3i-Infotech Technical Paper

1. A 2MB PCM(pulse code modulation) has
a) 32 channels b) 30 voice channels & 1 signalling channel.
c) 31 voice channels & 1 signalling channel.
d) 32 channels out of which 30 voice channels, 1 signalling channel, &
1 Synchronizatio channel. Ans: (c)

2. Time taken for 1 satellite hop in voice communication is
a) 1/2 second b) 1 seconds c) 4 seconds d) 2 seconds Ans: (a)

3. A dishonest shopkeeper professes to sell pulses at the cost price, but he uses a false weight of 950gm.
for a kg. His gain is ...%.

4. Max number of satellite hops allowed in voice communication is :
a) only one b) more than one c) two hops d) four hops Ans: (c)

5. Conditional results after execution of an instruction in a micro processor is stored ina) register b)
accumulator c) flag register d) flag register
part of PSW(Program Status Word) Ans: (d)

6. Frequency at which VOICE is sampled is
a) 4 Khz b) 8 Khz c) 16 Khz d) 64 Khz Ans: (a)

7. Line of Sight is
a) Straight Line b) Parabolic c) Tx & Rx should be visible to each other
d) none Ans: (c)

8. Purpose of PC(Program Counter) in a MicroProcessor is
a) To store address of TOS(Top Of Stack)
b) To store address of next instruction to be executed.
c) count the number of instructions.
d) to store base address of the stack. Ans: (b)

9. What action is taken when the processor under execution is interrupted by a
non-maskable interrupt?
a) Processor serves the interrupt request after completing the execution of the current instruction.
b) Processor serves the interupt request after completing the current task.
c) Processor serves the interupt request immediately.

d) Processor serving the interrupt request depends upon the priority of the current task under execution.
Ans: (a)

10.

The status of the Kernel is
a) task b) process c) not defined. d) none of the above. Ans: (b)

11. To send a data packet using datagram , connection will be established
a) before data transmission.
b) connection is not established before data transmission.
c) no connection is required.
d) none of the above. Ans: (c)

12. Word allignment is
a) alligning the address to the next word boundary of the machine.
b) alligning to even boundary.
c) alligning to word boundary.
d) none of the above. Ans: (a)

13. When a 'C' function call is made, the order in which parameters passed to the
function are pushed into the stack is
a) left to right b) right to left
c) bigger variables are moved first than the smaller variales.
d) smaller variables are moved first than the bigger ones.
e) none of the above. Ans: (b)

14. What is the type of signalling used between two exchanges?
a) inband b) common channel signaling c) any of the above
d) none of the above. Ans: (a)

15. Buffering is
a) the process of temporarily storing the data to allow for small variation in device speeds
b) a method to reduce cross talks
c) storage of data within transmitting medium until the receiver is ready to receive.
d) a method to reduce routing overhead. Ans: (a)

16. Memory allocation of variables declared in a program is
a) allocated in RAM. b) allocated in ROM. c) allocated on stack.
d) assigned to registers. Ans: (c)

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17. A software that allows a personal computer to pretend as a computer terminal is

a) terminal adapter b) bulletin board c) modem d) terminal emulation

Ans: (d)

18. Find the output of the following program
int *p,*q;
p=(int *)1000;
q=(int *)2000;
printf("%d",(q-p)); Ans: 500

19. Which addressing mode is used in the following statements:

(a) MVI B,55 (b) MOV B,A (c) MOV M,A

Ans. (a) Immediate addressing mode.

(b) Register Addressing Mode

(c) Direct addressing mode

20. RS-232C standard is used in _____. Ans. Serial I/O

21. Memory. Management in Operating Systems is done by

a) Memory Management Unit

b) Memory management software of the Operating System c) Kernel

Ans: (b)

22. What is done for a Push opertion?Ans: SP is decremented and then the
value is stored.

23. Binary equivalent of 52 Ans. 110100

24. Hexadecimal equivalent of 3452 Ans. 72A

25. Explain Just In Time Concept ? Ans. Elimination of waste by purchasing manufacturing exactly when
needed

26. A good way of unit testing s/w program is Ans. User test

27. OOT uses Ans. Encapsulated of detect methods

28. EDI useful in Ans. Electronic Transmission

29. MRPII different from MRP Ans. Modular version of man redundant initials

30. Hard disk time for R/W head to move to correct sector Ans. Latency Time

31. The percentage of times a page number bound in associate register is called
Ans. Bit ratio

32. Expand MODEM Ans. Modulator and Demodulator

33. RDBMS file system can be defined as Ans. Interrelated

34. Super Key is Ans. Primary key and Attribute

35. Windows 95 supports
(a) Multiuser (b) n tasks (c) Both (d) None Ans. (a)

36. In the command scanf, h is used for Ans. Short int

37. A process is defined as Ans. Program in execution

38. A thread is Ans. Detachable unit of executable code)

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40. How is memory management done in Win95
Ans. Through paging and segmentation

