .....2s complement

---

866. All devices/host connect to a central switch in \_\_\_\_\_ topology .....star network

---

867.

Which of the following is true?

---

868. **What will be the status of a computer during storage compaction**

s the reduction of the number of data elements, bandwidth, cost, and time for the generation, transmission, and storage of data without loss of information by eliminating unnecessary redundancy, removing irrelevancy, or using special coding.

Examples of data compaction methods are the use of fixed-tolerance bands, variable-tolerance bands, slope-keypoints, sample changes, curve patterns, curve fitting, variable-precision coding, frequency analysis, and probability analysis.

869. Templates improve

C++ templates provide a way to re-use source code as opposed to inheritance and composition which provide a way to re-use object code. C++ provides two kinds of templates: class templates and function templates. Use function templates to write generic functions that can be used with arbitrary types.

870. What characteristic of RAM memory makes it not suitable for permanent storage? .....IT IS VOLATILE

871. Using linked list node representation, inserting a node in general tree is performed efficiently TRUE

---

872. Let  $G(x)$  be the generator polynomial used for CRC checking. What is the condition that should be satisfied by  $G(x)$  to detect odd number of bits in error? .....  $1+x$  is a factor of  $G(x)$

873. Frames of 1000 bits are sent over a  $10^6$  bps duplex link between two hosts. The propagation time is 25ms. Frames are to be transmitted into this link to maximally pack them in transit (within the link). What is the minimum number of bits, i will be required to represent the sequence numbers distinctly? Assume that no time gap needs to be given between transmission of two frames. .... $i=5$

874. Computers use addressing mode techniques for \_\_\_\_\_ all of the above\_\_\_\_\_.

875. Calculate the EAT(Effective access time) if 5 micro second is associative look-up time and 0.80 is the hit-ratio in paging hardware with TLB

$$\begin{aligned} \text{EAT} &= \text{ASSOC. ACCESTIME - HIT RATIO} \\ &= 2-5*10^{-3}-0.8 \end{aligned}$$

876. Suppose P, Q, R, S, T are sorted sequences having lengths 20,24,30,35,50 respectively. They are to be merged into a single sequence by merging together two sequences at a time. The number of comparisons that will be needed in the worst case by the optimal algorithm for doing this is \_\_\_\_ 358

877. Creating additional function similar to template function is called .....generic programming

878. In general tree to binary tree conversion, the two links of the binary tree node points to  
inorder predecessor inorder successor

879. The segment number s is legal if

if  $s < \text{STLR}$

880. Compile time polymorphism is

1. In compile time polymorphism, compiler is able to select the appropriate function for a particular call at the compile time itself, which is known as .....

- A) early binding
- B) static binding
- C) static linking

881. The average time required to reach a storage location in memory and obtain its contents is called the .....access time

882. Consider the data of previous question. Suppose that the sliding window protocol is used with the sender window size of  $2^i$  where is the number of bits identified in the previous question and acknowledgments are always piggybacked. After sending  $2^i$  frames, what is the minimum time the sender will have to wait before

starting transmission of the next frame? (Identify the closest choice ignoring the frame processing time).

.....20ms

---

883. The idea of cache memory is based ..... on the property of locality of reference

---

884. Station A uses 32 byte packets to transmit messages to Station B using a sliding window protocol. The round trip delay between A and B is 80 milliseconds and the bottleneck bandwidth on the path between A and B is 128. kbps. What is the optimal window size that A should use? .....40

---

885. Which is not related to deadlock avoidance?

- Banker's Algorithm
- Eliminate Mutual Exclusion
- Eliminate Hold and wait
- Eliminate No Preemption
- Eliminate Circular Wait

886. Abstraction is

Data abstraction refers to providing only essential information to the outside world and hiding their background details, i.e., to represent the needed information in program without presenting the details.

---

887. In operator precedence parsing , precedence relations are defined .....for all pairs of terminals

---

888.

Which one of the following is not the process of Deadlock Recovery?

These are in the process  
Killing the process.  
Resource Preemption

---

889. Which of the following is lowest in memory hierarchy? .....SECONDARY MEMORY

890. Pick the odd one out.

891. An intermediate code form is

- Postfix notation
- Syntax trees
- Three address code

A. Two computers C1 and C2 are configured as follows. C1 have IP address as 203.197.2.53 and netmask 255.255.128.0. C2 have IP address as 203.197.75.201 and netmask 255.255.192.0. Which one of the following statements is true? ..... C1 assumes C2 is on same network, but C2 assumes C1 is on a different network

892.

893. Relocating bits used by relocating loader are specified by .....LINKER

894. In Assembly language programming, minimum number of operands required for an instruction is/are

---

.....ZERO

---

895. A collection of unused memory reserved for dynamic allocation is called **HEAP**

---

896. If the size of logical address space is  $2^m$ , and a page size is  $2^n$  addressing units, then the high order \_\_\_\_\_ bits of a logical address designate the page number, and the \_\_\_\_\_ low order bits designate the page offset. **M-N,N**

---

897. Station A needs to send a message consisting of 9 packets to Station B using a sliding window (window size 3) and go-back-n error control strategy. All packets are ready and immediately available for transmission. If every 5th packet that A transmits gets lost (but no acks from B ever get lost), then what is the number of packets that A will transmit for sending the message to B? .....16

---

898. In Ethernet when Manchester encoding is used, the bit rate is: .....HALF THE BAUD RATE

---

899. The tightest upper bound for the worst case performance of quicksort implemented on an array of n elements by always choosing the pivot as the central element is  $O(n^2)$

900. The memory unit that communicates directly with the CPU is called the .....Main MEMORY

900. The memory unit that communicates directly with the CPU is called the  
Main memory

901. **The levels of hierarchy in inheritance helps to handle**

Inheritance is the process of inheriting properties of objects of one class by objects of another class. The class which inherits the properties of another class is called Derived or Child or Sub class and the class whose properties are inherited is called Base or Parent or Super class. When more than one classes are derived from a single base class, such inheritance is known as Hierarchical Inheritance, where features that are common in lower level are included in parent class. Problems where hierarchy has to be maintained can be solved easily using this inheritance.

902. Run time polymorphism is achieved by \_\_\_\_\_  
Virtual function

903. Synthesized attribute can be easily simulated by a

LR grammar

904. There are n stations in a slotted LAN. Each station attempts to transmit with a probability p in each time slot. What is the probability that only one station transmits in a given time slot?

$$np(1-p)^{n-1}$$

905. In which addressing mode the operand is given explicitly in the instruction

Immediate

906. Any code inside a loop that always computes the same value can be moved before the loop. This is called  
**Invariant code**

907. In a token ring network the transmission speed is  $10^7$  bps and the propagation speed is 200 metres/micro second. The 1-bit delay in this network is equivalent to:

20 metres of cable.

908. **A property which is not true for classes is that they  
bring together all aspects of an entity in one place.**

909. A stack organized computer has  
Zero address instruction

910. The searching technique that takes O (1) time to find a data is  
**Hashing**

911. The load instruction is mostly used to designate a transfer from memory to a processor register known as\_\_\_\_\_.

Accumulator

912. Overloading involves writing two or more functions with \_\_\_\_\_  
**the same name and different argument lists**

913. What is the maximum size of data that the application layer can pass on to the TCP layer below?

Any size

914. Usually a pure virtual function  
is defined only in derived class.

915. A group of bits that tell the computer to perform a specific operation is known as\_\_\_\_\_.

Instruction code

916. Suppose x is dead, that is, never subsequently used, at the point where the statement  $x=y+z$  appears in a basic block. Then this statement may be safely removed without changing the value of the basic block. This transformation is known as \_\_\_\_\_ .

Dead code elimination

917. A client process P needs to make a TCP connection to a server process S. Consider the following situation: the server process S executes a socket(), a bind() and a listen() system call in that order, following which it is preempted. Subsequently, the client process P executes a socket() system call followed by connect() system call to connect to the server process S. The server process has not executed any accept() system call. Which one of the following events could take place?

connect () system call returns an error

918. which of the following intermediate language can be used in intermediate code generation?

Postfix notation

Syntax tree

Three-address code

919. #include <stdio.h>  
#include <string.h> int main()  
{  
 int val=0;  
 char str[]="IncludeHelp.Com";  
  
 val=strcmp(str,"includehelp.com");  
 printf("%d",val); return 0;  
}

Find the output

-1

920. A computer on a 10Mbps network is regulated by a token bucket. The token bucket is filled at a rate of 2Mbps. It is initially filled to capacity with 16Megabits. What is the maximum duration for which the computer can transmit at the full 10Mbps?

2 seconds

921. 'Aging registers' are \_\_\_\_\_.

Counters which indicate how long ago their associated pages have been referenced.

922. Which of the following system calls results in the sending of SYN packets?

connect

923. Memory unit accessed by content is called\_\_\_\_\_

Associative memory

924. Postorder Tree traversal is recursive

True

925. #include <stdio.h>

#include <string.h>

```
int main()
{
    char str[]; strcpy(str,"Hello");
    printf("%s",str); return 0;
}
```

Find the output

Error

926. In the slow start phase of the TCP congestion control algorithm, the size of the congestion window

.....

increases exponentially

927. \_\_\_\_\_ register keeps tracks of the instructions stored in program stored in memory.

PC

928. In the context of abstract-syntax-tree (AST) and control-flow-graph (CFG), which one of the following is True?

The maximum number of successors of a node in an AST and a CFG depends on the input program

929. #include <stdio.h>

```
int main()
{
    char str[8]="IncludeHelp"; printf("%s",str);
    return 0;
}
```

Find the output

Error

930. If a class B network on the Internet has a subnet mask of 255.255.248.0, what is the maximum number of hosts per subnet?

2046

931. In an array representation of binary tree, the left child of  $i$  th node is located at  
 $2*i+1$

932. PSW is saved in stack when there is a \_\_\_\_\_.  
interrupt recognized

933. #include <stdio.h>  
#include <string.h> int main()  
{  
 char str1[]="IncludeHelp",str2[]=".Com";  
 printf("%s",str1+strlen(str2));  
 return 0;  
}

Find the output

**udeHelp**

934. Suppose the round trip propagation delay for a 10 Mbps Ethernet having 48-bit jamming signal is 46.4 ms. The minimum frame size is:

**512**

935. The main memory in a Personal Computer (PC) is made of\_\_\_\_\_.

cache memory and static ram

936. A priority queue is implemented as a Max-Heap. Initially, it has 5 elements. The level-order traversal of the heap is: 10, 8, 5, 3, 2. Two new elements 1 and 7 are inserted into the heap in that order. The level-order traversal of the heap after the insertion of the elements is:

**10, 8, 7, 3, 2, 1, 5**

937. #include <stdio.h>  
int main()  
{  
 char str[]="Hello%s%dFriends"; printf(str);  
 printf("\n");  
 printf("%s",str); return 0;  
}

Find the output

**Hello(null)0Friends**  
**Hello%*s*%*d*Friends**

938. #include <stdio.h> int main()  
{  
 char str[]="value is=%d"; int a='7';  
 str[11]='c';  
 printf(str,a); return 0;  
}

Find the output

value is =7

939. Virtual memory consists of \_\_\_\_\_.

Static RAM

940. Shift reduce parsers are  
Bottom up parsers

941. An organization has a class B network and wishes to form subnets for 64 departments. The subnet mask would be:

255.255.252.0

942. #include <stdio.h>  
int main()  
{  
 char result,str[]="\0IncludeHelp";  
 result=printf("%s",str);  
 if(result)  
 printf("TRUE"); else  
 printf("FALSE"); return 0;  
}

Find the output

False

943. In an array representation of binary tree, the right child of i th node is located at  
 $2*i+2$

944. Generally Dynamic RAM is used as main memory in a computer system as it\_\_\_\_\_.

has higher speed

945. Packets of the same session may be routed through different paths in:

TCP and UDP

946. The address resolution protocol (ARP) is used for:

Finding the MAC address that corresponds to an IP address

947. Write Through technique is used in which memory for updating the data \_\_\_\_\_.

Cache memory

948. #include <stdio.h>  
#include <string.h> int main()  
{  
 char s1[]="IncludeHelp"; char s2[10];  
  
 strncpy(s2,s1,5);  
 printf("%s",s2); return 0;  
}

Find the output

### IncluGARBAGE\_VALUE

949. Local and loop optimization in turn provide motivation for  
**Data flow analysis**

950. Cache memory acts between\_\_\_\_\_.  
**CPU and RAM**

951. The maximum window size for data transmission using the selective reject protocol with n-bit frame sequence numbers is:

$$2^{n-1}$$

952. #include <stdio.h>  
#include <string.h> int main()  
{  
 char str[50] = "IncludeHelp";  
 printf("%d...%d", strlen(str), sizeof(str)); return 0;  
}

Find the output  
11...50

953. The worst case running time to search for an element in a balanced in a binary search tree with  $n^*2^n$  elements is

$$\Theta(n)$$

954. In a syntax directed translation schema ,if value of an attribute of a node is function of the values of the attributes of its children , then it is called

**Synthesized attribute**

955. The truth table

X Y f(X,Y)

0	0	0
0	1	0
1	0	1
1	1	1

represents the Boolean function

956. **Find the output**

```

#include <stdio.h> struct
sample
{
    int a=0; char b='A'; float
    c=10.5;
};
int main()
{
    Struct sample s;
    printf("%d,%c,%f",s.a,s.b,s.c); return 0;
}

```

957. In a network of LANs connected by bridges, packets are sent from one LAN to another through intermediate bridges. Since more than one path may exist between two LANs, packets may have to be routed through multiple bridges. Why is the spanning tree algorithm used for bridge-routing?

**For avoiding loops in the routing paths**

958. Consider a main memory system that consists of 8 memory modules attached to the system bus, which is one word wide. When a write request is made, the bus is occupied for 100 nanoseconds (ns) by the data, address, and control signals. During the same 100 ns, and for 500 ns thereafter, the addressed memory module executes one cycle accepting and storing the data. The (internal) operation of different memory modules may overlap in time, but only one request can be on the bus at any time. The maximum number of stores (of one word each) that can be initiated in 1 millisecond is

10000

959. One of the header fields in an IP datagram is the Time to Live (TTL) field. Which of the following statements best explains the need for this field?

**It can be used to prevent packet looping**

```

960. #include <stdio.h>
int main()
{
    struct sample{ int a;
        int b; sample *s;
    }t;
    printf("%d,%d",sizeof(sample),sizeof(t.s)); return 0;
}

```

**Find the output**

961. Suppose a circular queue of capacity  $(n - 1)$  elements is implemented with an array of  $n$  elements. Assume that the insertion and deletion operation are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are

**Full:  $(\text{REAR}+1) \bmod n == \text{FRONT}$ , empty:  $\text{REAR} == \text{FRONT}$**

962. #include <stdio.h>

```

#include < string.h >

struct student
{
    char name[20]; }std;
char * fun(struct student *tempStd)
{
    strcpy(tempStd->name,"Thomas"); return tempStd-
>name;
}

int main()
{
    strcpy(std.name,"Mike ");
    printf("%s%s",std.name,fun(&std)); return 0;
}

```

Find the output

ThomasThomas

**963.** Pre-emptive scheduling is the strategy of temporarily suspending a running process

- A. before the CPU time slice expires

**964. Which of the following statements is true?**

**965.** A layer-4 firewall ( a device that can look at all protocol headers up to the transport layer) cannot

block HTTP traffic during 9:00PM and 5:00AM

**966.** Consider an instance of TCP's Additive Increase Multiplicative Decrease(AIMD) algorithm where the window size at the start of the slow start phase is 2 MSS and the threshold at the start of the first transmission is 8 MSS. Assume that a time out occurs during the fifth transmission. Find the congestion window size at the end of the tenth transmission.

7 MSS

**967. Skewed binary trees can be efficiently represented using**

If a tree which is dominated by left child node or right child node, is said to be a **Skewed Binary Tree**. In a skewed binary tree, all nodes except one have only one child node. The remaining node has no child.

In a left skewed tree, most of the nodes have the left child without corresponding right child.

In a right skewed tree, most of the nodes have the right child without corresponding left child.

**968.** #include <stdio.h>

```

struct sample
{
    int a; }sample;
int main()
{
    sample.a=100;

```

```
    printf("%d",sample.a); return 0;
}
```

Find the output  
100

969. Multiprogramming systems \_\_\_\_\_

Execute more jobs in the same time period

970. Cross-compiler is a compiler  
True

971. The physical layer concerns  
with the movement of bits over the physical medium.

972. #include <stdio.h>  
struct employee{ int empld; char  
 \*name; int age;  
};  
int main()  
{  
 struct employee emp []={ {1,"Mike",24}, {2,"AAA",24}, {3,"BBB",25}, {4,"CCC",30} };  
 printf("Id : %d, Age : %d, Name : %s", emp[2].empld,emp[3].age,(\*emp+1).name); return 0;  
}

Find the output

**Id : 3, Age : 30, Name : AAA**

973. The performance of cache memory is frequently measured in terms of a quantity called  
**Hit Ratio**

974. #include <stdio.h>  
int main()  
{  
 union values  
 {  
 int intValue; char chrVal[2];  
 };  
  
 union values val;  
 val.chrVal[0]='A'; val.chrVal[1]='B';  
  
 printf("\n%c,%c,%d",val.chrVal[0],val.chrVal[1],val.intValue); return 0;  
}

Find the output  
**A,B,226247233**

975. Which transmission media has the highest transmission speed in a network?

c) optical fiber

976. Which of the following statements is/are TRUE for an undirected graph?P: Number of odd degree vertices is even,Q: Sum of degrees of all vertices is even

## Both P and Q

977. What is the software that runs a computer, including scheduling tasks, managing storage, and handling communication with peripherals?

System software or OS

978. Which one of the following is the recurrence equation for the worst case time complexity of the Quicksort algorithm for sorting  $n \geq 2$  numbers? In the recurrence equations given in the options below, c is a constant.

$$T(n) = T(n - 1) + T(0) + cn$$

979. Which of the following paging algorithms is most likely to be used in a virtual memory system?

Second chance

980. Bits can be send over guided and unguided media as analog signal using .....  
digital modulation

```
981. #include <stdio.h>
int main()
{
    union values
    {
        unsigned char a; unsigned
        char b; unsigned int c;
    };

    union values val; val.a=1;
    val.b=2; val.c=300;

    printf("%d,%d,%d",val.a,val.b,val.c); return 0;
}
```

Find the output  
44,44,300

982. Divide and conquer mechanism is used in

merge sort, quick sort and heap sort

no bubble, insertion, selection

983. What is the main difference between traps and interrupts?

Trap is software generated interrupt. Interrupts are hardware driven

984. The portion of physical layer that interfaces with the media access control sublayer is called  
**physical signalling sublayer**

```
985. #include <stdio.h>
int main()
{
    typedef struct tag{ char str[10];
```

```

int a; }har;

har h1,h2={"IHelp",10}; h1=h2;
h1.str[1]='h';
printf("%s,%d",h1.str,h1.a); return 0;
}

```

Find the output

Ihelp,10

**986. Physical layer provides**

- a) mechanical specifications of electrical connectors and cables
- b) electrical specification of transmission line signal level
- c) specification for IR over optical fiber

**987. The result evaluating the postfix expression (10 5 + 60 6 / \* 8 –) is**

142

**988. Buffering is useful because**

A buffer is a data area shared by hardware devices or program processes that operate at different speeds or with different sets of priorities. The buffer allows each device or process to operate without being held up by the other. while the buffering overlaps I/O of one job with the execution of the same job.

```

989. #include <stdio.h>
int main()
{
    struct std
    {
        char name[30]; int age;
    };
    struct std s1={"Mike",26}; struct std
    s2=s1;
    printf("Name: %s, Age: %d\n",s2.name,s2.age);
}

```

Find the output

Name: Mike Age:26

**990.**

Consider a join (relation algebra) between relations r(R) and s(S) using the nested loop method. There are 3 buffers each of size equal to disk block size, out of which one buffer is reserved for intermediate results. Assuming size(r(R))  
**relation r(R) is in the outer loop.**

**991. In asynchronous serial communication the physical layer provides**

- a) start and stop signalling
- b) flow control

```
992. #include <stdio.h>
int main()
{
    union test
    {
        int i; int j;
    };

    union test var=10;
    printf("%d,%d\n",var.i,var.j);
}
```

Find the output  
Error: Initializing union type with a int

993. What is the worst case for Selection sort  
 $O(n^2)$

994. The physical layer is responsible for  
a) line coding  
b) channel coding  
c) modulation

```
995. #include <stdio.h>
int main()
{
#ifndef debug
    printf("Start debugging..."); #endif
    printf("IncludeHelp"); return 0;
}
```

Find the output

IncludeHelp

996. While inserting the elements 71,65,84,69,67,83 in an empty binary search tree(BST)in the sequence shown, the element in the lowest level is  
67

997. If two interrupts, one of higher priority and other of lower priority occur simultaneously, then the service provided is  
for  
b) interrupt of higher priority

```
998. #include <stdio.h>
#define MAX 100 int main()
{
#define MAX 20 printf("MAX=%d...",MAX);
return 0;
}
```

Find the output  
MAX=20...

