Computer Science All Subject MCQs

COMPUTER FUNDAMENTALS

SET 1

1. UNIVAC is

a. Universal Automatic Computer
b. Universal Array Computer
c. Unique Automatic Computer
d. Unvalued Automatic Computer

2. CD-ROM stands for

a. Compactable Read Only Memory
b. Compact Data Read Only Memory
c. Compactable Disk Read Only Memory
d. Compact Disk Read Only Memory

3. ALU is

a. Arithmetic Logic Unit
b. Array Logic Unit
c. Application Logic Unit
d. None of above

4. VGA is

a. Video Graphics Array
b. Visual Graphics Array
c. Volatile Graphics Array
d. Video Graphics Adapter

5. IBM 1401 is

a. First Generation Computer
b. Second Generation Computer
c. Third Generation Computer
d. Fourth Generation Computer

6. MSI stands for

a. Medium Scale Integrated Circuits
b. Medium System Integrated Circuits
c. Medium Scale Intelligent Circuit
d. Medium System Intelligent Circuit

7. The capacity of 3.5 inch floppy disk is

a. 1.40 MB
b. 1.44 GB
c. 1.40 GB
d. 1.44 MB

8. The first computer introduced in Nepal was

a. IBM 1400
b. IBM 1401
c. IBM 1402
d. IBM1402

9. WAN stands for

a. Wap Area Network
b. Wide Area Network
c. Wide Array Net
d. Wireless Area Network

10. MICR stands for

a. Magnetic Ink Character Reader
b. Magnetic Ink Code Reader
c. Magnetic Ink Cases Reader
d. None

Answers

1. UNIVAC is

Correct Answer: a. Universal Automatic Computer

Explanation: There are no computers with the name as in other options. UNIVAC was the first general purpose electronic digital computer designed for commercial use, produced by Universal Accounting Company of John Mauchly and J.P.Eckert in 1951.

2. CD-ROM stands for

Correct Answer: d. Compact Disk Read Only Memory

Explanation: There are no objects with the name as in other options. CD-ROM is a non-volatile optical data storage medium using the same physical format as audio compact disk, readable by a computer with a CD-ROM drive. The standard 12 cm diameter CD-ROM store about 660 megabytes.

3. ALU is

Correct Answer: a. Arithmetic Logic Unit
Explanation: ALU is a unit in Central Processing Unit in a computer system that is responsible for arithmetic calculations and logical operations. Apart from ALU, the CPU contains MU (Memory Unit) and CU (Control Unit).

4. VGA is

Correct Answer: a. Video Graphics Array
Explanation: VGA is a type of Graphics Adapter. Graphic Adapter is an electronic board that controls the display of a monitor. This device helps the motherboard to work with the monitor and in VGA and SVGA the last letter 'A' stands for 'Array' whereas in MDA, CGA, MCGA the last letter 'A' stands for 'Adapter'.

5. IBM 1401 is

Correct Answer: b. Second Generation Computer

Explanation: IBM 1401 is a Second Generation Computer and is the first computer to enter Nepal in 2028 BS for census. Government of Nepal had brought this computer on rent and later purchased for data processing in Bureau of Statistics. After this computer, another ICL 2950/10, a British computer, was purchased by the fund of UNDP and UNFPA for the census of 2038 BS is second computer in Nepal.

6. MSI stands for

Correct Answer: a. Medium Scale Integrated Circuits

Explanation: After the invention of IC chips the development of computers plunged into next phase. Small Scale Integration and Medium Scale Integration (SSI and MSI) were used in third generation of computers and Large Scale Integration and Very Large Scale Integration (LSI and VLSI) are being used in fourth generation of computers. People are now expecting ULSI (Ultra Large Scale Integration) Circuits to be used for fifth generation computers.

7. The capacity of 3.5 inch floppy disk is

Correct Answer: d. 1.44 MB

Explanation: Microfloppy disks (3.5 inch) if it is high density (MF2HD) can store 1.44 MB and if it is low density (MF2DD), it can store 720 KB. Mini Floppy disks (5.25 inch) if it is high density (MD2HD) can store 1.2 MB and low density (MD2DD) stores 360 KB of data.

8. The first computer introduced in Nepal was

Correct Answer: b. IBM 1401

Explanation: IBM 1401, a second generation computer was brought in Nepal by the Government of Nepal paying One Lakh and twenty five thousands per month to use in the census in 2028 B.S. Before this computer, Nepal was using a calculating device called Facit for statistical tasks.

9. WAN stands for

Correct Answer: b. Wide Area Network

Explanation: There are three different classes of computer network namely, Local Area Network (LAN) that covers a small geographical area such as a room, a building or a compound; Metropolitan Area Network (MAN) that has a citywide coverage; and Wide Area Network (WAN) that covers the whole globe or beyond the globe.

10. MICR stands for
Correct Answer: a. Magnetic Ink Character Reader

Explanation: MICR (Magnetic Ink Character Reader) is kind of scanner that can scan and identify the writing of magnetic ink. This device is used in banks to verify signatures in Checks.

1. EBCDIC stands for
a. Extended Binary Coded Decimal Interchange Code
b. Extended Bit Code Decimal Interchange Code
c. Extended Bit Case Decimal Interchange Code
d. Extended Binary Case Decimal Interchange Code

2. BCD is
a. Binary Coded Decimal
b. Bit Coded Decimal
c. Binary Coded Digit
d. Bit Coded Digit

3. ASCII stands for
a. American Stable Code for International Interchange
b. American Standard Case for Institutional Interchange
c. American Standard Code for Information Interchange
d. American Standard Code for Interchange Information

4. Which of the following is first generation of computer
a. EDSAC
b. IBM-1401
c. CDC-1604
d. ICL-2900

5. Chief component of first generation computer was
a. Transistors
b. Vacuum Tubes and Valves
c. Integrated Circuits
d. None of above

6. FORTRAN is
a. File Translation
b. Format Translation
c. Formula Translation
d. Floppy Translation

7. EEPROM stand for
a. Electrically Erasable Programmable Read Only Memory
b. Easily Erasable Programmable Read Only Memory
c. Electronic Erasable Programmable Read Only Memory
d. None of the above

8. Second Generation computers were developed during
a. 1949 to 1955
b. 1956 to 1965
c. 1965 to 1970
d. 1970 to 1990

Correct Answer: 1956 to 1965
Explanation: Second generation computers used transistors as their main electronic component. Transistor was invented by Bell Lab Scientists John Burdeen, Walter Brattain and William Shockley in 1947 and won the Nobel

Prize in 1956 but it was not used in computers till 1956. The second generation continued until the implementation of IC chips invented by Jack Kilby in Texas Instruments in 1958.

9. The computer size was very large in
a. First Generation
b. Second Generation
c. Third Generation
d. Fourth Generation

10. Microprocessors as switching devices are for which generation computers
a. First Generation
b. Second Generation
c. Third Generation
d. Fourth Generation

Answers:

1. EBCDIC stands for

Correct Answer: a. Extended Binary Coded Decimal Interchange Code

Explanation: EBCDIC is an 8-bit binary code for larger IBMs primarily mainframes in which each byte represent one alphanumeric character or two decimal digits. 256 characters can be coded using EBCDIC.

2. BCD is

Correct Answer: a. Binary Coded Decimal

Explanation: BCD is a binary coded notation in which each of the decimal digits is expressed as a 8-bit binary numeral. For example in binary coded decimal notation 12 is 0001 0010 as opposed to 1100 in pure binary.

3. ASCII stands for

Correct Answer: c. American Standard Code for Information Interchange

Explanation: ASCII is a code which converts characters – letters, digits, punctuations and control characters such as Alt, Tab etc – into numeral form. ASCII code is used to represent data internally in micro-computers. ASCII codes are 7 bits and can represent 0 to 127 and extended ASCII are 8 bits that represents 0 to 255.

4. Which of the following is first generation of computer

Correct Answer: a. EDSAC

Explanation: IBM-1401, CDC-1604 is second generation computer. ICL-2900 is a fourth generation computer. EDSAC is important in the development of computer since it was the first computer to use John von. Neumann's Stored Program Concept. It used 3000 vacuum tubes and computers with vacuum tubes are of first generation computers.

5. Chief component of first generation computer was

Correct Answer: b. Vacuum Tubes and Valves

Explanation: Transistors were used for second generation computers and integrated circuits in third generation. First generation computers used vacuum tubes and valves as their main electronic component. Vacuum Tubes were invented by Lee DeForest in 1908.

6. FORTRAN is

Correct Answer: c. Formula Translation

Explanation: FORTRAN (Formula Translation) is one of the earlier High Level programming languages used to write scientific applications. It was developed by IBM in 1956.

7. EEPROM stand for

Correct Answer: a. Electrically Erasable Programmable Read Only Memory

Explanation: There are three types of ROM namely, PROM, EPROM and EEPROM. PROM can't be reprogrammed, EPROM can be erased by exposing it in high intensity ultraviolet light and EEPROM can be erased and reprogrammed electrically. It is not needed to be removed from the computer to be modified.

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Correct Answer: 1956 to 1965

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9. The computer size was very large in

Correct Answer: a. First Generation

Explanation: It is obvious that computers developed with more power, reliability, speed and smaller sizes due to the enhancement of technology. First generation computers used 1000s of vacuum tubes that required lot of space made them gigantic in size. Single transistor could replace 1000 vacuum tubes and a single IC chip replaced 1000s of transistors made computers smaller and more speedy.

10. Microprocessors as switching devices are for which generation computers

Correct Answer: Fourth Generation

Explanation: Microprocessors further revolutionized the development of computers. Personal microcomputers were possible due to the microprocessors. The first microprocessor called Intel 4004 was developed by American Intel Corporation in 1971. Microprocessors are used in the computers of fourth generation computers.

Set - 3

1. Which generation of computer is still under development
a. Fourth Generation
b. Fifth Generation
c. Sixth Generation
d. Seventh Generation

2. Artificial Intelligence is associated with which generation?
a. First Generation
b. Second Generation
c. Fifth Generation
d. Sixth Generation

3. Which operation is not performed by computer
a. Inputting
b. Processing
c. Controlling
d. Understanding

4. Fifth generation computer is also known as
a. Knowledge information processing system
b. Very large scale integration (VLSI)
c. Both of above
d. None of above

5. Central Processing Unit is combination of
a. Control and storage
b. Control and output unit
c. Arithmetic logic and input unit
d. Arithmetic logic and control unit

6. The brain of any computer system is
a. Control Unit
b. Arithmetic Logic Unit
c. Central Processing Unit
d. Storage Unit

7. Pick the one that is used for logical operations or comparisons such as less than equal to or greater than.
a. Arithmetic and Logic Unit
b. Control Unit
c. Both of above
d. None of above

8. Analog computer works on the supply of
a. Continuous electrical pulses
b. Electrical pulses but not continuous
c. Magnetic strength
d. None of the above

9. Digital devices are
a. Digital Clock
b. Automobile speed meter
c. Clock with a dial and two hands
d. All of them

10. The computer that process both analog and digital is called
a. Analog computer
b. Digital computer
c. Hybrid computer
d. Mainframe computer

Answers:

1. Which generation of computer is still under development

Correct Answer: b. Fifth Generation

Explanation: Today's computer fall under the fourth generation computers that uses the LSI and VLSI Integrated Circuits. For fifth generation computers it is expected for Ultra Large Scale Integrated Circuits (ULSI). The study for using Gallium Arsenide instead of silicon chips is underway. Electrons can travel 5 times faster in Gallium Arsenide compared to the silicon. Similarly, genetically engineered protein molecules are being tried for processors. Fifth generation computers are expected to have artificial intelligence, ability to use natural language.

2. Artificial Intelligence is associated with which generation?

Correct Answer: c. Fifth Generation

Explanation: 'A computer is a slave in a box'. This is a saying due to the lack of intelligence in computer in spite of their speed, accuracy, diligence and reliability. A computer can only perform instructed task in the way already programmed. Thus, scientists are trying to develop artificial intelligence in computers so that they can think and make decisions themselves. This is expected for fifth generation computers

3. Which operation is not performed by computer

Correct Answer: d. Understanding

Explanation: Computers can't understand since they don't have intelligence. Let's hope in fifth generation they will achieve artificial intelligence and be able to understand.

4. Fifth generation computer is also known as

Correct Answer: a. Knowledge information processing system

Explanation: Fifth Generation computers will have artificial intelligence and will be able to understand making knowledge information processing system possible,

5. Central Processing Unit is combination of

Correct Answer: d. Arithmetic logic and control unit

Explanation: Arithmetic logic and control unit along with memory unit forms a complete central processing unit and central processing unit along with input/output unit forms a computer system.

6. The brain of any computer system is

Correct Answer: c. Central Processing Unit

Explanation: Control unit or arithmetic logical unit alone can not represent the function of brain to compare with neither does storage unit only. Central Processing Unit is the combination of control, arithmetic logic and memory units thus can be compared with brain that controls the body, processes its functions and remembers.

7. Pick the one that is used for logical operations or comparisons such as less than equal to or greater than.

Correct Answer: a. Arithmetic and Logic Unit

Explanation: Logical sub-unit of ALU performs all the comparisons such as less than equal to or greater than. Arithmetic sub-unit of ALU performs calculations such as addition, subtraction and so on.

8. Analog computer works on the supply of

Correct Answer: a. Continuous electrical pulses

Explanation: Analog computers works on the continuous electrical pulses and digital computers work on the discrete electrical pulses. Analog computers need to process physical quantities such as temperature, pressure, speed etc.

9. Digital devices are

Correct Answer: a. Digital Clock.

Explanation: Automobile speed meter and clock with a dial and two hands are analog devices. Speed meter works on speed of wheel and the later works on tension of dialed spring.

10. The computer that process both analog and digital is called

Correct Answer c. Hybrid Computer

Explanation: Analog, Digital and Hybrid are the three classes of computers based on the work or principle on which computer work. Hybrid computers can perform both the tasks of analog computers as well as hybrid computers. These computers are used in aircraft, hospitals where measuring physical quantities and converting them into digital data to analyze is required.

Set - 4

1. Which statement is valid about magnetic tape?
a. It is a plastic ribbon
b. It is coated on both sides with iron oxide
c. It can be erased and reused
d. All of above

2. The data recording format in most of the modern magnetic tape is
a. 7-bit ASCII
b. 7-bit EBCDIC
c. 8-bit ASCII
d. 8-bit EBCDIC

3. Which of the following is associated with error detector?
a. Odd parity bit
b. Even parity bit
c. Both of the above
d. None of above

4. Tape speed is measured in
a. Feet per second
b. Inch per second
c. Meter per second
d. Centimeter per second

5. Magnetic disks are the most popular medium for
a. Direct access
b. Sequential access
c. Both of above
d. None of above

6. Storage capacity of magnetic disk depends on
a. tracks per inch of surface
b. bits per inch of tracks
c. disk pack in disk surface
d. All of above

7. Reading data is performed in magnetic disk by
a. Read/write leads
b. Sectors
c. Track
d. Lower surface

8. Access time is
a. seek time + latency time
b. seek time
c. seek time – latency time
d. latency time

9. Seek time is
a. time to position the head over proper track
b. time to position the head over proper sector
c. time to position the head over proper cylinder
d. none of above

10. Latency time is
a. Time to spin the needed data under head
b. Time to spin the needed data under track
c. Time to spin data under sector
d. All of above

11. Floppy disks are available in
a. Single side single density
b. Single side double density
c. Both of above
d. None of above

12. Floppy disks typically in diameter
a. 3"
b. 5.25"
c. 8"
d. All of above

13. Hard disk is coated in both side above
a. Magnetic metallic oxide
b. Optical metallic oxide
c. Carbon layer
d. All of the above

14. Binary circuit elements have
a. One stable state
b. Two stable state
c. Three stable state
d. None of above

15. Which statement is valid?
a. 1KB = 1024 bytes
b. 1 MB=2048 bytes
c. 1 MB = 1000 kilobytes
d. 1 KB = 1000 bytes

16. Which statement is valid about computer program?
a. It is understood by a computer
b. It is understood by programmer
c. It is understood user
d. Both of above

17. Software in computer
a. Enhances the capabilities of the hardware machine
b. Increase the speed of central processing unit
c. Both of above
d. None of above

18. Which of the following is not computer language?
a. High level language
b. Medium level language
c. Low level language
d. All of the above

19. Which language is directly understood by the computer without translation program?
a. Machine language
b. Assembly language
c. High level language
d. None of above

20. Instruction in computer languages consists of
a. OPCODE
b. OPERAND
c. Both of above
d. None of above

21. Machine language is
a. Machine dependent
b. Difficult to program
c. Error prone
d. All of above

Answers:

1. Which statement is valid about magnetic tape?
a. It is a plastic ribbon

2. The data recording format in most of the modern magnetic tape is
d. 8-bit EBCDIC

3. Which of the following is associated with error detector?
c. Both of the above

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b. Inch per second

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b. Medium level language

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a. Machine language

20. Instruction in computer languages consists of
c. Both of above

21. Machine language is
d. All of above

Set - 5

1. Mnemonic a memory trick is used in which of the following language?
a. Machine language
b. Assembly language
c. High level language
d. None of above

2. The translator program used in assembly language is called
a. Compiler
b. Interpreter
c. Assembler
d. Translator

3. Easily reloctable language is
a. Machine language
b. Assembly language
c. High level language
d. Medium level language

4. Which of the following is called low level languages?
a. Machine language
b. Assembly language
c. Both of the above
d. None of above

5. which of the following is problem oriented language?
a. High level language
b. Machine language
c. Assembly language
d. Low level language

6. A compiler is a translating program which
a. Translates instruction of a high level language into machine language
b. Translates entire source program into machine language program
c. It is not involved in program's execution
d. All of above

7. Which of the following is machine independence program?
a. High level language
b. Low level language
c. Assembly language
d. Machine language

8. Which statement is valid about interpreter?
a. It translates one instruction at a time
b. Object code is saved for future use
c. Repeated interpretation is not necessary
d. All of above

9. Which is the limitation of high level language?
a. Lower efficiency
b. Machine dependence
c. machine level coding
d. None of above

10. High level language is also called
a. Problem oriented language
b. Business oriented language
c. Mathematically oriented language
d. All of the above

11. A computer programmer
a. Does all the thinking for a computer
b. Can enter input data quickly
c. Can operate all types of computer equipments
d. Can draw only flowchart

12. CD-ROM is a
a. Semiconductor memory
b. Memory register
c. Magnetic memory
d. None of above

13. Which of the following is not a primary storage device?
a. Magnetic tape
b. Magnetic disk
c. Optical disk
d. None of above

14. A name or number used to identify a storage location devices?
a. A byte
b. A record
c. An address
d. All of above

15. Which of the following is a secondary memory device?
a. Keyboard
b. Disk
c. ALU
d. All of the above

16. The difference between memory and storage is that memory is … and storage is …
a. Temporary, permanent
b. Permanent, temporary
c. Slow, fast
d. All of above

17. A floppy disk contains
a. Circular tracks only
b. Sectors only
c. Both circular tracks and sectors
d. All of the above

18. The octal equivalent of 111010 is
a. 81
b. 72
c. 71
d. None of above

19. The first electronic computer in the world was
a. UNIVAC
b. EDVAC
c. ENIAC
d. All of above

20. The most commonly used standard data code to represent alphabetical, numerical and punctuation characters used in electronic data processing system is called
a. ASCII
b. EBCDIC
c. BCD
d. All of above

Answers:

1. Correct Answer: b
2. Correct Answer: c
3. Correct Answer: b
4. Correct Answer: c
5. Correct Answer: a
6. Correct Answer: d
7. Correct Answer: a
8. Correct Answer: a
9. Correct Answer: a
10. Correct Answer: d
11. Correct Answer: a
12. Correct Answer: d
13. Correct Answer: d
14. Correct Answer: c
15. Correct Answer: b
16. Correct Answer: a
17. Correct Answer: c
18. Correct Answer: b
19. Correct Answer: c
20. Correct Answer: a

Set - 6

1. Which was the computer conceived by Babbage?
a. Analytical Engine
b. Arithmetic Machine
c. Donald Kunth
d. All of above

2. Offline device is
a. A device which is not connected to CPU
b. A device which is connected to CPU
c. A direct access storage device
d. An I/O device

3. Which of the following registers is loaded with the contents of the memory location pointed by the PC?
a. Memory address registers
b. Memory data registers
c. Instruction register
d. Program counter

4. Which of the following registers is used to keep track of address of the memory location where the next instruction is located?
a. Memory address register
b. Memory data register
c. Instruction register
d. Program counter

5. Microprocessors can be used to make
a. Computers
b. Digital systems
c. Calculators
d. All of above

6. how many address lines are needed to address each machine location in a 2048 x 4 memory chip?
a. 10
b. 11
c. 8
d. 12

7. which American computer company is called Big Blue?
a. Microsoft
b. Compaq Corp
c. IBM
d. Tandy Svenson

8. When did IBM introduce the 20286 based PC/AT?
a. 1982
b. 1984
c. 1985
d. 1989

9. When was the X window system born?
a. 1984
b. 1989
c. 1988
d. 1990

10. Today's computer giant IBM was earlier known by different name which was changes in 1924. What was that name?
a. Tabulator Machine Co.
b. Computer Tabulating Recording Co.
c. The Tabulator Ltd.
d. International Computer Ltd.