41. What is meant by polymorphism
Ans. Redfinition of a base class method in a derived class

42. What is the essential feature of inheritance
Ans. All properties of existing class are derived

43. What does the protocol FTP do
Ans. Transfer a file b/w stations with user authentification

44. In the transport layer ,TCP is what type of protocol Ans. Connection oriented

45. Why is a gateway used Ans. To connect incompatible networks

46. How is linked list implemented Ans. By referential structures

47. What method is used in Win95 in multitasking Ans. Non preemptive check

48. What is a semaphore Ans. A method synchronization of multiple processes

49. What is the precedence order from high to low ,of the symbols ( ) ++ /
Ans.( ) , ++, /

50. Preorder of A*(B+C)/D-G Ans.*+ABC/-DG

51. What is the efficiency of merge sort Ans. O(n log n)

52. In which layer are routers used Ans.In network layer

53. Which of the following sorting algorithem has average sorting behavior --Bubble sort, merge sort, heap sort,
exchange sort   Ans. Heap sort

54. In binary search tree which traversal is used for getting ascending order
values--Inorder ,post order,preorder Ans.Inorder

55. What are device drivers used for   Ans.To provide software for enabling the hardware

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57. What is make command in unix Ans. Used forcreation of more than one file

58. In unix .profile contains Ans. Start up program

59. In unix 'ls 'stores contents in Ans.inode block

60. Which of the following involves context switch,
(a) system call (b) priviliged instruction (c) floating poitnt exception
(d) all the above (e) none of the above Ans: (a)

61. In OST, terminal emulation is done in

(a) sessions layer (b) application layer (c) presentation layer

(d) transport layer Ans: (b)

62. For 1 MB memory, the number of address lines required,
(a)11 (b)16 (c)22 (d) 24 Ans. (b)

63. Semaphore is used for
(a) synchronization (b) dead-lock avoidance (c) box (d) none Ans. (a)

64. Which holds true for the following statement class c: public A, public B
a) 2 member in class A, B should not have same name
b) 2 member in class A, C should not have same name
c) both d) none Ans. (a)

65. Preproconia.. does not do which one of the following
(a) macro (b) conditional compliclation (c) in type checking (d) including load file
Ans. (c)

66. Piggy backing is a technique for
a) Flow control b) Sequence c) Acknowledgement d) retransmition Ans. (c)

67. Which is not a memory management scheme?
a) buddy system b) swapping c) monitors d) paging Ans : c

68. There was a circuit given using three nand gates with two inputs and one output.
Find the output.
a) OR b) AND c) XOR d) NOT Ans. (a)

69. Iintegrated check value(ICV) are used as: Ans. The client computes the ICV
and then compares it with the senders value.

70. When applets are downloaded from web sites , a byte verifier performs _____?
Ans. Status check

71. An IP/IPX packet received by a computer using... having IP/IPX both how the packet Is handled. Ans.
Read the, field in the packet header with to
send IP or IPX protocol.

72. The UNIX shell ....
a) does not come with the rest of the system

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b) forms the interface between the user and the kernal

c) does not give any scope for programming

d) deos not allow calling one program from with in another

e) all of the above Ans. (b)

73. In UNIX a files i-node ......?

Ans. Is a data structure that defines all specifications of a file like the file size, number of lines to a file, permissions etc.

74. The very first process created by the kernal that runs till the kernal process is halts is

a) init b) getty c) both (a) and (b) d) none of these Ans. (a)

75. In the process table entry for the kernel process, the process id value is

(a) 0 (b) 1 (c) 2 (d) 255 (e) it does not have a process table entry

Ans. (a)

76. Which of the following API is used to hide a window

a) ShowWindow b) EnableWindow c) MoveWindowd) SetWindowPlacement

e) None of the above Ans. (a)

77. Which function is the entry point for a DLL in MS Windows 3.1

a) Main b) Winmain c) Dllmain d) Libmain e) None Ans. (b)

78. The standard source for standard input, standard output and standard error is a) the terminal b) /dev/null

c) /usr/you/input, /usr/you/output/, /usr/you/error respectively

d) None Ans. (a)

79. The redirection operators > and >>

a) do the same function b) differ : > overwrites, while >> appends

c) differ : > is used for input while >> is used for output

d) differ : > write to any file while >> write only to standard output

e) None of these Ans. (b)

80. The command grep first second third /usr/you/myfile

a) prints lines containing the words first, second or third from the file /usr/you/myfile

b) searches for lines containing the pattern first in the files second, third, and /usr/you/myfile and prints them

c) searches the files /usr/you/myfiel and third for lines containing the words first or second and prints them

d) replaces the word first with the word second in the files third and /usr/you/myfile

e) None of the above

Ans. (b)