999. The physical layer translates logical communication requests from the \_\_\_\_\_ into hardware specific operations.

- a) data link layer

1000. Given a hash table T with 25 slots that stores 2000 elements, the load factor a for T is \_\_\_\_\_  
80

1000.

Given a hash table T with 25 slots that stores 2000 elements, the load factor a for T is \_\_\_\_\_

- (A) 80
- (B) 0.0125
- (C) 8000
- (D) 1.25

Answer: (A)

1000. Given a hash table T with 25 slots that stores 2000 elements, the load factor a for T is \_\_\_\_\_  
80

1000.

Given a hash table T with 25 slots that stores 2000 elements, the load factor a for T is \_\_\_\_\_

- (A) 80
- (B) 0.0125
- (C) 8000
- (D) 1.25

Answer: (A)

1001. A 4-way set-associative cache memory unit with a capacity of 16 KB is built using a block size of 8 words. The word length is 32 bits. The size of the physical address space is 4 GB. The number of bits for the TAG field is

- (A) 5
- (B) 15
- (C) 20
- (D) 25

Answer: (C)

1002.

```
#include <stdio.h>
#define FUN(x) x*x
int main()
{
int val=0;
val=128/FUN(8);
printf("val=%d",val);
return 0;
}
```

Find the output

128  
1003.

Which searching technique is better, if unsorted array is given as input

If the array is not sorted then you have to search for the element by iteration ,linear search . There is no better way than  $O(n)$ .Although if you're searching multiple times, it would be better if you sort ( $O(n\log n)$ ) it and then use binary search to make the following searches fast in  $O(\log(n))$ . If the size of an array element is upto  $10^6$  and if the queries on array elements are more then it would be better to use Hashing rather than linear search or Binary search.

1004.

The stage delays in a 4-stage pipeline are 800, 500, 400 and 300 picoseconds. The first stage (with delay 800 (picoseconds) is replaced with a functionally equivalent design involving two stages with respective delays 600 and 350 picoseconds. The throughput increase of the pipeline is percent.

- (A) 33 or 34
- (B) 30 or 31
- (C) 38 or 39
- (D) 100

Answer: (A)

1005.

A single channel is shared by multiple signals by

- a) analog modulation
- b) digital modulation
- c) multiplexing
- d) none of the mentioned

View Answer

Answer: c3

Explanation: None.

1006.

```
#include <stdio.h>
#define FUN(x,y) x##y
int main()
{
int a1=10,a2=20;
printf("%d...%d",FUN(a,1),FUN(a,2));
return 0;
}
```

Find the output

ANS: 10...20

1007.

Which amongst the following refers to Absolute addressing mode

An absolute address is represented by the contents of a register.

An absolute address is represented by the contents of a register. This addressing mode is absolute in the sense that it is not specified relative to the current instruction address.

Both the Branch Conditional to Link Register instructions and the Branch Conditional to Count Register instructions use an absolute addressing mode. The target address is a specific register, not an input operand. The target register is the Link Register (LR) for the Branch Conditional to Link Register instructions. The target register is the Count Register (CR) for the Branch Conditional to Count Register instructions. These registers must be loaded prior to execution of the branch conditional to register instruction

Absolute addressing mode means address of operand is given in the instruction.

1008.

The postfix form of the expression  $(A+B)*(C*D-E)*F/G$  is

- a)  $AB+CD*E-FG/**$
- b)  $AB+CD*E-F**G/$
- c)  $AB+CD*E-*F*G/$
- d)  $AB+CDE*-*F*G/$

[View Answer](#) / [Hide Answer](#)

ANSWER: a)  $AB+CD*E-FG/**$

1009.

Wireless transmission can be done via

- A) Radio waves
- B) Micro waves
- C) Infrared
- D) All of these

[View Answer](#)

Answer : All of these

1010.

```
#include <stdio.h>
#define LARGEST(x,y) (x>=y)?x:y
int main()
{
int a=10,b=20,l=0;
l=LARGEST(a++,b++);
printf("a=%d,b=%d,largest=%d",a,b,l);
return 0;
}
```

Find the output

A=11, b=22, largest=21

1011.

Which of the following tree may have smaller elements in its left subtree and larger element in its right subtree

1012.

The addressing mode used in an instruction of the form ADD R1, R2 is \_\_\_\_.

- A. Absolute
- B. indirect
- C. index
- D. none of these

Ans: C

1013.

The \_\_\_\_ translates internet domain and host names to IP address.

- a) domain name system
- b) routing information protocol
- c) network time protocol
- d) internet relay chat

[View Answer](#)

Answer: a

Explanation: None.

1014.

Which one of the following allows a user at one site to establish a connection to another site and then pass keystrokes from local host to remote host?

- a) HTTP

- b) FTP
- c) Telnet
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

1015.

```
#include <stdio.h>
#define OFF 0
#if debug == OFF
int a=11;
#endif
int main()
{
int b=22;
printf("%d...%d",a,b);
return 0;
}
```

Find the output

11..22

1016.

How many address bits are needed to select all memory locations in the  $16K \times 1$  RAM?

- [A]. 8
- [B]. 10
- [C]. 14
- [D]. 16

Answer: Option C

1017.

Consider the following array of elements. {89,19,50,17,12,15,2,5,7,11,6,9,100}. The minimum number of interchanges needed to convert it into a max-heap is

- (A) 4
- (B) 5
- (C) 2
- (D) 3

Answer: (D)

Explanation: {89, 19, 50, 17, 12, 15, 2, 5, 7, 11, 6, 9, 100}

1018.

```
#include <stdio.h>
#define TEXT IncludeHelp
int main()
{
printf("%s",TEXT);
return 0;
}
```

Find the output

ERROR

prog.cpp:2:14: error: 'IncludeHelp' was not declared in this scope

```
#define TEXT IncludeHelp
^
prog.cpp:5:13: note: in expansion of macro 'TEXT'
printf("%s",TEXT);
```

1019.

Which of the following algorithm is used to find the shortest path between two nodes in graph  
Dijkstra

1020.

Application layer protocol defines

- a) types of messages exchanged
- b) message format, syntax and semantics
- c) rules for when and how processes send and respond to messages
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

1021.

If the main memory is of 8K bytes and the cache memory is of 2K words. It uses associative mapping.  
Then each word of cache memory shall be\_\_\_\_\_.

16 bits

1022.

The width of the physical address on a machine is 40 bits. The width of the tag field in a 512 KB 8-way set associative cache is \_\_\_\_\_ bits

- (A) 24
- (B) 20
- (C) 30
- (D) 40

Answer: (A)

1023.

Which one of the following protocol delivers/stores mail to receiver server?

- a) simple mail transfer protocol
- b) post office protocol
- c) internet mail access protocol
- d) hypertext transfer protocol

[View Answer](#)

Answer: a

Explanation: None.

1024.

```
#include <stdio.h>
#define VAR1 VAR2+10
#define VAR2 VAR1+20
int main()
{
    printf("%d",VAR1);
    return 0;
```

}

Find the output

3:14: error: 'VAR1' was not declared in this scope

2:14: note: in expansion of macro 'VAR2'

6:13: note: in expansion of macro 'VAR1'

1025.

Which of the following case does not exist in complexity theory?

d. Null case

1026.

The ASCII encoding of binary data is called

- a) base 64 encoding
- b) base 32 encoding
- c) base 16 encoding
- d) base 8 encoding

View Answer

Answer: a

1027.

```
#include <stdio.h>
#define SUM(x,y) int s; s=x+y; printf("sum=%d\n",s);
int main()
{
SUM(10,20);
return 0;
}
```

Find the output

Sum=30

1028.

Given an array that represents elements of arithmetic progression in order. It is also given that one element is missing in the progression, the worst case time complexity to find the missing element efficiently is:

- (A)  $\Theta(n)$
- (B)  $\Theta(n \log n)$
- (C)  $\Theta(\log n)$
- (D)  $\Theta(1)$

Answer: (C)

Explanation: We can use Binary Search to find the missing element. See following link for details.

1029.

Which one of these is characteristic of RAID 5?

- a) Distributed parity
- b) No Parity
- c) All parity in a single disk
- d) Double Parity

View Answer

Answer: a

1030.

The correspondence between the main memory blocks and those in the cache is given by

- a) Hash function
- b) Mapping function
- c) Locale function
- d) Assign function

[View Answer](#)

Answer: b

Explanation: The mapping function is used to map the contents of the memory to the cache.

1031.

Which one of the following is an internet standard protocol for managing devices on IP network?

- a) dynamic host configuration protocol
- b) simple newtwork management protocol
- c) internet message access protocol
- d) media gateway protocol

[View Answer](#)

Answer: b

Explanation: None.

1032.

```
#include <stdio.h>
#define MAX 99
int main()
{
    printf("%d...",MAX);
    #undef MAX
    printf("%d",MAX);
    return 0;
}
```

Find the output

7:13: error: 'MAX' was not declared in this scope

1033.

The operation of processing each element in the list is known as

- d. Traversal

1034

Which one of the following is not an application layer protocol?

- a) media gateway protocol
- b) dynamic host configuration protocol
- c) resource reservation protocol
- d) session initiation protocol

[View Answer](#)

Answer: c

Explanation: None.

1035.

Consider a binary tree T that has 200 leaf nodes. Then, the number of nodes in T that have exactly two children are \_\_\_\_\_.

(A) 199

- (B) 200
- (C) Any number between 0 and 199
- (D) Any number between 100 and 200

Answer: (A)

Explanation: This can be proved using Handshaking Lemma. Refer below post to see complete proof.

1036.

The DMA controller has \_\_\_\_\_ registers

- a) 4
- b) 2
- c) 3
- d) 1

[View Answer](#)

Answer: c

1037.

```
#include <stdio.h>
int main()
{
int var=100;
{
int var=200;
printf("%d...",var);
}
printf("%d",var);
return 0;
}
```

Find the output

200...100

1038.

Which protocol is a signalling communication protocol used for controlling multimedia communication sessions?

- a) session initiation protocol
- b) session modelling protocol
- c) session maintenance protocol
- d) none of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

1039.

Content of the program counter is added to the address part of the instruction in order to obtain the effective address is called

Ans. Relative address mode

1040.

The preorder traversal sequence of a binary search tree is 30,20,10,15,25,23,39,35,42. Which one of the following is the postorder traversal sequence of the same tree?

- (A) 10, 20, 15, 23, 25, 35, 42, 39, 30
- (B) 15, 10, 25, 23, 20, 42, 35, 39, 30
- (C) 15, 20, 10, 23, 25, 42, 35, 39, 30
- (D) 15, 10, 23, 25, 20, 35, 42, 39, 30

Answer: (D)

Explanation: The following is the constructed tree

1041.

```
#include <stdio.h>
char* fun1(void)
{
char str[]="Hello";
return str;
}
char* fun2(void)
{
char *str="Hello";
return str;
}
int main()
{
printf("%s,%s",fun1(),fun2());
return 0;
}
```

Find the output  
(null), Hello

1042. The data-in register of I/O port is

- a) Read by host to get input
- b) Read by controller to get input
- c) Written by host to send output
- d) Written by host to start a command

View Answer

Answer: a

Explanation: None.

1043.

```
#include <stdio.h>
int fooo(void)
{
static int num=0;
num++;
return num;
}
int main()
{
int val;
```

```
val=foo();
printf("step1: %d\n",val);
val=foo();
printf("step2: %d\n",val);
val=foo();
printf("step3: %d\n",val);
return 0;
}
```

Find the output

Step1: 1

Step2: 2

Step3: 3

1044.

Binary search algorithm can not be applied to

A. Pointer Array

1046.

Let G be a graph with n vertices and m edges. What is the tightest upper bound on the running time on Depth First Search of G? Assume that the graph is represented using adjacency matrix.

- (A) O(n)
- (B) O(m+n)
- (C) O(n<sup>2</sup>)
- (D) O(mn)

Answer: (C)

1047.

When displaying a web page, the application layer uses the

- a) HTTP protocol
- b) FTP protocol
- c) SMTP protocol
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

1048

The Firmware are stored in read-only memory or \_\_\_\_\_ chips

Ans, Classic mask-programmed ROM chips BIOS chip

1049.

```
#include <stdio.h>
int main()
{
int anyVar=10;
printf("%d",10);
return 0;
}
extern int anyVar;
Find the output
ANS: 10
```

1050.

```
#include <stdio.h>
int main()
{
char *str="IncludeHelp";
printf("%c\n",*&str);
return 0;
}
```

Find the output

ANS: I

1050.  
Interpolation search is an improved variant of binary search.

Ans: True

1051.

It is necessary for this search algorithm to work that data collection should be

Ans: sorted form and equally distributed.

1052.

A wireless network interface controller can work in

Ans: infrastructure mode and ad-hoc mode

1053.

What is cell padding?

Ans: give your tables a little extra space.

1054.

Consider an undirected graph G with 100 nodes. The maximum number of edges to be included in

Ans is C by formula  $(n-1)(n-2)/2 = 99 \times 98 / 2 = 4851$  (graph should be simple i.e having no parallel

RARARAD1

1055.

**Which level of RAID refers to disk mirroring with block striping?**

Ans: RAID1

1056

**Where in an HTML document is the correct place to refer to an external style sheet?**

In the `<head>` section

At the top of the document

At the end of the document

In the `<body>` section

1057.

**To build a mod-19 counter the number of flip-flops required is**

Ans :5

1058.

In wireless network an extended service set is a set of

Ans: are logical units of one or more basic service sets on the same [logical network segment](#)

1059.

Let  $T(n)$  be the function defined by  $T(n) = 1$  and  $T(n) = 2T(n/2) + n$ ,  
which of the following is TRUE ?

1060.

**The smallest integer than can be represented by an 8-bit number in 2?S complement form is**

Ans: -128

1061.

How to create a memory without a name during the execution of the program?

Ans:

1062.

The following HTML \_\_\_\_\_ element contains meta data which is not displayed inside the document

Ans:<meta>tag

1063.

\_\_\_\_\_ is commonly used in wireless LAN.

Ans:Wireless routers

1064.

Consider a 6-stage instruction pipeline, where all stages are perfectly balanced. Assume that there is no cycle-time overhead of pipelining. When an application is executing on this 6-stage pipeline, the speedup achieved with respect to non-pipelined execution if 25% of the instructions incur 2 pipeline stall cycles is

Ans: For a non-pipelined execution on the 6-stage pipeline it will take 6 cycles for one instruction to finish execution.

For a pipelined execution , it will take 1 cycle for each instruction to execute , in addition to that , 2 additional cycles for 25% of the instructions.

Hence , the average time to execute an instruction in this =  $(1+25 \times 0.25 \times 2)$

=1.5

Hence , speedup =  $(6/1.5) = 4$

ANSWER : 4

1065.

Which one of the following event is not possible in wireless LAN.

Ans: a) collision detection

1066. <h2 style="color:blue">I am Blue</h2> is \_\_\_\_\_ way of styling HTML elements

Ans:inline style

1067. What is the best case for linear search

Ans: $O(1)$

1068. What is Wired Equivalent Privacy(WEP)?

Ans: Standard network protocol that adds security to Wi-Fi and other 802.11 wireless networks.

1069.The following HTML element helps making animated text

Ans: `@keyframes`

1070. Minterms are arranged in map in a sequence of

Ans:Karnaugh Map

1071. How will you handle the overflow condition of a linked queue through code(note: new\_node is a newly created node in a memory)

1072. Which of the following explains Cookies nature?

Ans: Transient

1073. What is the time complexity for binary search

Ans: $O(\log n)$

1074.

Register renaming is done in pipelined processors

Ans: to handle certain kinds of hazards

1075. What is WPA?

Ans: Wi-Fi Protected Access (**WPA**) is a security standard for users of computing devices equipped with wireless internet connections

1076. WiMAX stands for

**Ans:** WorldWide Interoperability for Microwave Access

**1077.** If the associativity of a processor cache is doubled while keeping the capacity and block size unchanged, which one of the following is guaranteed to be NOT affected?

**Ans:** Width of processor to main memory data bus

**1078.** Consider a hash table with 9 slots. The hash function is  $h(k) = k \bmod 9$ . The collisions are resolved by chaining. The following 9 keys are inserted in the order: 5, 28, 19, 15, 20, 33, 12, 17, 10. The maximum, minimum, and average chain lengths in the hash table, respectively, are

**Ans:** the shortest path from W to every vertex in the graph.

**1079.** The following HTML element is used to display horizontal line

**Ans:** <hr> element

**1080.** The \_\_\_\_\_ attribute defines the action to be performed when the form is submitted

## Ans: action Attribute

**1081.** The main difference between JK and RS flip-flop is that

**Ans:** The main difference between a JK flip-flop and an SR flip-flop is that in the JK flip-flop, both inputs can be HIGH. When both the J and K inputs are HIGH, the Q output is toggled, which means that the output alternates between HIGH and LOW. Thereby the invalid condition which occurs in the SR flipflop is eliminated.

**1082.** The data structure required for Breadth First Traversal on a graph is

**Ans:** Queue

1083.

WiMAX provides

**Ans:** full duplex communication

1084.

WiMAX uses the

**Ans.** orthogonal frequency division multiplexing

1085.

**Which of the following unit will choose to transform decimal number to binary code ?**

**Ans:** Encoder

1086.

What is the time complexity for insertion sort

**Ans:** O(n)

1087.

Which of these will create a shuffled list?

**Ans:** shuffle(), random().

1088.

How do you check queue is full in array implementation

**Ans:** Queue will be full when (count == size)

1089.

Which one of the following modulation scheme is supported by WiMAX?

**Ans:** binary phase shift keying modulation and quadrature phase shift keying modulation  
and quadrature amplitude modulation

---

1090.

Which attribute is used to extend the lifetime of a cookie?

**Ans:** max-age

**1100.** X=1010100 and Y=1000011 using 1's complement Y-X is

**ANS.** 1101110

**1101.** Prim's algorithm is a method available for finding out the minimum cost of a spanning tree.

Its time complexity is given by:

ANS. Adjacency Matrix:  $O(|V|^2)$ , Binary heap/Adjacency List:  $O(|E|\log|V|)$ , Fibonacci heap  $O(|E| + |V|\log|V|)$

1102. Which of these is a stand-alone tag?

ANS. <area /> <base /> <br /> <col /> <command /> <embed /> <hr /> <img /> <input /> <keygen /> <link /> <menuitem /> <meta /> <param /> <source /> <track /> <wbr />

<area>	<frame>	<link>
<base>	<hr>	<meta>
<basefont>	<img>	<param>
 	<input>	
<col>	<isindex>	

1103. Which of the below given sorting techniques has highest best-case runtime complexity?

- (A) Quick sort
- (B) Selection sort
- (C) Insertion sort
- (D) Bubble sort

Answer: (B)

Quick sort best case time complexity is  $O(n \log n)$

Selection sort best case time complexity is  $O(n^2)$

Insertion sort best case time complexity is  $O(n)$

Bubble sort best case time complexity is  $O(n)$

1104. The maximum size of payload field in ethernet frame is

The original Ethernet IEEE 802.3 standard defined the minimum Ethernet frame size as 64 bytes and the maximum as 1518 bytes. The maximum was later increased to 1522 bytes to allow for VLAN tagging.