11. The first electronic general purpose digital computer built by Mauchly and Eckert called ENIA did not work on the stored program principle. How many numbers could it store in its internal memory?
a. 100
b. 20
c. 40
d. 80

12. The digital computer was developed primarily in
a. USSR
b. Japan
c. USA
d. UK

13. The subject of cybernetics deals with the science of
a. Genetics
b. Control and communication
c. Molecular biology
d. Biochemistry

14. Who is credited with the idea of using punch cards to control patterns in a waving machine?
a. Pascal
b. Hollerith
c. Babbage
d. Jacquard

15. Most of the inexpensive personal computers do not have any disk or diskette drive. What is the name of such computes?
a. Home computers
b. Diskless computers
c. Dedicated computers
d. General purpose computers

16. Which of the following require large computers memory?
a. Imaging
b. Graphics
c. Voice
d. All of Above

17. A term associated with the comparison of processing speeds of different computer system is:
a. EFTS
b. MPG
c. MIPS
d. CPS

18. The process of starting a or restarting a computer system by loading instructions from a secondary storage device into the computer memory is called
a. Duping
b. Booting
c. Padding
d. CPS

19. who invented the microprocessor?
a. Marcian E Huff
b. Herman H Goldstein
c. Joseph Jacquard
d. All of above

20. One computer that is not considered a portable is
a. Minicomputer
b. Laptop computer
c. Notebook computer
d. All of above

Answers:

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a. A device which is not connected to CPU

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b. 20

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b. Booting

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Set - 7

1. the accuracy of the floating point numbers represent able in two 16bit words of a computer is approximately
a. 16 digits
b. 6 digits
c. 4 digits
d. All of above

2. a dumb terminal has
a. an embedded microprocessor
b. extensive memory
c. independent processing capability
d. a keyboard and screen

3. plotter accuracy is measured in terms of repeatability and
a. buffer size
b. resolution
c. vertical dimension
d. intelligence

4. bit map terminal
a. support display containing multiple window
b. require considerable amount of video RAM
c. requires tremendous amount of copying and hence low performance
d. all of above

5. how many symbols exist in Baudot code?
a. 32
b. 116
c. 58
d. 76

6. Daisy wheel printer is a type of
a. Matrix printer
b. Impact printer
c. Laser printer
d. Manual printer

7. The number of records contained within a block of data on magnetic tape is defined by the
a. Block definition
b. Record contain clause
c. Blocking factor
d. Record per block

8. Serial access memories are useful in applications where
a. Data consists of numbers

b. Short access time is required

c. Each stored word is processed differently

d. Data naturally needs to flow in and out in serial form

9. how many types of storage loops exists in magnetic bubble memory

a. 8

b. 4

c. 16

d. 2

10. which of the following memories must be refreshed many times per second?

a. Static RAM

b. Dynamic RAM

c. EPROM

d. ROM

11. The memory which is programmed at the time it is manufactured

a. ROM

b. RAM

c. PROM

d. EPROM

12. Which of the following memory medium is not used as main memory system?

a. Magnetic core

b. Semiconductor

c. Magnetic tape

d. Both semiconductor and magnetic tape

13. The control unit of a microprocessor

a. Stores data in the memory

b. Accepts input data from keyboard

c. Performs arithmetic/logic function

d. None of above

14. Registers which are partially visible to users and used to hold conditional codes (bits set by the CPU hardware as the result of operations), are known as

a. PC

b. Flags

c. Memory Address Registers

d. General Purpose Registers

15. One of the main feature that distinguish microprocessors from micro-computer is

a. Words are usually large in microprocessors

b. Words are shorter in microprocessors

c. Microprocessor does not contain I/O device

d. Exactly the same as the machine cycle time

16. Which was the world's first microcomputer that used Intel 80386 microprocessor chip?

a. IBM PS/2

b. HP-9830

c. DeskPro-386

d. IBM-360

17. When was the world's first laptop computer introduced in the market and by whom?
a. Hewlett-Packard, 1980
b. Epson, 1981
c. Laplink Traveling Software Inc, 1982
d. Tandy Model-200, 1985

18. The first microprocessor built by the Intel corporation was called
a. 8008
b. 8080
c. 4004
d. 8800

19. who built the world's first electronic calculator using telephone relays, light bulbs and batteries?
a. Claude Shannon
b. Konrard Zues
c. George Stibits
d. Howard H. Aiken

20. Who developed a mechanical device in the 17th century that could add, subtracts, multiply, divide and find square roots?
a. Napier
b. Babbage
c. Pascal
d. Leibniz

Set - 8

1. IBM 7000 digital computer
a. Belongs to second generation
b. Uses VLSI
c. Employs semiconductor memory
d. Has modular constructions

2. The proper definition of a modern digital computer is
a. An electronic automated machine that can solve problems involving words and numbers
b. A more sophistic and modified electronic pocket calculator
c. Any machine that can perform mathematical operations
d. A machine that works on binary code

3. A modern electronic computer is a machine that is meant for
a. Doing quick mathematical calculations
b. Input, storage, manipulation and outputting of data
c. Electronic data processing
d. Performing repetitive tasks accurately

4. An integrated circuit is
a. A complicated circuit
b. An integrating device
c. Much costlier than a single transistor
d. Fabricated on a tiny silicon chip

5. Most important advantage of an IC is its
a. Easy replacement in case of circuit failure
b. Extremely high reliability
c. Reduced cost
d. Lower power consumption

6. In a punched card system, data is processed by a
a. Keypunch machine, sorter and posting machine
b. Accounting machine, posting machine, and billing machine
c. Sorter, posting machine, and billing machine
d. Accounting machine, keypunch machine and sorter

7. The first machine to successfully perform a long series of arithmetic and logical operations was;
a. ENIAC
b. Mark I
c. Analytic engine
d. UNIVAC-I

8. In the third generation of computers:
a. Distributed data processing first became popular
b. An operating system was first developed
c. High-level prcedu7ral languages were firs used
d. On-line, real time systems first became popular

9. A characteristic of card systems is:
a. Slowness in processing data
b. Using cards as records of transactions
c. Needing a larger DP staff
d. All of the above

10. An IBM system/38 represents the computer class of:
a. Small-scale computer
b. Medium-scale computer
c. Large-scale computer
d. Super computer

11. The first firm to mass- market a microcomputer as a personal computer was
a. IBM
b. Sperry Univac
c. Data General corporation
d. Radio Shack

12. A digital computer did not score over an analog computer in terms of
a. Speed
b. Accuracy
c. Cost
d. Memory

13. In 1830, Charles Babbage designed a machine called the Analytical Engine which he showed at the Paris Exhibition. In which year was it exhibition?
a. 1820
b. 1860
c. 1855
d. 1870

14. Which was the world's first minicomputer and when was it introduced?
a. PDP-I, 1958
b. IBM System/36, 1960
c. PDP-II, 1961
d. VAX 11/780, 1962

15. Where was India's first computer installed and when?
a. Indian Institute of Technology, Delhi, 1977
b. Indian Institute of Science, Bangalore, 1971
c. Indian Iron & Steel Co. Ltd., 1968
d. Indian Statistical Institute, Calcutta, 1955

16. Which of the following are the two main components of the CPU?
a. Control unit and registers
b. Registers and main memory
c. Control Unit and ALU
d. ALU and bus

17. Which of the following is true?
a. Fields are composed of bytes
b. Records are composed of fields
c. Fields are composed of characters
d. All of above

18. Which of the following file organization is most efficient for a file with a high degree of file activity?
a. Sequential
b. ISAM
c. VSAM
d. B-Tree Index

19. The two basic types of record-access methods are
a. Sequential and random
b. Sequential and indexed
c. Direct and immediate
d. On-line and real time

20. The advantage of COM are its ... and ...
a. Compact size; speed readability
b. Compact size, speed
c. Readability; speed
d. Low cost; readability

Answers:

1. IBM 7000 digital computer
c. Employs semiconductor memory

2. The proper definition of a modern digital computer is
d. A machine that works on binary code

3. A modern electronic computer is a machine that is meant for
b. Input, storage, manipulation and outputting of data

4. An integrated circuit is
d. Fabricated on a tiny silicon chip

5. Most important advantage of an IC is its
b. Extremely high reliability

6. In a punched card system, data is processed by a
d. Accounting machine, keypunch machine and sorter

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a. Sequential

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a. Sequential and random

20. The advantage of COM are its … and …
b. Compact size, speed

1. A disadvantage of the laser printer is:

a. It is quieter than an impact printer
b. It is very slow
c. The output is of a lower quality
d. None of above

2. Which of the following is not true for a magnetic disk?

a. It is expensive relative to magnetic tape
b. It provides only sequential access to stored data
c. Users can easily update records by writing over the old data
d. All of above

3. The primary advantage of key-to-tape data entry system is

a. A large percentage of editing can be performed at the time of data entry
b. Key verification is easily performed
c. The tape is reusable
d. Keying errors can be detected as they occur.

4. The terminal device that functions as a cash register, computer terminal, and OCR reader is the:

a. Data collection terminal
b. OCR register terminal
c. Video Display terminal
d. POS terminal

5. Which of the following does not affect the resolution of a video display image?

a. Bandwidth
b. Raster scan rage
c. Vertical and horizontal lines of resolution
d. Screen size

6. While inserting a diskette into the diskette drive of a PC, the diskette's label side should face

a. East
b. North
c. South
d. Up

7. in which year was UK's premier computing event called "The which computer" started?

a. 1980
b. 1985
c. 1986
d. 1987

8. The latest PC keyboards use a circuit that senses the movement by the change in its capacitance,

a. Capacitance keyboard
b. Mechanical keyboard
c. Qwerty keyboard
d. Dvorak keyboard

9. Different components on the motherboard of a PC processor unit are linked together by sets or parallel electrical conducting lines. What are these lines called?

a. Conductors
b. Buses
c. Connectors
d. Connectively

10. Which of the following magazines covers only the IBM PC and its compatibles?

a. Byte
b. PC Magazine
c. Personal Computing
d. Interface Age

11. Which of the following professions has not been affected by personal computers?

a. Medical
b. Clerical and law
c. Accounting
d. None of the above

12. The arranging of data in a logical sequence is called

a. Sorting
b. Classifying
c. Reproducing
d. Summarizing

13. When was Apple Macintosh II microcomputer introduced in the market?

a. 1964
b. 1970
c. 1983
d. 1986

14. What is the name of the new color laptop computer which is powered by a 386 processor at 33 MHz and is built by Epson?

a. AX3/33
b. NEC-20
c. Magnum 2000
d. HCL-3000

15. What does the disk drive of a computer do?

a. Rotate the disk
b. Read the disk
c. Load a program from the disk into the memory
d. Both b and c

16. The language that the computer can understand and execute is called

a. Machine language
b. Application software
c. System program
d. All of above

17. An application suitable for sequential processing is

a. Processing of grades
b. Payroll processing
c. Both a and b
d. All of above

18. The word processing task associated with changing the appearance of a document is

a. Editing
b. Writing
c. Formatting
d. All of above

19. Which of the following is used as a primary storage device?

a. Magnetic drum
b. Prom
c. Floppy
d. All of above

20. Which of the following memories needs refreshing?

a. SRAM
b. DRAM
c. ROM
d. All of above

Answers

1. A disadvantage of the laser printer is:

d. None of above

2. Which of the following is not true for a magnetic disk?

b. It provides only sequential access to stored data

3. The primary advantage of key-to-tape data entry system is

c. The tape is reusable

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SET -10

1. Which of the following devices can be sued to directly image printed text?

a. OCR
b. OMR
c. MICR
d. All of above

2. The output quality of a printer is measured by

a. Dot per inch
b. Dot per sq. inch
c. Dots printed per unit time
d. All of above

3. In analog computer

a. Input is first converted to digital form
b. Input is never converted to digital form
c. Output is displayed in digital form
d. All of above

4. In latest generation computers, the instructions are executed

a. Parallel only
b. Sequentially only
c. Both sequentially and parallel
d. All of above

5. Who designed the first electronics computer – ENIAC?

a. Van-Neumann
b. Joseph M. Jacquard
c. J. Presper Eckert and John W Mauchly
d. All of above

6. Who invented the high level language c?

a. Dennis M. Ritchie
b. Niklaus Writh
c. Seymour Papert
d. Donald Kunth

7. Personnel who design, program, operate and maintain computer equipment refers to

a. Console-operator
b. Programmer
c. Peopleware
d. System Analyst

8. When did arch rivals IBM and Apple Computers Inc. decide to join hands?

a. 1978
b. 1984
c. 1990
d. 1991

9. Human beings are referred to as Homosapinens, which device is called Sillico Sapiens?

a. Monitor
b. Hardware
c. Robot
d. Computer

10. An error in software or hardware is called a bug. What is the alternative computer jargon for it?

a. Leech
b. Squid
c. Slug
d. Glitch

11. Modern Computer are very reliable but they are not

a. Fast
b. Powerful
c. Infallible
d. Cheap

12. What is the name of the display feature that highlights are of the screen which requires operator attention?

a. Pixel
b. Reverse video
c. Touch screen
d. Cursor

13. IMB launched its first personal computer called IBM-PC in 1981. It had chips from Intel, disk drives from Tandon, operating system from Microsoft, the printer from Epson and the application software from everywhere. Can you name the country which contributed the video display?

a. India
b. China
c. Germany
d. Taiwan

14. Personal computers use a number of chips mounted on a main circuit board. What is the common name for such boards?

a. Daughter board
b. Motherboard
c. Father board
d. Breadboard

15. In most IBM PCs, the CPU, the device drives, memory expansion slots and active components are mounted on a single board. What is the name of this board?

a. Motherboard
b. Breadboard
c. Daughter board
d. Grandmother board

16. What is meant by a dedicated computer?

a. Which is used by one person only
b. Which is assigned one and only one task
c. Which uses one kind of software
d. Which is meant for application software

17. The system unit of a personal computer typically contains all of the following except:

a. Microprocessor
b. Disk controller
c. Serial interface
d. Modem

18. A computer program that converts an entire program into machine language is called a/an
a. Interpreter
b. Simulator
c. Compiler
d. Commander

19. A computer program that translates one program instructions at a time into machine language is called a/an

a. Interpreter
b. CPU
c. Compiler
d. Simulator

20. A small or intelligent device is so called because it contains within it a

a. Computer
b. Microcomputer
c. Programmable
d. Sensor

Answers:

1. Which of the following devices can be sued to directly image printed text?

a. OCR

2. The output quality of a printer is measured by

b. Dot per sq. inch

3. In analog computer

b. Input is never converted to digital form

4. In latest generation computers, the instructions are executed

c. Both sequentially and parallel

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Set - 11

1. The ALU of a computer responds to the commands coming from

a. Primary memory
b. Control section
c. External memory
d. Cache memory

2. The act of retrieving existing data from memory is called

a. Read-out
b. Read from
c. Read
d. All of above

3. All modern computer operate on

a. Information
b. Floppies
c. Data
d. Word

4. Instructions and memory address are represented by

a. Character code
b. Binary codes
c. Binary word
d. Parity bit

5. Which of the following code used in present day computing was developed by IBM Corporation?

a. ASCII
b. Hollerith Code
c. Baudot Code
d. EBCDIC Code

6. What is the latest write-once optical storage media?

a. Digital paper
b. Magneto-optical disk
c. WORM disk
d. CD-ROM disk

7. The most important advantage of a video disk is

a. Compactness
b. Potential capacity
c. Durability
d. Cost effectiveness

8. What is the number of read-write heads in the drive for a 9-trac magnetic tape?

a. 9
b. 16
c. 18
d. 27

9. Before a disk drive can access any sector record, a computer program has to provide the record's disk address. What information does this address specify?

a. Track number
b. Sector number
c. Surface number
d. All of above

10. As compared to diskettes, the hard disks are

a. More expensive
b. More portable
c. Less rigid
d. Slowly accessed

11. Floppy disks which are made from flexible plastic material are also called?

a. Hard disks
b. High-density disks
c. Diskettes
d. Templates

12. Regarding a VDU, Which statement is more correct?

a. It is an output device
b. It is an input device
c. It is a peripheral device
d. It is hardware item

13. What is the name of the computer terminal which gives paper printout?

a. Display screen
b. Soft copy terminal
c. Hard copy terminal
d. Plotter

14. Dot-matrix is a type of

a. Tape
e. Printer
f. Disk
g. Bus

15. The two kinds of main memory are:

a. Primary and secondary
b. Random and sequential
c. ROM and RAM
d. All of above

16. A kind of serial dot-matrix printer that forms characters with magnetically-charged ink sprayed dots is called

a. Laser printer
b. Ink-jet printer
c. Drum printer
d. Chan printer

17. Which printer is very commonly used for desktop publishing?

a. Laser printer
b. Inkjet printer
c. Daisywheel printer
d. Dot matrix printer

18. An output device that uses words or messages recorded on a magnetic medium to produce audio response is

b. Magnetic tape
c. Voice response unit
d. Voice recognition unit
e. Voice band

19. Which of the following will happen when data is entered into a memory location?

a. It will add to the content of the location
b. It will change the address of the memory location
c. It will erase the previous content
d. It will not be fruitful if there is already some data at the location

20. A storage area used to store data to a compensate for the difference in speed at which the different units can handle data is

a. Memory
b. Buffer
c. Accumulator
d. Address

Answers:

1. The ALU of a computer responds to the commands coming from

b. Control section

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d. All of above

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Set - 12

1. To locate a data item for storage is

a. Field
b. Feed
c. Database
d. Fetch

2. programs designed to perform specific tasks is known as

a. system software
b. application software
c. utility programs
d. operating system

3. perforated paper used as input of output media is known as

a. paper tapes
b. magnetic tape
c. punched papers tape
d. card punch

4. Time during which a job is processed by the computer is

a. Delay times
b. Real time
c. Execution time
d. Down time

5. a computer which CPU speed around 100 million instruction per second and with the word length of around 64 bits is known as

a. Super computer
b. Mini computer
c. Micro computer
d. Macro computer

6. An approach that permits the computer to work on several programs instead of one is

a. On-line thesaurus
b. Multiprogramming
c. Over lapped processing
d. Outline processor

7. A directly accessible appointment calendar is feature of a … resident package

a. CPU
b. Memory
c. Buffer
d. ALU

8. The term gigabyte refers to

a. 1024 bytes
b. 1024 kilobytes
c. 1024 megabytes
d. 1024 gigabyte

9. Which of the following processors use RISC technology?

a. 486dx
b. Power PC
c. 486sx
d. 6340

10. A/n …. Device is any device that provides information, which is sent to the CPU

a. Input
b. Output
c. CPU
d. Memory

11. Current SIMMs have either … or … connectors (pins)

a. 9 or 32
b. 30 or 70
c. 28 or 72
d. 30 or 72

12. The storage subsystem in a microcomputer consists mainly of … or … media with varying capacities

a. Memory or video
b. Magnetic or optical
c. Optical or memory
d. Video or magnetic

13. Which of the following is not an input device?

a. OCR
b. Optical scanners
c. Voice recognition device
d. COM (Computer Output to Microfilm)

14. The central processing unit (CPU) consists of

a. Input, output and processing
b. Control unit, primary storage, and secondary storage
c. Control unit, arithmetic-logic unit and primary storage
d. Control unit, processing, and primary storage

15. EBCDIC can code up to how many different characters?

a. 256
b. 16
c. 32
d. 64

16. Which is considered a direct entry input device?

a. Optical scanner
b. Mouse and digitizer
c. Light pen
d. All of the above

17. Which is used for manufacturing chips?

a. Bus
b. Control unit
c. Semiconductors
d. A and b only

18. The computer code for the interchange of information between terminals is

a. ASCII
b. BCD
c. EBCDIC
d. All of above

19. A byte consists of

a. One bit
b. Four bits
c. Eight bits
d. Sixteen bits

20. A hybrid computer

a. Resembles digital computer
b. Resembles analog computer
c. Resembles both a digital and analog computer
d. None of the above

Answers:

1. To locate a data item for storage is

d. Fetch

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c. Eight bits

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d. COM (Computer Output to Microfilm)

14. The central processing unit (CPU) consists of

a. Input, output and processing
b. Control unit, primary storage, and secondary storage
c. Control unit, arithmetic-logic unit and primary storage
d. Control unit, processing, and primary storage

15. EBCDIC can code up to how many different characters?

a. 256
b. 16
c. 32
d. 64

16. Which is considered a direct entry input device?

a. Optical scanner
b. Mouse and digitizer
c. Light pen
d. All of the above

17. Which is used for manufacturing chips?

a. Bus
b. Control unit
c. Semiconductors
d. A and b only

18. The computer code for the interchange of information between terminals is

a. ASCII
b. BCD
c. EBCDIC
d. All of above

19. A byte consists of

a. One bit
b. Four bits
c. Eight bits
d. Sixteen bits

20. A hybrid computer

a. Resembles digital computer
b. Resembles analog computer
c. Resembles both a digital and analog computer
d. None of the above

Answers:

1. To locate a data item for storage is

d. Fetch

2. programs designed to perform specific tasks is known as

b. application software

3. perforated paper used as input of output media is known as

a. paper tapes

4. Time during which a job is processed by the computer is

c. Execution time

5. a computer which CPU speed around 100 million instruction per second and with the word length of around 64 bits is known as

a. Super computer

6. An approach that permits the computer to work on several programs instead of one is

c. Over lapped processing

7. A directly accessible appointment calendar is feature of a … resident package

b. Memory

8. The term gigabyte refers to

c. 1024 megabytes

9. Which of the following processors use RISC technology?

b. Power PC

10. A/n …. Device is any device that provides information, which is sent to the CPU

a. Input

11. Current SIMMs have either … or … connectors (pins)

d. 30 or 72

12. The storage subsystem in a microcomputer consists mainly of … or … media with varying capacities

b. Magnetic or optical

13. Which of the following is not an input device?

d. COM (Computer Output to Microfilm)

14. The central processing unit (CPU) consists of

c. Control unit, arithmetic-logic unit and primary storage

15. EBCDIC can code up to how many different characters?

a. 256

16. Which is considered a direct entry input device?

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18. The computer code for the interchange of information between terminals is

a. ASCII

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c. Eight bits

20. A hybrid computer

c. Resembles both a digital and analog computer

Answers

1. The silicon chips used for data processing are called

d. PROM chips

2. The metal disks, which are permanently housed in, sealed and contamination free containers are called

c. Winchester disk

3. A computer consists of

d. All of the above

4. An application program that helps the user to change any number and immediately see the result of that change is

c. Spreadsheet

5. The instructions for starting the computer are house on

c. Read only memory chip

6. The ALU of a computer normally contains a number of high speed storage element called

b. Registers

7. a factor which would strongly influence a business person to adopt a computer is its

d. All of above

8. The magnetic storage chip used to provide non-volatile direct access storage of data and that have no moving parts are known as

d. Magnetic bubble memory

9. CAD stands for

a. Computer aided design

10. RATS stand for

a. Regression Analysis Time Series

11. In which year was chip used inside the computer for the first time?

b. 1975

12. What was the name of the first commercially available microprocessor chip?

c. Intel 4004

13. When were the first minicomputer built?

a. 1965

14. The first digital computer built with IC chips was known as

c. IBM System / 360

15. In which language is source program written?

c. High level

16. Which of the following terms is the most closely related to main memory?

d. Temporary

17. Which of the following is used for manufacturing chips?

d. Semiconductor

18. Which of the following is required when more than one person uses a central computer at the same time?

a. Terminal

19. Which of the following is used only for data entry and storage, and never for processing?

b. Dumb terminal

20. To produce high quality graphics (hardcopy) in color, you would want to use a/n

b. Plotter

Set - 14

1. Which of the following printers are you sure will not to use if your objective is to print on multi carbon forms?

a. Daisy wheel
b. Dot matrix
c. Laser
d. Thimble

2. Which of the following printing devices an output composed of a series of data?

a. Wire matrix printer
b. Band printer
c. Wang image printer
d. Both a and c

3. The personal computer industry was started by

a. IBM
b. Apple
c. Compaq
d. HCL

4. In the IBM PC-At, what do the words AT stand for

a. Additional Terminals
b. Advance technology
c. Applied technology
d. Advanced terminology

5. Magnetic tape can serve as

a. Secondary storage media
b. Output media
c. Input media
d. All of the above

6. If in a computer, 16 bits are used to specify address in a RAM, the number of addresses will be

a. 216
b. 65,536
c. 64K
d. Any of the above

7. The two major types of computer chips are

a. External memory chip
b. Primary memory chip
c. Microprocessor chip
d. Both b and c

8. As compared to the secondary memory, the primary memory of a computer is

a. Large
b. Cheap
c. Fast
d. Slow

9. Which of the following is a way to access secondary memory?

a. Random access memory
b. Action method
c. Transfer method
d. Density method

10. Which was the most popular first generation computer?

a. IBM 1650
b. IBM 360
c. IBM 1130
d. IBM 2700

11. What is the responsibility of the logical unit in the CPU of a computer?

a. To produce result
b. To compare numbers
c. To control flow of information
d. To do math's works

12. The secondary storage devices can only store data but they cannot perform

a. Arithmetic Operation
b. Logic operation
c. Fetch operations
d. Either of the above

13. Which of the printers used in conjunction with computers uses dry ink power?

a. Daisy wheel printer
b. Line printer
c. Laser printer
d. Thermal printer

14. Which of the following produces the best quality graphics reproduction?

a. Laser printer
b. Ink jet printer
c. Plotter
d. Dot matrix printer

15. Which of the following memories allows simultaneous read and write operations?

a. ROM
b. RAM
c. EPROM
d. None of above

16. Which of the following memories has the shortest access times?

a. Cache memory
b. Magnetic bubble memory
c. Magnetic core memory
d. RAM

17. A 32 bit microprocessor has the word length equal to

a. 2 byte
b. 32 byte
c. 4 byte
d. 8 byte

18. An error in computer data is called

a. Chip
b. Bug
c. CPU
d. Storage device

19. A set of information that defines the status of resources allocated to a process is

a. Process control
b. ALU
c. Register Unit
d. Process description

20. Any method for controlling access to or use of memory is known

a. Memory map
b. Memory protection
c. Memory management
d. Memory instruction

Answers:

1. Which of the following printers are you sure will not to use if your objective is to print on multi carbon forms?

c. Laser

2. Which of the following printing devices an output composed of a series of data?

d. Both a and c

3. The personal computer industry was started by

a. IBM

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16. Which of the following memories has the shortest access times?