81. You are creating a Index on EMPNO column in the EMPLOYEE table. Which statement will you use?

a) CREATE INdEX emp_empno_idx ON employee, empno;

b) CREATE INdEX emp_empno_idx FOR employee, empno;

c) CREATE INdEX emp_empno_idx ON employee(empno);

d) CREATE emp_empno_idx INdEX ON employee(empno); Ans. c

82. Which program construct must return a value?

a) Package b) Function c) Anonymous block d) Stored Procedure

e) Application Procedure Ans. b

83. Which Statement would you use to remove the EMPLOYEE_Id_PK PRIMARY KEY constraint and all depending constraints fromthe EMPLOYEE table?

a) ALTER TABLE employee dROP PRIMARY KEY CASCAdE;

b) ALTER TABLE employee dELETE PRIMARY KEY CASCAdE;

c) MOdIFY TABLE employee dROP CONSTRAINT employee_id_pk CASCAdE;

d) ALTER TABLE employee dROP PRIMARY KEY employee_id_pk CASCAdE;

e) MOdIFY TABLE employee dELETE PRIMARY KEY employee_id_pk CASCAdE;

Ans. a

84. Which three commands cause a transaction to end? (Chosse three)

a) ALTER b) GRANT c) DELETE d) INSERT e) UPdATE

f) ROLLBACK Ans. a ,b ,f

85. Under which circumstance should you create an index on a table?

a) The table is small.

b) The table is updated frequently.

c) A columns values are static and contain a narrow range of values

d) Two columns are consistently used in the WHERE clause join condition of SELECT statements.

Ans.d

86. What was the first name given to Java Programming Language.

a) Oak - Java b) Small Talk c) Oak d) None Ans.a

87. A certain radioactive element A, has a half life = t seconds. In (t/2) seconds the fraction of the initial quantity of the element so

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far decayed is nearly

(a) 29% (b) 15% (c) 10% (d) 45% Ans. (a)

88. Which of the following plots would be a straight line ?

(a) Logarithm of decay rate against logarithm of time

(b) Logarithm of decay rate against logarithm of number of decaying nuclei

(c) Decay rate against time

(d) Number of decaying nuclei against time Ans. (b)

89. A radioactive element x has an atomic number of 100.

It decays directly into an element y which decays directly into element z.

In both processes a charged particle is emitted.

Which of the following statements would be true?

(a) y has an atomic number of 102 (b) y has an atomic number of 101

(c) z has an atomic number of 100 (d) z has an atomic number of 101

Ans. (b)

90. If the sum of the roots of the equation $ax^2 + bx + c=0$ is equal to the sum of

the squares of their reciprocals then a/c, b/a, c/b are in

(a) AP (b) GP (c) HP (d) None of these Ans. (c)

91. A man speaks the truth 3 out of 4 times. He throws a die and reports it to be a 6.

What is the probability of it being a 6?

(a) 3/8 (b) 5/8 (c) � (d) None of the above Ans. (a)

92. If $cos2A + cos2B + cos2C = 1$ then ABC is a

(a) Right angle triangle (b) Equilateral triangle (c) All the angles are acute

(d) None of these Ans. (a)

93. Image of point (3,8) in the line x + 3y = 7 is

(a) (-1,-4) (b) (-1,4) (c) (2,-4) (d) (-2,-4) Ans. (a)

94. The mass number of a nucleus is

(a) Always less than its atomic number (b) Always more than its atomic number

(c) Sometimes more than and sometimes equal to its atomic number

(d) None of the above Ans. (c)

95. The maximum KE of the photoelectron emitted from a surface is dependent

on (a) The intensity of incident radiation (b) The potential of the collector

electrode (c) The frequency of incident radiation

(d) The angle of incidence of radiation of the surface Ans. (c

96. Which of the following is not an essential condition for interference
(a) The two interfering waves must be propagated in almost the same direction or
the two interfering waves must intersect at a very small angle
(b) The waves must have the same time period and wavelength
(c) Amplitude of the two waves should be the same
(d) The interfering beams of light must originate from the same source
Ans. (c)

97. When X-Ray photons collide with electrons
(a) They slow down (b) Their mass increases (c) Their wave length
increases (d) Their energy decreases Ans. (c)

98. An electron emits energy
(a) Because its in orbit (b) When it jumps from one energy level to another
(c) Electrons are attracted towards the nucleus
(d) The electrostatic force is insufficient to hold the electrons in orbits
Ans. (b)

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Ans. (b)

100. How many bonds are present in CO2 molecule?
(a) 1 (b) 2 (c) 0 (d) 4 Ans. (d)