The minimum size of an Ethernet frame that carries an ICMP packet is 74 bytes. 1500 octets (0x05DC).

1105. The 16-bit 2's complement representation of an integer is 1111 1111 1111 0101, its decimal representation is

- ANS. (A) 10
- (B) 11
- (C) -10
- (D) -11

Answer: (D)

Explanation: Number is given in 2's complement representation. Since, MSB is 1, so value of this number is negative and we have to take 2's complement of given number then find its decimal value.

Therefore,

$$\begin{aligned} &\text{2's complement of } (1111\ 1111\ 1111\ 0101) \\ &= (\text{1's complement of } (1111\ 1111\ 1111\ 0101)) + 1 \\ &= ((0000\ 0000\ 0000\ 1010)) + 1 \\ &= 1011 \text{ in binary} \\ &= 11 \end{aligned}$$

It is negative, so answer is (- 11).

Option (C) is correct.

1106. What is interframe gap (IFG)

**ANS.** Ethernet devices must allow a minimum idle period between transmission of Ethernet packets known as the interpacket gap (IPG), interframe spacing, or interframe gap (IFG). A brief recovery time between packets allows devices to prepare for reception of the next packet.

1107. If the associativity of a processor cache is doubled while keeping the capacity and block size unchanged, which one of the following is guaranteed to be NOT affected?

- (A) Width of tag comparator
- (B) Width of set index decoder
- (C) Width of way selection multiplexor
- (D) Width of processor to main memory data bus

Answer: (D)

Explanation: If associativity is doubled, keeping the capacity and block size constant, then the number of sets gets halved. So, width of set index decoder can surely decrease – (B) is false.

Width of way-selection multiplexer must be increased as we have to double the ways to choose from- (C) is false. As the number of sets gets decreased, the number of possible cache block entries that a set maps to gets increased. So, we need more tag bits to identify the correct entry. So, (A) is also false. (D) is the correct answer- main memory data bus has nothing to do with cache associativity- this can be answered without even looking at other options.

1108. Which of the following is included in the head section of HTML

<title> (this element is required in an HTML document)  
<style>  
<base>  
<link>  
<meta>  
<script>  
<noscript>

1109. In binary heap, whenever the root is removed then the rightmost element of last level is replaced by the root. Why?

- a. It is the easiest possible way.
- b. To make sure that it is still complete binary tree.
- c. Because left and right subtree might be missing.
- d. None of the above.

**ANS.** (b).To make sure that it is still complete binary tree.

1110. In a circular linked list

**ANS.** In a circularly linked list, all nodes are linked in a continuous circle, without using null. For lists with a front and a back (such as a queue), one stores a reference to the last node in the list. The next node after the last node is the first node.

1111. A computer system implements 8 kilobyte pages and a +32-bit physical address space. Each page table entry contains a valid bit, a dirty bit, three permission bits, and the translation. If the maximum size of the page table of a process is 24 megabytes, the length of the virtual address supported by the system is

- (A) 36
- (B) 32
- (C) 28
- (D) 40

**ANS.** A. 36

A Computer system implements 8 kilobyte pages and a 32-bit physical address space. Each page table entry contains a valid bit, a dirty bit three permission bits, and the translation. If the maximum size of the page table of a process is 24 megabytes, the length of the virtual address supported by the system is \_\_\_\_\_ bits

- (A) 36
- (B) 32
- (C) 28
- (D) 40

Answer: (A)

Explanation:

Max size of virtual address can be calculated by calculating maximum number of page table entries.

Maximum Number of page table entries can be calculated using given maximum page table size and size of a page table entry.

Given maximum page table size = 24 MB

Let us calculate size of a page table entry.

A page table entry has following number of bits.

1 (valid bit) +

1 (dirty bit) +

3 (permission bits) +

x bits to store physical address space of a page.

Value of x = (Total bits in physical address) -

(Total bits for addressing within a page)

Since size of a page is 8 kilobytes, total bits needed within a page is 13.

So value of x = 32 - 13 = 19

Putting value of x, we get size of a page table entry =

$$1 + 1 + 3 + 19 = 24 \text{ bits.}$$

Number of page table entries

$$= (\text{Page Table Size}) / (\text{An entry size})$$

$$= (24 \text{ megabytes} / 24 \text{ bits})$$

$$= 223$$

Virtual address Size

$$= (\text{Number of page table entries}) * (\text{Page Size})$$

$$= 223 * 8 \text{ kilobits}$$

$$= 236$$

Therefore, length of virtual address space = 36

1112. An ethernet frame that is less than the IEEE 802.3 minimum length of 64 octets is called

- a) short frame
- b) run frame
- c) mini frame
- d) man frame

Answer: b

Explanation: None.

1113. A mailer that transforms a message body of an e-mail into a web page is called a HTML-enabled mail client.

1114.

Consider two processors P1 and P2 executing the same instruction set. Assume that under identical conditions, for the same input, a program running on P2 takes 25% less time but incurs 20% more CPI (clock cycles per instruction) as compared to the program running on P1. If the clock frequency of P1 is 1GHz, then the clock frequency of P2 (in GHz) is

- (A) 1.6
- (B) 3.2
- (C) 1.2
- (D) 0.8

ANS. A

For P1 clock period = 1ns

Let clock period for P2 be t.

Now consider following equation based on specification

$$7.5 \text{ ns} = 12 * t \text{ ns}$$

We get t and inverse of t will be 1.6GHz

1115. If you don't want the frame windows to be resizeable, simply add what to the lines?

- a) save
- b) dontresize
- c) noresize

ANS C.

1116. Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?

ANS: The IEEE 802.11 uses a Carrier Sense Multiple Access/Collision Avoidance (CSMA/CA) to avoid the collisions. IEEE 802.11 uses another MAC technique known as Point Coordination Function (PCF) [18].

1117. The minimum number of nodes in a binary tree of depth d (root at level 0) is

ANS. D+1

1118. In wireless distribution system

- a) multiple access point are inter-connected with each other
- b) there is no access point
- c) only one access point exists
- d) none of the mentioned

View Answer

Answer: a

Explanation: None.

1119. Interpolation search is an improved variant of binary search. It is necessary for this search algorithm to work that data collection should be

- A - data collection should be in sorted form and equally distributed.
- B - data collection should be in sorted form and but not equally distributed.
- C - data collection should be equally distributed but not sorted.
- D - None of the above.

Ans. A

1120. A circuit that converts n inputs to  $2^n$  outputs is called

ANS. A decoder is a combinational circuit that converts binary information from the n coded inputs to a maximum of  $2n$  unique outputs.

1121. What is the correct HTML for making a text input field?

- A. `<input type="textfield" />`
- B. `<input type="text" />`
- C. `<textfield>`
- D. `<textinput type="text" />`

ANS. **B**

1122. A wireless network interface controller can work in

ANS. A wireless network interface controller (WNIC) is a network interface controller which connects to a wireless radio-based computer network, rather than a wired network, such as Token Ring or Ethernet. A WNIC, just like other NICs, works on the Layer 1 and Layer 2 of the OSI Model.

1123. What is cell padding?

ANS. it specifies the amount of space between the border of a table cell and its contents.

1124. Which level of RAID refers to disk mirroring with block striping?

ANS. RAID level 1 refers to disk mirroring with block striping

1125. Consider an undirected graph G with 100 nodes. The maximum number of edges to be included in

2451

4950

4851

9900

ANS.  $C=4851 \cdot (n-1)(n-2)/2$

1126. Where in an HTML document is the correct place to refer to an external style sheet?

- a. In the `<head>` section

1127. In wireless network an extended service set is a set of

- a) connected basic service sets
- b) all stations
- c) all access points
- d) none of the mentioned

View Answer

Answer: a

Explanation: None.

1128. To build a mod-19 counter the number of flip-flops required is

B. 5

1129. Let  $T(n)$  be the function defined by  $T(n) = 1$  and  $T(n) = 2T(n/2) + n$ , which of the following is TRUE ?

433 views

- A.  $T(n) = O(n\log n)$
- B.  $T(n) = O((\log n)^2)$
- C.  $T(n) = O(n)$
- D.  $T(n) = O(n^2)$

ANS. A

1130. The smallest integer than can be represented by an 8-bit number in 2's complement form is

- (A) -256
- (B) -128
- (C) -127
- (D) 0

Answer: (B)

Explanation: See Two's complement

For n bit 2's complement numbers, range of number is  $-(2(n-1))$  to  $+(2(n-1)-1)$

1131. The following HTML \_\_\_\_\_ element contains meta data which is not displayed inside the document

ANS. Head

1132. How to create a memory without a name during the execution of the program?

1133. \_\_\_\_\_ s commonly used in wireless LAN.

ANS. Captive Portal

1134. Consider a 6-stage instruction pipeline, where all stages are perfectly balanced. Assume that there is no cycle-time overhead of pipelining. When an application is executing on this 6-stage pipeline, the speedup achieved with respect to non pipelined execution if 25% of the instructions incur 2 pipeline stall cycles is

- (A) 4
- (B) 8
- (C) 6
- (D) 7

Answer: (A)

1135. Which one of the following event is not possible in wireless LAN.

- a) collision detection
- b) acknowledgement of data frames
- c) multi-mode data transmission
- d) none of the mentioned

View Answer

Answer: a

Explanation: None.

1136. `<h2 style="color:blue">I am Blue</h2>` is \_\_\_\_\_ way of styling HTML elements

ANS. Inline

1137. What is the best case for linear search

ANS. O(1)

1138. How will you handle the overflow condition of a linked queue through code(note: new\_node is a newly created node in a memory)

1139. Minterms are arranged in map in a sequence of  
binary sequence  
gray code  
binary variables  
BCD code

ANS. B Gray Code

1140. The following HTML element helps making animated text  
@keyframes in CSS3  
Animation-name animation-duration etc

1141. What is Wired Equivalent Privacy(WEP)?

Wired Equivalent Privacy (WEP) is a security protocol, specified in the IEEE Wireless Fidelity (Wi-Fi) standard, 802.11b, that is designed to provide a wireless local area network (WLAN) with a level of security and privacy comparable to what is usually expected of a wired LAN.

1142. What is the time complexity for binary search

ANS. O(log n)

1143. Which of the following explains Cookies nature?

- a) Non Volatile
- b) Volatile
- c) Intransient
- d) Transient

View Answer

Answer: d

Explanation: Cookies are transient by default; the values they store last for the duration of the web browser session but are lost when the user exits the browser.

1144. Register renaming is done in pipelined processors

- (A) as an alternative to register allocation at compile time
- (B) for efficient access to function parameters and local variables
- (C) to handle certain kinds of hazards
- (D) as part of address translation

Answer: (C)

Explanation: Register renaming is done to avoid data hazards

1145. What is WPA?

- Wi-Fi Protected Access (WPA) is a security standard for users of computing devices equipped with wireless internet connections, or Wi-Fi. It improved upon and replaced the original Wi-Fi security standard, Wired Equivalent Privacy (WEP).

1146. If the associativity of a processor cache is doubled while keeping the capacity and block size unchanged, which one of the following is guaranteed to be NOT affected?

- (A) Width of tag comparator
- (B) Width of set index decoder
- (C) Width of way selection multiplexor
- (D) Width of processor to main memory data bus

Answer: (D)

Explanation: If associativity is doubled, keeping the capacity and block size constant, then the number of sets gets halved. So, width of set index decoder can surely decrease – (B) is false.

Width of way-selection multiplexer must be increased as we have to double the ways to choose from- (C) is false

As the number of sets gets decreased, the number of possible cache block entries that a set maps to gets increased. So, we need more tag bits to identify the correct entry. So, (A) is also false.

(D) is the correct answer- main memory data bus has nothing to do with cache associativity- this can be answered without even looking at other options.

1147. WiMAX stands for

ANS. (Worldwide Interoperability for Microwave Access

1148. The following HTML element is used to display horizontal line

ANS. <hr>

1149. Consider a hash table with 9 slots. The hash function is  $h(k) = k \bmod 9$ . The collisions are resolved by chaining. The following 9 keys are inserted in the order: 5, 28, 19, 15, 20, 33, 12, 17, 10. The maximum, minimum, and average chain lengths in the hash table, respectively, are

- (A) 3, 0, and 1
- (B) 3, 3, and 3
- (C) 4, 0, and 1
- (D) 3, 0, and 2

Answer: (A)

5 --> 5

28 --> 1

19 --> 1 [Chained with 28]

15 --> 6

20 --> 2

33 --> 6 [Chained with 15]

12 --> 3

17 --> 8

10 --> 1 [Chained with 28 and 19]

1150. WiMAX provides

- a) simplex communication
- b) half duplex communication
- c) full duplex communication
- d) none of the mentioned

Answer: C

1151. The data structure required for Breadth First Traversal on a graph is

- a) Stack
- b) Array
- c) Queue
- d) Tree

ANS. C Queue

1152. The \_\_\_\_\_ attribute defines the action to be performed when the form is submitted

ANS. Action

1153. The main difference between JK and RS flip-flop is that

The main difference between a JK flip-flop and an SR flip-flop is that in the JK flip-flop, both inputs can be HIGH. When both the J and K inputs are HIGH, the Q output is toggled, which means that the output alternates between HIGH and LOW. Thereby the invalid condition which occurs in the SR flipflop is eliminated.

1154. Which of the following unit will choose to transform decimal number to binary code ?

- A. Encoder
- B. Decoder
- C. Multiplexer
- D. Counter

**ANS. A**

1155. What is the time complexity for insertion sort

Therefore overall time complexity of the insertion sort is  $O(n + f(n))$  where  $f(n)$  is inversion count. If the inversion count is  $O(n)$ , then the time complexity of insertion sort is  $O(n)$ . In worst case, there can be  $n*(n-1)/2$  inversions. The worst case occurs when the array is sorted in reverse order. So the worst case time complexity of insertion sort is  $O(n^2)$ .

1156. Which of these will create a shuffled list?

1157. WiMax uses the

- a) orthogonal frequency division multiplexing
- b) time division multiplexing
- c) space division multiplexing
- d) all of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

1158. How do you check queue is full in array implementation

ANS. Check whether queue is Full – Check  $((\text{rear} == \text{SIZE}-1 \ \&\& \ \text{front} == 0) \ || (\text{rear} == \text{front}-1))$ .

1159. Which attribute is used to extend the lifetime of a cookie?

- a) Higherage
- b) Increaseage
- c) Maxage
- d) Lifetime

[View Answer](#)

Answer: c

Explanation: If you want a cookie to last beyond a single browsing session, you must tell the browser how long (in seconds) you would like it to retain the cookie by specifying a manage attribute. If you specify a lifetime, the browser will store cookies in a file and delete them only once they expire.

1160. Which one of the following modulation scheme is supported by WiMAX?

- a) binary phase shift keying modulation
- b) quadrature phase shift keying modulation
- c) quadrature amplitude modulation
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

1161. A processor can support a maximum memory of 4 GB, where the memory is word-addressable (a word consists of two bytes). The size of the address bus of the processor is at least \_\_\_\_\_ bits

(A) 16

(B) 31

(C) 32

(D) None

Answer: (B)

Explanation: Maximum Memory = 4GB =  $2^{32}$  bytes

Size of a word = 2 bytes

Therefore, Number of words =  $2^{32} / 2 = 2^{31}$

So, we require 31 bits for the address bus of the processor.

Thus, B is the correct choice.

1162. Which of the following boolean expressions is not logically equivalent to all of the rest ?

- (a)  $wxy' + wz' + wxyz + wy'z$
- (b)  $w(x + y' + z')$
- (c)  $w + x + y' + z'$
- (d)  $wx + wy' + wz'$

ANS. Yes, it's c. You can show that (a) = (b) as follows. Note that  $a + a'b = (a + a')(a + b)$  (by distributivity of disjunction over conjunction) =  $1(a + b) = a + b$ . Of course, similarly  $a' + ab = a' + b$ .

Using this trick and factoring out w, we get

$$xy' + z' + xyz + y'z =$$

$$xy' + xyz + z' + y' =$$

$$xyz + z' + y' \text{ (since } xy' + y' = (x + 1)y' = 1y' = y') =$$

$$xy + z' + y' =$$

$$x + z' + y'$$

The fact that (b) = (d) is trivial. Nonequivalence of (c) is best verified by finding truth values where the expressions differ. Of course, equivalence can also be checked using truth tables.

1163. WiMAX MAC layer provides an interface between

ANS. the physical layer and the higher application layers within the stack.

1164. Which of these is Server side technology?

ANS. SSI (server side includes) PHP ASP CGI PERL JSP/Servlets

1165. Which of the following algorithm is Minimum Spanning Tree in graph

ANS. Kruskal, Prim

1166. The minimum number of NAND gates required to implement the Boolean function.  $A + AB' + AB'C$  is equal to

ANS. A. 0

0 (Zero)

1

4

7

1167. Which one of the following algorithm is not used in asymmetric-key cryptography?

- a) rsa algorithm
- b) diffie-hellman algorithm
- c) electronic code book algorithm
- d) none of the mentioned

View Answer

Answer: c

Explanation: None.

1168. You have an array of n elements, Suppose you implement quicksort by always choosing the central element of the array as the pivot, Then the tightest upper bound for the worst case performance is

- (A)  $O(n^2)$
- (B)  $O(n\log n)$
- (C)  $\Theta(n\log n)$
- (D)  $O(n^3)$

Answer: (A)

The middle element may always be an extreme element (minimum or maximum) in sorted order, therefore time complexity in worst case becomes  $O(n^2)$

1169. How can you make a list that lists the items with numbers?

ANS. OL (Ordered List)

- type="1" The list items will be numbered with numbers (default)
- type="A" The list items will be numbered with uppercase letters
- type="a" The list items will be numbered with lowercase letters
- type="I" The list items will be numbered with uppercase roman numbers

type="i" The list items will be numbered with lowercase roman numbers  
1170. Suppose P, Q, R, S, T are sorted sequences having lengths 20, 24, 30, 35, 50 respectively. They are to be merged into a single sequence by merging together two sequences at a time, The number of comparisons that will be needed in the worst case by the optimal algorithm for doing this is  
ANS. Answer: 358

To merge two lists of size m and n, we need to do  $m+n-1$  comparisons in worst case. Since we need to merge 2 at a time, the optimal strategy would be to take smallest size lists first. The reason for picking smallest two items is to carry minimum items for repetition in merging.

We first merge 20 and 24 and get a list of 44 using 43 worst case comparisons. Then we merge 30 and 35 into a list of 65 using 64 worst case comparisons. Then we merge 50 and 44 into a list of 94 using 93 comparisons. Finally we merge 94 and 65 using 158 comparisons. So total number of comparisons is  $43 + 64 + 93 + 158$  which is 358.

1171. Which method is used to get the year of a date object in YYYY format in Javascript.

ANS. `getFullYear()`

1172. In cryptography, the order of the letters in a message is rearranged by

- ANS. a) transpositional ciphers
- b) substitution ciphers
- c) both (a) and (b)
- d) none of the mentioned

View Answer

Answer: a

Explanation: None.

1173. The size of the data count register of a DMA controller is 16 bits. The processor needs to transfer a file of 29,154 kilobytes from disk to main memory. The memory is byte addressable. The minimum number of times the DMA controller needs to get the control of the system bus from the processor to transfer the file from the disk to main memory is

Note : This question was asked as Numerical Answer Type.