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17. A 32 bit microprocessor has the word length equal to

c. 4 byte

18. An error in computer data is called

b. Bug

19. A set of information that defines the status of resources allocated to a process is

d. Process description

20. Any method for controlling access to or use of memory is known

b. Memory protection

Set - 15

1. A type of core store that has a lower access time than the devices used for working store in the same processor is known as

a. Core memory
b. Buffer
c. Fast core
d. Address register

2. Which of the following is an acronym for electronic delay storage automatic calculator?

a. UNIVAC
b. EDSAC
c. EDVAC
d. Abacus

3. Which of the following is form of semi conductor memory in which it is possible to change the contents of selected memory locations by applying suitable electrical signals?

a. CAM
b. ROM
c. EPROM
d. Abacus

4. A disk storage medium in the form of an assembly containing a single rigid magnetic disk permanently is

a. Fixed disk
b. Disk cartridge
c. Card punch
d. Card reader

5. A memory that is capable of determining whether a given datum is contained in one of its address is

a. ROM
b. PROM
c. CAM
d. RAM

6. A method of implementing a memory management system is

a. Buddy system
b. Bridgeware
c. Broadband coaxial system
d. All of the above

7. A plastic card similar to a credit card but having some memory and a microprocessor embedded within it is

a. Punched paper tape
b. Chip card
c. Card punch
d. Magnetic tape

8. A device that operates under the control of another device is called

a. Stem
b. Slave
c. Simulator
d. Emulator

9. Actual data processing operations are performed in the arithmetic logic section, but not in the …. Storage section of a processor unit

a. Primary
b. Accumulator
c. Buffer
d. Secondary

10. The use of spooler programs and/or …. Hardware allows personal computer operators to do the processing work at the same time a printing operation is in progress

a. Registered mails
b. Memory
c. CPU
d. Buffer

11. Which most popular input device is used today for interactive processing and for the one line entry of data for batch processing?

a. Mouse
b. Magnetic disk
c. Visual display terminal
d. Card punch

12. User programmable terminals that combine VDT hardware with built-in microprocessor is

a. Kips
b. PC
c. Mainframe
d. Intelligent terminals

13. The number of characters that can be stored in given physical space is

a. Word length
b. Byte
c. Data density
d. Field

14. the storage capacity of a disk system depends on the bits per inch of track and the tracks per inch of

a. Cylinder
b. Hum
c. Cluster
d. Surface

15. The disk drive component used to position read/write heads over a specific track I known as

a. Acoustic couples
b. Access arm
c. Cluster
d. All of the above

16. condensing output data to exhibit specific information is

a. calculating
b. recording
c. merging
d. summarizing

17. which chips using special external equipment can reprogram

a. ROM
b. PROM
c. SAM
d. RAM

18. A storage device whe3re the access time is depended upon the location of the data is

a. Random access
b. Serial access
c. Sequential access
d. Transaction access

19. Which number system is commonly used as a shortcut notation for groups of four binary digits?

a. Binary
b. Decimal
c. Octal
d. Hexadecimal

20. Interface electronic circuit is used to interconnect I/O devices to a computer's CPU or

a. ALU
b. Memory
c. Buffer
d. Register

Answers:

1. A type of core store that has a lower access time than the devices used for working store in the same processor is known as

d. Address register

2. Which of the following is an acronym for electronic delay storage automatic calculator?

b. EDSAC

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b. Disk cartridge

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c. CAM

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b. Slave

9. Actual data processing operations are performed in the arithmetic logic section, but not in the …. Storage section of a processor unit

a. Primary

10. The use of spooler programs and/or …. Hardware allows personal computer operators to do the processing work at the same time a printing operation is in progress

d. Buffer

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b. Memory

GENERAL COMPUTER SCIENCE

SET-1

1) Full form of "OS" is?

  a. Order of significance
  b. Operating system
  c. Open software
  d. Optical Sensor

Answer = B

2) The ribbon is used in ?

  a. Laser Printer
  b. Plotter
  c. Ink-jet printer
  d. Dot Matrix printer

Answer = D

3) Address book contains?

  a. Email address
  b. Phone numbers
  c. People Names
  d. All of the above

Answer = D

4) Full form of "DOCOMO" ?

  a. Do Connect over Mobile
  b. Do Communications Over the Mobile network
  c. Dongle Communication Over Mobile
  d. Do Communication Or More

Answer =B

5) Joystick is used to ?

  a. Move cursor on the screen
  b. Computer games
  c. Both a and b
  d. None of these

Answer = C

6) A DNS translates a domain name into what ?

    a. Binary
    b. Hex
    c. IP
    d. URL

Answer = C
7) When was the first e-mail sent ?

    a. 1963
    b. 1969
    c. 1971
    d. 1974

Answer = C
Explanation: It was sent by Ray Tomlinson
8) What type of memory is volatile ?

    a. Cache
    b. RAM
    c. ROM
    d. Hard Drive

Answer =B
9) Which of the below is not an iPhone 4 feature ?

    a. 4G
    b. Front facing camera
    c. HD recording
    d. Multitasking

Answer = A
10) Main memory is also known as ?

    a. Auxiliary memory
    b. Primery memory
    c. Secondry memory
    d. None of above

Answer = B
1) A presentation means ?

    a. Display of products
    b. Explaining the utility of products
    c. A gift
    d. Display of communication or skills

Answer = B

2) The term CRM means ?

    a. Customer Relationship Management
    b. Customer Retention Manager
    c. Customer's Relative Meet
    d. Channel Root Market

Answer = A

3) Why would a switch be used in a network in preference to a HUB ?

    a. To reduce the network traffic
    b. To prevent the spread of all viruses
    c. To connect a computer directly to the internet
    d. To manage password security at the work station

Answer = A

4) What should be done to successfully convert the format of an image from BMP to JPEG ?

    a. Compress the file
    b. Rename the image
    c. Use the save as command
    d. Change the image file extension

Answer =C

5) A company regularly updates a user reference guide. Some staff are confused about which of the printed document is the most current. What feature should be included in the reference guide to eliminate this confusion ?

    a. Data printed
    b. Version number
    c. Authors name
    d. Copyright information

Answer = B

6) The term associated with the processing of comparison speed is ?

    a. FFTS
    b. MPG
    c. MIPS
    d. CPS

Answer =C

7) The data from a spreadsheet needs to be imported into a database package. Which file format would be the most appropriate when saving the spreadsheet file ?

    a. CSV
    b. HTML
    c. PDF
    d. RTF

Answer =A

8) For reproducing sound the CD audio player uses a ?

    a. Quartz Cristal
    b. Titanium Needle
    c. Laser Beam
    d. Barium Titanium Ceramic

Answer =C
9) Which of the following would indicate that the motherboard battery has failed ?

    a. Operating system passwords are lost
    b. Files on the hard disk are lost and corrupted
    c. Hardware settings, including virtual memory reverts to default values
    d. Hardware settings, including the current date and time reverts to default values

Answer = D

10) Which of the following is essential component of communication cycle ?

    a. A message
    b. An interpreter
    c. An email account
    d. An internet connection

Answer =A

SET-3

1) Which country created the most used networking software in 1980's ?

    a. Sun
    b. IBM
    c. Novell
    d. Microsoft

Answer =C
2) In what year was the @ chosen for its use in email address ?

    a. 1972
    b. 1976
    c. 1980
    d. 1984

Answer =A
3) Which American computer company is called Big Blue ?

    a. IBM
    b. Compaq Corp
    c. Microsoft
    d. Tandy Svenson

Answer = A

4) Who is credited with the idea of using punch cards to control patterns in a waving machine ?

    a. Pascal
    b. Hollerith
    c. Babbage
    d. Jacquard

Answer =D
5) What does SSL stands for ?

    a. System socket layer
    b. Secure system login
    c. Secure socket layer
    d. Secure system login

Answer =C
6) What is MAC ?

    a. A computer made by Apple
    b. Memory address corruption
    c. Mediocre Apple Computer
    d. Media Access Control

Answer =D
7) What does PPTP stand for ?

    a. Point to Point Transmission Protocol
    b. Point to Point Transfer Protocol
    c. Point to Point Tunneling Protocol
    d. Point to Point Traffic Protocol

Answer = C
8) The IBM PC-XT was the first to include a hard drive. What was the capacity of this disk ?

    a. 750 KB
    b. 10 KB
    c. 20 KB
    d. 1.44 KB

Answer =B
9) In 1983, which person was the first to offer a definition of the term 'computer virus' ?

    a. Smith
    b. Cohen
    c. Norton
    d. Mcafee

Answer = B

10) DTP computer abbreviation usually means ?

    a. DeskTop Publishing
    b. Data Type Programming
    c. Digital Transmission Protocol
    d. None Of above

Answer = B

1) Which country created the most used networking software in 1980's ?

    a. Sun
    b. IBM
    c. Novell
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Answer =C

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Answer = B

ALGORITHMS

The search technique for searching a sorted file that requires increased amount of space is

- ○ Indexed sequential search
- ○ Interpolation search
- ○ Sequential search
- ○ Tree search

A graph in which all nodes are of equal degree is called

- ○ Multi graph
- ○ Non regular graph
- ○ Regular graph
- ○ Complete graph

The sorting technique where array to be sorted is partitioned again and again in such a way that all elements less than or equal to partitioning element appear before it and those which are greater appear after it, is called

- ○ Merge sort
- ○ Quick sort
- ○ Selection sort
- ○ None of these

A binary tree with 27 nodes has _____ null branches.

- ○ 54
- ○ 27
- ○ 26
- ○ None of the above

The postfix form of A*B+C/D is

- ○ *AB/CD+
- ○ AB*CD/+
- ○ A*BC+/D
- ○ ABCD+/*

A desirable choice for the partitioning element in quick sort is

- First element of the list
- Last element of the list
- Randomly chosen element of the list
- Median of the list

A search technique where we keep expanding nodes with least accumulated cost so far is called

- Hill climbing
- Branch and bound
- Best first
- Divide and conquer

Consider a linked list of n elements. What is the time taken to insert an element after an element pointed by some pointer?

- O (1)
- O (n)
- O ($\log_2$ n)
- O (n $\log_2$ n)

The goal of hashing is to produce a search that takes

- O(1) time
- O(n^2) time
- O(log n) time
- O(n log n) time

A BST is traversed in the following order recursively: Right, root, left.The output sequence will be in

- Ascending order
- Descending order
- Bitomic sequence
- No specific order

The in order traversal of tree will yield a sorted listing of elements of tree in

○ Binary trees

○ Binary search trees

○ Heaps

○ None of above

The upper bound of computing time of m coloring decision problem is

○ O(nm)

○ O(nm)

○ $O(nm^n)$

○ $O(n^m m^n)$

One can make an exact replica of a Binary Search Tree by traversing it in

○ Inorder

○ Preorder

○ Postorder

○ Any order

The minimum number of multiplications and additions required to evaluate the polynomial P = 4x3+3x2-15x+45 is

○ 6 & 3

○ 4 & 2

○ 3 & 3

○ 8 & 3

The Worst case occur in linear search algorithm when

○ Item is somewhere in the middle of the array

○ Item is not in the array at all

○ Item is the last element in the array

○ Item is the last element in the array or is not there at all

Two isomorphic graphs must have

○ Equal number of vertices

○ Same number of edges

○ Same number of vertices

○ All of the above

The quick sort algorithm exploit _____ design technique

○ Greedy

○ Dynamic programming

○ Divide and Conquer

○ Backtracking

If h is any hashing function and is used to hash n keys in to a table of size m, where n<=m, the expected number of collisions involving a particular key x is

○ less than 1

○ less than n

○ less than m

○ less than n/2

A sort which uses binary tree concept such that any number is larger than all the numbers in the subtree below it,is called

○ Selection sort

○ Insertion sort

○ Heap sort

○ Quick sort

Graphs are represented using

○ Adjacency tree

○ Adjacency linked list

○ Adjacency graph

○ Adjacency queue

The operation of processing each element in the list is known as

○ Sorting

○ Merging

○ Inserting

○ Traversal

The best average behaviour is shown by

- ○ Quick Sort
- ○ Merge Sort
- ○ Insertion Sort
- ○ Heap Sort

If every node u in G is adjacent to every other node v in G, A graph is said to be

- ○ Isolated
- ○ Complete
- ○ Finite
- ○ Strongly Connected

A binary tree can easily be converted into q 2-tree

- ○ by replacing each empty sub tree by a new internal node
- ○ by inserting an internal nodes for non-empty node
- ○ by inserting an external nodes for non-empty node
- ○ by replacing each empty sub tree by a new external node

An algorithm is made up of two independent time complexities f (n) and g (n). Then the complexities of the algorithm is in the order of

- ○ f(n) x g(n)
- ○ Max (f(n),g(n))
- ○ Min (f(n),g(n))
- ○ f(n) + g(n)

The time complexity to build a heap of n elements is

- ○ 0(1)
- ○ 0(lgn)
- ○ 0(n)
- ○ 0(nlgn)

Breadth first traversal is a method to traverse

- ○ All successors of a visited node before any successors of any of those successors
- ○ A single path of the graph as far it can go
- ○ Graph using shortest path
- ○ None of these

Leaves of which of the following trees are at the same level ?

○ Binary tree

○ B-tree

○ AVL-tree

○ Expression tree

The post order traversal of a binary tree is DEBFCA. Find out the preorder traversal.

○ ABFCDE

○ ADBFEC

○ ABDECF

○ ABDCEF

Quick sort is also known as

○ Merge sort

○ Heap sort

○ Bubble sort

○ None of these

A graph in which all nodes are of equal degrees is known as

○ Complete graph

○ Regular graph

○ Non regular graph

○ Multi graph

Preorder is nothing but

○ Depth first order

○ Breadth first order

○ Topological order

○ Linear order

The number of distinct simple graphs with up to three nodes are

○ 15

○ 10

○ 7

○ 9

The space factor when determining the efficiency of algorithm is measured by

○ Counting the maximum memory needed by the algorithm

○ Counting the minimum memory needed by the algorithm

○ Counting the average memory needed by the algorithm

○ Counting the maximum disk space needed by the algorithm

Let A be an adjacency matrix of a graph G. The th ij entry in the matrix K A , gives

○ The number of paths of length K from vertex Vi to vertex Vj.

○ Shortest path of K edges from vertex Vi to vertex Vj.

○ Length of a Eulerian path from vertex Vi to vertex Vj.

○ Length of a Hamiltonian cycle from vertex Vi to vertex Vj.

An advantage of chained hash table over the open addressing scheme is

○ Worst case complexity of search is less

○ Space used is less

○ Deletion is easier

○ None of the above

Number of vertices of odd degree in a simple graph is

○ Always even

○ Always odd

○ Either even or odd

○ Always zero

Consider the following pseudo-code :
If (A > B) and (C > D) then
A = A + 1
B = B + 1
Endif
The cyclomatic complexity of the pseudo-code is

○ 2

○ 3

○ 4

○ 5

A simple graph in which there exists an edge between pair of vertices is called

- ○ Regular graph
- ○ Planner graph
- ○ Euler graph
- ○ Complete graph

What is the postfix form of the following prefix expression -A/B*C$DE

- ○ ABCDE$*/-
- ○ A-BCDE$*/-
- ○ ABC$ED*/-
- ○ A-BCDE$*/

A given connected graph G is a Euler graph , if and only if all vertices of G are of

- ○ Same degree
- ○ Even degree
- ○ Odd degree
- ○ Different degree

The time factor when determining the efficiency of algorithm is measured by

- ○ Counting microseconds
- ○ Counting the number of key operations
- ○ Counting the number of statements
- ○ Counting the kilobytes of algorithm

Hashing collision resolution techniques are

- ○ Huffman coding, linear hashing
- ○ Bucket addressing, Huffman coding
- ○ Chaining, Huffman coding
- ○ Chaining, Bucket addressing

The number of vertices of odd degree in a graph is

- ○ Always zero
- ○ Either even or odd
- ○ Always odd
- ○ Always even

A sort which relatively passes through a list to exchange the first element with any element less than it and then repeats with a new first element is called

- ○ Insertion sort
- ○ Selection sort
- ○ Heap sort
- ○ Quick sort

One can convert a binary tree into its mirror image by traversing it in

- ○ Inorder
- ○ Preorder
- ○ Postorder
- ○ Any order

Every cut set of a connected euler graph

- ○ No such characterization
- ○ Atleast three edges
- ○ An even number of edges
- ○ An odd number of edges

ARTIFICIAL INTELLIGENCE

The area of AI that investigates methods of facilitating communication between people and computers is

- ○ natural language processing
- ○ symbolic processing
- ○ decision support
- ○ robotics

LISP was created by:

- ○ John McCarthy
- ○ Marvin Minsky
- ○ Alan Turing
- ○ Allen Newell and Herbert Simon

Who is considered to be the "father" of artificial intelligence?

- ○ Fisher Ada
- ○ John McCarthy
- ○ Allen Newell
- ○ Alan Turning

The finding of a path start state to a goal state is known as

- ○ Search
- ○ Classification
- ○ Simulation
- ○ None of these

An AI technique that allows computers to understand associations and relationships between objects and events is called

- ○ heuristic processing
- ○ cognitive science
- ○ relative symbolism
- ○ pattern matching

Let Q(x, y) denote "x + y = 0" and let there be two quantifications given as
(i) $y"x Q(x, y)
(ii) "x$y Q(x, y)
where x & y are real numbers. Then which of the following is valid ?

- ○ (i) is true & (ii) is false.
- ○ (i) is false & (ii) is true.
- ○ (i) is false & (ii) is also false.
- ○ both (i) & (ii) are true

A KES knowledge base contains information in the form of:

- ○ associations
- ○ actions
- ○ free text
- ○ All of the above

Which kind of planning consists of successive representations of different levels of a plan?

- ○ hierarchical planning
- ○ non-hierarchical planning
- ○ project planning
- ○ None of the above

Which search may find many solutions.If many solutions exist ,minimal solution can be found

- ○ Breadth first search
- ○ Depth first search
- ○ Best first search
- ○ None of these

Which of the following is an advantage of using an expert system development tool?

- ○ imposed structure
- ○ knowledge engineering assistance
- ○ rapid prototyping
- ○ All of the above

KEE is a product of:

- ○ Teknowledge
- ○ IntelliCorpn
- ○ Texas Instruments
- ○ Tech knowledge

The common property of functional language and logical programming language

- Both are declarative
- Both are based on l-calculus
- Both are procedural
- Both are functional

In Delta Rule for error minimization

- Weights are adjusted w.r.to change in the output
- Weights are adjusted w.r.to difference between desired output and actual output
- Weights are adjusted w.r.to difference between input and output
- None of the above

Which particular generation of computers is associated with artificial intelligence?

- Fourth
- Third
- Fifth
- Second

A series of AI systems developed by Pat Langley to explore the role of heuristics in scientific discovery.

- RAMD
- BACON
- MIT
- DU

Shaping teaching techniques to fit the learning patterns of individual students is the goal of

- decision support
- automatic programming
- intelligent computer-assisted instruction
- expert systems

DEC advertises that it helped to create the world first expert system routinely used in an industrial environment called XCON or

- PDP-11
- Rl
- VAX
- MAGNOM

The strategy used to reduce the number of tree branches and the number of static evaluations applied in case of a game tree is

- ○ Minmax strategy
- ○ Alpha-beta pruning strategy
- ○ Constraint satisfaction strategy
- ○ Static max strategy

Which search algorithm find solutions among all possible ones?

- ○ Heuristics
- ○ Learning
- ○ Optismistic
- ○ Blind

Artificial intelligence is

- ○ the embodiment of human intellectual capabilities within a computer.
- ○ a set of computer programs that produce output that would be considered to reflect intelligence if it were generated by humans.
- ○ the study of mental faculties through the use of mental models implemented on a computer.
- ○ All of the above

In LISP, the function (copy-list <list>)

- ○ returns a new list that is equal to <list> by copying the top-level element of <list>
- ○ returns the length of <list>
- ○ returns t if <list> is empty.
- ○ All of the above

Which of the following have computers traditionally done better than people?

- ○ storing information
- ○ responding flexibly
- ○ computing numerically
- ○ both (a) and (c)

In LISP, the addition 3 + 2 is entered as

- ○ 3 + 2
- ○ 3 add 2
- ○ 3 + 2 =
- ○ (+ 3 2)

Natural language processing can be divided into the two subfields of

○ context and expectations

○ generation and understanding

○ semantics of pragmatics

○ recognition and synthesis

_____ is the science that attempts to produce machines that display the same type of intelligence that humans do.

○ Nanoscience

○ Nanotechnology

○ Simulation

○ Artificial intelligence

An intelligent robot

○ Respond to changes in its environment

○ Follows instruction

○ Possesses no more intelligent than a dishwasher

○ All of the above

Which of the following function returns t if the object is a number in LISP?

○ (number <object>)

○ (numberp <object>)

○ (numericp <object>)

○ (numeric <object>)

The transform which possesses the highest 'energy compaction' property is

○ Slant transform

○ Cosine transform

○ Fourier transform

○ Karhunen-Loeve transform

The company that grew out of research at the MIT AI lab is:

○ AI corp

○ LMI

○ Symbolics

○ both (b) and (c)

The field that investigates the mechanics of human intelligence is

○ history

○ cognitive science

○ psychology

○ sociology

In LISP, which of the following function assigns the value 10 to the symbol a?

○ (setq a 10)

○ (a = b) where b = 10

○ (a = 10) (d) (setq 10 a)

○ None of the above

ART (Automatic Reasoning Tool) is designed to be used on:

○ LISP machines

○ personal computers

○ microcomputers

○ All of the above

In LISP, the function (endp <list>)

○ returns a new list that is equal to <list> by copying the top-level element of <list>

○ returns the length of <list>

○ returns t if <list> is empty.

○ All of the above

In which of the following situations might a blind search be acceptable?

○ real-life situation

○ complex game

○ small search space

○ All of the above

A robots arm is also known as its:

○ end effector

○ actuator

○ manipulator

○ servomechanism

The primary method that people use to sense their environment is

- ○ reading
- ○ writing
- ○ speaking
- ○ speaking

In LISP, the function returns t if <object> is a CONS cell and nil otherwise

- ○ (cons <object>)
- ○ (consp <object>)
- ○ (eq <object>)
- ○ (cous = <object>)

The first widely-used commercial form of Artificial Intelligence (AI) is being used in many popular products like microwave ovens, automobiles and plug in circuit boards for desktop PCs. It allows machines to handle vague information with a deftness that mimics human intuition. What is the name of this AI?

- ○ Boolean logic
- ○ Human logic
- ○ Fuzzy logic
- ○ Functional logic

What was originally called the "imitation game" by its creator?

- ○ The Turing Test
- ○ LISP
- ○ The Logic Theorist
- ○ Cybernetics

The original LISP machines produced by both LMI and Symbolics were based on research performed at

- ○ CMU
- ○ MIT
- ○ Stanford University
- ○ RAMD

Elementary linguistic units which are smaller than words are

- ○ allophones
- ○ phonemes
- ○ syllables
- ○ All of the above

To invoke the LISP system, you must enter

- ○ AI
- ○ LISP
- ○ CL (Common Lisp)
- ○ both b and c

In LISP, the function assigns . the value of a to b is

- ○ (setq a b)
- ○ (setq b a)
- ○ (b = a)
- ○ (set b = a)

Which of the following is being investigated as a means of automating the creation of a knowledge base?

- ○ automatic knowledge acquisition
- ○ simpler tools
- ○ discovery of new concepts
- ○ All of the above

The symbols used in describing the syntax of a programming language are

- ○ 0
- ○ { }
- ○ < >
- ○ " "

One definition of AI focuses on problem-solving methods that process:

- ○ smell
- ○ symbols
- ○ touch
- ○

The explanation facility of an expert system may be used to

- ○ construct a diagnostic model
- ○ expedite the debugging process
- ○ explain the system reasoning process
- ○ both (b) and (c)

In a rule based system,procedural domain knowledge is in the form of

- ○ Production rules
- ○ Rule interpreters
- ○ Control rules
- ○ Meta rules

The component of an ICAI (Intelligent Computer-Asslsted Instruction) presenting information to the student is the:

- ○ student model
- ○ problem-solving expertise
- ○ tutoring module
- ○ All of the above

The characteristics of the computer system capable of thinking, reasoning and learning is known is

- ○ machine intelligence
- ○ human intelligence
- ○ artificial intelligence
- ○ virtual intelligence

BASICS OF C++

Set 1

Question 1.

What is the correct value to return to the operating system upon the successful completion of a program?
A. -1
B. 1
C. 0
D. Programs do not return a value.

Question 2.

What is the only function all C++ programs must contain?
A. start()
B. system()
C. main()
D. program()

Question 3.

What punctuation is used to signal the beginning and end of code blocks?
A. { }
B. -> and <-
C. BEGIN and END
D. (and)

Question 4.

What punctuation ends most lines of C++ code?
A. . (dot)
B. ; (semi-colon)
C. : (colon)
D. ' (single quote)

Question 5.

Which of the following is a correct comment?
A. */ Comments */
B. ** Comment **
C. /* Comment */
D. { Comment }

Question 6.

Which of the following is not a correct variable type?
A. float
B. real
C. int
D. double

Question 7.

Which of the following is the correct operator to compare two variables?
A. :=
B. =
C. equal
D. ==

Question 8.

Which of the following is true?
A. 1
B. 66
C. .1
D. -1
E. All of the above

Question 9.

Which of the following is the boolean operator for logical-and?
A. &
B. &&
C. |
D. |&

Question 10.

Evaluate !(1 && !(0 || 1)).
A. True
B. False
C. Unevaluatable

ANSWER

1. C. 0

2. **C. main()**

3. A. { }

4. **B. ;**

5. **C. /* Comment */**

6. B. real

7. D. ==

8. E. All of the above

9. B. &&

10. A. True

Question 1

Identify the correct statement

a. Programmer can use comments to include short explanations within the source code itself.

b. All lines beginning with two slash signs are considered comments.

c. Comments very important effect on the behaviour of the program

d. both

Question 2

The directives for the preprocessors begin with

a.   Ampersand symbol (&

b.   Two Slashes (//)

c.   Number Sign (#)

d.   Less than symbol (<

Question 3

The file iostream includes

a.   The declarations of the basic standard input-output library.

b.   The streams of includes and outputs of program effect.

c.   Both of these

d.   None of these

Question 4

There is a unique function in C++ program by where all C++ programs start their execution

a.   Start()

b.   Begin()

c.   Main()

d.   Output()

Question 5

Every function in C++ are followed by

a. Parameters

b. Parenthesis

c. Curly braces

d. None of these

Question 6

Which of the following is false?

a. Cout represents the standard output stream in c++.

b. Cout is declared in the iostream standard file

c. Cout is declared within the std namespace

d. None of above

Question 7

Every statement in C++ program should end with

a. A full stop (.)

b. A Comma (,)

c. A Semicolon (

d. A colon (

Question 8

Which of the following statement is true about preprocessor directives?

a. These are lines read and processed by the preprocessor

b. They do not produce any code by themselves

c. These must be written on their own line

d. They end with a semicolon

Question 9

A block comment can be written by

a. Starting every line with double slashes (//)

b. Starting with /* and ending with */

c. Starting with //* and ending with *//

d. Starting with <!- and ending with -!>

Question 10

When writing comments you can

a. Use code and /* comment on the same line

b. Use code and // comments on the same line

c. Use code and //* comments on the same line

d. Use code and <!- comments on the same line

ANSWER

1. b. All lines beginning with two slash signs are considered comments.

2. c. Number Sign (#)

3. a. The declarations of the basic standard input-output library.

4. c. Main()

5. b. Parenthesis

6. d. None of above

7. c. A semicolon

8. d. They end with a semicolon

9. b. Starting with /* and ending with */

10.   b. Use code and // comments on the same line

A variable is/are

a. String that varies during program execution

b. A portion of memory to store a determined value

c. Those numbers that are frequently required in programs

d. None of these

Question 2

Which of the following can not be used as identifiers?

a. Letters

b. Digits

c. Underscores

d. Spaces

Question 3

Which of the following identifiers is invalid?

a. papername

b. writername

c. typename

d. printname

Question 4

Which of the following can not be used as valid identifier?

a. bitand

b. bittand

c. biand

d. band

Question 5

The difference between x and 'x' is

a. The first one refers to a variable whose identifier is x and the second one refers to the character constant x

b. The first one is a character constant x and second one is the string literal x

c. Both are same

d. None of above

Question 6

Which of the following is not a valid escape code?

a. \t

b. \v

c. \f

d. \w

Question 7

Which of the following statement is true?

a. String Literals can extend to more than a single line of code by putting a backslash sign at the end of each unfinished line.

b. You can also concatenate several string constants separating them by one or several blank spaces, tabulators, newline or any other valid blank character

c. If we want the string literal to explicitly made of wide characters, we can precede the constant with the L prefix

d. All of above

Question 8

Regarding #difine which of the following statement is false?

a. It is not C++ statement but the directive for the preprocessor

b. This does not require a semicolon at the end of line

c. It is a C++ statement that declares a constant in C++

d. None of the above

Question 9

Regarding following statement which of the statements is true?

const int pathwidth=100;

a. Declares a variable pathwidth with 100 as its initial value

b. Declares a construction pathwidth with 100 as its initial value

c. Declares a constant pathwidth whose value will be 100

d. Constructs an integer type variable with pathwidth as identifier and 100 as value

Question 10

In an assignment statement

a. The lvalue must always be a variable

b. The rvalue might be a constant, a variable, an expression or any combination of these

c. The assignment always takes place from right to left and never the other way

d. All of above

Answers

1. b. A portion of memory to store a determined value

2. d. Spaces

3. c. Typename

4. a. Bitand

5. a. The first one refers to a variable whose identifier is x and the second one refers to the character constant x

6. d. \w

7. d. All of above

8. c. It is a C++ statement that declares a constant in C++

9. c. Declares a constant pathwidth whose value will be 100

10. d. All of above

Set 4

Question 1

In an assignment statement

a=b;

Which of the following statement is true?

a. The variable a and the variable b are equal.

b. The value of b is assigned to variable a but the later changes on variable b will not effect the value of variable a

c. The value of b is assigned to variable a and the later changes on variable b will effect the value of variable a

d. The value of variable a is assigned to variable b and the value of variable b is assigned to variable a.

Question 2

All of the following are valid expressions in C++

a = 2 + (b = 5);

a = b = c = 5;

a = 11 % 3

a.   True

b.   False

Question 3:

To increase the value of c by one which of the following statement is wrong?

a.   c++;

b.   c = c + 1;

c.   c + 1 => c;

d.   c += 1

Question 4:

When following piece of code is executed, what happens?

b = 3;

a = b++;

a.   a contains 3 and b contains 4

b.   a contains 4 and b contains 4

c.   a contains 4 and b contains 3

d.   a contains 3 and b contains 3

Question 5:

The result of a Relational operation is always

a.   either True or False

b.   is less than or is more than

c.   is equal or less or more

d.   All of these

Question 6:

Which of the following is not a valid relational operator?

a. ==

b. =>

c. >=

d. >=

Question 7:

What is the final value of x when the code int x; for(x=0; x<10; x++) {} is run?

A. 10

B. 9

C. 0

D. 1

Question 8:

When does the code block following while(x<100) execute?

A. When x is less than one hundred

B. When x is greater than one hundred

C. When x is equal to one hundred

D. While it wishes

Question 9:

Which is not a loop structure?

A. for

B. do while

C. while

D. repeat until

Question 10:

How many times is a do while loop guaranteed to loop?

A. 0

B. Infinitely

C. 1

D. Variable

Answers

1. b. The value of b is assigned to variable a but the later changes on variable b will not effect the value of variable a

2. a. True

3. c. c + 1 => c;

4. a. a contains 3 and b contains 4

5. a. either True or False

6. b. =>

7. A. 10

8. A. When x is less than one hundred

9. D. Repeat Until

10. C. 1

Set 5

Question 1

Streams are

a. Abstraction to perform input and output operations in sequential media

b. Abstraction to perform input and output operations in direct access media

c. Objects where a program can either insert or extract characters to and from it

d. Both a and c

Question 2

Which of the following is known as insertion operator?

a. ^

b. v

c. <<

d. >>

Question 3:

Regarding the use of new line character (/n) and endl manipulator with cout statement

a. Both ways are exactly same

b. Both are similar but endl additionally performs flushing of buffer

c. endl can't be used with cout

d. \n can't be used with cout

Question 4:

Which of the following is output statement in C++?

a. print

b. write

c. cout

d. cin

Question 5:

Which of the following is input statement in C++?

a. cin

b. input

c. get

d. none of above

Question 6:

By default, the standard output device for C++ programs is

a. Printer

b. Monitor

c. Modem

d. Disk

Question 7:

By default, the standard input device for C++ program is

a. Keyboard

b. Mouse

c. Scanner

d. None of these

Question 8:

Which of the following statement is true regarding cin statement?

a.   cin statement must contain a variable preceded by >> operator

b.   cin does not process the input until user presses RETURN key

c.   you can use more than one datum input from user by using cin

d.   all of above

Question 9:

Which of the following is extraction operator in C++?

a.   ^

b.   v

c.   <<

d.   >>

Question 10:

When requesting multiple datum, user must separate each by using

a.   a space

b.   a tab character

c.   a new line character

d.   all of above

Answers

1.   d. Both a and c

2.   c. <<

3.   b. Both are similar but endl additionally performs flushing of buffer

4.   c. Cout

5.   a. Cin

6.   b. Monitor

7.   a. Keyboard

8.   d. All of above

9.   d. >>

10.   d. all of above

Set 6

Question 1:

cin extraction stops execution as soon as it finds any blank space character

a.   true

b.   false

Question 2:

Observe the following statements and decide what do they do.

string mystring;

getline(cin, mystring);

a.   reads a line of string from cin into mystring

b.   reads a line of string from mystring into cin

c.   cin can't be used this way

d.   none of above

Question 3:

Regarding stringstream identify the invalid statement

a.   stringstream is defined in the header file <sstream>

b.   It allows string based objects treated as stream

c.   It is especially useful to convert strings to numerical values and vice versa.

d.   None of above

Question 4:

Which of the header file must be included to use stringstream?

a.   <iostream>

b.   <string>

c.   <sstring>

d.   <sstream>

Question 5:

Which of the following header file does not exist?

a. <iostream>

b. <string>

c. <sstring>

d. <sstream>

Question 6:

If you use same variable for two getline statements

a. Both the inputs are stored in that variable

b. The second input overwrites the first one

c. The second input attempt fails since the variable already got its value

d. You can not use same variable for two getline statements

Question 7:

The "return 0;" statement in main function indicates

a. The program did nothing; completed 0 tasks

b. The program worked as expected without any errors during its execution

c. not to end the program yet.

d. None of above

Question 8:

Which of the following is not a reserve keyword in C++?

a. mutable

b. default

c. readable

d. volatile

Question 9:

The size of following variable is not 4 bytes in 32 bit systems

a. int

b. long int

c. short int

d. float

Question 10:

Identify the correct statement regarding scope of variables

a.   Global variables are declared in a separate file and accessible from any program.

b.   Local variables are declared inside a function and accessible within the function only.

c.   Global variables are declared inside a function and accessible from anywhere in program.

d.   Local variables are declared in the main body of the program and accessible only from functions.

Answers

1.   a. True

2.   a. Reads a line of string from cin into mystring

3.   d. None of above

4.   d. <sstream>

5.   c. <sstring>

6.   b. The second input overwrites the first one

7.   b. The program worked as expected without any errors during its execution

8.   c. readable

9.   c. short int

10   b. Local variables are declared inside a function and accessible within the function on

Set 7

Question 1:

Find out the error in following block of code.

If (x = 100)

    Cout << "x is 100";

a.   100 should be enclosed in quotations

b.   There is no semicolon at the end of first line

c.   Equals to operator mistake

d.   Variable x should not be inside quotation

Question 2:

Looping in a program means

a. Jumping to the specified branch of program

b. Repeat the specified lines of code

c. Both of above

d. None of above

Question 3:

The difference between while structure and do structure for looping is

a. In while statement the condition is tested at the end of first iteration

b. In do structure the condition is tested at the beginning of first iteration

c. The do structure decides whether to start the loop code or not whereas while statement decides whether to repeat the code or not

d. In while structure condition is tested before executing statements inside loop whereas in do structure condition is tested before repeating the statements inside loop

Question 4:

Which of the following is not a looping statement in C?

a. while

b. until

c. do

d. for

Question 5:

Which of the following is not a jump statement in C++?

a. break

b. goto

c. exit

d. switch

Question 6: Which of the following is selection statement in C++?

a. break

b. goto

c. exit

d. switch

Question 7:

The continue statement

a. resumes the program if it is hanged

b. resumes the program if it was break was applied

c. skips the rest of the loop in current iteration

d. all of above

Question 8:

Consider the following two pieces of codes and choose the best answer

Code 1:

```
switch (x) {
case  1:
        cout <<"x is 1";
        break;
case 2:
         cout <<"x is 2";
         break;
default:
        cout <<"value of x unknown";
}
```

Code 2   :

```
 If (x==1){
        Cout <<"x is 1";
        }
Else if (x==2){
        Cout << "x is 2";
        }
Else{
        Cout <<"value of x unknown";
}
```

a. Both of the above code fragments have the same behaviour

b. Both of the above code fragments produce different effects

c. The first code produces more results than second

d. The second code produces more results than first.

Question 9:

Observe the following block of code and determine what happens when x=2?

switch (x){

      case 1:

      case 2:

      case 3:

            cout<< "x is 3, so jumping to third branch";

            goto thirdBranch;

      default:

            cout<<"x is not within the range, so need to say Thank You!";

      }

a. Program jumps to the end of switch statement since there is nothing to do for x=2

b. The code inside default will run since there is no task for x=2, so, default task is run

c. Will display x is 3, so jumping to third branch and jumps to thirdBranch.

d. None of above

Question 10

Which of the following is false for switch statement in C++?

a. It uses labels instead of blocks

b. we need to put break statement at the end of the group of statement of a condition

c. we can put range for case such as case 1..3

d. None of above

Answers

1. c. Equals to operator mistake

2. b. Repeat the specified lines of code

3. In while structure condition is tested before executing statements inside loop whereas in do structure condition is tested before repeating the statements inside loop

4. b. Until

5. d. Switch

6. d. Switch

7. c. skips the rest of the loop in current iteration

8. a. Both of the above code fragments have the same behaviour

9. c. Will display x is 3, so jumping to third branch and jumps to thirdBranch

10. c. we can put range for case such as case 1..3

Set 8

Question 1:

The void specifier is used if a function does not have return type.

a. True

b. False

Question 2:

You must specify void in parameters if a function does not have any arguments.

a. True

b. False

Question 3:

Type specifier is optional when declaring a function

a. True

b. False

Question 4:

Study the following piece of code and choose the best answer

int x=5, y=3, z;

a=addition(x,y)

a. The function addition is called by passing the values

b. The function addition is called by passing reference

Question 5:

In case of arguments passed by values when calling a function such as z=addidion(x,y),

a.   Any modifications to the variables x & y from inside the function will not have any effect outside the function.

b.   The variables x and y will be updated when any modification is done in the function

c.   The variables x and y are passed to the function addition

d.   None of above are valid.

Question 6:

If the type specifier of parameters of a function is followed by an ampersand (&   , that function call is

a.   pass by value

b.   pass by reference

Question 7:

In case of pass by reference

a.   The values of those variables are passed to the function so that it can manipulate them

b.   The location of variable in memory is passed to the function so that it can use the same memory area for its processing

c.   The function declaration should contain ampersand (&   in its type declaration

d.   All of above

Question 8:

Overloaded functions are

a.   Very long functions that can hardly run

b.   One function containing another one or more functions inside it.

c.   Two or more functions with the same name but different number of parameters or type.

d.   None of above

Question 9:

Functions can be declared with default values in parameters. We use default keyword to specify the value of such parameters.

a.   True

b.   False

Question 10:

Examine the following program and determine the output

```cpp
#include <iostream>
using namespace std;
int operate (int a, int b)
{
        return (a * b);
}
float operate (float a, float b)
{
        return (a/b);
}
int main()
{
        int x=5, y=2;
        float n=5.0, m=2.0;
        cout << operate(x,y) <<"\t";
cout << operate (n,m);
return 0;
}
```

a.   10.0   5.0

b.   5.0   2.5

c.   10.0   5

d.   10   2.5

Answers

1.   a. True

2.   b. False [parameters can be empty without void too!]

3.   b. False

4.   a. The function addition is called by passing the values

5.   a. Any modifications to the variables x & y from inside the function will not have any effect outside the function

6.   b. pass by reference

7.   b. The location of variable in memory is passed to the function so that it can use the same memory area for its processing

8.   d. None of above

9.   b. False

10.   d. 10   2.5

COMPILER DESIGN

Three address code involves

- ○ Exactly 3 address
- ○ At most most 3 address
- ○ No unary operators
- ○ None of these

_____

An intermediate code form is

- ○ Postfix notation
- ○ Syntax trees
- ○ Three address code
- ○ All of these

In operator precedence parsing , precedence relations are defoned

- ○ For all pair of non terminals
- ○ For all pair of terminals
- ○ To delimit the handle
- ○ Only for a certain pair of terminals

Relocating bits used by relocating loader are specified by

- ○ Relocating loader itself
- ○ Linker
- ○ Assembler
- ○ Macro processor

A compiler for a high level language that runs on one machine and produce code for different machine is called

- ○ Optimizing compiler
- ○ One pass compiler
- ○ Cross compiler
- ○ Multipass compiler

Synthesized attribute can be easily simulated by a

- ○ LL grammar
- ○ Ambiguous grammar
- ○ LR grammar
- ○ None of the above

The output of a lexical analyzer is

○ Machine code

○ Intermediate code

○ A stream of tokens

○ A parse tree

Running time of a program depends on

○ The way the registers and addressing modes are used

○ The order in which computations are performed

○ The usage of machine idioms

○ All of these

Reduction in strength means

○ Replacing run time computation by compile time computation

○ Removing loop invariant computation

○ Removing common sub expression

○ Replacing a costly operation by a relatively cheaper one

_____or scanning is the process where the stream of characters making up the source program is read from left to right and grouped into tokens.

○ Lexical analysis

○ Diversion

○ Modeling

○ None of the above

Task of the lexical analysis

○ To parse the source program into the basic elements or tokens of the language

○ To build a literal table and an identifier table

○ To build a uniform symbol table

○ All of these

Shift reduce parsers are

○ Top down parser

○ Bottom up parser

○ May be top down or bottom up parser

○ None of the above

Any description error can be repaired by

    ○ Insertion alone

    ○ Deletion alone

    ○ Insertion and deletion alone

    ○ Replacement alone

The linker

    ○ is similar to interpreter

    ○ uses source code as its input

    ○ is required to create a load module

    ○ none of the above

A grammar that produces more than one parse tree for some sentence is called

    ○ Ambiguous

    ○ Unambiguous

    ○ Regular

    ○ None of these

In an absolute loading scheme which loader function is accomplished by assembler ?