- (A) 3644
- (B) 3645
- (C) 456
- (D) 1823

Answer: (C)

Explanation: Size of data count register of the DMA controller = 16 bits

Data that can be transferred in one go = 216 bytes = 64 kilobytes

File size to be transferred = 29154 kilobytes

So, number of times the DMA controller needs to get the control of the system bus from the processor to transfer the file from the disk to main memory =  $\text{ceil}(29154/64) = 456$

Thus, C is the correct answer.

1174. Let G be a graph with n vertices and m edges, What is the tightest upper bound on the running time on Depth First Search of G? Assume that the graph is represented using adjacency matrix

- (A) O(n)
- (B) O(m+n)
- (C) O(n<sup>2</sup>)
- (D) O(mn)

Answer: (C)

Explanation: Depth First Search of a graph takes O(m+n) time when the graph is represented using adjacency list.

In adjacency matrix representation, graph is represented as an “n x n” matrix. To do DFS, for every vertex, we traverse the row corresponding to that vertex to find all adjacent vertices (In adjacency list representation we traverse only the adjacent vertices of the vertex). Therefore time complexity becomes O(n<sup>2</sup>)

1175. Which one of the following is a cryptographic protocol used to secure HTTP connection?  
Transport Layer Security (TLS) is a cryptographic protocol that is used to secure web (HTTP/HTTPS) connections.

1176. What is data encryption standard (DES)?

The Data Encryption Standard (DES) is a symmetric-key block cipher published by the National Institute of Standards and Technology (NIST). DES is an implementation of a Feistel Cipher. It uses 16 round Feistel structure.

1177. The minimum number of page frames that must be allocated to a running process in a virtual memory environment is determined by  
the instruction set architecture  
page size  
number of processes in memory  
physical memory size

A is the answer of this question

1178. Choose the correct HTML to left-align the content inside a tablecell

- A <td leftalign>
- B <td align="left">
- C <td valign="left">
- D <td="left">

#### **Answer & Explanation**

Option: [B]

1179.

Cryptanalysis is used

6. Cryptanalysis is used

- a) to find some insecurity in a cryptographic scheme
- b) to increase the speed
- c) to encrypt the data
- d) none of the mentioned

View Answer

Answer: a

Explanation: None.

1180.

A computer has a 256 KByte, 4-way set associative, write back data cache with block size of 32 Bytes. The processor sends 32 bit addresses to the cache controller. Each cache tag directory entry contains, in addition to address tag, 2 valid bits, 1 modified bit and 1 replacement bit. The size of the cache tag directory is

- (A) 11
- (B) 14
- (C) 16
- (D) 27

Answer: (C)

Explanation: A set-associative scheme is a hybrid between a fully associative cache, and direct mapped cache. It's considered a reasonable compromise between the complex hardware needed for fully associative caches (which requires parallel searches of all slots), and the simplistic direct-mapped scheme, which may cause collisions of addresses to the same slot (similar to collisions in a hash table).

1181.

Let G be a graph with n vertices and m edges, What is the tightest upper bound on the running time on Depth First Search of G? Assume that the graph is represented using adjacency matrix

- (A) O(n)
- (B) O(m+n)

(C) O(n<sup>2</sup>)

(D) O(mn)

Answer: (C)

Explanation: Depth First Search of a graph takes O(m+n) time when the graph is represented using adjacency list. In adjacency matrix representation, graph is represented as an “n x n” matrix. To do DFS, for every vertex, we traverse the row corresponding to that vertex to find all adjacent vertices (In adjacency list representation we traverse only the adjacent vertices of the vertex). Therefore time complexity becomes O(n<sup>2</sup>)

1182.

Which one of the following is a cryptographic protocol used to secure HTTP connection?

Transport Layer Security (TLS) is a cryptographic protocol that is used to secure web (HTTP/HTTPS) connections.

1183

In HTTP, which method gets the resource as specified in the URI

PUT Uploads a representation of the specified URI

1184.

The capacity of a memory unit is defined by the number of words multiplied by the number of bits/word.

How many separate address and data lines are needed for a memory of  $4\text{ K} \times 16$ ?

(a) 10 address, 16 data lines (b) 11 address, 8 data lines

(c) 12 address, 16 data lines (d) 12 address, 12 data lines

ROM memory size = $2m \times n$

m=no. of address lines n= no. of data lines

given  $4\text{ K} \times 16$

=  $2^12 \times 2^10 \times 16$

=  $2^{12} \times 16$

address lines =12

data lines= 16

1185.

Let P be a QuickSort Program to sort numbers in ascending order using the first element as pivot, Let t<sub>1</sub> and t<sub>2</sub> be the number of comparisons made by P for the inputs {1, 2, 3, 4, 5} and {4, 1, 5, 3, 2} respectively, Which one of the following holds?

(A) t<sub>1</sub> = 5

(B) t<sub>1</sub> < t<sub>2</sub>

(C) t<sub>1</sub> > t<sub>2</sub>

(D) t<sub>1</sub> = t<sub>2</sub>

Answer: (C)

Explanation: When first element or last element is chosen as pivot, Quick Sort’s worst case occurs for the sorted arrays.In every step of quick sort, numbers are divided as per the following recurrence. T(n) = T(n-1) + O(n)

1186

Which of these is not a valid attribute of <tr> element?

Align bgcolor char charoff valign

Global Attributes

Attribute Description

accesskey Specifies a shortcut key to activate/focus an element

class Specifies one or more classnames for an element (refers to a class in a style sheet)

contenteditable Specifies whether the content of an element is editable or not

contextmenu Specifies a context menu for an element. The context menu appears when a user right-clicks on the element

data-\* Used to store custom data private to the page or application

dir      Specifies the text direction for the content in an element  
draggable      Specifies whether an element is draggable or not  
dropzone      Specifies whether the dragged data is copied, moved, or linked, when dropped  
hidden      Specifies that an element is not yet, or is no longer, relevant  
id      Specifies a unique id for an element  
lang      Specifies the language of the element's content  
spellcheck      Specifies whether the element is to have its spelling and grammar checked or not  
style      Specifies an inline CSS style for an element  
tabindex      Specifies the tabbing order of an element  
title      Specifies extra information about an element  
translate      Specifies whether the content of an element should be translated or not

#### Event Attributes

onafterprint      script      Script to be run after the document is printed  
onbeforeprint      script      Script to be run before the document is printed  
onbeforeunload      script      Script to be run when the document is about to be unloaded  
onerror      script      Script to be run when an error occurs  
onhashchange      script      Script to be run when there has been changes to the anchor part of the a URL  
onload      script      Fires after the page is finished loading  
onmessage      script      Script to be run when the message is triggered  
onoffline      script      Script to be run when the browser starts to work offline  
ononline      script      Script to be run when the browser starts to work online  
onpagehide      script      Script to be run when a user navigates away from a page  
onpageshow      script      Script to be run when a user navigates to a page  
onpopstate      script      Script to be run when the window's history changes  
onresize      script      Fires when the browser window is resized  
onstorage      script      Script to be run when a Web Storage area is updated  
onunload      script      Fires once a page has unloaded (or the browser window has been closed)

1187.

A priority queue is implemented as a Max-Heap. Initially, it has 5 elements. The level-order traversal of the heap is: 10, 8, 5, 3, 2. Two new elements 1 and 7 are inserted into the heap in that order. The level-order traversal of the heap after the insertion of the elements is:

A priority queue is implemented as a Max-Heap. Initially, it has 5 elements. The level-order traversal of the heap is: 10, 8, 5, 3, 2. Two new elements 1 and 7 are inserted into the heap in that order. The level-order traversal of the heap after the insertion of the elements is:

- (A) 10, 8, 7, 3, 2, 1, 5
- (B) 10, 8, 7, 2, 3, 1, 5
- (C) 10, 8, 7, 1, 2, 3, 5
- (D) 10, 8, 7, 5, 3, 2, 1

Answer: (A)

1188.

Voice privacy in GSM cellular telephone protocol is provided by

- a) A5/2 cipher
- b) b5/4 cipher
- c) b5/6 cipher
- d) b5/8 cipher

View Answer

Answer: a

Explanation: None

1189.

The intel 8086 microprocessor is a \_\_\_\_\_ processor

- A. 8 bit
- B. 16 bit
- C. 32 bit
- D. 4 bit

ANS. 16 bit

1190.

The microprocessor can read/write 16 bit data from or to \_\_\_\_\_

Memory

1191.

The worst case running time to search for an element in a balanced in a binary search tree with  $n*2^n$  elements is

- (A)  $A(n) = \Omega(W(n))$
- (B)  $A(n) = \Theta(W(n))$
- (C)  $A(n) = O(W(n))$
- (D)  $A(n) = o(W(n))$

Answer (C)

The worst case time complexity is always greater than or same as the average case time complexity.

1192.

ElGamal encryption system is

In cryptography, the ElGamal encryption system is an asymmetric key encryption algorithm for public-key cryptography which is based on the Diffie–Hellman key exchange.

1193

Java package is a grouping mechanism with the purpose of  
Controlling the visibility of classes interfaces and methods.

1194.

The pre-order and post order traversal of a Binary Tree generates the same output. The tree can have maximum

- a. Three nodes
- b. Two nodes
- c. One node
- d. Any number of nodes

Answer: One node

1195.

Find the output of the following program?

```
#include
using namespace std;
void myFunction(int& x, int* y, int* z) {
    static int temp=1;
    temp += (temp + temp) - 1;
    x += *(y++ + *z)+ temp - ++temp;
    *y=x;
    x=temp;
    *z= x;
    cout<<x<<*y<<*z<<temp;
}
int main() {
    int i = 0;
    int j[] = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9};
    i=i++ - ++i;
```

```
myFunction(i, j, &i);
return 0;
}
364135031433 garbage value.
```

1196.

The work of EU is \_\_\_\_\_

Execution unit. In computer engineering, an execution unit (also called a functional unit) is a part of the central processing unit (CPU) that performs the operations and calculations as instructed by the computer program.

1197.

Cryptographic hash function takes an arbitrary block of data and returns

- a) fixed size bit string
- b) variable size bit string
- c) both (a) and (b)
- d) none of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

1198.

Find the output of the following program?

```
#include
using namespace std;
typedef int * IntPtr;
int main()
{
    IntPtr A, B, C;
    int D,E;
    A = new int(3);
    B = new int(6);
    C = new int(9);
    D = 10;
    E = 20;
    *A = *B;
    B = &E;
    D = (*B)++;
    *C=(*A)++ * (*B)--;
    E= *C++ - *B--;
    cout<<*A<<*B<<*C< return 0;
}
```

After fixing a few issues 711840

1199.

A linear collection of data elements where the linear node is given by means of pointer is called

- a) Linked list
- b) Node list
- c) Primitive list
- d) None

[View Answer](#) / [Hide Answer](#)

ANSWER: A

1200.

The 16 bit flag of 8086 microprocessor is responsible to indicate \_\_\_\_\_

- a. the condition of result of ALU operation
- b. the condition of memory
- c. the result of addition
- d. the result of subtraction

Answer: the condition of result of ALU operation

1201

IPSec is designed to provide the security at the

- a) transport layer
- b) network layer
- c) application layer
- d) session layer

View Answer

Answer: b

Explanation: None.

1202. Suppose a circular queue of capacity  $(n - 1)$  elements is implemented with an array of  $n$  elements. Assume that the insertion and deletion operation are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are

- (A) Full:  $(\text{REAR}+1) \bmod n == \text{FRONT}$ , empty:  $\text{REAR} == \text{FRONT}$
- (B) Full:  $(\text{REAR}+1) \bmod n == \text{FRONT}$ , empty:  $(\text{FRONT}+1) \bmod n == \text{REAR}$
- (C) Full:  $\text{REAR} == \text{FRONT}$ , empty:  $(\text{REAR}+1) \bmod n == \text{FRONT}$
- (D) Full:  $(\text{FRONT}+1) \bmod n == \text{REAR}$ , empty:  $\text{REAR} == \text{FRONT}$

Answer (A)

1203.

The BIU contains FIFO register of size \_\_\_\_\_ bytes

6 bytes

1204.

In tunnel mode IPsec protects the

- a) Entire IP packet
- b) IP header
- c) IP payload
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

1205.

Which is the correct CSS syntax?

- a. Cascading Style Sheets

1206.

While inserting the elements 71,65,84,69,67,83 in an empty binary search tree (BST) in the sequence shown, the element in the lowest level is

- (A) 65
- (B) 67
- (C) 69
- (D) 83

Answer: (B)

1207.

The BIU prefetches the instruction from memory and store them in \_\_\_\_\_

Queue

1208.

Network layer firewall works as a

Network layer firewalls, also called packet filters, operate at a relatively low level of the TCP/IP protocol stack, not allowing packets to pass through the firewall unless they match the established rule set.

1209.

To link your Web page to a style sheet, you must use the \_\_\_\_\_ tag

Use the HTML <link> element to refer to an external CSS file.

1210.

The 1 MB byte of memory can be divided into \_\_\_\_\_ segment

64Kbyte

1211.

What is a Software ?

Software is a general term for the various kinds of programs used to operate computers and related devices.

1212.

A process executes the code

fork();

fork();

fork();

The total number of child processes created is

(A) 3

(B) 4

(C) 7

(D) 8

Answer (C)

1213

Suppose T is a binary tree with 14 nodes. What is the minimum possible depth of T?

A. 3 B. 0 C. 4 D. 5

A. 3

1214.

Consider the below code fragment:

```
if(fork k( ) == 0)
{
a= a+5; printf(?%d, %d \n?, a, &a);
}
else
{
a= a ? 5;
printf(?%d %d \n?, 0, &a);
}
```

Let u, v be the values printed by parent process and x, y be the values printed by child process. Which one of the following is true?

(A) u = x + 10 and v = y

(B) u = x + 10 and v != y

(C) u + 10 = x and v = y

(D) u + 10 = x and v != y

Answer: (C)

1215.

The IP is \_\_\_\_\_ bits in length

For IPv4, this pool is 32-bits (2<sup>32</sup>) in size and contains 4,294,967,296 IPv4 addresses

Pv6 uses a 128-bit address, theoretically allowing 2<sup>128</sup>, or approximately 3.4×10<sup>38</sup> addresses

1216.

For an undirected graph with n vertices and e edges, the sum of the degree of each vertex is equal to 2e

1217.

Which of these is incorrect ?

1218.

IMUL source is a signed \_\_\_\_\_

A. multiplication B. addition C. subtraction D. division

ANS. A

1219.

What does the following bit of JavaScript print out?

```
var a = [1,,3,4,5];
console.log([a[4], a[1], a[5]]);
```

ANS.

[ 5, undefined, undefined ]

=> undefined

1220.

Which one of the following regular expressions over {0, 1} denotes the set of all strings not containing 100 as a substring  
(a) 0\*(11)\*0\* (b) (0\*1010)\* (c) 0\*1\*010 (d) 0\*(10)\*01\*

(a) - generates 100

(b) doesn't generate 0 (start trying strings in lexicographic order- 0, 1, 00, 01, 10,...)

(c) doesn't generate 1

(d) is the answer

1221.

The Incremental Model is a result of combination of elements of which two models?

- a) Build & FIX Model & Waterfall Model
- b) Linear Model & RAD Model
- c) Linear Model & Prototyping Model
- d) Waterfall Model & RAD Model

[View Answer](#)

Answer: c

Explanation: Each linear sequence produces a deliverable “increment” of the software and particularly when we have to quickly deliver a limited functionality system.

1222.

The number of states in DFA is -----than the number of states in NFA for the same Language.

A state in a DFA will be a subset of the set of states of the equivalent NFA. So, the maximum number of states in the equivalent DFA of an NFA, will be  $2^n$ , where  $n$  is the number of states in NFA, as a set with  $n$  items has maximum  $2^n$  subsets.

1223.

The spiral model was originally proposed by

This model was first described by Barry Boehm in his 1986 paper "A Spiral Model of Software Development and Enhancement".

1224.

The microprocessor determines whether the specified condition exists or not by testing the

---

Conditional Flag

1225.

Which one of the following statements is NOT correct about HTTP cookies?

- (A) A cookies is a piece of code that has the potential to compromise the security of an Internet user
- (B) A cookie gains entry to the user's work area through an HTTP header
- (C) A cookie has an expiry date and time
- (D) Cookies can be used to track the browsing pattern of a user at a particular site

Answer: (A)

Explanation: Cookies are not piece of code, they are just strings typically in the form of key value pairs.

1226.

In max mode, control bus signal S<sub>0</sub>, S<sub>1</sub> and S<sub>2</sub> are sent out in \_\_\_\_\_ form

Encoded

1227.

Consider the C function given below.

```
int f(int j)
{
static int i = 50;
int k;
if (i == j)
{
printf("something");
k = f(i);
return 0;
}
else return 0;
}
```

Which one of the following is TRUE?

1228.

The recognizing capabilities of NDFS and DFSM

A. must be the same

1229.

Spiral Model has user involvement in all its phases.

FALSE

1230.

HTTP is implemented over

TCP but can be over any connection-oriented protocol

1231.

Which one of the following models is not suitable for accommodating any change?

(d).Waterfall Model

1232.

The \_\_\_ bus controller device decodes the signals to produce the control bus signal  
C. external

1133. When there are infinite distinguishable strings then there cannot be a -----

Let  $L$  be an arbitrary language over  $\Sigma$ . Let  $S \subseteq \Sigma^*$  be  
an infinite set where for any distinct  $x, y \in S$ , the strings  $x$   
and  $y$  are distinguishable relative to  $L$ . We will prove that  
 $L$  cannot be regular.

1234.

A NFA converted to DFA has more than one final state.

True

1235

Mnemonic codes and variable names are used in

- (A) a machine language
- (B) an assembly language
- (C) a high-level language
- (D) all of these

ANS. B

1236.

To interface memory with the microprocessor, connect register the lines of the address bus  
must be added to address lines of the \_\_\_\_\_ chip.

Memory

1237.

Which model can be selected if user is involved in all the phases of SDLC?

- a) Waterfall Model
- b) Prototyping Model
- c) RAD Model
- d) both Prototyping Model & RAD Model

View Answer

Answer: c

Explanation: None.

1238. If  $M_1$  machine recognizing  $L$  with  $n$  states, then  $M_2$  recognizing  $L^*$  constructed Using Thompson  
construction will  
have ----- states.

1239.

In which year, 8086 was introduced?

The 8086 ("eighty eighty-six", also called iAPX 86, or in the UK "eight-oh-eight-six") is a 16-bit  
microprocessor chip designed by Intel between early 1976 and mid-1978, when it was released.

1240.

Functional requirements capture the intended behavior of the system.

True

1241.

By default, any real number in C is treated as ChoicesA

1242.

ALE stands for \_\_\_\_\_

Address Latch Enable

1243.

When there is complete DFA with Five states out of which two are final states if F is modified such that it recognizes complement of the original language then there will be at least \_\_\_\_\_ final states.

Three

A DFA that accepts its complement is obtained from the above DFA by changing all single circles to double circles and vice versa as shown below.

1244

Which one of the following is a requirement that fits in a developer's module ?

- a) Availability
- b) Testability
- c) Usability
- d) Flexibility

[View Answer](#)

Answer: b

Explanation: A developer needs to test his product before launching it into the market.

1245.

For automatic objects, constructors and destructors are called each time the objects

- [A]. enter and leave scope @
- [B]. inherit parent class
- [C]. are constructed
- [D]. are destroyed

Answer: Option A

1246.

Which of the following statements explains portability in non-functional requirements?

- a) It is a degree to which software running on one platform can easily be converted to run on another platform
- b) It cannot be enhanced by using languages, OS' and tools that are universally available and standardized
- c) The ability of the system to behave consistently in a user-acceptable manner when operating within the environment for which the system was intended
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Option c is termed as reliability and option e refers to efficiency.

1247. When we concatenate two languages L1 and L2 recognized by machine M1 and M2 we obtain a machine with final state same as that of \_\_\_\_\_

M2 or L2

1248.

Which of the following statement is correct about destructors?