    ○ re-allocation

    ○ allocation

    ○ linking

    ○ loading

Intermediate code generation phase gets input from

    ○ Lexical analyzer

    ○ Syntax analyzer

    ○ Semantic analyzer

    ○ Error handling

We can optimize code by

    ○ Dead code elimination

    ○ Common subprograms

    ○ Copy intermediate loop

    ○ Loop declaration

Code can be optimized at

- ○ Source from user
- ○ Target code
- ○ Intermediate code
- ○ All of the above

Whether a given pattern constitutes a token or not depends on the

- ○ Source language
- ○ Target language
- ○ Compiler
- ○ All of these

YACC builds up

- ○ SLR parsing table
- ○ Canonical LR parsing table
- ○ LALR parsing table
- ○ None of the above

Type checking is normally done during

- ○ Lexical analysis
- ○ Syntax analysis
- ○ Syntax directed translation
- ○ Code optimization

A top down parser generates

- ○ Right most derivation
- ○ Right most derivation in reverse
- ○ Left most derivation
- ○ Left most derivation in reverse

Which of the following does not interrupt a running process?

- ○ A device
- ○ Timer
- ○ Scheduler
- ○ Power failure

In an absolute loading scheme, which loader function is accomplished by a loader ?

○ Re-allocation

○ Allocation

○ Linking

○ Loading

The lexical analyzer takes_____as input and produces a stream of_____as output.

○ Source program,tokens

○ Token,source program

○ Either A and B

○ None of the above

Which of the following can be accessed by transfer vector approach of linking?

○ External data segments

○ External subroutines

○ Data located in other procedure

○ All of these

_____is a graph representation of a derivation.

○ The parse tree

○ The oct tree

○ The binary tree

○ None of the above

The optimization which avoids test at every iteration is

○ Loop unrolling

○ Loop jamming

○ Constant folding

○ None of these

Syntax directed translation scheme is desirable because

○ It is based on the syntax

○ Its description is independent of any implementation

○ It is easy to modify

○ All of these

A parser with the valid prefix property is advantageous because it

○ Detects error as soon as possible

○ Detects errors as and when they occur

○ Limits the amount of erroneous output passed to the text phase

○ All of these

Which of the following parser is most powerful?

○ Operator precedence

○ Canonical LR

○ LALR

○ SLR

Inherited attribute is a natural choice in

○ Keeping track of variable declaration

○ Checking for the correct use of L values and R values

○ Both A and B

○ None of these

Macro-processors are _____

○ Hardware

○ Compiler

○ Registers

○ None of the above

In which way(s) a macroprocessor for assembly language can be implemented ?

○ Independent two-pass processor

○ Independent one-pass processor

○ Expand macrocalls and substitute arguments

○ All of the above

'Macro' in an assembly level program is _____.

○ sub program

○ a complete program

○ a hardware portion

○ relative coding

The optimization technique which is typically applied on loops is

○ Removal of invariant computation

○ Peephole optimization

○ Constant folding

○ All of these

Concept which can be used to identify loops is

○ Dominators

○ Reducible graphs

○ Depth first ordering

○ All of these

Local and loop optimization in turn provide motivation for

○ Data flow analysis

○ Constant folding

○ Pee hole optimization

○ DFA and constant folding

LR stands for

○ Left to right

○ Left to right reduction

○ Right to left

○ Left to right and right most derivation in reverse

Grammar of the programming is checked at _____ phase of compiler.

○ semantic analysis

○ code generation

○ syntax analysis

○ code optimization

Which of the following is not an intermediate code form?

○ Postfix notation

○ Syntax trees

○ Three address codes

○ Quadruples

A compiler that runs on one machine and produces code for a different machine is called

- Cross compilation
- One pass compilation
- Two pass compilation
- None of the above

The graph that shows basic blocks and their successor relationship is called

- DAG
- Flow chart
- Control graph
- Hamiltonian graph

A grammar is meaningless

- If terminal set and non terminal set are not disjoint
- If left hand side of a production is a single terminal
- If left hand side of a production has no non terminal
- All of these

Which of the following is used for grouping of characters into tokens?

- Parser
- Code optimization
- Code generator
- Lexical analyzer

An optimizer compiler

- Is optimized to occupy less space
- Is optimized to take less time for execution
- Optimizes the code
- None of these

Pee hole optimization

- Loop optimization
- Local optimization
- Constant folding
- Data flow analysis

The action of parsing the source program into proper syntactic classes is called

- ○ Syntax analysis
- ○ Lexical analysis
- ○ Interpretation analysis
- ○ General syntax analysis

○ Syntax analysis

○ Lexical analysis

COMPTER NETWORKS AND COMMUNICATION

Question 1# - Which of the following are ways to provide login access to a router? (choose all that apply)

A. HTTP
B. Aux Port
C. Console
D. LLC
E. Telnet

Question 2# - Which statement is true regarding the user exec and privileged exec mode?

A. They both require the enable password
B. User exec is a subset of the privileged exec
C. The '?' only works in Privileged exec
D. They are identical

Question 3# - This modem standard has a speed of 28.8k and has error-correction features.

A. V.42
B. V.32bis
C. V.90
D. V.34

Questions 4# - What would be the proper command to set a DCE clock rate of 56k for a serial interface?

A. Router (config) # clockrate 56000
B. Router# clockrate 56000.
C. Router (config-if) #clock rate 56000
D. Router (config-if) # clockrate 56k

Question 5# - What is an example of a MAC address?

A. Az32:6362:2434
B. BA:281x:8288
C. 101:354:665:8734:ffd6:8023
D. A625:cbdf:6525

Question 6# - Which command does not show that two devices are failing to route packets between them successfully?

A. show interface
B. trace
C. telnet
D. ping

Question 7# - You are designing a network which needs to support 200 users. You don't plan to extend the segment beyond the current number of users. Which subnet mask would best meet your needs? Select the best answer.

A. 255.255.0.0
B. 255.255.255.0
C. 255.0.0.0
D. 255.224.0.0
E. 255.255.255.200

Question 8# - MAC is to Ethernet what _____ is to Frame Relay.

A. DLCI
B. LCI
C. PVC
D. None of the above

Question 9# - The 802.2 frame specifies a type whereas 802.3 frame specifies a length:
A. True
B. False

Question 10# - What is used to see if a client is still connected to a NetWare server?
A. Spoofing TCP/SAP
B. Watchdog packet
C. GNS Round Robin
D. DNS Round Robin

Question 1 - Correct Answers: B,C,E
Question 2 - Correct Answers: B
Question 3 - Correct Answers: A
Question 4 - Correct Answers: C
Question 5 - Correct Answers: D
Question 6 - Correct Answers: A
Question 7 - Correct Answers: B
Question 8 - Correct Answers: A
Question 9 - Correct Answers: A
Question 10 - Correct Answers: B

SET-2

1. Which protocol working at the Transport layer provides a connectionless service between hosts?

A. IP

B. ARP

C. TCP

D. UDP

Answer: D

User Datagram Protocol is used at the Transport layer to provide a connectionless service.

2. Which protocol works at the Transport layer and provides virtual circuits between hosts?

A. IP

B. ARP

C. TCP

D. UDP

Answer: C

Transmission Control Protocol sets up a virtual circuit before transmitting any data. This creates a reliable session and is known as a connection-oriented session.

3. Which protocol works at the Internet layer and provides a connection service between hosts?

A. IP

B. ARP

C. TCP

D. UDP

Answer: A

Internet Protocol is used to address hosts and route packets through the internetwork. The **Question** does not refer to a connection-oriented service, which is different from a plain connection service. ++

4. If a host broadcasts a frame that includes a source and destination hardware address, and its purpose is to assign IP addresses to itself, which protocol at the Network layer does the host use?

A. RARP

B. ARPA

C. ICMP

D. TCP

E. IPX

Answer: A

Reverse ARP is used to find an IP address from a known hardware address.

5. If a router interface is congested, which protocol in the IP suite is used to tell neighbor routers?

A. RARP

B. ARP

C. ICMP

D. IP

E. TCP

Answer: C

Internet Control Message Protocol (ICMP) is used to send redirects back to an originating router.

6. What is the valid host range the IP address 172.16.10.22 255.255.255.240 is a part of?

A. 172.16.10.20 through 172.16.10.22

B. 172.16.10.1 through 172.16.10.255

C. 172.16.10.16 through 172.16.10.23

D. 172.16.10.17 through 172.16.10.31

E. 172.16.10.17 through 172.16.10.30

Answer: E

First start by using the 256 mask, which in this case is 256–240=16. The first subnet is 16; the second subnet is 32. This host must be in the 16 subnet; the broadcast address is 31 and the valid host range is 17–30.

7. What range of addresses can be used in the first octet of a Class B network address?

A. 1–126

B. 1–127

C. 128–190

D. 128–191

E. 129–192

F. 192–220

Answer: D

A Class B network is defined in the first octet with the numbers 128–191.

8. What range of addresses can be used in the first octet of a Class C address?

A. 1-127

B. 129-192

C. 203-234

D. 192-223

Answer: D

A Class C network is defined in the first octet with the numbers 192-223.

9. How many bytes is an Ethernet address?

A. 3

B. 4

C. 5

D. 6

Answer: D

An Ethernet (MAC) address is 6 bytes long (48 bits).

10. What protocol is used to find the hardware address of a local device?

A. RARP

B. ARP

C. IP

D. ICMP

E. BootP

Answer: B

Address Resolution Protocol (ARP) is used to find the hardware address from a known IP address.

11. Which of the following is the broadcast address for a Class B network ID using the default subnet mask?

A. 172.16.10.255

B. 172.16.255.255

C. 172.255.255.255

D. 255.255.255.255

Answer: B

A Class B network address is two bytes long, which means the host bits are two bytes long. The network address must be 172.16.0.0, which is all host bits off. The broadcast address is all bits on, or 172.16.255.255.

12. Which class of IP address provides a maximum of only 254 host addresses per network ID?

A. A

B. B

C. C

D. D

E. E

Answer: C

A Class C network address only has 8 bits for defining hosts. 2^8–2=254.

13. What is the broadcast address of the subnet address 10.254.255.19 255.255.255.248?

A. 10.254.255.23

B. 10.254.255.24

C. 10.254.255.255

D. 10.255.255.255

Answer: A

First start with 256 mask or in this case, 256–248=8. The first subnet is 8. The second subnet is 16, then 24. This host is in the 16 subnet, the broadcast address is 23, and the valid host range is 17–22.

14. What is the broadcast address of the subnet address 172.16.99.99 255.255.192.0?

A. 172.16.99.255

B. 172.16.127.255

C. 172.16.255.255

D. 172.16.64.127

Answer: B

First start with 256 mask or in this case, 256-192=64. 64 is the first subnet; 128 is the second subnet. This host is in the 64-subnet range, the broadcast address is 127, and the valid host range is 65-126.

15. If you wanted to have 12 subnets with a Class C network ID, which subnet mask would you use?

A. 255.255.255.252

B. 255.255.255.248

C. 255.255.255.240

D. 255.255.255.255

Answer: C

Take a look at the answers and see which subnet mask will give you what you need for subnetting. 252 gives you 62 subnets, 248 gives you 30 subnets, 240 gives you 14 subnets, and 255 is invalid. Only answer C (240) gives you what you need.

16. What is the port number range that a transmitting host can use to set up a session with another host?

A. 1–1023

B. 1024 and above

C. 1–256

D. 1–65534

Answer: B

Source hosts can use any port number starting at 1024.

17. Which of the following ranges are considered well-known port numbers?

A. 1–1023

B. 1024 and above

C. 1–256

D. 1–65534

Answer: A

The port numbers 1–1023 are defined as and considered well-known port numbers.

18. What is the broadcast address of the host subnet address 10.10.10.10 255.255.254.0?

A. 10.10.10.255

B. 10.10.11.255

C. 10.10.255.255

D. 10.255.255.255

Answer: B

First start with 256-254=2. The first subnet is 2, the second subnet is 4, then 6, 8, 10, and 12. Remember that the fourth octet is host addresses. This host is a part of the subnet 10.0, the broadcast address is 11.255, and the valid host range is 10.1 through 11.254

19. What broadcast address will the host 192.168.210.5 255.255.255.252 use?

A. 192.168.210.255

B. 192.168.210.254

C. 192.168.210.7

D. 192.168.210.15

Answer: C

Start with the 256 mask or in this case, 256-252=4. This first subnet is 4. The second subnet is 8. This falls in the 4-subnet range. The broadcast address is 7, and the valid hosts are 5 and 6.

20. If you need to have a Class B network address subnetted into exactly 510 subnets, what subnet mask would you assign?

A. 255.255.255.252

B. 255.255.255.128

C. 255.255.0.0

D. 255.255.255.192

Answer: B

If you use the mask 255.255.255.0, that only gives you eight subnet bits, or 254 subnets. You are going to have to use one subnet bit from the fourth octet, or 255.255.255.128. This is 9 subnet bits (2^9–2=510).

1. Which protocol is used to look up an IP address from a known Ethernet address?

A. IP

B. ARP

C. RARP

D. TCP

Answer: C

The protocol at the Network layer that finds an IP address from a known Ethernet address is Reverse ARP (RARP). See Chapter 3 for more information on IP protocols.

2. What is the subnet address of the IP address 192.168.100.30 255.255.255.248?

A. 192.168.100.32

B. 192.168.100.24

C. 192.168.100.0

D. 192.168.100.16

Answer: B

Start by using 256, the subnet mask, which is 256-248=8. The first subnet is 8. The next subnet would be 16, then 24, and then 32. This host is in the 24 subnet, the broadcast address is 31, and the valid host range is 25 through 31. See Chapter 3 for more information on IP addressing.

3. Which of the following is the valid host range for the IP address 192.168.168.188 255.255.255.192?

A. 192.168.168.129-190

B. 192.168.168.129-191

C. 192.168.168.128-190

D. 192.168.168.128-192

Answer: A

Start by using 256, the subnet mask, which is 256-192=64. The first subnet is 64. The next subnet would be 128. This host is in the 128 subnet, the broadcast address is 191, and the valid host range is 129 through 190. See Chapter 3 for more information on IP addressing.

4. What is the broadcast address of the subnet address 192.168.99.20 255.255.255.252?

A. 192.168.99.127

B. 192.168.99.63

C. 192.168.99.23

D. 192.168.99.31

Answer: C

Start by using 256, the subnet mask, which is 256-25=4. The first subnet is 4. The next subnet would be 8, then 12, 16, 20, and 24. The broadcast address is 23, and the valid host range is 21 and 22. See Chapter 3 for more IP addressing information.

5. What is the valid host range that the host ID 192.168.10.33 255.255.255.224 is a part of?

A. 192.168.10.32-63

B. 192.168.10.33-63

C. 192.168.10.33-62

D. 192.168.10.33-61

Answer: C

Start by using 256, the subnet mask, which is 256-224=32. The first subnet is 10.32. The next subnet would be 10.64. This host is in the 10.32 subnet, the broadcast address is 10.63, and the valid host range is 10.33 through 10.62. See Chapter 3 for more IP addressing information.

SET-3

1. Which protocol does DHCP use at the Transport layer?
A. IP

B. TCP

C. UDP

D. ARP

Answer: C

User Datagram Protocol is a connection network service at the Transport layer, and DHCP uses this connectionless service. See Chapter 3 for more information.

2. Which of the following is the valid host range for the IP address 192.168.168.188 255.255.255.192?
A. 192.168.168.129-190

B. 192.168.168.129-191

C. 192.168.168.128-190

D. 192.168.168.128-192

Answer: A

· 256-192=64. 64+64=128. 128+64=192. The subnet is 128, the broadcast address is 191, and the valid host range is the numbers in between, or 129-190. See Chapter 3 for more information.

3. Which protocol is used to find an Ethernet address from a known IP address?

A. IP

B. ARP

C. RARP

D. BootP

Answer: B

If a device knows the IP address of where it wants to send a packet, but doesn't know the hardware address, it will send an ARP broadcast looking for the hardware or, in this case, Ethernet address. See Chapter 3 for more information.

4. Which class of IP address has the most host addresses available by default?

A. A

B. B

C. C

D. A and B

Answer: A

Class A addressing provides 24 bits for hosts addressing. See Chapter 3 for more information.

5. Which protocol does Ping use?

A. TCP

B. ARP

C. ICMP

D. BootP

Answer: C

ICMP is the protocol at the Network layer that is used to send echo requests and replies. See Chapter 3 for more information.

6. Which protocol is used to send a Destination Network Unknown message back to originating hosts?

A. TCP

B. ARP

C. ICMP

D. BootP

Answer: C

ICMP is the protocol at the Network layer that is used to send messages back to an originating router. See Chapter 3 for more information.

1. What is the subnet broadcast address the host 192.168.10.17 with four bits of subnetting will use?

A. 192.168.10.16

B. 192.168.10.19

C. 192.168.10.23

D. 192.168.10.31

Answer: D

When referring to only subnet bits, add the bits to the default mask. In this case, it is a Class C address, and the default mask is 255.255.255.0. Four bits would make the mask 255.255.255.240. 256-240=16. 16+16=32. Therefore, the subnet broadcast must be 192.168.10.31.

2. What is the subnet broadcast address the host 172.16.10.12 with nine bits of subnetting will use?

A. 172.16.10.127

B. 172.16.10.255

C. 172.16.255.255

D. 172.16.10.128

Answer: A

The default mask for Class B network IDs is 255.255.0.0. By adding nine subnet bits, the subnet mask is 255.255.255.128. The subnet is 172.16.10.0, and the broadcast address is 172.16.10.127. This is determined by looking at the host ID, which is 12 in this case. Since it is less than 128, the subnet must be zero in the fourth octet.

3. What is the valid host range of the IP subnet address 172.16.10.61 255.255.255.224?

A. 172.16.10.48-63

B. 172.16.10.33-62

C. 172.16.10.0-254

D. 172.16.10.60-94

Answer: B

· 256-224=32. 32+32=64. The subnet is 172.16.10.32, and the broadcast address is the number right before the next subnet (63 in this **Question**). The valid hosts are the numbers in between the network ID and the broadcast address: 33-62.

4. What protocol is used to resolve an Ethernet address to an IP address?

A. IP

B. ARP

C. RARP

D. BootP

Answer: C

The RARP protocol is used to find an IP address from a known hardware address.

5. What protocol is used to resolve an IP address to an Ethernet address?

A. IP

B. ARP

C. RARP

D. BootP

Answer: B

The ARP protocol is used to find the hardware address from a known IP address.

Question 1# - Which of the following are valid parameters for an extended IPX access list (Choose all that apply)?

A. source-network
B. permit or deny
C. source-socket
D. protocol
E. list-number

Question 2# - Which of the following is not valid?

A. router#show RAM
B. router>show version
C. router#show running-config
D. router#show startup-config

Question 3# - Which of the following is a congestion management scheme that identifies conversations, separates packets that belong to each conversation, and shares bandwidth fairly between the various streams?

A. Weighted Priority queuing
B. Prioritizing queuing
C. FIFO fair queuing
D. Weighted fair queuing

Question 4# - Which of the following describes a full-duplex transmission?

A. Data transmission in only one direction
B. Data transmission in both directions, but only one way at a time
C. Uses a single cable
D. Uses a point-to-point connection from the transmitter of the transmitting station to the receiver of the receiving station

Question 5# - What would be the proper command to set a bandwidth of 56K for a serial interface?

A. Router# bandwidth 56000
B. Router (config-if) #bandwidth 56,000
C. Router (config) #bandwidth 56000
D. Router (config-if) #bandwidth 56

Question 6# - Which of the following is not part of the data link layer?

A. Determines network topology
B. Performs flow control
C. Performs physical addressing
D. Terminates a session
E. Transports data across the physical link

Question 7# - You have an IP address of 172.16.13.5 with a 255.255.255.128 subnet mask. What is your class of address, subnet address, and broadcast address?

A. Class B, Subnet 172.16.13.0, Broadcast address 172.16.13.255

B. Class B, Subnet 172.16.13.0, Broadcast address 172.16.13.127

C. Class B, Subnet 172.16.0.0, Broadcast address 172.16.255.255

D. Class A, Subnet 172.16.13.0, Broadcast address 172.16.13.127.

Question 8# - Coaxial cable was used for which types of ethernet networks? (Select 2)

A. 10Base-T
B. 100Base-T4
C. 10Base2
D. 100Base-FX
E. 10Base5
F. 100Base-T

Question 9# - As a system administrator, you need to set up one Ethernet interface on the Cisco router to allow for both sap and Novell-ether encapsulations. Which set of commands will accomplish this?

A.
interface ethernet 0.1
ipx encapsulation Novell-ether
ipx network 9e
interface ethernet 0.2
ipx encapsulation sap
ipx network 6c

B.
interface ethernet 0.1
ipx encapsulation Novell-ether
interface ethernet 0.2
ipx encapsulation sap

C.
interface ethernet 0
ipx encapsulation Novell-ether
ipx network 9e
interface ethernet 0
ipx encapsulation sap
ipx network 6c

D.
interface ethernet 0.1
ipx encapsulation Novell-ether
ipx network 9e
interface ethernet 0.2
ipx network 6c

Question 10# - Using a switch we divide the network into multiple _____ domains

A. collision
B. broadcast
C. bridged
D. virtual

ANSWERS

Question 1 - Correct Answers: A, B,C,D,E
Question 2 - Correct Answers: A
Question 3 - Correct Answers: D
Question 4 - Correct Answers: D
Question 5 - Correct Answers: D
Question 6 - Correct Answers: D
Question 7 - Correct Answers: B
Question 8 - Correct Answers: C,E
Question 9 - Correct Answers: A
Question 10 - Correct Answers: A

Question 1: What command will show you the routed protocols running on your Cisco router?
Answer: show protocols

Question 2: What type of cable should you use to connect to the console port of a Cisco router?
Answer: Rollover cable

Question 3: What type of ethernet cable should you use to connect a Hub and a Switch or two Switches?
Answer: Crossover cable

Question4: RIP uses bandwidth and delay to the determine the best path to a destination network (True/False)
Answer: False. RIP uses only hop count

Question 5: Which statement about MAC addresses is correct?
A. The MAC address can never be changed.
B. A MAC address is represented by binary digits that are organized in pairs.
C. A MAC address is a number in hexadecimal format that is physically located on the NIC.
D. It is not necessary for a device to have a unique MAC address to participate in the network.
Answer: C

Question 6: Which of the following is an IOS command that can be used to increase the security of unused switch ports?
A. Port security
B. Mac-secure
C. Firewall
D. Shutdown
Answer: D

Question 7: IP addresses are represented by:

A. 16-bit decimal numbers
B. 32-bit binary numbers
C. 8 sets of 4-bit decimal numbers
D. 8-bit binary numbers
Answer: B

Question 8: What does the command ip route 192.168.50.0 255.255.255.0 10.2.1.3 specify?
A. The router should use network 192.168.50.0 to get to address 10.2.1.3.
B. Both 192.168.50.0 and 10.2.1.3 use a mask of 255.255.255.0.
C. You want the router to trace a route to network 192.168.50.0 via 10.2.1.3.
D. The router should use address 10.2.1.3 to get to devices on network 192.168.50.0.
Answer: D

Question 9: Which of the following protocols is an example of an exterior gateway protocol?
A. BGP
B. RIP
C. EIGRP
D. OSPF
Answer: A

Question 10: What does the configuration register 0x2102 do?

Answer: Instructs the router to look in NVRAM for the boot sequence.

COMPUTER ARCHITECTUIRE WITH EXPLANATION

1) The advantage of single bus over a multi bus is ?

    a.   low cost
    b.   flexibility in attaching peripheral devices
    c.   high operating speed
    d.   A and B

Answer = D
Explanation: However single bus costs low and it is easy to attach peripheral devices in single bus but multibus architecture have a great advantage in speed and of course, will affect performance also

2) In serial communication, an extra clock is needed ?

    a.   to synchronize the devices
    b.   for programmed baud rate control
    c.   to make efficient use of RS-232
    d.   None of above

Answer = B

3) In which of the following instruction bus idle situation occurs ?

    a.   EI
    b.   DAD rp
    c.   INX H
    d.   DAA

Answer = B
4) The addressing used in an instruction of the form ADD X Y is?

    a.   absolute
    b.   immediate
    c.   indirect
    d.   index

Answer = A
Explanation: The effective address for an absolute instruction address is the address parameter itself with no modifications.

5) The speed imbalance between memory access and CPU operation can be reduced by ?

    a.   cache memory
    b.   memory interleaving
    c.   reducing the size of memory
    d.   A and B

Answer = D
6) Which of the following does not need extra hardware for DRAM refreshing ?

a. 8085
b. Motorola - 6800
c. Z - 80
d. None of these

Answer = C

7) The first operating system used in micro processor is ?

a. Zenix
b. DOS
c. CPIM
d. Multics

Answer = C

8) Instead of counting with binary number a ring counter uses words that have a single high..... ?

a. bytes
b. gate
c. bit
d. chip

Answer = C

9) The memory cell of a dynamic RAM is simpler and smaller that the memory cell of a ...... RAM ?

a. volatile
b. semiconductor
c. static
d. bipolar
e. None of above

Answer =C

10) A multiplexer with a 4 bit data select input is a ?

a. 4 : 1 multiplexer
b. 16 : 1 multiplexer
c. 2 : 1 multiplexer
d. 8 : 1 multiplexer

Answer = D

SET-2

1) Half adder is an example of ?

a. Combinational Circuits
b. Sequential Circuits
c. Asynchronous Circuits
d. None of these

Answer = A
Explanation: Combinational circuits are the circuits whose output depends on the inputs of the same instant of time.

2) In JK flip flop same input, i.e at a particular time or during a clock pulse, the output will oscillate back and forth between 0 and 1. At the end of the clock pulse the value of output Q is uncertain. The situation is referred to as ?

    a. Conversion condition
    b. Race around condition
    c. Lock out state
    d. None of these

Answer = B
Explanation:A race around condition is a flaw in an electronic system or process whereby the output and result of the process is unexpectedly dependent on the sequence or timing of other events.

3) In a JK flip flop, if j=k, the resulting flip flop is referred to as ?

    a. D flip flop
    b. T flip flop
    c. S-R flip flop
    d. None of these

Answer = C
Explanation: In JK flip flop if both the inputs are same then the flip flop behaves like SR flip flop.

4) Master slave flip flop is also referred to as ?

    a. Level triggered flip flop
    b. Pulse triggered flip flop
    c. Edge triggered flip flop
    d. None of these

Answer = B
Explanation:The term pulse triggered means the data is entered on the rising edge of the clock pulse, but the output does not reflect the change until the falling edge of clock pulse.

5) Fetch and decode cycle is required in ?

    a. Direct addressing
    b. Immediate addressing
    c. Indirect addressing
    d. None of above

Answer = B
Explanation:Fetch and decode cycle is required in Immediate addressing because it stores the operand directly on which the operation is performed.

6) Valid bit in each cache is associated with ?

    a. Each memory byte in cache
    b. Each memory word in cache
    c. One bit with the all memory words
    d. None of above

Answer = A

7) In J-K flip flop the function K=J is used to realize ?

    a. D flip flop
    b. S-R flip flop
    c. T flip flop
    d. Master slave flip flop

Answer = D
Explanation: T flip flop allows the same inputs. So if in JK flip flop J = K then it will work as T flip flop.

8) An encoder has 2^n input lines and ..... output lines ?

    a. 2
    b. n
    c. 2*n
    d. n*n

Answer = B
9) ASCII code for alphabet character requires ..... bits ?

    a. 16
    b. 15
    c. 8
    d. 7

Answer = D

10) The basic limitation of FSM is that ?

    a. An FSM can remember arbitrary large amount of information
    b. An FSM sometimes recognize grammars that are not regular
    c. It sometimes fails to recognize grammar that are regular
    d. All of the above comments are true

Answer = A
Explanation: FSM stands for Finite State Machine.

1) What is the hexadecimal equivalent of a binary number 10101111 ?

    a. AF
    b. 9E
    c. 8C
    d. All of above
    e. None of above

Answer = A

2) A NOR gate recognizes only the input word whose bits are ?

    a. 0's and 1's
    b. 1's
    c. 0's
    d. 0's or 1's
    e. None of above

Answer = C

3) The operation which is commutative but not associative is ?

    a. AND
    b. OR
    c. EX-OR
    d. NAND

Answer = D

4) All digital circuits can be realized using only ?

    a. EX-OR gates
    b. Half adders
    c. Multiplexers
    d. OR gates

Answer = B

5) The XOR gates are ideal for testing parity because even parity words produces a ...... output and odd parity word produces a .... output ?

    a. low, high
    b. high, low
    c. odd, even
    d. even, odd
    e. None of above

Answer = A

6) Flip flop output is always ?

    a. Complementary
    b. Independent of each other
    c. the same
    d. same as inputs
    e. None of above

Answer = A

7) A half adder adds ..... bits ?

    a. 16
    b. 10
    c. 8
    d. 2
    e. None of above

Answer = D

8) How many flip - flop circuits are needed to divide by 16 ?

   a. Two
   b. Four
   c. Eight
   d. Sixteen

Answer = C

9) A flip flop is a ..... elements that stores a 216 binary digits as a low or high voltage ?

   a. chip
   b. bus
   c. I/O
   d. memory
   e. None of above

Answer = D

10) A positive AND gate is also a negative ?

   a. NAND gate
   b. AND gate
   c. NOR gate
   d. OR gate
   e. None of these

Answer = D

1) Which of the following is a minimum error code ?

   a. Octal code
   b. Binary code
   c. Gray code
   d. Excess-3 code

Answer = C

2) In a positive edge triggered JK flip flop, a low J and low K produces ?

   a. High state
   b. Low state
   c. toggle state
   d. no change

Answer = D

Explanation: In JK Flip Flop if J = K = 0 then it holds its current state. There will be no change.

3) Negative numbers can't be represented in ?

   a. signed magnitude form
   b. 1's complement form
   c. 2's complement form
   d. None of above

Answer = D

4) Which of the following architecture is not suitable for realising SIMD ?

    a. Vector processor
    b. Array processor
    c. Von Neumann
    d. All of above

Answer = C

5) The XOR operator + is ?

    a. commutative
    b. associative
    c. distributive over AND operator
    d. A and B

Answer = D
Explanation: As A + B = B + A and A + (B + C) = (A + B) + C
        Hence it is commutative and associative.

6) The binary equivalent of the Gray code 11100 is..... ?

    a. 10111
    b. 00111
    c. 01011
    d. 10101

Answer = A
Explanation: The rule for changing the Gray code to binary is that first bit remains the same and the next bit is obtained by adding the first LSB of binary to the second LSB of Gray code and so on... So the answer of the Question is 10111.

7) An assembler that runs on one machine but produces machine code for another machine is called ?

    a. simulator
    b. emulator
    c. cross assembler
    d. boot strap loader

Answer = C
Explanation: Cross assembler is an assembler which runs on one type of processor and produces machine code for another.

8) Which of the following unit can be used to measure the speed of a computer ?

    a. SYPS
    b. MIPS
    c. BAUD
    d. FLOPS
    e. B and D

Answer = E
Explanation: MIPS measures the execution speed of computers CPU but not the whole system. FLOPS is a measure of computer's performance especially in the field of scientific calculations that makes heavy use of floating point calculations.

9) Which of the following logic families is well suited for high speed operations?

   a. TTL
   b. ECL
   c. MOS
   d. CMOS

Answer = B
Explanation: ECL is used for high speed applications because of its price and power demands.

10) Which of the following comments about half adder are true?

   a. It adds 2 bits
   b. It is called so because a full adder involves two half adders
   c. It does half the work of full adder
   d. It needs two inputs and generates two outputs
   e. A, B and D

Answer = E

1) The term sum - of - product in Boolean algebra means ?

   a. The AND function of several OR functions
   b. The OR function of several AND functions
   c. The OR function of several OR function
   d. The AND function of several AND functions

Answer = B
Explanation: Sum-Of-Products expressions lend themselves well to implementation as a set of AND gates (products) feeding into a single OR gate (sum).

2) The fan out capability of a digital building block can be defined as ?

   a. The number of inputs that one output can transmit to
   b. The amount of cooling required for fanning the hear out
   c. The number of inputs that can transmit to one input
   d. The maximum power dissipation that the unit can stand
   e. None of above

Answer = A

3) The ALE line of an 8085 microprocessor is used to ?

   a. Execute an RST by hardware
   b. Executes the instruction supplied by external device through the INTA signal
   c. Executes an instruction from memory location 20 H
   d. Executes a NOP

Answer = A
Explanation: ALE is address latch enable. the lower order address remains only for a single T satate then ths data is latched and the lower order address bus stores the data.

4) The cost for storing a bit is minimum in ?

    a. Cache
    b. Register
    c. RAM
    d. Magnetic tape

Answer = D
5) The index register in a digital computer is used for ?

    a. Pointing to the stack address
    b. Indirect addressing
    c. Keeping track of number of times a loop is executed
    d. Address modification

Answer = D
Explanation: An index register in a computer's CPU is a processor register used for modifying operand addresses during the run of a program, typically for doing vector/array operations.

6) After reset the CPU begins execution from the memory location ?

    a. 0000H
    b. 0001H
    c. FFEFH
    d. 8000H

Answer = A
7) A single register to clear the lower four bits of the accumulator in 8085 assembly language is ?

    a. XRI 0FH
    b. ANI FOH
    c. XRI FOH
    d. ANI OFH

Answer = B
Explanation: ANI FOH ANDs the accumulator with immediate. F leaves the high nibble whatever it is, 0 clears the lower nibble
8) If the total number of states in the fetching and execution phases of an 8085 instruction is known to be 7; the number of machine cycles is ?

    a. 0
    b. 1
    c. 2
    d. 3

Answer = C

9) Von Neumann architecture is ?

    a. SISD
    b. SIMD
    c. MIMD
    d. MISD

Answer = A
Explanation: In computing, SISD (single instruction, single data) is a term referring to a computer architecture in which a single processor, a uniprocessor, executes a single instruction stream, to operate on data stored in a single memory. This corresponds to the von Neumann architecture.

10) A typical application of MIMD is?

    a. railway reservation
    b. weather forecasting
    c. matrix multiplication
    d. All of above

Answer = A
Explanation: MIMD (multiple instruction, multiple data) is a technique employed to achieve parallelism.

1) The …. is ultraviolet light erasable and electricity programmable.This allows the user to create and store until programs and data are perfected. ?

    a. EPROM
    b. PROM
    c. ROM
    d. RAM

Answer = A
2) What table shows the electrical status of digital circuits output for every possible combination of electrical states in the inputs ?

    a. Function Table
    b. Truth Table
    c. Routing Table
    d. ASCII Table

Answer = A
3) The gray code for decimal 7 is ?

    a. 0111
    b. 1011
    c. 0100
    d. 0101

Answer = C
Explanation: First convert decimal seven to binary that is 0111 then convert it into gray code.

4) Which of the following electronic component are not found in ordinary ICs?

    a. Diodes
    b. Transistors
    c. Resistors
    d. Inductors

Answer = D
Explanation: Inductor is a passive two terminal electronic component that stores energy in its magnetic field

5) Choose the correct statements ?

    a. Bus is a group of information carrying wires
    b. Bus is needed to achieve reasonable speed of operation
    c. Bus can carry data or address
    d. A bus can be shared by more that one device
    e. All of above

Answer = E
Explanation: A bus have all the four features.

6) If the memory access takes 20 ns with cache and 110 ns without it,then the hit ratio (cache uses 10 as memory) is ?

    a. 93 %
    b. 90 %
    c. 87 %
    d. 88 %

Answer = B
Explanation: If we find what we want in the cache then it is called Hit otherwise it is miss.

7) Any instruction should have at least ?

    a. 2 operands
    b. 1 operand
    c. 3 operands
    d. None of above

Answer = D
Explanation: An instruction can be without operand also.

8) The number of clock cycles necessary to complete 1 fetch cycle in 8085 is ?

    a. 3 or 4
    b. 4 or 5
    c. 4 or 6
    d. 3 or 5

Answer = C
9) Motorola's 68040 is comparable to ?

    a. 8085

b. 80286
c. 80386
d. 80486

Answer = D
Explanation: Motorola 68040 is a microprocessor released in 1970. It is called as *oh - four - oh* or *oh forty*

10) The addressing mode used in the instruction PUSH B ?

a. Direct
b. Register
c. Register Indirect
d. Immediate

Answer = C
Explanation: In register indirect addressing mode the operand is found from the memory whose address is fetched from the register in the instruction code.

1) On receiving an interrupt from an I/O device, the CPU ?

a. halts for a predetermined time
b. hands over control of address bus and data bus to the interrupting device.
c. branches off to the interrupt service routine immediately
d. branches off to the interrupt service routine after the completion of the current instruction.

Answer = D

2) To get boolean expression in the product of sum form from a given Karnaugh map ?

a. don't care condition should not be present
b. don't care conditions if present should be takes as zeros
c. one should cover all the 0's present and complement the resulting expression.
d. one should cover all the 1'a present and complement the resulting expression.

Answer = C

3) The reduced form of the boolean expression (A + B)(A + C) is ?

a. AB + AC
b. AC + B
c. A + B + C
d. A + BC

Answer = D
4) Name the cache also known as internal cache ?

a. L1 cache
b. L2 cache
c. L3 cache
d. L4 cache

Answer = A
Explanation:L1 cache is also known as internal cache and it resides in the CPU. L2 is known as secondary cache and it is within the motherboard.

5) Which of the following is not a CPU register ?

   a. Memory control register
   b. Memory data register
   c. Memory buffer register
   d. Instruction register

Answer = A
Explanation: There is no MCR in the CPU

6) The main task of memory address register is?

   a. stores the address of next location in the main memory
   b. stores the address of next location in cache memory
   c. stores the address of next location in secondary memory
   d. stores the address of output device to which the data is sent

Answer = A
7) Which register indicates whether the data register holds the data to be transferred or not ?

   a. MAR
   b. MBR
   c. MDR
   d. Status register

Answer = D
8) Which of the following operation represents the machine cycle?

   a. Fetch - Execute - Decode - Store
   b. Execute - Decode - Store - Fetch
   c. Decode - Fetch - Store - Execute
   d. Fetch - Decode -Execute - Store

Answer = D
Explanation: In Fetch phase the instruction is brought into the computer, in Decode phase the instruction in divided into different parts, in Execute phase the decoded instruction is executed by the CPU and finally the result sent to the output device or main memory.

9) The decoding phase of instruction cycle is also known as ?

   a. Translating
   b. Interpreting
   c. Analyzing
   d. Breaking

Answer =B
Explanation: Decoding phase is also known as interpreting as the instruction in interpreted to determine two key attribute of the instruction , the opcode and the operand.

10) Cache memory is used to transfer data between ?

    a. Main memory and secondary memory
    b. Processor and main memory
    c. Processor and secondary memory
    d. Processor and output device

Answer = B
Explanation: Cache is always placed between the main memory and processor in the computer system.

1) Which memory stores the data permanently ?

    a. Primary memory
    b. Secondary memory
    c. Cache memory
    d. Registers

Answer = B
Explanation: Secondary memory stores the data permanently until we remove it.

2) Which of the following is the cheapest type of memory ?

    a. Secondary memory
    b. Primary memory
    c. Cache memory
    d. ROM

Answer = A
Explanation: Secondary memory is the cheapest form because it can not process the data through the CPU directly. The data must be brought into the primary memory form execution. Therefore secondary memory is the form of slowest memory.

3) Which of the following is auxiliary memory of the computer system ?

    a. ROM
    b. SRAM
    c. Cache memory
    d. Magnetic tape

Answer = A
Explanation:ROM is the secondary memory which stores the data permanently also known as auxiliary memory.

4) What does IBG stands for ?

    a. Intra byte gaps
    b. Inter block gaps
    c. Inter bit gaps
    d. Intra block gaps

Answer = B
Explanation: Inter block gaps is the space between the two consecutive physical blocks of memory.

5) On what type of ROM data can be written only once ?

    a. PROM
    b. EPROM
    c. EEPROM
    d. EROM

Answer = A
Explanation: In Programmable Read Only Memory once the data is written it remains there forever.

6) In optical storage system which medium is used for reading and recording data ?

    a. Laser light
    b. Black light
    c. High energy visible light
    d. Ultraviolet light

Answer = A
Explanation: Optical storage system use the laser light to retrieve as well as to record the data.

7) Which is known as solid state memory ?

    a. Parallel serial bus
    b. Universal parallel bus
    c. Universal serial bus
    d. Universal computer bus

Answer = C
8) In MO system which of the following temperature is used as a recording medium ?

    a. Room temperature
    b. Curie temperature
    c. Neel temperature
    d. Boiling point temperature

Answer = B
Explanation: Curie temperature is used for recording data in Magneto Optical system. Curie temperature is the temperature at which the material loses its magnetic properties and above this temperature the material becomes paramagnetic.
9) The amount of space available in the computer system for holding the data is called?

    a. Storage space
    b. Storage area
    c. Storage capacity
    d. Storage address

Answer = A
10) Which of the following is not a type of magnetic storage system ?

    a. Magnetic tape
    b. Floppy disk
    c. Compact disk
    d. Hard disk

Answer = C
Explanation: Compact disk is the optical storage system not the magnetic storage system.
1) Computer use thousands of flip flops. To coordinate the overall action, a common signal called the ..... is sent to each flip - flop.?

    a. latch
    b. master
    c. clock
    d. slave
    e. None of above

Answer = C
Explanation: To coordinate the overall action, a square wave signal called the clock is sent to each flip flop. This signal prevents the flip flop from changing states until the right time.
2) Which of the following flip flop is free from race around condition ?

    a. SR flip flop
    b. T flip flop
    c. Master slave flip flop
    d. All of above

Answer = C
Explanation: Toggling more that once during a clock cycle is called racing. JK master slave flip flop avoids racing.

3) Which logic family dissipates the minimum power ?

    a. DTL
    b. ECL
    c. TTL
    d. CMOS
    e. None of above

Answer = D
Explanation: CMOS dissipates low power. Typically the static power dissipation is 10 nw per gate which is due to the flow of leakage currents.

4) The functional capacity of SSI devices is ?

    a. 1 to 11 gates
    b. 12 to 99 gates
    c. 100 to 10,000 gates
    d. More than 10,000 gates
    e. None of above

Answer = A
5) What advantage do ICs have over discrete devices due to their greater complexity ?

    a. Smaller size
    b. Higher Reliability
    c. Lower cost
    d. All of above

Answer =D
Explanation: ICs can also combine analog and digital circuits on a single chip to create functions such as A/D converters and D/A converters. Such circuits offer smaller size and lower cost, but must carefully account for signal interference.

6) **A subtractor is usually not present in computer because ?**

   a. It is expensive
   b. It is not possible to design it
   c. The adder will take care of subtraction
   d. None of above

Answer = C
Explanation: A subtractor can be designed using the same approach as that of an adder.
7) **A chip having 150 gates will be classified as ?**

   a. SSI
   b. MSI
   c. LSI
   d. VLSI

Answer = C
Explanation: Latent semantic indexing (LSI) is an indexing and retrieval method that uses a mathematical technique called Singular value decomposition (SVD) to identify patterns in the relationships between the terms and concepts contained in an unstructured collection of text.

8) **Pseudo instructions are ?**

   a. assembler directive
   b. instruction in any program that have no corresponding machine code instruction
   c. instruction in any program whose presence or absence will not change the output for any input
   d. None of above

Answer = A
Explanation: Pseudo instructions are simply the assembly instructions that do not have a direct machine language equivalent.
9) **Programming in a language that actually controls the path of signals or data within the computer is called ?**

   a. micro programming
   b. system programming
   c. assembly programming
   d. machine language programming

Answer = A

10) **Which of the following is not typically found in the status register of micro processor ?**

   a. overflow
   b. zero result
   c. negative result
   d. none of above

Answer = D
Explanation: A status register or flag register is a collection of flag bits for a processor. The status register is a hardware register which contains information about the state of the processor

1) The advantage of single bus over a multi bus is ?

    a. low cost
    b. flexibility in attaching peripheral devices
    c. high operating speed
    d. A and B

Answer = D
Explanation: However single bus costs low and it is easy to attach peripheral devices in single bus but multibus architecture have a great advantage in speed and of course, will affect performance also

2) In serial communication, an extra clock is needed ?

    a. to synchronize the devices
    b. for programmed baud rate control
    c. to make efficient use of RS-232
    d. None of above

Answer = B
3) In which of the following instruction bus idle situation occurs ?

    a. EI
    b. DAD rp
    c. INX H
    d. DAA

Answer = B

4) The addressing used in an instruction of the form ADD X Y is?

    a. absolute
    b. immediate
    c. indirect
    d. index

Answer = A
Explanation: The effective address for an absolute instruction address is the address parameter itself with no modifications.