- A). A destructor has void return type.
- B). A destructor has integer return type.
- C). A destructor has no return type.
- D). A destructors return type is always same as that of main().

Answer : Option C

1249.

In 8086, Example for Non maskable interrupts are \_\_\_\_\_.

- a) Trap b) RST6.5 c) INTR

ANS A

1250. Address line for TRAP is?

- a) 0023H b) 0024H c) 0033H

**ANS B**

1251. Which is one of the most important stakeholder from the following ?

- a) Entry level personnel
- b) Middle level stakeholder
- c) Managers
- d) Users of the software

[View Answer](#)

Answer: d

Explanation: Users are always the most important stakeholders. After all, without users or customers, what's the point of being in business?.

1252.

Consider the code snippet given below

```
var count = [1,,3];
```

What is the observation made?

- a) The omitted value takes “undefined”
- b) This results in an error
- c) This results in an exception
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: If you omit a value from an array literal, the omitted element is given the value.

1253.

The intersection of CFL and regular language

It is well known that the intersection of a context free language and a regular language is context free.

This theorem is used in several proofs that certain languages are not context free. The usual proof of this theorem is a cross product construction of a PDA and a DFA.

1254.

Access time is faster for \_\_\_\_\_.

- a) ROM
- b) SRAM
- c) DRAM

**ANS B**

1255

Which of these does not belong to the basic principles of good product design?

- a) Adequacy
- b) Feasibility
- c) Portability
- d) Economy

[View Answer](#)

Answer: c

Explanation: Portability is not a part of good product design.

1256.

Consider the following code snippet

```
var a1 = [,,,];
var a2 = new Array(3);
```

0 in a1

0 in a2

Result of Javascript is:

The result would be

- a) true false
- b) false true
- c) true true
- d) false true

[View Answer](#)

Answer: a

Explanation: a1 has an element with index 0 and a2 has no element with index 0.

1257

Consider S->SS|a what is the number of different derivation trees for aaaaa

ANS 14

1258. The number of auxiliary memory required for a Push Down Machine (PDM) to behave like a Finite State Machine (FSM) is

Only when the number of auxiliary memory is 0 then a PDM behaves like an FSM. Hence the correct option is (A)

1259

The pop() method of the array in javascript does which of the following task ?

- a) decrements the total length by 1
- b) increments the total length by 1
- c) prints the first element but no effect on the length
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Arrays have a pop() method (it works with push()) that reduces the length of an array by 1 but also returns the value of the deleted element.

1260.

Which method bypasses the CPU for certain types of data transfer?

- A. Software interrupts
- B. Interrupt-driven I/O
- C. Polled I/O
- D. Direct memory access (DMA)

Answer: Option D

1261.

The project planner examines the statement of scope and extracts all important software functions which is known as

- a) Association
- b) Decomposition
- c) Planning process
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: None

1262. 1262.

Consider the following javascript code snippet :

```
var a = [];
a.unshift(1);
a.unshift(22);
a.shift();
```

```
a.unshift(3,[4,5]);
```

```
a.shift();
```

```
a.shift();
```

```
a.shift();
```

The final output for the shift() is

The final output for the shift() is

a) 1

b) [4,5].

c) [3,4,5].

d) Exception is thrown

[View Answer](#)

Answer: a

Explanation: The unshift() and shift() methods behave much like push() and pop(), except that they insert and remove elements from the beginning of an array rather than from the end. unshift() adds an element or elements to the beginning of the array, shifts the existing array elements up to higher indexes to make room, and returns the new length of the array. shift() removes and returns the first element of the array, shifting all subsequent elements down one place to occupy the newly vacant space at the start of the array.

1263. A 66.6% risk is considered as

a) very low

b) low

c) moderate

d) high

[View Answer](#)

Answer: d

Explanation: The probability of the risk might be assessed as very low (<10%), low (10–25%), moderate (25–50%), high (50–75%), or very high (>75%).

1264.

A priority queue is implemented as a Max-Heap. Initially, it has 5 elements. The level-order traversal of the heap is: 10, 8, 5, 3, 2. Two new elements 1 and 7 are inserted into the heap in that order. The level-order traversal of the heap after the insertion of the elements is:

(a) 10, 8, 7, 5, 3, 2, 1

(b) 10, 8, 7, 2, 3, 1, 5

(c) 10, 8, 7, 1, 2, 3, 5

(d) 10, 8, 7, 3, 2, 1, 5

Answer (D)

1265.

A 20-bit address bus can locate \_\_\_\_\_.

A. 1,048,576 locations

B. 2,097,152 locations

C. 4,194,304 locations

D. 8,388,608 locations

Answer: Option A

1266.

Consider the following statements

```
var text = "testing: 1, 2, 3"; // Sample text
```

```
var pattern = /\d+/g // Matches all instances of one or more digits
```

In order to check if the pattern matches with the string “text”, the statement is

- a) `text==pattern`
- b) `text.equals(pattern)`
- c) `text.test(pattern)`
- d) `pattern.test(text)`

[View Answer](#)

Answer: d

Explanation: The given pattern is applied on the text given in the parenthesis.

1267.

An independent relationship must exist between the attribute that can be measured and the external quality attribute.

- a) True
- b) False

[View Answer](#)

Answer: b

Explanation: The value of the quality attribute must be related, in some way, to the value of the attribute than can be measured.

1268.

In a DMA write operation the data is transferred

(A) from I/O to memory. (B) from memory to I/O. (C) from memory to memory. (D) from I/O to I/O. A DMA writes operation transfers data from an I/O device to memory. Hence answer is (A)

1269.

If a , b , c, are three nodes connected in sequence in a singly linked list, what is the statement to be added to change this into a circular linked list?

circular linked list where last node of the list points back to the first node (or the head) of the list  
last -> next = T.

1270.

Risk management is one of the most important jobs for a

- a) Client
- b) Investor
- c) Production team
- d) Project manager

[View Answer](#)

Answer: d

Explanation: Risk management involves anticipating risks that might affect the project schedule or the quality of the software being developed, and then taking action to avoid these risks.

1271.

Direction flag is used with

Direction flag. The direction flag is a flag that controls the left-to-right or right-to-left direction of string processing, stored in the FLAGS register on all x86-compatible CPUs. It is bit number 10.

1272.

For the array (77 ,62,114,80,9,30,99), write the order of the elements after two passes using the Radix sort

Ans 9,114,30,62,77,80,99

1273.

Consider the following javascript statements

```
x = ~y;  
w = x = y = z;  
q = a?b:c?d:e?f:g;  
The above code snippet is equivalent to:  
a. x=~(-y); w= (x=(y=z));  
q=a?b@c?d:e?f:g);
```

1274.

EPROM is generally erased by using

Once programmed, an EPROM can be erased by exposing it to strong ultraviolet light source (such as from a mercury-vapor light).

1275.

When there is an indefinite or an infinity value during an arithmetic value computation, javascript

- a) Prints an exception error
- b) Prints an overflow error
- c) Displays “Infinity”
- d) Prints the value as such

[View Answer](#)

Answer: c

Explanation: When the result of a numeric operation is larger than the largest representable number (overflow), the result is a special infinity value, which JavaScript prints as Infinity. Similarly, when a negative value becomes larger than the largest representable negative number, the result is negative infinity, printed as -Infinity. The infinite values behave as you would expect: adding, subtracting, multiplying, or dividing them by anything results in an infinite value (possibly with the sign reversed).

1276

Which of these is asymptotically bigger?

Log small,  $2^n$  large,  $n^{\text{literal}}$  medium

1277.

Which of the following risk is the failure of a purchased component to perform as expected?

2. Which of the following risk is the failure of a purchased component to perform as expected?

- a) Product risk
- b) Project risk
- c) Business risk
- d) Programming risk

[View Answer](#)

Answer: a

Explanation: Risks that affect the quality or performance of the software being developed.

1278. Which of the following term is best defined by the statement: “The underlying technology on which the system is built is superseded by new technology.”?

- a) Technology change
- b) Product competition
- c) Requirements change
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Technology changes are common in the competitive environment of software engineering.

1279.

Consider a B+ tree in which the search Answer is 12 bytes long, block size is 1024 bytes, record pointer is 10 bytes long and block pointer is 8 bytes long. The maximum number of keys that can be accommodated in each non-leaf node of the tree is \_\_\_\_\_

- (A) 49
- (B) 50
- (C) 51
- (D) 52

Answer: (B)

1280.

The javascript statement `a==b` refers to

- a) Both a and b are equal in value, type and reference address
- b) Both a and b are equal in value
- c) Both a and b are equal in value and type
- d) There is no such statement

[View Answer](#)

Answer: c

Explanation: `a==b` returns a true if a and b refer to the same object, so they are equal, else it returns a false.

1281.

Which is used to store critical pieces of data during subroutines and interrupts

- a. Stack
- b. Queue
- c. Accumulator
- d. Data register

ANS. A Stack

1282.

The external system bus architecture is created using from \_\_\_\_\_ architecture

- a. Pascal
- b. Dennis Ritchie
- c. Charles Babbage
- d. Von Neumann

ANS. D

1283.

Consider the following code snippet

```
function oddsums(n)
{
let total = 0, result=[];
for(let x = 1; x <= n; x++)
{
let odd = 2*x-1;
total += odd;
result.push(total);
}
return result;
}
```

What would be the output if  
oddsums(5);  
is executed after the above code snippet ?  
Returns [1,4,9,16,25]  
Returns [1,2,3,4,5]  
Returns [3,6,9,12,15]  
Returns [1,3,5,7,9]

Answer : Option 1

1284. What assess the risk and your plans for risk mitigation and revise these when you learn more about the risk?

- a) Risk monitoring
- b) Risk planning
- c) Risk analysis
- d) Risk identification

View Answer

Answer: a

Explanation: None.

1285.

The number of ways in which the numbers 1, 2, 3, 4, 5, 6, 7 can be inserted in an empty binary search tree, such that the resulting tree has height 6, is

- (A) 2
- (B) 4
- (C) 64
- (D) 32

Answer: (C)

Explanation: To get height 6, we need to put either 1 or 7 at root.

So count can be written as  $T(n) = 2*T(n-1)$  with  $T(1) = 1$

1286.

The preorder traversal sequence of a binary search tree is 30, 20, 10, 15, 25, 23, 39, 35, 42. Which one of the following is the postorder traversal sequence of the same tree?

- (A) 10, 20, 15, 23, 25, 35, 42, 39, 30
- (B) 15, 10, 25, 23, 20, 42, 35, 39, 30
- (C) 15, 20, 10, 23, 25, 42, 35, 39, 30
- (D) 15, 10, 23, 25, 20, 35, 42, 39, 30

Answer: (D)

1287.

Which of the following risks are derived from the organizational environment where the software is being developed?

- a) People risks
- b) Technology risks
- c) Estimation risks
- d) Organizational risks

View Answer

Answer: d

Explanation: These risks are at management level.

1288.

Given a variable \$email containing the string user@example.com, which of the following PHP statements would extract the string example.com?

- A) substr(\$email, strpos(\$email, "@"));
- B) strstr(\$email, "@");
- C) strchr(\$email, "@");
- D) substr(\$email, strpos(\$email, "@") + 1);
- E) strrpos(\$email, "@");

ANS. D

1289.

Which of the following risks are derived from the software or hardware technologies that are used to develop the system?

- a) Managerial risks
- b) Technology risks
- c) Estimation risks
- d) Organizational risks

[View Answer](#)

Answer: b

Explanation: The risks associated with technology might affect the product development.

1290. Given a comma-separated list of values in a string, which function from the given list can create an array of each individual value with a single call in PHP?

- A) strstr()
- B) Cannot be done with a single function
- C) extract()
- D) explode()
- E) strtok()

AND D

1291.

Consider an undirected graph G where self-loops are not allowed. The vertex set of G is  $\{(i, j) : 1 \leq i = 12, 1 \leq j = 12\}$ . There is an edge between (a, b) and (c, d) if  $|a - c| = 1$  and  $|b - d| = 1$ . The number of edges in this graph is

- (A) 500
- (B) 502
- (C) 506
- (D) 510

Answer: (C)

1292.

Consider the following New-order strategy for traversing a binary tree:

- 1) Visit the root;
- 2) Visit the right subtree using New-order;
- 3) Visit the left subtree using New-order;

The New-order traversal of the expression tree corresponding to the reverse polish expression  $3 \ 4 * \ 5 - \ 2 ? \ 6 \ 7 * \ 1 + -$  is given by:

- (A)  $+ - 1 \ 6 \ 7 * 2 ^ 5 - 3 \ 4 *$
- (B)  $- + 1 * 6 \ 7 ^ 2 - 5 * 3 \ 4$
- (C)  $- + 1 * 7 \ 6 ^ 2 - 5 * 4 \ 3$
- (D)  $1 \ 7 \ 6 * + 2 \ 5 \ 4 \ 3 * - ^ -$

Answer: (C)

1293.

In PHP, array values are keyed by \_\_\_\_\_ values (called indexed arrays) or using \_\_\_\_\_ values (called associative arrays). Of course, these key methods can be combined as well.

- A. Float, string
- B. Positive number, negative number
- C. Even number, string
- D. Integer, string

ANS: D. Integer, string

1294.

Which of the following term is best defined by the statement: “Derive traceability information to maximize information hiding in the design.”?

- a) Underestimated development time
- b) Organizational restructuring
- c) Requirements changes
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: Tracing the requirements can help us understand the risk.

1295.

What will the following script output?

```
<?php  
$array = array (1, 2, 3, 5, 8, 13, 21, 34, 55);  
$sum = 0;  
for ($i = 0; $i < 5; $i++) {  
$sum += $array[$array[$i]];  
}  
echo $sum;  
?>
```

- A. 78
- B. 19
- C. NULL
- D. 5
- E. 0

This question is designed to test your ability to analyze a complex script more than your understanding of arrays. You may think it too convoluted—but we’ve all been faced with the not-so-pleasant task of debugging someone else’s code, and compared to some of the scripts

we’ve seen, this is actually quite simple. The script simply cycles through the for loop five times, each time adding to \$sum the value of the element of \$array whose key is equal to the value of the element of \$array whose key is equal to \$i. It might sound a bit like a high-tech variation of “how much wood would a wood chuck chuck,” but if you step through the code manually, you’ll find that, when \$i is zero, then \$array[\$array[\$i]] becomes \$array[\$array[0]], or \$array[1], that is, 2. Applied to all the iterations of the for loop, the resulting total is 78.

1296.

Which of the following strategies means that the impact of the risk will be reduced?

- a) Avoidance strategies
- b) Minimization strategies
- c) Contingency plans
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

1297.

A complete binary min-heap is made by including each integer in [1;1023] exactly once. The depth of a node in the heap is the length of the path from the root of the heap to that node. Thus, the root is at depth 0. The maximum depth at which integer 9 can appear is

- (A) 6
- (B) 7
- (C) 8
- (D) 9

Answer: (C)

1298.

What elements will the following script output?

```
<?php  
$array = array (true => 'a', 1 => 'b');  
var_dump ($array);  
?>
```

- A) 1 => 'b'
- B) True => 'a', 1 => 'b'
- C) 0 => 'a', 1 => 'b'
- D) None
- E) It will output NULL

ANS 3) E

1299.

Let G be a weighted connected undirected graph with distinct positive edge weights. If every edge weight is increased by the same value, then which of the following statements is/are TRUE ? P: Minimum spanning tree of G does not change. Q: Shortest path between any pair of vertices does not change

- (A) P only
- (B) Q only
- (C) Neither P nor Q
- (D) Both P and Q

Answer: (A)

1300.

Risk management is now recognized as one of the most important project management tasks.

- a) True
- b) False

View Answer

Answer: a

Explanation: None.

1300.

Risk management is now recognized as one of the most important project management tasks.

- a) True

b) False

[View Answer](#)

Answer: a

Explanation: None.

1301.

Which of the following term is best defined by the statement: "There will be a change of organizational management with different priorities."?

- a) Staff turnover
- b) Technology change
- c) Management change
- d) Product competition

[View Answer](#)

Answer: c

Explanation: None.

1302.

If every node u in G adjacent to every other node v in G, A graph is said to be

- A. isolated
- B. complete
- C. finite
- D. strongly connected.
- B. complete

1303.

Assume you would like to sort an array in ascending order by value while preserving key associations. Which of the following PHP sorting functions would you use?

Asort()

1304.

Which of the following is a dynamic model that shows how the system interacts with its environment as it is used?

- a) system context model
- b) interaction model
- c) environmental model
- d) both system context and interaction

[View Answer](#)

Answer: b

Explanation: None.

1305.

Consider an undirected random graph of eight vertices. The probability that there is an edge between a pair of vertices is  $\frac{1}{2}$ . What is the expected number of unordered cycles of length three?

- (A) 1/8
- (B) 1
- (C) 7
- (D) 8

Answer (C)

A cycle of length 3 can be formed with 3 vertices. There can be total  $8C3$  ways to pick 3 vertices from 8. The probability that there is an edge between two vertices is  $1/2$ . So expected number of unordered cycles of length 3  
 $= (8C3)*(1/2)^3 = 7$

1306.

Which of the following is golden rule for interface design?

- a) Place the user in control
- b) Reduce the user's memory load
- c) Make the interface consistent
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: These golden rules actually form the basis for a set of user interface design principles that guide this important software design activity.

1307.

In a connected graph, a bridge is an edge whose removal disconnects a graph. Which one of the following statements is true?

(A) A tree has no bridge

(B) A bridge cannot be part of a simple cycle

(C) Every edge of a clique with size  $\geq 3$  is a bridge (A clique is any complete subgraph of a graph)

(D) A graph with bridges cannot have a cycle

Answer: (B)

Explanation: A bridge in a graph cannot be a part of cycle as removing it will not create a disconnected graph if there is a cycle.

1308.

\_\_\_\_\_ is a measure of the degree of interdependence between modules.

coupling is the degree of interdependence between software modules;

1309.

A binary tree in which if all its levels except possibly the last, have the maximum number of nodes and all the nodes at the last level appear as far left as possible, is known as

a. full binary tree.

b. AVL tree.

c. threaded tree.

d. complete binary tree.

[View Answer](#) / [Hide Answer](#)

ANSWER: a. full binary tree.

1310.

Which of these methods has no restrictions on content size when a form is submitted.

POST

1311.

Which of the following is the worst type of module coupling?

- a) Control Coupling
- b) Stamp Coupling
- c) External Coupling
- d) Content Coupling

[View Answer](#)

Answer: c

Explanation: Content coupling occurs when module A changes data of module B or when control is passed from one module to the middle of another.

1312.

A binary tree T has 20 leaves. The number of nodes in T having two children is

- (A) 18
- (B) 19
- (C) 17
- (D) Any number between 10 and 20

Answer: (B)

1313.

Consider the following program:

```
int f(int *p, int n)
```

```
{  
if (n <= 1) return 0;  
else return max ( f (p+1, n-1),p[0]-p[1]);  
}  
  
int main()  
{  
int a[] = {3,5,2,6,4};  
printf("%d", f(a,5));  
}
```

The value printed by this program is

Note: max(x,y) returns the maximum of x and y. The value printed by this program is

- (A) 2
- (B) 3
- (C) 4
- (D) 5

Answer: (B)

Explanation:

Look at the recursion stack of the given code in the below image. Assuming that the base address of array starts from 1000 and an integer takes 4 Bytes.

1314.

Which of the following is the best type of module cohesion?

- a) Control Coupling
- b) Stamp Coupling
- c) Data Coupling
- d) Content Coupling

[View Answer](#)

Answer: c

Explanation: The dependency between module A and B is said to be data coupled if their dependency is based on the fact they communicate by only passing of data.

1315.