5) The speed imbalance between memory access and CPU operation can be reduced by ?

    a. cache memory
    b. memory interleaving
    c. reducing the size of memory
    d. A and B

Answer = D

6) Which of the following does not need extra hardware for DRAM refreshing ?

    a. 8085
    b. Motorola - 6800
    c. Z - 80
    d. None of these

Answer = C

7) The first operating system used in micro processor is ?

    a. Zenix
    b. DOS
    c. CPIM
    d. Multics

Answer = C

8) Instead of counting with binary number a ring counter uses words that have a single high..... ?

    a. bytes
    b. gate
    c. bit
    d. chip

Answer = C

9) The memory cell of a dynamic RAM is simpler and smaller that the memory cell of a ...... RAM ?

    a. volatile
    b. semiconductor
    c. static
    d. bipolar
    e. None of above

Answer =C

10) A multiplexer with a 4 bit data select input is a ?

    a.   4 : 1 multiplexer
    b. 16 : 1 multiplexer
    c.   2 : 1 multiplexer
    d.   8 : 1 multiplexer

Answer = D

COMPUTER ARCHITECTURE AND ORGANIZATION

Where does a computer add and compare data?

a. Hard disk

b. Floppy disk

c. CPU chip

d. Memory chip

Question 2:
Which of the following registers is used to keep track of address of the memory location where the next instruction is located?

a. Memory Address Register

b. Memory Data Register

c. Instruction Register

d. Program Register

Question 3:

A complete microcomputer system consists of

a. microprocessor

b. memory

c. peripheral equipment

d. all of above

Question 4:
CPU does not perform the operation

a. data transfer

b. logic operation

c. arithmetic operation

d. all of above

Question 5:
Pipelining strategy is called implement

a. instruction execution

b. instruction prefetch

c. instruction decoding

d. instruction manipulation

Question 6:
A stack is

a. an 8-bit register in the microprocessor

b. a 16-bit register in the microprocessor

c. a set of memory locations in R/WM reserved for storing information temporarily during the execution of computer

d. a 16-bit memory address stored in the program counter

Question 7:
A stack pointer is

a. a 16-bit register in the microprocessor that indicate the beginning of the stack memory.

b. a register that decodes and executes 16-bit arithmetic expression.

c. The first memory location where a subroutine address is stored.

d. a register in which flag bits are stored

Question 8:
The branch logic that provides decision making capabilities in the control unit is known as

a. controlled transfer

b. conditional transfer

c. unconditional transfer

d. none of above

Question 9:
Interrupts which are initiated by an instruction are

a. internal

b. external

c. hardware

d. software

Question 10:

A time sharing system imply

a. more than one processor in the system

b. more than one program in memory

c. more than one memory in the system

d. None of above

Answers:

1. c

2. d

3. d

4. d

5. b

6. c

7. a

8. c

9. d

10. b

Question 1:

Processors of all computers, whether micro, mini or mainframe must have

a. ALU

b. Primary Storage

c. Control unit

d. All of above

Question 2:

What is the control unit's function in the CPU?

a. To transfer data to primary storage

b. to store program instruction

c. to perform logic operations

d. to decode program instruction

Question 3:

What is meant by a dedicated computer?

a. which is used by one person only

b. which is assigned to one and only one task

c. which does one kind of software

d. which is meant for application software only

Question 4:

The most common addressing techiniques employed by a CPU is

a. immediate

b. direct

c. indirect

d. register

e. all of the above

Question 5:

Pipeline implement

a. fetch instruction

b. decode instruction

c. fetch operand

d. calculate operand

e. execute instruction

f. all of abve

Question 6:

Which of the following code is used in present day computing was developed by IBM corporation?

a. ASCII

b. Hollerith Code

c. Baudot code

d. EBCDIC code

Question 7:

When a subroutine is called, the address of the instruction following the CALL instructions stored in/on the

a. stack pointer

b. accumulator

c. program counter

d. stack

Question 8:

A microprogram written as string of 0's and 1's is a

a. symbolic microinstruction

b. binary microinstruction

c. symbolic microprogram

d. binary microprogram

Question 9:

Interrupts which are initiated by an instruction are

a. internal

b. external

c. hardware

d. software

Question 10:

Memory access in RISC architecture is limited to instructions

a. CALL and RET

b. PUSH and POP

c. STA and LDA

d. MOV and JMP

Answers:

1. d   2. d   3. b   4. e   5. f   6. d   7. d   8. d   9. b   10. c

SET-3

Question 1:

A collection of 8 bits is called

a. byte

b. word

c. record

Question 2:

The ascending order or a data Hierarchy is

a. bit - bytes - fields - record - file - database

b. bit - bytes - record - field - file - database

c. bytes - bit- field - record - file - database

d. bytes -bit - record - field - file - database

Question 3:

How many address lines are needed to address each memory locations in a 2048 x 4 memory chip?

a. 10

b. 11

c. 8

d. 12

Question 4:

A computer program that converts an entire program into machine language at one time is called a/an

a. interpreter

b. simulator

c. compiler

d. commander

Question 5:

In immediate addressing the operand is placed

a. in the CPU register

b. after OP code in the instruction

c. in memory

d. in stack

Question 6:

Microprocessor 8085 can address location upto

a. 32K

b. 128K

c. 64K

d. 1M

Question 7:

The ALU and control unit of most of the microcomputers are combined and manufacture on a single silicon chip. What is it called?

a. monochip

b. microprocessor

c. ALU

d. control unit

Question 8:

When the RET instruction at the end of subroutine is executed,

a. the information where the stack is iniatialized is transferred to the stack pointer

b. the memory address of the RET instruction is transferred to the program counter

c. two data bytes stored in the top two locations of the stack are transferred to the program counter

d. two data bytes stored in the top two locations of the stack are transferred to the stack pointer

Question 9:

A microporgram is sequencer perform the operation

a. read

b. write

c. execute

d. read and write

e. read and execute

Question 10:

Interrupts which are initiated by an I/O drive are

a. internal

b. external

c. software

d. all of above

Answers:

1. a   2. a   3. b   4. c   5.b   6.c   7.b   8.c   9.e   10.b

COMPUTER GRAPHICS

1) What is ZUI in computer Graphics ?

 a. A Widget
 b. Logical Enhancement of GUI
 c. An application that saves memory
 d. None of above

Answer = A
Explanation: Zooming user interface or zoomable user interface (ZUI, pronounced zoo-ee) is a graphical environment where users can change the scale of the viewed area in order to see more detail or less, and browse through different documents

2) In Bresenham's algorithm, while generating a circle , it is easy to generate?

 a. One octant first and other by successive reflection
 b. One octant first and other by successive rotation
 c. One octant first and other by successive translation
 d. All octants

Answer = A
Explanation:In Bresehnam's algorithm only one octant is needs to be generated ans other octants can be obtained by successive reflection.

3) Why a circle drawn on the screen appears to be elliptical ?

 a. It is due to the aspect ratio of monitor
 b. Screen has rectangular shape
 c. Our eyes are not at the same level on screen
 d. CRT is completely spherical

Answer = A
4) In bresenhan's algorithm error term is initialized to ?

 a. 0
 b. 1
 c. -1/2 **Answer = A**

5) Which of the following technique is used in Midpoint Subdivision algorithm ?

 a. Linear search
 b. Binary search
 c. Heap sort
 d. Bubble sort

Answer = B
Explanation: In mid point subdivision algorithm the line segment is separated at its mid point and them the two resulting segments are checked for visibility and clipping.

6) Which of the following clipping algorithm follows the Divide and Conquer strategy?

 a. 4-bit algorithm
 b. Midpoint algorithm
 c. Cyrus break algorithm
 d. Cohen- Sutherland algorithm **Answer = B**

7) A line with endpoints codes as 0000 and 0100 is ?

    a. Partially invisible
    b. Completely visible
    c. Completely invisible
    d. Trivially invisible

Answer = A

8) Choose the correct statement?

    a. Random scan monitors draw a picture one line at a time
    b. The components line of a random scan picture must be refreshed in a particular order
    c. Raster scan monitors draw a picture one line at a time
    d. Random scan method is well suited for displaying shading and color areas

Answer = A

1) Hue of color is related to ?

    a. Luminance
    b. Saturation
    c. Incandescence
    d. Wavelength

Answer = D
Explanation: A hue refers to the gradation of color within the optical spectrum, or visible spectrum, of light. "Hue" may also refer to a particular color within this spectrum, as defined by its dominant wavelength, or the central tendency of its combined wavelengths. For example, a light wave with a central tendency within 565-590 nm will be yellow.

2) The phenomenon of having a continuous glow of a beam on the screen even after it is removed is called as ?

    a. Fluorescence
    b. Persistence
    c. Phosphorescence
    d. Incandescence

Answer = C

3) The line 2x-y+4=0, if clipped against this window will connect the points ?

    a. (0, 1) and (3, 3)
    b. (0, 1) and (2, 3)
    c. (1, 2) and (4, 2)
    d. None of above

Answer = D
4)Reflection of a point about x-axis, followed by a counter-clockwise rotation of 90^0 , is equivalent to reflection about the line ?

    a. x = -y
    b. y = - x
    c. x = y
    d. x + y = 1   **Answer = C**

5) The best hidden surface removal method used for complex scenes with more than a few thousand surfaces is ?

    a. depth sorting method
    b. scan line algorithm
    c. depth buffer algorithm
    d. octree method
    e. C and D

Answer = E

6) The point at which a set of projected parallel lines appear to coverage is called as a ?

    a. convergence point
    b. vanishing point
    c. point of illusion
    d. point of delusion

Answer = B

7) The basic element of a picture in volume graphics is ?

    a. pixel
    b. volsel
    c. voxel
    d. None of above

Answer = C

8) Let R be the radius of a circle. The angle subtended by an arc of length R at the center of the circle is ?

    a. 1 degree
    b. 1 radian
    c. 45 degree
    d. impossible to determine

Answer = B

9) A bilinear transformation can be simulated by the transformation ?

    a. transformation, rotation and stretching
    b. translation and rotation
    c. rotation, stretching and inversion
    d. rotation, stretching, inversion and translation

Answer = D

10) A circle, if scaled only in one direction becomes a ?

    a. parabola
    b. hyperbola
    c. ellipse
    d. remains a circle

Answer = C

1) **When several types of output devices are available in graphics installation, it is convenient to use ?**

   a. bundled attributes
   b. unbundles attributes
   c. inquiry attributes
   d. all of above

Answer = A
Explanation: Individual attribute commands provide a simple and direct method for specifying attributes when a single output device is used. When several kinds of output device are available at a graphics installation, it is convenient to set up a table for each output device that lists set of attribute values that are to be used on that device to display each primitive type. Attribute specified in this manner is known as bundled attribute.

2) **x = at² ; y = 2at is the parametric equation of ?**

   a. Circle
   b. Rectangular hyperbola
   c. Parabola
   d. Ellipse

Answer = C
Explanation: parametric equation is a method of defining a relation using parameters.

3) **In displaying a clipped picture the efficient method is ?**

   a. Clipping against the window and then applying the window transformation
   b. Applying window transformation and then clipping against the viewport
   c. Both A and B have the same efficiency
   d. Efficiency depends on whether the window is an aligned rectangle or not

Answer = D

4) **The anti - aliasing technique which allows shift of 1/4,1/2 and 3/4 of a pixel diameter enabling a closer path of a line is ?**

   a. Pixel phasing
   b. Filtering
   c. Intensity compensation
   d. Sampling technique

Answer = A
Explanation: Pixel phasing is an anti-aliasing technique, stair steps are smoothed out by moving the electron beam to more nearly approximate positions specified by the object geometry.

5) **All the hidden surface algorithms employe image space approach except ?**

   a. Back face removal
   b. Depth buffer method
   c. Scan line method
   d. Depth sort method   **Answer = A**
   Explanation: A simple object space algorithm is Back-Face removal (or back face cull) where no faces on the back of the object are displayed. It can only be used on solid objects modeled as a polygon mesh.

6) The major components of CRT are ?

    a. Electronic Gun
    b. Phosphorous coated screen
    c. Control electrodes
    d. Deflection yoke
    e. All of above

Answer = E

7) .... used to regulate the flow of elections in CRT ?

    a. Electronic Gun
    b. Focusing electrode
    c. Control electrode
    d. All of the above

Answer = C
Explanation: The electrode in an electron tube whose voltage with respect to the voltage of the cathode determines the electron flow to the anode.

8) The glow given off by the, phosphor during exposure of the electron beam is known as ?

    a. Fluorescence
    b. Phosphorescence
    c. Persistence
    d. All of the above

Answer = A
Explanation: Fluorescence is the emission of light by a substance that has absorbed light or other electromagnetic radiation. It is a form of luminescence

9) Raster is a synonym for the term ?

    a. Array
    b. Matrix
    c. Model
    d. All of above

Answer = B
10) The .... simply reads each successive byte of data from the frame buffer?

    a. Digital Controller
    b. Data Controller
    c. Display Controller
    d. All of above

Answer = C
Explanation: A Video Display Controller or VDC is an integrated circuit which is the main component in a video signal generator, a device responsible for the production of a TV video signal in a computing or game system. Some VDCs also generate an Audio signal, but in that case it's not their main function.

SET-4

1) Reflection of a point about x-axis, followed by a counter-clockwise rotation of 90^0, is equivalent to reflection about the line ?

a. x = - y
b. y = - x
c. x = y
d. x + y = 1

Answer = C
Explanation: It is x = y

2) In the raster scan method for transformation, a 90^0 rotation can be performed by ?

a. reversing the order of bits within each row in the frame buffer
b. by performing XOR on the frame buffer location
c. by coping each row of the block into a column in the new frame buffer location
d. None of above

Answer = C
3) Which of the following is an odd function ?

a. $f(x) = x^2 - |x|$
b. $f(x) = \sin(x) + \cos(x)$
c. $f(x) = (x)(a^x + 1) / (a^x - 1)$
d. None of these

Answer = D
Explanation:None of the function is going to be odd.

4) Obliquee projection with an angle of 45^0 to the horizontal plane is called as ?

a. Cabinaet projection
b. Isometric projection
c. Cavalier projection
d. None of these

Answer = C
Explanation: Oblique projection is a simple type of graphical projection used for producing pictorial, two-dimensional images of three-dimensional objects

5) The people of the planet Mars designed a scale for measuring the temperature, in which water freezes at 100 units and boils at 250 units. The people of Jupiter designed a scale in which water freezes at 75 units and boils at 300 units. A temperature of 200 units in Mars will measure ..... in Jupiter ?

a. 300
b. 225
c. 250
d. 175

Answer = B
6) (2,4) is a point on a circle that has center at the origin. Which of the following points are also on circle ?

a. (2,-4)
b. (-2,4)
c. (4,-2)
d. (-4,2)
e. All of above   **Answer = E**

7) A cube of side 1 unit is places such that the origin coincides with one of its vertices and the three axes run along three of its edges. The vertex diagonally opposite to (0,1,0) is ?

    a. (0,0,0)
    b. (1,1,0)
    c. (0,1,1)
    d. (0,1,1)

Answer = D
8) Which of the following statement is true ?

    a. Request, sample and event are the three basic modes of input
    b. Keyboard is a device ideally suited for use in sample mode
    c. A mouse is typically a device for inputting an absolute position on the screen
    d. Special graphics hardware support is essential for providing menu-driven user interface to an application

Answer = A
9) Choose the incorrect statement from the following about the basic ray tracing technique used in image synthesis ?

    a. In this technique rays are cast from the eye point through every pixel on the screen
    b. In this technique, viewing transformation are not supplied to the scene prior to rendering
    c. This technique removes hidden surfaces.
    d. In this technique rays are cast from the light source to the object in the scene

Answer = D
Explanation: Ray tracing is a technique for generating an image by tracing the path of light through pixels in an image plane and simulating the effects of its encounters with virtual objects.
10) Aspect ratio is generally defined as the ratio of the ?

    a. Vertical to horizontal points
    b. Horizontal to vertical points
    c. Vertical to (horizontal + vertical) points
    d. Either A or B , depending on the convention followed

Answer = D
Explanation: Aspect ration is the ratio of rectangle's width and height.

1) The ISO standard for computer Graphics is ?

    a. Graphics Kernel System
    b. Graphics Standard System
    c. Computer graphics standard
    d. None of above.

Answer = A
Explanation: GKS is the first computer graphics standard.

2) Examples of Presentation Graphics is ?

    a. Bar Charts
    b. CAD
    c. Line Graphs
    d. A and C

Answer = D
Explanation: Presentation Graphics deals with the graphical representation of information. Examples of Presentation includes bar charts, line graphs, surface graphs and pie charts.
3) The technique used to summarize the financial, statistical, mathematical,scientific and economic data is ?

    a. Computer Art
    b. Image processing
    c. Presentation Graphics
    d. None of above

Answer = C
Explanation:Presentation Graphics is commonly used to summarize the financial, statistical, mathematical,scientific and economic data for research reports, consumer information bulletins and other types of reports.

4) Computer generated models of physical,financial and economic systems are often used for ?

    a. Entertainment
    b. Quality Control
    c. Educational Aid
    d. None of above

Answer = C
Explanation:Computer generated models of physical,financial and economic system are often used as Educational Aids.

5) Special System designed for some training application are known as ?

    a. GUI
    b. Simulators
    c. Video Display Devices
    d. None of above

Answer = A

6) Computer Graphics models are now commonly used for making ?

    a. Motion pictures
    b. Music Videos
    c. Television shows
    d. All of above

Answer = D
7) Graphics and image processing technique used to produce a transformation of one object into another is called ?

    a. Animation
    b. Morphine
    c. Half toning
    d. None of above

Answer = A
Explanation: When motion is provided to an object then it is known as animation.

8) The amount of light emitted by the phosphor coating depends on the?

    a. Number of electrons striking the screen
    b. Speed of electrons striking the screen
    c. Distance from the cathode to the screen
    d. None of above

Answer = A
Explanation: The amount of light emitted by the phosphor coating depends on the number of electrons striking the screen, so the brightness of a display can be controlled by varying the voltage on the control grid.

9) The maximum number of points that can be displayed without overlap on a CRT is refereed to as ?

    a. Resolution
    b. Persistence
    c. Attenuation
    d. None of above

Answer = A
Explanation:Resolution is the number of points per centimeter that can be plotted horizontally and vertically, although it is often simply stated as the total number of points in each direction.
10) Gray scale is used in ?

    a. Monitor that have color capability
    b. Monitor that have no color capability
    c. Random scan display
    d. None of above

Answer = B
Explanation: Grayscale or greyscale digital image is an image in which the value of each pixel is a single sample, that is, it carries only intensity information. Images of this sort, also known as black-and-white, are composed exclusively of shades of gray, varying from black at the weakest intensity to white at the strongest

The basic element of a picture in volume graphics is

    ○ Pixel

    ○ Volsel

    ○ Voxel

    ○ None of above

_____

The ISO standard for computer Graphics is

    ○ Graphics Kernel System

    ○ Graphics Standard System

    ○ Computer graphics standard

    ○ None of above

_____

The amount of light emitted by the phosphor coating depends on the?

○ Number of electrons striking the screen

○ Speed of electrons striking the screen

○ Distance from the cathode to the screen

○ None of above

The best hidden surface removal algorithm is

○ Painters

○ Depth buffer

○ Area subdivision

○ Depends on the application

Computer generated models of physical,financial and economic systems are often used for ?

○ Entertainment

○ Quality Control

○ Educational Aid

○ None of above

_____

The .... simply reads each successive byte of data from the frame buffer

○ Digital Controller

○ Data Controller

○ Display Controller

○ All of above

_____

The subcategories of orthographic projection are

○ Cavalier, cabinet, isometric

○ Cavalier, cabinet

○ Isometric, dimetric, trimetric

○ Isometric, cavalier, trimetric

_____

The anti - aliasing technique which allows shift of 1/4,1/2 and 3/4 of a pixel diameter enabling a closer path of a line is ?

○ Pixel phasing

○ Filtering

○ Intensity compensation

○ Sampling technique

_____

The perspective anomaly in which the object behind the centre of projection is projected

      ○ Perspective foreshortening

      ○ Vanishing view

      ○ View confusion

      ○ Topological distortion

_____

The refresh rate below which a picture flickers is

      ○ 25

      ○ 30

      ○ 35

      ○ 60

Back face removal is an example of

      ○ Object space method

      ○ Image space method

      ○ Combination of both

      ○ None of above

_____

All the hidden surface algorithms employee image space approach except ?

      ○ Back face removal

      ○ Depth buffer method

      ○ Scan line method

      ○ Depth sort method

_____

Input function are used for

      ○ Control the data flow from these interactive devices

      ○ Process the data flow from these interactive devices

      ○ Both a & b

      ○ None of these

_____

Fractals deals with curves that are

    ○   Irregularly irregular

    ○   Regularly irregular

    ○   Irregularly regular

    ○   Regularly regular

The point at which a set of projected parallel lines appear to converge in called as a

    ○   Convergence point

    ○   Vanishing point

    ○   Point of illusion

    ○   Point of delusion

Graphics and image processing technique used to produce a transformation of one object into another is called

    ○   Animation

    ○   Morphine

    ○   Half toning

    ○   None of above

Which of the following device has a relative origin

    ○   Joystick

    ○   Track ball

    ○   Mouse

    ○   None of above

The technique used to summarize the financial, statistical, mathematical,scientific and economic data is ?

    ○   Computer Art

    ○   Image processing

    ○   Presentation Graphics

    ○   None of above

The maximum number of points that can be displayed without overlap on a CRT is refereed to as

- ○ Resolution
- ○ Persistence
- ○ Attenuation
- ○ None of above

_____

A view graph is

- ○ An oversized slide designed for presentation on an O.H.P
- ○ Designed and created by exposing film to the output of the graphics system
- ○ A hard copy chart
- ○ None of the above

_____

Computer Graphics models are now commonly used for making ?

- ○ Motion pictures
- ○ Music Videos
- ○ Television shows
- ○ All of above

_____

Assuming that one allows 256 depth value levels to be used how much memory would a 512 x 512 pixel display require to store the z-buffer

- ○ 5l2 k
- ○ 256 k
- ○ 1024 k
- ○ 128 k

_____

Raster scan systems display a picture from a definition in a

- ○ Display file program
- ○ Frame buffer
- ○ Display controller
- ○ None of the above

_____

In a clipping algorithm of Cohen & Sutherland using region codes, a line is already clipped if the

○ Logical AND of the end point code is not 0000

○ Logical OR of the end points code is 0000

○ Logical AND of the end point code is 0000

○ A and B

In displaying a clipped picture the efficient method is ?

○ Clipping against the window and then applying the window transformation

○ Applying window transformation and then clipping against the viewport

○ Both A and B have the same efficiency

○ Efficiency depends on whether the window is an aligned rectangle or not

---

A surface appearing block

○ Reflects all the incident colors

○ Reflects all the incident colors expect block

○ Reflects only block and absorbs the rest

○ Reflects none

Interactive computer graphics uses various kind of input devices such as

○ Mouse

○ Graphic tablet

○ Joystick

○ All of these

.... used to regulate the flow of elections in CRT ?

○ Electronic Gun

○ Focusing electrode

○ Control electrode

○ All of the above

The light pen is an

○ Graphics input device

○ Graphics output device

○ Both a & b

○ None of these

_____

A joystick is a

○ Graphics input device

○ Graphics output device

○ Both a & b

○ None of these

_____

The glow given off by the, phosphor during exposure of the electron beam is known as ?

○ Fluorescence

○ Phosphorescence

○ Persistence

○ All of the above

_____

If a and b are the end points of a line, then which one of the following is true ?

○ If a and b are the end points of a line, then which one of the following is true ?

○ If both end points are left, right, above or below the window, the line is completely visible.

○ If both end points are left, right, above or below the window, the line is trivially visible.