Consider the following C code segment:

```
int a, b, c = 0;

void prtFun(void);

main( )

{ static int a = 1; /* Line 1 */

prtFun( );

a += 1;

prtFun( )

printf(?\\n %d %d ?, a, b);

}

void prtFun(void)

{ static int a=2; /* Line 2 */

int b=1;

a+=++b;

printf(?\\n %d %d ?, a, b);

}
```

What output will be generated by the given code segment if:

Line 1 is replaced by auto int a = 1;

Line 2 is replaced by register int a = 2;

(A)

1

4

1

4

2

(B)

4

2

6

1

6

1

(C)

4

2

6

2

2

0

(D)

4

2

4

2

2

0

ANS: D

1316. Which of the following asymptotic notation is the worst among all?

- a.  $O(n+9378)$
- b.  $O(n^3)$
- c.  $nO(1)$
- d.  $2O(n)$

Answer: $O(n^3)$

1317.

Which of the following is example of in-place algorithm?

A sorting algorithm is said to be in-place if it requires very little additional space besides the initial array holding the elements that are to be sorted. Normally “very little” is taken to mean that for sorting  $n$  elements,  $O(\log n)$  extra space is required.

Given an array  $a$  of  $n$  items, suppose we want an array that holds the same elements in reversed order and dispose of the original. One seemingly simple way to do this is to create a new array of equal size, fill it with copies from  $a$  in appropriate order and then delete  $a$ .

Unfortunately, this requires  $O(n)$  extra space for having the arrays  $a$  and  $b$  available simultaneously. Also, allocation and deallocation are often slow operations. Since we no longer need  $a$ , we can instead overwrite it with its own reversal using this in-place algorithm which will only need constant number (2) of integers for the auxiliary variables  $i$  and  $tmp$ , no matter how large the array is.

As another example, many sorting algorithms rearrange arrays into sorted order in-place, including: bubble sort, comb sort, selection sort, insertion sort, heapsort, and Shell sort. These algorithms require only a few pointers, so their space complexity is  $O(\log n)$ .[1]

Quicksort operates in-place on the data to be sorted. However, quicksort requires  $O(\log n)$  stack space pointers to keep track of the subarrays in its divide and conquer strategy. Consequently, quicksort needs  $O(\log_2 n)$  additional space. Although this non-constant space technically takes quicksort out of the in-place category, quicksort and other algorithms needing only  $O(\log n)$  additional pointers are usually considered in-place algorithms.

1318.

Consider the following C program.

```
#include  
  
int f1 (void) ;  
  
int f2 void ;  
  
int x 10;  
  
int main ()
```

```
{  
int x=1;  
x+=f1()+ f2()+f3()+f2() ;  
printf("%d", x);  
return 0;  
}  
  
int f1(){int x=25; x++; return x;}  
  
int f2(){static int x =50; x++;return x;}  
  
int f3(){x*=10; return x};
```

The output of the program is\_\_\_\_\_.

The variable xx is initialized to 11. First and only call to f1()f1() returns 2626. First call to f2()f2() returns 5151. First and only call to f3()f3() returns 100100. Second call to f2()f2() returns 5252 (The value of local static variable xx in f2()f2() retains its previous value 5151 and is incremented by 11).

x=1+26+51+100+52=230

x=1+26+51+100+52=230

Answer: 230

1319.

In what type of coupling, the complete data structure is passed from one module to another?

9. In what type of coupling, the complete data structure is passed from one module to another?

- a) Control Coupling
- b) Stamp Coupling
- c) External Coupling
- d) Content Coupling

[View Answer](#)

Answer: b

Explanation: None.

1320.

The while loop is referred to as a(n) \_\_\_\_\_ loop because the loop condition is tested at the beginning of the loop

TRUE

1321.

If all tasks must be executed in the same time-span, what type of cohesion is being exhibited?

10. If all tasks must be executed in the same time-span, what type of cohesion is being exhibited?

- a) Functional Cohesion
- b) Temporal Cohesion
- c) Functional Cohesion
- d) Sequential Cohesion

[View Answer](#)

Answer: b

Explanation: A Module exhibits temporal cohesion when it contains tasks that are related by the fact that all tasks must be executed in the same time-span.

1322.

Suppose a circular queue of capacity  $(n - 1)$  elements is implemented with an array of n elements. Assume that the insertion and deletion operations are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are

- (A) Full:  $(\text{REAR}+1) \bmod n == \text{FRONT}$ , empty:  $\text{REAR} == \text{FRONT}$
- (B) Full:  $(\text{REAR}+1) \bmod n == \text{FRONT}$ , empty:  $(\text{FRONT}+1) \bmod n == \text{REAR}$
- (C) Full:  $\text{REAR} == \text{FRONT}$ , empty:  $(\text{REAR}+1) \bmod n == \text{FRONT}$
- (D) Full:  $(\text{FRONT}+1) \bmod n == \text{REAR}$ , empty:  $\text{REAR} == \text{FRONT}$

Answer (A)

See this for details.

1323.

```
temp=root->left;  
while(temp->right!=NULL)  
temp=temp->right;
```

```
return temp;
```

The above code snippet for a BST with the address of the root node in pointer 'root' returns

Left sub tree Right side leaf

1324. Which of the following pattern is the basis of interaction management in many web-based systems?

- a) architecture
- b) repository pattern
- c) model-view-controller
- d) different operating system

View Answer Answer: c

Explanation: Model-View-Controller pattern is the basis of interaction management in many web-based systems.

1325.

The word case used in the switch statement represents a

- A. function in the C++ language
- B. data type in the C++ language
- C. keyword in the C++ language
- D. global variable in the C++ language
- E. None of the above

Answer: Option C

1326.

A DFD is always accompanied by a data dictionary.

A DFD is always accompanied by a data dictionary.

- a) True
- b) False

View Answer

Answer: a

Explanation: A data dictionary lists all data items appearing in a DFD including definition and data names.

1327.

Which of the following special symbol allowed in a variable name?

- A. \* (asterisk)
- B. | (pipeline)
- C. - (hyphen)
- D. \_ (underscore)

Correct answer is:

- D. \_ (underscore)

1328.

Data Store Symbol in DFD represents a

The Data Store symbol represents data that is not moving (delayed data at rest)

1329.

If a university sets up web-based information system that faculty could access to record student grades and to advise students, that would be an example of an

- A) CRM
- B) intranet
- C) ERP
- D) extranet
- E) none of the above

B Intranet

1330.

Multiple variable declaration of same data type can be avoided by?

Arrays?

Need options

1331.

Which of the following diagram is time oriented? Collaboration

- a) Collaboration
- b) Sequence
- c) Activity
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: A sequence diagrams timeline along which tasks are completed.

1332.

How many diagrams are here in Unified Modelling Language?

Nine

1333.

Run time polymorphism is achieved by \_\_\_\_\_

- a. Virtual Base class
- b. Container class
- c. Virtual function
- d. Both a and c

ANSWER: Virtual function

1334.

Which of the following gives the memory address of a variable pointed to by pointer a?

3. Which of the following gives the memory address of a variable pointed to by pointer a?

- A. a;
- B. \*a;
- C. &a;

D. address(a);

ANS A. a;

1335.

Which of the following is not considered as a risk in project management?

- a) Specification delays
- b) Product competition
- c) Testing
- d) Staff turnover

[View Answer](#)

Answer: c

Explanation: Testing is a part of project, thus it can't be categorized as risk.

1336.

Interaction Diagram is a combined term for

A collaboration diagram.

A sequence diagram.

1337.

If a class C is derived from class B, which is derived from class A, all through public inheritance, then a class C member function can access

- (A) protected and public data only in C and B.
- (B) protected and public data only in C.
- (C) private data in A and B.
- (D) protected data in A and B.

Ans: D

1138.

Which of the following is not a SQA plan for a project?

- a) evaluations to be performed

- b) amount of technical work
- c) audits and reviews to be performed
- d) documents to be produced by the SQA group

[View Answer](#)

Answer: b

Explanation: All other options support a SQA plan.

1339.

A default constructor is one that

A default constructor is a constructor which can be called with no arguments (either defined with an empty parameter list, or with default arguments provided for every parameter).

1340.

A constructor without any arguments is

A constructor that takes no parameters (or has parameters that all have default values) is called a default constructor.

1341.

Which of the following process is concerned with analyzing the costs and benefits of proposed changes?

- a) Change management
- b) Version management
- c) System building
- d) Release management

[View Answer](#)

Answer: a

Explanation: It involves approving those changes that are worthwhile, and tracking which components in the system have been changed.

1342.

Which of the following functions compares two strings?

The `strcmp()` and `strncmp()` functions return an integer less than, equal to, or greater than zero if `s1` (or the first `n` bytes thereof) is found, respectively, to be less than, to match, or be greater than `s2`. In other words, you should never rely on the exact return value of `strcmp` (other than 0, of course).

1343.

Which of the following term is best defined by the statement “The creation of a new codeline from a version in an existing codeline”?

- a) Branching
- b) Merging
- c) Codeline
- d) Mainline

[View Answer](#)

Answer: a

Explanation: The code may then be developed independently.

1344.

Which of the following is a project scheduling method that can be applied to software development?

- a) PERT
- b) CPM
- c) CMM
- d) Both PERT and CPM

[View Answer](#)

Answer: d

Explanation: Program evaluation and review technique (PERT) and critical path method (CPM) are two project scheduling methods that can be applied to software development.

1345.

`class n{ int a;};` how much memory the compiler allocates for this class

4 bytes

1346.

Identify the disadvantage of Spiral Model.

- a) Doesn't work well for smaller projects
- b) High amount of risk analysis
- c) Strong approval and documentation control
- d) Additional Functionality can be added at a later date

[View Answer](#)

Answer: a

Explanation: All other options are the advantages of Spiral Model.

1347.

```
class n{ public: int a;}  
obj; obj.a=10; cout
```

1348.

Which granularity level of testing checks the behavior of module cooperation?

- a) Unit Testing
- b) Integration Testing
- c) Acceptance Testing
- d) Regression Testing

[View Answer](#)

Answer: b

Explanation: Integration testing is the phase in software testing in which individual software modules are combined and tested as a group.

1349.

A class is a

a class is a template definition of the method s and variable s in a particular kind of object . Thus, an object is a specific instance of a class; it contains real values instead of variables.

1350.

The levels of hierarchy in inheritance helps to handle features that are common in lower level are included in parent class

In this type of inheritance, more than one sub class is inherited from a single base class. i.e. more than one derived class is created from a single base class.

1351

Which of the following is a black box testing strategy?

- a) All Statements Coverage
- b) Control Structure Coverage
- c) Cause-Effect Graphs
- d) All Paths Coverage

[View Answer](#)

Answer: c

Explanation: Rest are test strategies of white box testing.

1352.

Compile time polymorphism is

Overloading is compile time polymorphism where more than one methods share the same name with different parameters or signature and different return type.

1353.

One of the fault base testing techniques is

- a. Unit Testing
- b. Beta Testing
- c. Stress Testing
- d. Mutation Testing

ANSWER: Mutation Testing

1354.

Changes made to an information system to add the desired but not necessarily the required features is called  
Preventative maintenance

- Adaptive maintenance
- Corrective maintenance
- Perfective maintenance

ANS. Perfective maintenance

1355.

Abstraction is

In software engineering and computer science, abstraction is a technique for arranging complexity of computer systems. It works by establishing a level of complexity on which a person interacts with the system, suppressing the more complex details below the current level. The programmer works with an idealized interface (usually well defined) and can add additional levels of functionality that would otherwise be too complex to handle.

1356.

All the modules of the system are integrated and tested as complete system in the case of

Bottom up testing

Big-Bang testing

Sandwich testing

Top-down testing

Answer : Option 2

1357.

```
class n{ public: int a=7;}p,q; cout<
```

1358.

If every requirement stated in the Software Requirement Specification (SRS) has only one interpretation, SRS is said to be  
correct.

consistent.

unambiguous.

verifiable.

Answer : Option 3

1359

class n{ public: int \*a; }o,p; assigning o=p is called?

c = a; //Invokes assignment operator

Need operator overloading for the same

1360.

To create an alias Objects have to be passed by

A reference variable is an alias, that is, another name for an already existing variable. Once a reference is initialized with a variable, either the variable name or the reference name may be used to refer to the variable.

A reference variable is an alias, that is, another name for an already existing variable.

Function Overloading mostly

1361.

A fault simulation testing technique is

(A) Mutation testing (B) Stress testing

(C) Black box testing (D) White box testing

Ans: A

1362.

SRS is also known as specification of

White box testing

Stress testing

Integrated testing

Black box testing

Answer : Option 4

1363.

Templates improve

## Templates Improve Quality and Efficiency

1364.

Access to private data is

RESTRICTED

1365.

A COCOMO model is

The Constructive Cost Model (COCOMO) is a procedural software cost estimation model developed by Barry W. Boehm. The model parameters are derived from fitting a regression formula using data from historical projects (61 projects for COCOMO I and 163 projects for COCOMO II).

1366.

In the spiral model 'risk analysis' is performed

In the first loop

in the first and second loop

In every loop

before using spiral model

Answer : Option 3

1367.

Function templates can accept

- (A) any type of parameters
- (B) only one parameter
- (C) only parameters of the basic type
- (D) only parameters of the derived type

Ans:C

1368.

How many instances of an abstract class can be created?

- A. 1
- B. 5
- C. 13
- D. 0

Answer: Option D

1369.

For a well understood data processing application it is best to use

The waterfall model

prototyping model

the evolutionary model

the spiral model

Answer : Option 1

1370.

Function templates can accept

- (A) any type of parameters
- (B) only one parameter
- (C) only parameters of the basic type
- (D) only parameters of the derived type

Ans:C

1371.

Modifying the software to match changes in the ever changing environment is called

- a. Adaptive maintenance
- b. Corrective maintenance
- c. Perfective maintenance
- d. Preventive maintenance

ANSWER: Adaptive maintenance

1372.

1. The 40-20-40 rule suggests that the least amount of development effort can be spent on

- A) estimation and planning
- B) analysis and design
- C) coding
- D) testing

C. Coding

1373.

If we create a file by , then the default mode of the file is \_\_\_\_\_

los::in

los::out

los::app

los::binary

ANS: los::in

1374.

\_\_\_\_\_ adds to the costs of Software Development because it usually means that work that has been completed has to be redone

Propose System Changes or Changes adds to the costs of software development because it usually means that work that has been completed has to be redone.

1375.

Assume that we have constructor functions for both base class and derived class. Now consider the declaration in main( ). Base \* P = New Derived; in what sequence will the constructor be called ?

Base class constructor followed by Derived class constructor

1376.

Overloading a prefix increment operator by means of a member function takes

- (A) no argument (B) one argument
- (C) two arguments (D) three arguments

Ans: A

1377.

Graphical representation of the project, showing each task and activity as horizontal bar whose length is proportion to time taken for a completion of that activity is called

Gantt Chart

1378.

Which of the following is not the characteristic of constructor?

- (A) They should be declared in the public section.
- (B) They do not have return type.
- (C) They can not be inherited.
- (D) They can be virtual.

Answer: D

1379.

1. Software deteriorates rather than wears out because

- A) Software suffers from exposure to hostile environments
- B) Defects are more likely to arise after software has been used often
- C) Multiple change requests introduce errors in component interactions
- D) Software spare parts become harder to order

ANS. C

1380.

1. The prototyping model of software development is

a reasonable approach when requirements are well-defined. a useful approach when a customer cannot define requirements clearly. the best approach to use for projects with large development teams

1381.

Which of the following ways are legal to access a class data member using this pointer?

- A. `this->x`
- B. `this.x`
- C. `*this.x`
- D. `*this-x`

Answer: Option A

1382.

Which one of the following is the correct way to declare a pure virtual function?

- A. `virtual void Display(void){0};`
- B. `virtual void Display = 0;`
- C. `virtual void Display(void) = 0;`
- D. `void Display(void) = 0;`

Answer: Option C

1383

A professional software engineer must:

Engineers should normally respect the confidentiality of their employers or clients irrespective of whether or not a formal confidentiality agreement has been signed. They should be aware of local laws governing the use of intellectual property such as patents, copyright, etc.

Don't:

- a) Unauthorized access to computer material
- b) Unauthorized modification of computer material
- c) Dissemination of viruses or other malware

1384.

Generic process models are:

Generic Process Model (GPM). The Generic Process Model (GPM) is a formal framework for process analysis. The Generic Process Model (GPM) is a formal framework for process analysis. It uses concepts from Bunge's ontology and extends this ontology with process-related concepts. The GPM-based process analysis methods are language-independent, and can be used for process models at different modeling languages mapped to GPM.

1385.

Which of the following operator can be overloaded through friend function?

- (A) ->
- (B) =
- (C) ()
- (D) \*

Ans:D

1386.

If class A is friend of class B and if class B is friend of class C, which of the following is true?

Property of friend classes is not transitive. If class A is friend of class B, and B is friend of C, then A is never a friend of C unless explicitly declared so. Property of friendship is not corresponding / commutative. If A is a friend of B, then B is not a friend of A. Functions of class A can have access to private / protected data of B without becoming member functions of B, but the converse is not true. So options (a) and (b) are wrong. It is not that class B cannot be a friend of any other class. It can have a friendship with A while continuing friendship with C. So option (c) is also not correct.

- a. Class C is friend of class A
- b. Class A is friend of class C
- c. Class B cannot be a friend of any other class
- d. None of the above

Hence, none of the statements are true. Answer is option (d).

1387.

It is ok to have a single ideal approach to develop a software.

Mostly false not mentioned

1388.

It would be ideal if all of computer science theories can be used in software engineering.

True

1389.

Which of the following (in file scope) leads to a compile-time error?

1390.

Which of the following is an incorrect definition inside a class ?

1391.

Symantec Antivirus is a customized product.

FALSE

1392. In software engineering development, if there are no applicable theories, people often use adhoc approach.

True

1393.

Which of the following results in a compile-time error?

Compile time error do not include:

A. Lexical error

B. Syntactic error

C. Semantic error

D. Logical error

What is the answer?

What are these errors?

please explain with an example.

Thanks in advance

First the classification of errors (as lexical, syntactic, semantic, pragmatic) is somehow arbitrary in the detail.

If you define a lexical error as an error detected by the lexer, then a malformed number could be one, eg 12q4z5. Or a name with a prohibited character like \$

You could define a syntactic error as one detected at parsing time. However C is not stricto sensu a context-free language, and its parsers keep contextual information (e.g. in symbol tables).

Since all of a # and ; are valid lexemes your a#; is not a lexical error.

Actually # is mostly useful at preprocessing time, and what is parsed is actually the preprocessed form, not the user-given source code!

Many semantic errors are related to the notion of undefined behavior, like printf("%d") which lacks an integer argument. Or out of bound access, in your case printf("%d\n", a[1234]);

Some (but not all) semantic or pragmatic errors can be found thru static analysis tools. You can even say that modern compilers (when all warnings are enabled) do some. Your example of a=100; is a typing error (which could be arbitrarily called as syntactic, since the C compiler finds it at parsing time, and as semantic, since related to types which are not a context free property). And you have more specialized static analysis tools like Frama-C and you could extend or customize the GCC compiler (e.g. with MELT, a domain specific language) to add yours (like e.g. in TALPO).

A pragmatic error could be to declare a huge local variable, like here. Probably, when 1Tbyte RAM memory will be common, stacks would have many gigabytes, so that example would run, but not today.

1394.

Software engineering includes system engineering.

True

1395.

If a constructor function is defined in private section of a class, then

- a) The object cannot be created
- b) Only member functions and friends may declare objects of the class
- c) Both (a) & (b)
- d) None of the above

ANS: C

1396. Which of the following is a valid destructor of the class name "Country"

- int ~Country()
- void Country()
- int ~Country(Country obj)
- ~Country()

CORRECT ANSWER : ~Country()

1397.

Which question no longer concerns the modern software engineer?

- a. Why does computer hardware cost so much?
- b. Why does software take a long time to finish?
- c. Why does it cost so much to develop a piece of software?
- d. Why can't software errors be removed from products prior to delivery?

Answer: a (Section 1.1)

1398.

class A { int a; static float b; } ; What is the size of class A?

1 int, 1 float =8 bytes

1399.

Today the increased power of the personal computer has brought about an abandonment of the practice of team development of software

False

1400.

Data Members of the base class that are marked private:

Derived class can not access the private members of its base class. No type of inheritance allows access to private members.

However if you use friend declaration you can do that.

1401.

Software is a product and can be manufactured using the same technologies used for other engineering artifacts.

False

1402.

Most software continues to be custom built because

- a. Component reuse is common in the software world.
- b. Reusable components are too expensive to use.
- c. Software is easier to build without using someone else's components.
- d. Off-the-shelf software components are unavailable in many application domains.

Answer: Off-the-shelf software components are unavailable in many application domains.

1403.

What is true about constant member function of a class?

Declaring a member function with the const keyword specifies that the function is a "read-only" function that does not modify the object for which it is called. A constant member function cannot modify any non-static data members or call any member functions that aren't constant. To declare a constant member function, place the const keyword after the closing parenthesis of the argument list. The const keyword is required in both the declaration and the definition.

```
int Date::getMonth() const
{
    return month;    // Doesn't modify anything
}
```

1404.

The call to the parameterized constructor of base class in the derived class

ANS:

It's not entirely clear what your question is, but I suspect you either want to add an explicit parameterless constructor to your child class:

```
// Parameterless child constructor calling parameterized base constructor
public Child() : base("foo", "bar") {
}
```

or add both a parameterized and parameterless one:

```
public Child()
{
```

```
public Child(string foo, string bar) : base(foo, bar) {  
}
```

ORRR

```
class Base  
{ int x;  
public:  
    Base() { cout << "Base default constructor"; }  
};
```

```
class Derived : public Base  
{ int y;  
public:  
    Derived() { cout << "Derived default constructor"; }  
    Derived(int i) { cout << "Derived parameterized constructor"; }  
};
```

1405.

Change cannot be easily accommodated in most software systems, unless the system was designed with change in mind.

True

1406.

What is the return type of the conversion operator function?

- a) void
- b) int
- c) float
- d) no return type

[View Answer](#)

Answer: d

Explanation: Conversion operator doesn't have any return type not even void.

1407.

The linear sequential model of software development is

Linear sequential model or be known as waterfall model is one of the approaches in Software Development Process Models that software engineer used to defined and design which are used during the development process of software.

- A) A reasonable approach when requirements are well defined.
- B) A good approach when a working program is required quickly.
- C) The best approach to use for projects with large development teams.
- D) An old fashioned model that cannot be used in a modern context.

Ans: A

1408.

If the class name is X, what is the type of its "this" pointer?

ANS. X&

1409.

The linear sequential model of software development is also known as the

Waterfall model

1410.

All member functions are \_\_\_\_\_ to it's class by default

An important feature of the C++ class and structure are member functions. Each datatype can have its own built-in functions (referred to as methods) that have access to all (public and private) members of the datatype.

1411.

The incremental model of software development is

- A) A reasonable approach when requirements are well defined.
- B) A good approach when a working core product is required quickly.
- C) The best approach to use for projects with large development teams.
- D) A revolutionary model that is not used for commercial products.

ANS: B

1412.

In C++, dynamic memory allocation is accomplished with the operator \_\_\_\_

A. new

B. this

C. malloc()

D. delete

Answer & Explanation

Answer : Option A

1413.

The rapid application development model is

- A) Another name for component-based development.
- B) A useful approach when a customer cannot define requirements clearly.
- C) A high speed adaptation of the linear sequential model.
- D) All of the above.

ANS: C

1414.

Which of the following is false for cin?

- (A) It represents standard input.
- (B) It is an object of istream class.
- (C) It is a class of which stream is an object.
- (D) Using cin the data can be read from user's terminal.

Ans:C

1415.

Evolutionary software process models

Evolutionary Software Process Model Evolutionary software models are iterative. They are characterized in manner that enables the software engineers to develop increasingly more complete version of a software. In programming "iteration" means sequential access to objects. It is typically a cycle

1416.

The spiral model of software development

The spiral model combines the idea of iterative development with the systematic, controlled aspects of the waterfall model. This Spiral model is a combination of iterative development process model and sequential linear development model i.e. the waterfall model with a very high emphasis on risk analysis.

1417

The members of a class in c++ by default, are

Private

1418.

The formal methods model of software development makes use of mathematical methods to

- A) Define the specification for computer-based systems
  - B) Develop defect free computer-based systems
  - C) Verify the correctness of computer-based systems
  - D) All of the above
- D) all of the above

1419. Which of the following is not a type of constructor?

- A.Copy constructor
- B.Friend constructor
- C.Default constructor
- D.Parameterized constructor

Answer: B

1420

Which of the following traits need to exist among the members of an agile software team?

- A) Competence
- B) Decision-making ability
- C) Mutual trust and respect
- D) All of the above

ANS: D

1421

Which of the following language feature is not an access specifier in C++?

1422.

Which of the following is not one of Hooker's core principles of software engineering practice?

- A) All design should be as simple as possible, but no simpler
- B) A software system exists only to provide value to its users.
- C) Pareto principle (20% of any product requires 80% of the effort)
- D) Remember that you produce others will consume

ANS: C

1423.

Which one of the following correctly describes the meaning of 'namespace' feature in C++?

- a. Namespaces refer to the memory space allocated for names used in a program
- b. Namespaces refer to space between teh names in a program
- c. Namespaces refer to space between the names in a program
- d. namespaces provide facilities for organizing the names in a program to avoid name clashes

ANS: D

1424.

Software engineers collaborate with customers to define which of the following?

- A) Customer visible usage scenarios
- B) Important software features
- C) System inputs and outputs
- D) All of the above

Ans: D all of the above

1425.

If X is the name of the class, what is the correct way to declare copy constructor of X?

ANS: Valid copy constructors:

```
X(const X& copy_from_me);  
X(X& copy_from_me);  
X(volatile X& copy_from_me);  
X(const volatile X& copy_from_me);  
X(X& copy_from_me, int = 0);  
X(const X& copy_from_me, double = 1.0, int = 42);
```

1426.

Everyone on the software team should be involved in the planning activity so that we can

- A) reduce the granularity of the plan
- B) analyze requirements in depth
- C) get all team members to "sign up" to the plan
- D) begin design

ANS. C

1427.

What does the following declaration mean?

```
int (*ptr)[10];
```

(\*ptr)[10] means there is an array of 10 elements with no array variable but 'ptr is pointer type variable' that has base address of that array

1428.

How will you free the allocated memory?

Realloc, free

1429.

Which of the following activities is not one of the four things that need to be accomplished by the generic planning task set?

- A) Develop overall project strategy
- B) Identify the functionality to deliver in each software increment
- C) Create a detailed schedule for the complete software project

D) Devise a means of tracking progress on a regular basis

ANS: C

1430

What do the 'c' and 'v' in argv stands for?

- A. 'c' means argument control 'v' means argument vector
- B. 'c' means argument count 'v' means argument vertex
- C. 'c' means argument count 'v' means argument vector
- D. 'c' means argument configuration 'v' means argument visibility

Answer: Option C

1431.

Analysis models depict software in which three representations?

- A) architecture, interface, component
- B) cost, risk, schedule
- C) information, function, behavior
- D) None of the above

ANS: C

1432.

ALGORITHM HAS THE \_\_\_\_\_ TO THE PROBLEM IN \_\_\_\_\_ NUMBER OF  
STEPS

1433.

Teams using agile software practices never create models.

False

1434.

THE DATA TYPE IS ALL ABOUT

data type or simply type is a classification of data which tells the compiler or interpreter how the programmer intends to use the data.

1435.

Which of the following is not one of the principles of good coding?

- A) Create unit tests before you begin coding
- B) Create a visual layout that aids understanding
- C) Keep variable names short so that code is compact
- D) Write self-documenting code, not program documentation

ANS: C

1436.

Multiple variable declaration of same data type can be avoided by?

Ans : As a comma separated list with this syntax

```
Data-type variable-name1 , variable-name2, variable-name3;
```

1437.

Many of the tasks from the generic task sets for analysis modeling and design can be conducted in parallel with one another.

ANS: True

1438. Which of the following are valid reasons for collecting customer feedback concerning delivered software?

- A) Allows developers to make changes to the delivered increment
- B) Delivery schedule can be revised to reflect changes
- C) Developers can identify changes to incorporate into next increment
- D) All of the above

ANS: D

1439.

String length is found by the condition

The string-length function returns a number equal to the number of characters in a given string.

String length using pointers Part 1: Chapter 14 21 if(flag==1) 22 {if ( (i==0 ... to 1 (sequence match found) the if condition of line-24 checks several conditions

1440.

Specify the 2 library functions to dynamically allocate memory?

- A. malloc() and memalloc()

- B. alloc() and memalloc()
- C. malloc() and calloc()
- D. memalloc() and faralloc()

ANS C

1441.

The system engineering process usually begins with the

- A) detailed view
- B) domain view
- C) element view
- D) world view

ANS D

1442.

By following modern system engineering practices simulation of reactive systems is no longer necessary.

False

1443.

What keyword covers unhandled possibilities?

Default

1444

WHICH OF THE BELOW IS NOT AN EMAIL PROTOCOL?

SMTP POP IMAP SMTP HTTP IMAPS are email protocol

1445.

During business process engineering, three different architectures are examined

- A) applications, data, technology infrastructure
- B) communications, organization, financial infrastructure
- C) network, database, reporting structure
- D) systems, requirements, data structure

ANS: A

1446.

WHICH OF THE BELOW IS CALLED CLASSLESS ADDRESS?

To reduce the wastage of IP addresses in a block, we use sub-netting. What we do is that we use host id bits as net id bits of a classful IP address. We give the IP address and define the number of bits for mask along with it (usually followed by a '/' symbol), like, 192.168.1.1/28. Here, subnet mask is found by putting the given number of bits out of 32 as 1, like, in the given address, we need to put 28 out of 32 bits as 1 and the rest as 0, and so, the subnet mask would be 255.255.255.240.

Class A – 255.0.0.0

Class B – 255.255.0.0

Class C – 255.255.255.0

1447.

The goal of product engineering is to translate the customer's desire for a set of defined capabilities into a working product.

TRUE

1448.

The architecture components for product engineering are

- A) data, hardware, software, people
- B) data, documentation, hardware, software
- C) data, hardware, software, procedures
- D) documentation, hardware, people, procedures

Ans: A

1449.

WE RECEIVED "404 – PAGE NOT FOUND" MESSAGE, WHEN WE BROWSE THE WEB PAGE. WHICH PROTOCOL PROVIDES THIS MESSAGE?

HTTP provides

1450.

class n{ int a=0;}obj; what will happen?

Object will be created

1451.

The system specification describes the

- A) Function, performance and constraints of a computer-based system
- B) implementation of each allocated system
- C) element software architecture
- D) time required for system simulation

ANS: A

1452.

Identify the invalid statement from the following

WTF

1453.

The best way to conduct a requirements validation review is to

- A) examine the system model for errors
- B) have the customer look over the requirements
- C) send them to the design team and see if they have any concerns
- D) use a checklist of questions to examine each requirement

ANS: D

1454.

A variable P is called pointer if

P contains the address of an element in DATA

1455.

The use of traceability tables helps to

- A) debug programs following the detection of run-time errors
- B) determine the performance of algorithm implementations
- C) identify, control, and track requirements changes
- D) none of the above

ANS: C

1456.

SELECT THE HIGHEST PRIORITY OPERATOR

( )	Parentheses (function call) (see Note 1)	left-to-right
[ ]	Brackets (array subscript)	
.	Member selection via object name	
->	Member selection via pointer	
++ --	Postfix increment/decrement (see Note 2)	
++ --	Prefix increment/decrement	right-to-left
+ -	Unary plus/minus	
! ~	Logical negation/bitwise complement	
(type)	Cast (convert value to temporary value of type)	
*	Dereference	
&	Address (of operand)	
sizeof	Determine size in bytes on this implementation	
* / %	Multiplication/division/modulus	left-to-right
+ -	Addition/subtraction	left-to-right
<< >>	Bitwise shift left, Bitwise shift right	left-to-right
< <=	Relational less than/less than or equal to	left-to-right
> >=	Relational greater than/greater than or equal to	
== !=	Relational is equal to/is not equal to	left-to-right
&	Bitwise AND	left-to-right
^	Bitwise exclusive OR	left-to-right

	Bitwise inclusive OR	left-to-right
&&	Logical AND	left-to-right
	Logical OR	left-to-right
? :	Ternary conditional	right-to-left
= += -= *= /= %=&= ^=  = <<= >>=	Assignment Addition/subtraction assignment Multiplication/division assignment Modulus/bitwise AND assignment Bitwise exclusive/inclusive OR assignment Bitwise shift left/right assignment	right-to-left
,	Comma (separate expressions)	left-to-right

1457.

A stakeholder is anyone who will purchase the completed software system under development

FALSE

1458.

Which of the following operators has an associativity from Right to Left?

Above

1459.

The job of the requirements engineer is to categorize all stakeholder information in a way that allows decision makers to choose an internally consistent set of requirements.

TRUE

1460. The nature of collaboration is such that all system requirements are defined by consensus of a committee of customers and developers.

FALSE

1461.

Which of the following function sets first n characters of a string to a given character?

- A. strinit()
- B. strnset()
- C. strset()
- D. strcset()

Answer: Option B

1462

The library function used to find the last occurrence of a character in a string is

- A. laststr()
- B. strstr()
- C. strnstr()
- D. strrchr()
- E. None of these

Answer: Option D

1463.

In collaborative requirements gathering, the facilitator

- A) cannot be a member of the software team
- B) cannot be a customer
- C) controls and facilitates the process
- D) must be an outsider

ANS. C

1464.

The work products produced during requirement elicitation will vary depending on the

- A) size of the budget
- B) size of the product being built
- C) software process being used

D) stakeholders needs

ANS. B

1465.

Consider the following function

```
double f(double x)
```

```
{
```

```
if (abs(x*x - 3) < 0.01) return x;
```

```
else return f(x/2 + 1.5/x);
```

```
}
```

Give a value q (to 2 decimals) such that  $f(q)$  will return q:\_\_\_\_\_.

(A) 1.73

(B) 2.24

(C) 4.22

(D) 3.42

Answer: (A)

1466.

In win-win negotiation, the customer's needs are met even though the developer's need may not be.

FALSE

1467.

Which header file should be included to use functions like `malloc()` and `calloc()`?

A. memory.h

B. stdlib.h

C. string.h

D. dos.h

Answer: Option B

1468.

In requirements validation the requirements model is reviewed to ensure its technical feasibility.

FALSE

1469.

Consider the following C declaration

```
struct {  
    short s [5]  
    union {  
        float y;  
        long z;  
    } u;  
} t;
```

Assume that objects of the type short, float and long occupy 2 bytes, 4 bytes and 8 bytes, respectively. The memory requirement for variable t, ignoring alignment considerations, is

- (a) 22 bytes
- (b) 14 bytes
- (c) 18 bytes
- (d) 10 bytes

Answer: (c)

Explanation: Short array s[5] will take 10 bytes as size of short is 2 bytes. Since u is a union, memory allocated to u will be max of float y(4 bytes) and long z(8 bytes). So, total size will be 18 bytes (10 + 8).

1470.

For purposes of behavior modeling a state is any

- A) consumer or producer of data.
- B) data object hierarchy.
- C) observable mode of behavior.
- D) well defined process.

ANS C

1471. If a class C is derived from class B, which is derived from class A, all through public inheritance, then a class C member function can access

- (A) protected and public data only in C and B.
- (B) protected and public data only in C.
- (C) private data in A and B.
- (D) protected data in A and B.

Ans: D

1472

The importance of software design can be summarized in a single word

- a) Efficiency
- b) Accuracy
- c) Quality
- d) Complexity

[View Answer](#)

Answer: c

Explanation: Software functional quality reflects how well it complies with or conforms to a given design, based on functional requirements or specifications.

1473.

class n{ int a;}; how much memory the compiler allocates for this class

4 bytes

1474.

Polymorphism reduces the effort required to extend an object system by

- a. coupling objects together more tightly.
- b. enabling a number of different operations to share the same name.

- c. making objects more dependent on one another.
- d. removing the barriers imposed by encapsulation.

Answer: enabling a number of different operations to share the same name.

1475

Overloading the function operator

ANS: The function call operator () can be overloaded for objects of class type. When you overload ( ), you are not creating a new way to call a function. Rather, you are creating an operator function that can be passed an arbitrary number of parameters.

1476.

The two statements that can be used to change the flow of control are

- A. if and switch
- B. if and while
- C. switch and do-while
- D. break and continue
- E. None of the above

Answer: Option A

1477.

Which design model is analogous to the detailed drawings of the access points and external utilities for a house?

- A) Architectural design
- B) Component-level design
- C) Data design
- D) Interface design

ANS. D

1478.

To determine the architectural style or combination of styles that best fits the proposed system, requirements engineering is used to uncover

## Characteristics and Constraints

1479.

If p and q are assigned the values 2 and 3 respectively then the statement P = q++

- A. gives an error message
- B. assigns a value 4 to p
- C. assigns a value 3 to p
- D. assigns a value 5 to p
- E. None of the above

Answer: Option C

1480

Usually a pure virtual function

A pure virtual function or pure virtual method is a virtual function that is required to be implemented by a derived class if the derived class is not abstract. Classes containing pure virtual methods are termed "abstract" and they cannot be instantiated directly.

1481.

Which of the following is not an example of infrastructure components that may need to be integrated into the software architecture?

Interface components; however,

(1) Communications components

(2) Database components

(3) Memory management components

are all infrastructure components that may need to be integrated into the software architecture

1482.

Quantitative methods for assessing the quality of proposed architectural designs are readily available.

- A) True

B) False

ANS: False

1483.

Run time polymorphism is achieved by \_\_\_\_\_

- a. Friend function
- b. Virtual function
- c. Operator overloading
- d. Function overloading

ANSWER: Virtual function

1484.

A property which is not true for classes is that they

(A) are removed from memory when not in use. (B) permit data to be hidden from other classes. (C) bring together all aspects of an entity in one place. (D) Can closely model objects in the real world.

In order: No. Yes. Maybe. Hopefully.

1485.

When the overall flow in a segment of a data flow diagram is largely sequential and follows straight-line paths, \_\_\_\_\_ is present.

- a. low coupling
- b. good modularity
- c. transaction flow
- d. transform flow

Answer: transform flow

1486.

The levels of hierarchy in inheritance helps to handle

1487.

When a single item that triggers other data flow along one of many paths of a data flow diagram,

\_\_\_\_\_ characterizes the information flow.

- ) high coupling
- B) poor modularity
- C) transaction flow
- D) transform flow

ANS: Transaction flow

1488.

Creating additional function similar to template function is called

Concept is generic programming

There is no way to explicitly specify template arguments to overloaded operators, conversion functions, and constructors, because they are called without the use of the function name.

Function template specialization

1489.

In the context of object-oriented software engineering a component contains

set of collaborating classes

1490.

Classes and components that exhibit functional, layer, or communicational cohesion are relatively easy to implement, test, and maintain.

True

1491.

A parameterized constructor with all arguments initialized is same as

Maybe function

1492.

Compile time polymorphism is

It is also known as Static binding, Early binding and overloading as well. It is also known as Dynamic binding, Late binding and overriding as well. Overloading is compile time polymorphism where more than one methods share the same name with different parameters or signature and different return type.Jul 13, 2014

1493.

Software coupling is a sign of poor architectural design and can always be avoided in every system.

False

1494.

Which model depicts the profile of the end users of a computer system?

User model

1495.

Which of the following correctly describes C++ language?

- a. Statically typed language
- b. Dynamically typed language
- c. Both Statically and dynamically typed language
- d. Type-less language

ANS: D

1496.

Routine is not loaded until it is called. All routines are kept on disk in a relocatable load format. The main program is loaded into memory & is executed. This type of loading is called \_\_\_\_\_

ANS: Dynamic Linking

1497.

Which of these framework activities is not normally associated with the user interface design processes?

Cost Estimation;

However,

- (1) Interface Construction
- (2) Interface Validation
- (3) User and Task Analysis

Are all associated with the user interface design processes

1498.

Usability questionnaires are most meaningful to the interface designers when completed by

- A) customers
- B) experienced programmers
- C) product users
- D) project managers

Ans : product users

1499.

Which of the following is not the characteristic of constructor?

- (A) They should be declared in the public section.
- (B) They do not have return type.
- (C) They can not be inherited.
- (D) They can be virtual.

Answer: D

1500.

A static data member is given a value

- A. within the class definition
- B. outside the class definition
- C. when the program is executed
- D. never
- E. Tracking

Answer: Option B

**1500.** A static data member is given a value  
a. Within the class definition

b. Outside the class definition

c. When program is executed

d. Never

Answer: B

**1501.**

In software quality assurance work there is no difference between software verification and software validation.

A. True

B. False

Answer: False

**1502.**

The best reason for using Independent software test teams is that

a. software developers do not need to do any testing

b. test team will test the software more thoroughly

c. testers do not get involved with the project until testing begins

d. arguments between developers and testers are reduced

Answer: B

**1503.** Which of the following (in file scope) leads to a compile-time error?

**1504.** What is the normal order of activities in which traditional software testing is organized?  
a. integration testing b. system testing c. unit testing d. validation testing

a. A d c b

b. B d a c

c. C a d b

d. D b c a

Answer: C

**1505.** which of the following is an incorrect definition inside a class ?

**1506.** If a constructor function is defined in private section of a class, then

a) The object cannot be created

b) Only member functions and friends may declare objects of the class

c) Both (a) & (b)

d) None of the above

Answer: C

**1507.**

Class testing of object-oriented software is equivalent to unit testing for traditional software.

Answer: True

1508.

When testing object-oriented software it is important to test each class operation separately as part of the unit testing process.

Answer: False

1509. The stream insertion operator should be overloaded as

Ans : These operators must be overloaded as a global function. And if we want to allow them to access private data members of class, we must make them friend.

1510. Data Members of the base class that are marked private:

Ans : If a member of the base class is marked private, then the author of the base class has the freedom to remove that member, or rename it, or change its type, or change the invariants that that member participates in. It is an *implementation detail*. It is not part of the interface that the base class *exports to derived classes*.(Likewise, a protected member is not part of the interface that a class *exports to the rest of the world*.)

1511.

The focus of validation testing is to uncover places that a user will be able to observe failure of the software to conform to its requirements.

Answer: True

1512. The call to the parameterized constructor of base class in the derived class

1513. Software validation is achieved through a series of tests performed by the user once the software is deployed in his or her work environment.

Anser: False

1514.

Acceptance tests are normally conducted by the

- A. Developer
- B. End User
- C. Test team
- D. Systems engineer

Answer: B

1515. Which of the following statements is NOT valid about operator overloading?

- a) Only existing operators can be overloaded
- b) Overloaded operator must have at least one operand of its class type
- c) The overloaded operators follow the syntax rules of the original operator
- d) None of the mentioned

View Answer

Answer: d

Explanation: None.

1516.

Security testing attempts to verify that protection mechanisms built into a system protect it from improper penetration

Answer: True

1517. What is the return type of the conversion operator function?

- A. void
- B. int
- C. float
- D. no return type

Answer: D

1518.

Stress testing examines the pressures placed on the user during system use in extreme environments

Answer: False

1519. If the class name is X, what is the type of its "this" pointer?

- e. Const X\*const
- f. X\*const
- g. X\*
- h. X&

Answer: D

1520.

Performance testing is only important for real-time or embedded systems.

Answer: False

1521. Which of the following statements are true in c++?

- I. Struct cannot have member functions
- J. Trust cannot have private member
- K. He default access modifier of struct is public

## L. NOTA

Answer: C

**1522.** Program flow graphs are identical to program flowcharts.

Answer: False

**1523.** What is the purpose of \$\_SESSION[]?

Used to register a global variable

- Used to initialize a session.
- Used to store variables of the current session
- none of the above

**CORRECT ANSWER :** Used to store variables of the current session

**1524.** In mysql\_fetch\_array(), if two or more columns of the result have the same field names, what action is taken?

- the first column will take precedence
- the column is skipped
- the last column will take precedence
- an error is thrown.

**CORRECT ANSWER :** the last column will take precedence

**1525.** The cyclomatic complexity metric provides the designer with information regarding the number of

A) cycles in the program		
		B) errors in the program
	✓	C) independent logic paths in the program

		<b>D)</b> statements in the program
--	--	-------------------------------------

1526. Which of the following attribute is needed for file upload via form?

- A** Enctype="multipart/form-data"
- B** Enctype="singlepart/data"
- C** Enctype="file"
- D** Enctype="form-data/file"

Answer: A

1527. Condition testing is a control structure testing technique where the criteria used to design test cases is that they

	<b>A)</b>	rely on basis path testing
<input checked="" type="checkbox"/>	<b>B)</b>	exercise the logical conditions in a program module
	<b>C)</b>	select test paths based on the locations and uses of variables
	<b>D)</b>	focus on testing the validity of loop constructs

1528. What library do you need in order to process images?

Ans : GD library

1529.

Data flow testing is a control structure testing technique where the criteria used to design test cases is that they

- M. rely on basis path testing
- b. exercise the logical conditions in a program module
- C. select test paths based on the locations and uses of variables
- d. focus on testing the validity of loop constructs

Answer: C

1530. What is the correct way to connect to a MySQL database?

Ans : To connect to MySQL using PDO, follow these steps: Use the following PHP code to connect to MySQL and select a database. Replace username with your username, password with your password, and dbname with the database name: <?php \$myPDO = new PDO('mysql:host=localhost;dbname=dbname', 'username', 'password'); ?>

1531.

Loop testing is a control structure testing technique where the criteria used to design test cases is that they N. rely basis path testing

- O. exercise the logical conditions in a program module
- P. select test paths based on the locations and uses of variables
- Q. focus on testing the validity of loop constructs

Answer: D

1532.

Boundary value analysis can only be used to do white-box testing.

Answer: False

1533. You need to check the size of a file in PHP function. \$size = X(filename); Which function will suitably replace 'X'?

- a. filesize
- b. size
- c. sizeofFile
- d. getSize

Answer a

1534. What is x+ mode in fopen() used for?

- Read/Write. Creates a new file. Returns FALSE and an error if file already exists
- Write only. Creates a new file. Returns TRUE and an error if file already exists
- Read/Write. Opens and clears the contents of file;
- Write. Opens and clears the contents of file;

**CORRECT ANSWER :** Read/Write. Creates a new file. Returns FALSE and an error if file already exists

**1535.** Which of the following function is used to terminate the script execution in PHP?

- a) break()
- b) quit()
- c) die()

**Answer:** c

**1536.** Which method is used to search for a substring?  
search()

**1537.** Which is the correct way to write a JavaScript array?

- var txt = new Array(1:"arr",2:"kim",3:"jim")
- var txt = new Array:1=" arr "2="kim"3="jim")
- var txt = new Array("arr ","kim","jim")
- var txt = new Array=" arr ","kim","jim"

**CORRECT ANSWER :** var txt = new Array("arr ","kim","jim")

**1538.** The \_\_\_\_\_ method of an Array object adds and/or removes elements from an array.

- r. Reverse
- s. Slice
- t. Shift
- u. splice

**Answer:** D

**1539.** What does parseFloat(9+10) evaluates to in JavaScript?

A. 19

B. 910

C. None

**Answer:** C

**1540.** Consider the following code: var a = []; a.unshift(1); a.unshift(22); a.shift(); a.unshift(3,[4,5]); a.shift();a.shift(); a.shift(); The final output for the shift() is

a)			1
b)			[4,5].
c)			[3,4,5].
d)	Exception	is	thrown

[View Answer](#)

Answer: a

**1541.** What does `/[^]*` regular expression indicate ?

- a) Match one or more characters that are not open parenthesis
- b) Match zero or more characters that are open parenthesis
- c) Match zero or more characters that are not open parenthesis
- d) Match one or more characters that are open parenthesis

[View Answer](#)

Answer: c

**1542.** What gets printed? `$str = 'a\\b\\n'; echo $str;`

ab(newline)  
a\b(newline)  
**a\b\ n - correct**  
a\\b(newline)  
a\\b\\n

**1543.** What is the strpos() function used for?

- Find the last character of a string
- Both b and c
- Search for character within a string
- Locate position of a string's first character

**CORRECT ANSWER : Search for character within a string**

**1544.** In the following code snippet, what is the correct value of the left margin? `margin: 10px 5px 20px 15px;`  
Answer: 15px

**1545.** If inspected in a browser, what will be the total width of the div in the following code snippet? `#container {width: 600px; border: 2px solid #CCCCCC; padding: 30px 20px; margin: 20px 10px 40px 10px;}`

Ans =  $600+2+20+10+2+20+10=664$

Formulas :

A. Width= margin-right + border-right + padding-right + width + padding-left + border-left + margin-left

2. Height= margin-top + border-top + padding-top + height + padding-bottom + border-bottom + margin-bottom

B.

1546. Which of the following is not a valid attribute of the INPUT tag?

D. Text

E. Name

F. Size

G. Maxlength

Answer: A

1547. Which of these sets of HTML5 attributes can be used for form validation?

Ans : required , input type= , pattern , regex

1548. Which item is an example of a physical network address?

h. Ip address

i. Mac address

j. Workstation name

Answer: Mac Address

1549. When used with the datalist element, what is the list attribute in HTML5 used to accomplish?

Autocomplete feature

1550. What is the following style an example of? img[alt~="Pie"]

Answer: Contains value match

1551. What is the correct CSS syntax for making all the elements bold?

Ans :**font-weight: bold;**

---

1552. How can you specify default text in an input field?

Ans :**document.getElementById("myText").defaultValue = "Goofy";**

Or

```
<input type="text" name="fname" value="John">
```

---

1553. Currently there is no single standard file type that can be used to play audio using the audio element consistently on all browsers. Which is the solution that the audio element provides to resolve this conflict?

**Ans :** The HTML5 media elements provide simple fallback for browsers that still need to use plug-ins, so you can update your website to HTML5 today and still be compatible with older browsers.

When you use HTML5, you can create your own customized media controllers for rich interactivity using web-standard CSS and JavaScript.

The HTML5 **<audio> and <video>** tags make it simple to add media to your website. Just include the `<audio>` or `<video>` element, use the `src` attribute to identify the media source, and include the `controls` attribute.

```
<video src="mymovie.mp4" controls></video>
```

---

1554. Which of the following statements is true?

---

1555. How do we prevent margins, borders and padding from overlapping?

**Ans :** By displaying our list as block elements

---

1556. Which of the following ways below is correct to write a CSS?

**Ans :** Options

- p {color:red;text-align:center};
- p {color:red;text-align:center}
- p {color:red;text-align:center;}
- p (color:red;text-align:center;)

**CORRECT ANSWER :** p {color:red;text-align:center;}

---

**1557.** Which of the following explains cookies nature?

- a) Nonvolatile   b) Volatile   c) Intransient   d) **Transient**

---

Ans : **d) cookies are Transient**

---

**1558.** Consider the following code snippet: var a = [1,2,3,4,5]; a.slice(0,3); What is the possible output for the above code snippet?

- a) Returns [1,2,3].  
b) Returns [4,5].  
c) Returns [1,2,3,4].  
d) Returns [1,2,3,4,5].

**Answer:** a

---

**1559.** What does /[^()]\* regular expression indicate?

- a) Match one or more characters that are not open parenthesis  
b) Match zero or more characters that are open parenthesis  
**c) Match zero or more characters that are not open parenthesis**  
d) Match one or more characters that are open parenthesis

**Answer:** c

Explanation: We should always be careful while using \* and ? as repetition characters as they may match zero instances of whatever precedes them, they are allowed to match nothing.

---

**1560.** Which property is used to obtain browser vendor and version information?

- a) modal
- b) version
- c) browser
- d) navigator**

[View Answer](#)

**Answer: d**

Explanation: The **navigator** property is used to obtain browser vendor and version information.

---

**1561.** What is the result of the following code snippet? `window.location === document.location`

- a) False
- b) True**
- c) 0
- d) 1

[View Answer](#)

**Answer: b**

Explanation: The above code always results in a true value.

---

**1562.** The length property belongs to which of the following objects?

- a) Window
- b) Element
- c) History**
- d) Document

[View Answer](#)

**Answer: c**

---

Explanation: The length property of the History object specifies the number of elements in the browsing history list, but for security reasons scripts are not allowed to access the stored URLs.

**1563.** What will happen if the first argument of open() is omitted?

- a) Error Page
- b) Remains in the same page
- c) **about:blank**
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: When the first argument of the **open()** is omitted, the **about:blank** is opened.

---

**1564.** Which of the following can't be done with client-side JavaScript?

- A) Sending a form's contents by email
- B) **Storing the form's contents to a database file on the server**
- C) Validating a form
- D) None of the above

**Answer:** B) Storing the form's contents to a database file on the server

---

**1565.** ----- is a built - in JavaScript function which can be used to execute another function after a given timeinterval.

- A) Timeout( )
- B) TimeInterval( )
- C) **setTimeout ( )**
- D) All of the above

**Ans : C) setTimeout ( )**

---

**1566.** How do substring() and substr() differ?

Ans : Their second parameters, while both numbers, are expecting two different things.

When using substring the second parameter is the first index not to include:

```
var s = "string";  
s.substring(1, 3); // would return 'tr'
```

```
var s = "another example";  
s.substring(3, 7); // would return 'ther'
```

When using substr the second parameter is the number of characters to include in the substring:

```
var s = "string";  
s.substr(1, 3); // would return 'tri'
```

```
var s = "another example";  
s.substr(3, 7); // would return 'ther ex'
```

---

**1567.** In javascript, RegExp Object Method test() is used to search a string and returns \_\_\_\_\_

Ans : This method returns true if it finds a match, otherwise it returns false.

---

**1568.** What is the most essential purpose of parenthesis in regular expressions?

- a) Define pattern matching techniques
- b) Define subpatterns within the complete pattern
- c) Define portion of strings in the regular expression

d) All of the mentioned

[View Answer](#)

**Answer: b**

Explanation: When a regular expression is successfully matched against a target string, it is possible to extract the portions of the target string that matched any particular parenthesized subpattern. The essential purpose of parentheses in regular expressions is to define subpatterns within the complete pattern.

---

**1569.** Which of the following is not possible using PHP?

---

**1570.** Which one of the following is the very first task executed by a session enabled page?

a) Delete the previous session

b) Start a new session

**c) Check whether a valid session exists**

d) Handle the session

[View Answer](#)

**Answer: c**

---

**1571.** What would be the output of the below code fragment? var a = ["s","a","v","e"]; document.write(a.join(""));

a. undefined **b. save** c. vase

**Ans : (b) save**

---

**1572.** The \_\_\_\_\_ property specifies the stack order of an element

Ans : z-index

---

1573. Which of the following property allows you to specify an element's position with respect to the browserwindow?

Ans : fixed

---

1574. Internet Explorer uses ..... property to create transparent images.

Ans : B) filter: alpha(opacity=x)

---

1575. If para1 is the DOM object for a paragraph, what is the correct syntax to change the text within theparagraph?

Answer : para1.value="New Text";

---

1576. The syntax of Eval is \_\_\_\_ [objectName.]eval(string)

---

1577. How to create a Date object in JavaScript?

```
newDate()  
newDate(milliseconds)  
newDate(datestring)  
newDate(year,month,date[,hour,minute,second, millisecond ])
```

---

**1578.** What is the code to start displaying the time when document loads?

Ans : `window.onload = displayTime;`

---

**1579.** Which element is used to draw graphics images on a web page?

Ans : `<canvas>`

---

**1580.** One of the main advantage of using src attribute is

`It simplifies the HTML files`

**1581.** In PHP, which of the following function is used to insert content of one php file into another php file before server executes it

Ans `include()`

---

**1582.** How do you get information from a form that is submitted using the "get" method?

Ans `$GET[]`

---

**1583.** What does explode function in phpdo

Ans `implode` implodes an array to a string, and `explode` explodes a string into an array

---

**1584.** Which command we use to set an image on background?

Ans `<body background="bgimage.jpg">`

---

**1585.** A value that has no defined value is expressed in PHP with the following keyword:

Ans NULL

---

1586. Which JavaScript function is most useful for finding errors?

Ans using debugger keyword or by setting break points

---

1587. JavaScript RegExp Object has modifier 'i' to \_\_\_\_\_

Ans Perform case-insensitive matching

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1588. You can find the element you want to manipulate by \_\_\_\_\_ way?

- Ans Finding HTML elements by id
  - Finding HTML elements by tag name
  - Finding HTML elements by class name
  - Finding HTML elements by CSS selectors
  - Finding HTML elements by HTML object collections
- 

1589. The Document object is which part of the object?

Ans window object

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1590. The node type for document returns the value ---.

Ans NULL

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1591. Syntax for creating a RegExp object: (i). var txt=new RegExp(pattern,modifiers); (ii). var txt=/pattern/modifiers; Which of the above mentioned syntax will correct?

Ans BOTH A And b

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**1592.** Which of these contains an executable statement?

**1593.** Which of the following is NOT a valid PHP comparison operator?

Ans : These are valid operators

<code>==</code>	Equal	<code>\$x == \$y</code>	Returns true if \$x is equal to \$y
<code>====</code>	Identical	<code>\$x === \$y</code>	Returns true if \$x is equal to \$y, and they are of the same type
<code>!=</code>	Not equal	<code>\$x != \$y</code>	Returns true if \$x is not equal to \$y
<code>&lt;&gt;</code>	Not equal	<code>\$x &lt;&gt; \$y</code>	Returns true if \$x is not equal to \$y
<code>!==</code>	Not identical	<code>\$x !== \$y</code>	Returns true if \$x is not equal to \$y, or they are not of the same type
<code>&gt;</code>	Greater than	<code>\$x &gt; \$y</code>	Returns true if \$x is greater than \$y
<code>&lt;</code>	Less than	<code>\$x &lt; \$y</code>	Returns true if \$x is less than \$y

**>=** Greater than or equal \$x >= \$y Returns true if \$x is greater than or equal to \$y to

**<=** Less than or equal to \$x <= \$y Returns true if \$x is less than or equal to \$y

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**1594.** \$a = array( null => 'a', true => 'b', false => 'c', 0 => 'd', 1 => 'e', " => 'f' ); echo count(\$a), "\n"; What will be printed?

Ans 3

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**1595.** \$a = array(); if (\$a[1]) null; echo count(\$a), "\n"; What will be printed?

Ans0

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**1596.** How do we access the value of 'd' later? \$a = array( 'a', 3 => 'b', 1 => 'c', 'd' );

Ans \$a[4]

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**1597.** What is the difference between echo and print?

An **echo** has no return value while **print** has a return value of 1 so it can be used in expressions. **echo** can take multiple parameters (although such usage is rare) while **print** can take one argument.

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**1598.** How do we submit form data without a Sumbit button?

Ans Submitting a form by clicking a link

Submitting a form by selecting an option from drop down box with the invocation of onChange event

Using java script : document.form.submit();

Using header("location:page.php");

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**1599.** How can we count the number of elements in an array?

Ans `count(array, mode);`

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**1600.** How do I create PHP arrays in a HTML?

Ans `array();`

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**1601.** What is the default size of a file set in `upload_max_filesize` ?

CORRECT ANSWER : 2 MB

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**1602.** What happens if no file path is given in `include()` function?

CORRECT ANSWER : `Include_path` is made use of

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**1603.** What is the default execution time set in `set_time_limit()`?

Ans 30 secs

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**1604.** \_\_\_\_\_ function in PHP returns a list of response headers sent (or ready to send)

Ans `headers_list()`