○ If both end points are left, right, above or below the window, the line is trivially invisible

_____

If the eccentricity is less than one then the conic is

○ Circle

○ Parabola

○ Ellipse

○ Hyperbola

_____

Special System designed for some training application are known as ?

○ GUI

○ Simulators

○ Video Display Devices

○ None of above

_____

When several types of output devices are available in graphics installation, it is convenient to use ?

               ○   Bundled attributes

               ○   Unbundles attributes

               ○   Inquiry attributes

               ○   All of above

_____

Gray scale is used in ?

               ○   Monitor that have color capability

               ○   Monitor that have no color capability

               ○   Random scan display

               ○   None of above

COMPUTER NETWORKS

Question 1:
In OSI network architecture, the dialogue control and token management are responsibility of
a. session layer
b. network layer
c. transport layer
d. data link layer
e. none of above

Question 2:
In OSI network architecture, the routing is performed by
a. network layer
b. data link layer
c. transport layer
d. session layer
e. none of above

Question 3:
Which of the following performs modulation and demodulation?
a. fiber optics
b. satellite
c. coaxial cable
d. modem
e. none of the above

Question 4:
The process of converting analog signals into digital signals so they can be processed by a receiving computer is referred to as:
a. modulation
b. demodulation
c. synchronizing
d. digitising

Question 5:
How many OSI layers are covered in the X.25 standard?
a. Two
b. Three
c. Seven
d. Six
e. None of above

Question 6:
Layer one of the OSI model is
a. physical layer
b. link layer
c. transport layer
d. network layer
e. none of above

Question 7:
The x.25 standard specifies a
a. technique for start-stop data
b. technique for dial access
c. DTE/DCE interface
d. data bit rate
e. none of above

Question 8:
Which of the following communication modes support two-way traffic but in only one direction at a time?
a. simplex
b. half duplex
c. three-quarters duplex
d. all of the above
e. none of the above

Question 9:
Which of the following might be used by a company to satisfy its growing communications needs?
a. front end processor
b. multiplexer
c. controller
d. concentrator
e. all of the above

Question 10:
What is the number of separate protocol layers at the serial interface gateway specified by the X.25 standard?
a. 4
b. 2
c. 6
d. 3
3. none of the above

Correct Answers:
1. a
2. a
3. d
4. d
5. b
6. a
7. c
8. b
9. e
10. d

SET-2

Question 1:
The interactive transmission of data within a time sharing system may be best suited to
a. simplex lines
b. half-duplex lines
c. full duplex lines
d. biflex-lines

Question 2:
Which of the following statement is incorrect?
a. The difference between synchronous and asynchronous transmission is the clocking derived from the data in synchronous transmission.
b. Half duplex line is a communication line in which data can move in two directions, but not at the same time.
c. Teleprocessing combines telecommunications and DP techniques in online activities
d. Batch processing is the prefered processing mode for telecommunication operation.

Question 3:
Which of hte following is considered a broad band communication channel?
a. coaxial cable
b. fiber optics cable
c. microwave circuits
d. all of above

Question 4:
Which of the following is not a transmission medium?
a. telephone lines
b. coaxial cables
c. modem
d. microwave systems

Question 5:
Which of the following does not allow multiple uses or devices to share one communication line?
a. doubleplexer
b. multiplexer
c. concentrator
d. controller

Question 6:
Which of the following signal is not standard RS-232-C signal?
a. VDR
b. RTS
c. CTS
d. DSR

Question 7:
Which of the following statement is incorrect?
a. Multiplexers are designed to accept data from several I/O devices and transmit a unified stream of data on one communication line
b. HDLC is a standard synchronous communication protocol.
c. RTS/CTS is the way the DTE indicates that it is ready to transmit data and the way the DCW indicates that it is ready to accept data
d. RTS/CTS is the way the terminal indicates ringing

Question 8:
Which of the following is an advantage to using fiber optics data transmission?
a. resistance to data theft
b. fast data transmission rate
c. low noise level
d. all of above

Question 9:
Which of the following is required to communicate between two computers?
a. communications software
b. protocol
c. communication hardware
d. all of above including access to transmission medium

Question 10:
The transmission signal coding method of TI carrier is called
a. Bipolar
b. NRZ
c. Manchester
d. Binary

Answers:
1. b
2. d
3. d
4. c
5. a
6. a
7. d
8. d
9. d
10. a

MCQS SET-3

Question 1:
Which data communication method is used to transmit the data over a serial communication link?
a. simplex
b. half-duplex
c. full-duplex
d. b and c
e. None of above

Question 2:
What is the minimum number of wires needed to send data over a serial communication link layer?
a. 1
b. 2
c. 4
d. 6
e. none of above

Question 3:
Which of the following types of channels moves data relatively slowly?
a. wide band channel
b. voice band challen
c. narrow band channel

Question 4:
Most data communications involving telegraph lines use:
a. simplex lines
b. wideband channel
c. narrowband channel
d. dialed service

Question 5:
A communications device that combines transmissions from several I/O devices into one line is a
a. concentrator
b. modifier
c. multiplexer
d. full-duplex line

Question 6:
How much power (roughly) a light emitting diode can couple into an optical fiber?
a. 100 microwatts
b. 440 microwatts
c. 100 picowatts
d. 10 miliwatts

Question 7:
The synchronous modems are more costly than the asynchronous modems because
a. they produce large volume of data
b. they contain clock recovery circuits
c. they transmit the data with stop and start bits
d. they operate with a larger bandwidth
e. none of above

Question 8:
Which of the following statement is correct?
a. terminal section of a synchronous modem contains the scrambler
b. receiver section of a synchronous modem contains the scrambler
c. transmission section of a synchronous modem contains the scrambler
d. control section of a synchronous modem contains the scrambler
e. none of the above

Question 9:

In a synchronous modem, the digital-to-analog converter transmits signal to the

a. equilizer

b. modulator

c. demodulator

d. terminal

e. none of aobve

Question 10:

Which of the following communications lines is best suited to interactive processing applications?

a. narrow band channel

b. simplex lines

c. full duplex lines

d. mixed band channels

Answers

1. c
2. b
3. c
4. c
5. c
6. a
7. b
8. c
9. a
10. c

Question:1

A remote batch-processing operation in which data is solely input to a central computer would require

a. telegraphp line

b. simplex lines

c. mixed bad channel

d. all of above

Question 2:

A band is always equivalent to

a. a byte

b. a bit

c. 100 bits

d. none of above

Question 3:
The loss in signal power as light travels down the fiber is called
a. attenuation
b. progragation
c. scattering
d. interruption

Question 4:
Avalanche photodiode receivers can detect bits of transmitted data by receiving
a. 100 photons
b. 200 photons
c. 2000 photons
d. 300 photons

Question 5:
Communiction circuits that transmit data in both directions but not at the same time are operating in
a. a simplex mode
b. a half duplex mode
c. a full duplex mode
d. an asynchronous mode

Question 6:
An example of a medium speed, switched communications service is
a. series 1000
b. data phone 50
c. DDD
d. All of the above

Question 7:
In communication satellite, multiple repeaters are known as
a. detector
b. modulator
c. stations
d. transponders

Question 8:
While transmitting odd-parity coded symbols, the number of zeros in each symbol is
a. odd
b. even
c. a and b both
d. unknown

Question 9:
Data communications monitors available on the software marked include
a. ENVIRON/1
b. TOTAL
c. BPL
d. Telnet

Question 10:
An example of an analog communication method is
a. laser beam
b. microwave
c. voice grade telephone line
d. all of the above

Answers:

1. b
2. d
3. a
4. b
5. b
6. c
7. d
8. d
9. a
10. d

SET-5

Question:1

Number of bits per symbol used in Baudot code is

a. 7

b. 5

c. 8

d. 9

Question 2:

What is the main difference between DDCMP and SDLC?

a. DDCMP does not need special hardware to final the beginning of a message

b. DDCMP has a message header

c. SDLC has a IP address

d. SDLC does not use CRC

Question 3:

An example of digital, rather than analog, communication is

a. DDD

b. DDS

c. WATS

d. DDT

Question 4:

Terminals are required for

a. real-time, batch processing & time-sharing

b. real time, time-sharing & distributed message processing

c. real time, distributed processing & manager inquiry

d. real-time, time sharing & message switching

Question 5:

The receive equilizer reduces delay distortions using a

a. tapped delay lines

b. gearshift

c. descrambler

d. difference engine

Question 6:

Ina synchronous modem, the receive equilizer is known as

a. adaptive equilizer

b. impariment equilizer

c. statistical equilizer

d. compromise equilizer

Question 7:

The channel in the data communication model can be

a. postal mail services

b. telephone lines

c. radio lines

d. any of the above

Question 8:

A data terminal serves as an

a. Effector

b. sensor

c. both a and b

d. neither a nor b

Question 9:

Which of the following transmission systems provide the highest data rate to in individual device?

a. computer bus

b. telephone lines

c. voice and mode

d. lease lines

Question 10:

A protocol is a set of rules governing a time sequence of events that must take place

a. between peers

b. between an interface

c. between modems

d. across an interface

Answers:

1. b

2. a

3. b

4. d

5. a

6. a

7. d

8. c

9. a

10. a

DATA STRUCTURES AND ALGORITHMS (Space and Time Complexity)

SET-1

1. Two main measures for the efficiency of an algorithm are

a. Processor and memory
b. Complexity and capacity
c. Time and space
d. Data and space

2. The time factor when determining the efficiency of algorithm is measured by

a. Counting microseconds
b. Counting the number of key operations
c. Counting the number of statements
d. Counting the kilobytes of algorithm

3. The space factor when determining the efficiency of algorithm is measured by

a. Counting the maximum memory needed by the algorithm
b. Counting the minimum memory needed by the algorithm
c. Counting the average memory needed by the algorithm
d. Counting the maximum disk space needed by the algorithm

4. Which of the following case does not exist in complexity theory

a. Best case
b. Worst case
c. Average case
d. Null case

5. The Worst case occur in linear search algorithm when

a. Item is somewhere in the middle of the array
b. Item is not in the array at all
c. Item is the last element in the array
d. Item is the last element in the array or is not there at all

6. The Average case occur in linear search algorithm

a. When Item is somewhere in the middle of the array
b. When Item is not in the array at all
c. When Item is the last element in the array
d. When Item is the last element in the array or is not there at all

7. The complexity of the average case of an algorithm is

a. Much more complicated to analyze than that of worst case
b. Much more simpler to analyze than that of worst case
c. Sometimes more complicated and some other times simpler than that of worst case
d. None or above

8. The complexity of linear search algorithm is

a. O(n)
b. O(log n)
c. O(n2)
d. O(n log n)

9. The complexity of Binary search algorithm is

a. O(n)
b. O(log)
c. O(n2)
d. O(n log n)

10. The complexity of Bubble sort algorithm is

a. O(n)
b. O(log n)
c. O(n2)
d. O(n log n)

11. The complexity of merge sort algorithm is

a. O(n)
b. O(log n)
c. O(n2)
d. O(n log n)

12. The indirect change of the values of a variable in one module by another module is called

a. internal change
b. inter-module change
c. side effect
d. side-module update

13. Which of the following data structure is not linear data structure?

a. Arrays
b. Linked lists
c. Both of above
d. None of above

14. Which of the following data structure is linear data structure?

a. Trees
b. Graphs
c. Arrays
d. None of above

15. The operation of processing each element in the list is known as

a. Sorting
b. Merging
c. Inserting
d. Traversal

16. Finding the location of the element with a given value is:

a. Traversal
b. Search
c. Sort
d. None of above

17. Arrays are best data structures

a. for relatively permanent collections of data
b. for the size of the structure and the data in the structure are constantly changing
c. for both of above situation
d. for none of above situation

18. Linked lists are best suited

a. for relatively permanent collections of data
b. for the size of the structure and the data in the structure are constantly changing
c. for both of above situation
d. for none of above situation

19. Each array declaration need not give, implicitly or explicitly, the information about

a. the name of array
b. the data type of array
c. the first data from the set to be stored
d. the index set of the array

20. The elements of an array are stored successively in memory cells because

a. by this way computer can keep track only the address of the first element and the addresses of other elements can be calculated
b. the architecture of computer memory does not allow arrays to store other than serially
c. both of above
d. none of above

Answers

1. Two main measures for the efficiency of an algorithm are

c. Time and space

2. The time factor when determining the efficiency of algorithm is measured by

b. Counting the number of key operations

3. The space factor when determining the efficiency of algorithm is measured by

a. Counting the maximum memory needed by the algorithm

4. Which of the following case does not exist in complexity theory

d. Null case

5. The Worst case occur in linear search algorithm when

d. Item is the last element in the array or is not there at all

6. The Average case occur in linear search algorithm

a. When Item is somewhere in the middle of the array

7. The complexity of the average case of an algorithm is

a. Much more complicated to analyze than that of worst case

8. The complexity of linear search algorithm is

a. O(n)

9. The complexity of Binary search algorithm is

b. O(log n)

10. The complexity of Bubble sort algorithm is

c. $O(n^2)$

11. The complexity of merge sort algorithm is

d. O(n log n)

12. The indirect change of the values of a variable in one module by another module is called

c. side effect

13. Which of the following data structure is not linear data structure?

d. None of above

14. Which of the following data structure is linear data structure?

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a. by this way computer can keep track only the address of the first element and the addresses of other elements can be calculated

Set - 2

1. The memory address of the first element of an array is called

a. floor address
b. foundation address
c. first address
d. base address

2. The memory address of fifth element of an array can be calculated by the formula

a. LOC(Array[5]=Base(Array)+w(5-lower bound), where w is the number of words per memory cell for the array
b. LOC(Array[5])=Base(Array[5])+(5-lower bound), where w is the number of words per memory cell for the array
c. LOC(Array[5])=Base(Array[4])+(5-Upper bound), where w is the number of words per memory cell for the array
d. None of above

3. Which of the following data structures are indexed structures?

a. linear arrays
b. linked lists
c. both of above
d. none of above

4. Which of the following is not the required condition for binary search algorithm?

a. The list must be sorted
b. there should be the direct access to the middle element in any sublist
c. There must be mechanism to delete and/or insert elements in list
d. none of above

5. Which of the following is not a limitation of binary search algorithm?

a. must use a sorted array
b. requirement of sorted array is expensive when a lot of insertion and deletions are needed
c. there must be a mechanism to access middle element directly
d. binary search algorithm is not efficient when the data elements are more than 1000.

6. Two dimensional arrays are also called

a. tables arrays
b. matrix arrays
c. both of above
d. none of above

7. A variable P is called pointer if

a. P contains the address of an element in DATA.
b. P points to the address of first element in DATA
c. P can store only memory addresses
d. P contain the DATA and the address of DATA

8. Which of the following data structure can't store the non-homogeneous data elements?

a. Arrays
b. Records
c. Pointers
d. None

9. Which of the following data structure store the homogeneous data elements?

a. Arrays
b. Records
c. Pointers
d. None

10. Each data item in a record may be a group item composed of sub-items; those items which are indecomposable are called

a. elementary items
b. atoms
c. scalars
d. all of above

11. The difference between linear array and a record is

a. An array is suitable for homogeneous data but hte data items in a record may have different data type
b. In a record, there may not be a natural ordering in opposed to linear array.
c. A record form a hierarchical structure but a lienear array does not
d. All of above

12. Which of the following statement is false?

a. Arrays are dense lists and static data structure
b. data elements in linked list need not be stored in adjecent space in memory
c. pointers store the next data element of a list
d. linked lists are collection of the nodes that contain information part and next pointer

13. Binary search algorithm can not be applied to

a. sorted linked list
b. sorted binary trees
c. sorted linear array
d. pointer array

14. When new data are to be inserted into a data structure, but there is no available space; this situation is usually called

a. underflow
b. overflow
c. housefull
d. saturated

15. The situation when in a linked list START=NULL is

a. underflow
b. overflow
c. housefull
d. saturated

16. Which of the following is two way list?

a. grounded header list
b. circular header list
c. linked list with header and trailer nodes
d. none of above

17. Which of the following name does not relate to stacks?

a. FIFO lists
b. LIFO list
c. Piles
d. Push-down lists

18. The term "push" and "pop" is related to the

a. array
b. lists
c. stacks
d. all of above

19. A data structure where elements can be added or removed at either end but not in the middle

a. Linked lists
b. Stacks
c. Queues
d. Deque

20. When inorder traversing a tree resulted E A C K F H D B G; the preorder traversal would return

a. FAEKCDBHG
b. FAEKCDHGB
c. EAFKHDCBG
d. FEAKDCHBG

Answers

1. The memory address of the first element of an array is called

d. base address

2. The memory address of fifth element of an array can be calculated by the formula

a. LOC(Array[5]=Base(Array)+w(5-lower bound), where w is the number of words per memory cell for the array

3. Which of the following data structures are indexed structures?

a. linear arrays

4. Which of the following is not the required condition for binary search algorithm?

c. There must be mechanism to delete and/or insert elements in list

5. Which of the following is not a limitation of binary search algorithm?

d. binary search algorithm is not efficient when the data elements are more than 1000.

6. Two dimensional arrays are also called

c. both of above

7. A variable P is called pointer if

a. P contains the address of an element in DATA.

8. Which of the following data structure can't store the non-homogeneous data elements?

a. Arrays

9. Which of the following data structure store the non-homogeneous data elements?

b. Records

10. Each data item in a record may be a group item composed of sub-items; those items which are indecomposable are called

d. all of above

11. The difference between linear array and a record is

d. All of above

12. Which of the following statement is false?

c. pointers store the next data element of a list

13. Binary search algorithm can not be applied to

a. sorted linked list

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d. Deque

20. When inorder traversing a tree resulted E A C K F H D B G; the preorder traversal would return

b. FAEKCDHGB

Set - 3

1. Which data structure allows deleting data elements from front and inserting at rear?

a. Stacks
b. Queues
c. Deques
d. Binary search tree

2. Identify the data structure which allows deletions at both ends of the list but insertion at only one end.

a. Input-restricted deque

b. Output-restricted deque

c. Priority queues

d. None of above

3. Which of the following data structure is non-linear type?

a. Strings

b. Lists

c. Stacks

d. None of above

4. Which of the following data structure is linear type?

a. Strings

b. Lists

c. Queues

d. All of above

5. To represent hierarchical relationship between elements, which data structure is suitable?

a. Deque

b. Priority

c. Tree

d. All of above

6. A binary tree whose every node has either zero or two children is called

a. Complete binary tree

b. Binary search tree

c. Extended binary tree

d. None of above

7. The depth of a complete binary tree is given by

a. $D_n = n \log_2 n$

b. $D_n = n \log_2 n+1$

c. $D_n = \log_2 n$

d. $D_n = \log_2 n+1$

8. When representing any algebraic expression E which uses only binary operations in a 2-tree,

a. the variable in E will appear as external nodes and operations in internal nodes

b. the operations in E will appear as external nodes and variables in internal nodes

c. the variables and operations in E will appear only in internal nodes

d. the variables and operations in E will appear only in external nodes

9. A binary tree can easily be converted into q 2-tree

a. by replacing each empty sub tree by a new internal node

b. by inserting an internal nodes for non-empty node

c. by inserting an external nodes for non-empty node

d. by replacing each empty sub tree by a new external node

10. When converting binary tree into extended binary tree, all the original nodes in binary tree are

a. internal nodes on extended tree

b. external nodes on extended tree

c. vanished on extended tree

d. None of above

11. The post order traversal of a binary tree is DEBFCA. Find out the pre order traversal

a. ABFCDE

b. ADBFEC

c. ABDECF

d. ABDCEF

12. Which of the following sorting algorithm is of divide-and-conquer type?

a. Bubble sort

b. Insertion sort

c. Quick sort

d. All of above

13. An algorithm that calls itself directly or indirectly is known as

a. Sub algorithm

b. Recursion

c. Polish notation

d. Traversal algorithm

14. In a binary tree, certain null entries are replaced by special pointers which point to nodes higher in the tree for efficiency. These special pointers are called

a. Leaf

b. branch

c. path

d. thread

15. The in order traversal of tree will yield a sorted listing of elements of tree in

a. Binary trees

b. Binary search trees

c. Heaps

d. None of above

16. In a Heap tree

a. Values in a node is greater than every value in left sub tree and smaller than right sub tree

b. Values in a node is greater than every value in children of it

c. Both of above conditions applies

d. None of above conditions applies

17. In a graph if e=[u, v], Then u and v are called

a. endpoints of e

b. adjacent nodes

c. neighbors

d. all of above

18. A connected graph T without any cycles is called

a. a tree graph

b. free tree

c. a tree

d. All of above

19. In a graph if e=(u, v) means

a. u is adjacent to v but v is not adjacent to u

b. e begins at u and ends at v

c. u is processor and v is successor

d. both b and c

20. If every node u in G is adjacent to every other node v in G, A graph is said to be

a. isolated

b. complete

c. finite

d. strongly connected

Answers:

1. Which data structure allows deleting data elements from front and inserting at rear?

b. Queues

2. Identify the data structure which allows deletions at both ends of the list but insertion at only one end.

a. Input-restricted deque

3. Which of the following data structure is non-linear type?

d. None of above

4. Which of the following data structure is linear type?

d. All of above

5. To represent hierarchical relationship between elements, which data structure is suitable?

c. Tree

6. A binary tree whose every node has either zero or two children is called

c. Extended binary tree

7. The depth of a complete binary tree is given by

d. $D_n = \log_2 n + 1$

8. When representing any algebraic expression E which uses only binary operations in a 2-tree,

a. the variable in E will appear as external nodes and operations in internal nodes

9. A binary tree can easily be converted into q 2-tree

d. by replacing each empty sub tree by a new external node

10. When converting binary tree into extended binary tree, all the original nodes in binary tree are

a. internal nodes on extended tree

11. The post order traversal of a binary tree is DEBFCA. Find out the pre order traversal

c. ABDECF

12. Which of the following sorting algorithm is of divide-and-conquer type?

c. Quick sort

13. An algorithm that calls itself directly or indirectly is known as

b. Recursion

14. In a binary tree, certain null entries are replaced by special pointers which point to nodes higher in the tree for efficiency. These special pointers are called

d. thread

15. The in order traversal of tree will yield a sorted listing of elements of tree in

b. Binary search trees

16. In a Heap tree

b. Values in a node is greater than every value in children of it

17. In a graph if e=[u, v], Then u and v are called

d. all of above

18. A connected graph T without any cycles is called

d. All of above

19. In a graph if e=(u, v) means

d. both b and c

20. If every node u in G is adjacent to every other node v in G, A graph is said to be

b. complete

Database Management System and Design

Questions 1:

The ascending order of a data hirerchy is:

a. bit-byte-record-field-file-database

b. byte-bit-field-record-file-database

c. bit-byte-field-record-file-database

d. bit-byte-file-record-field-database

Question 2:

Which of the following is true of a network structure?

a. t is a physical representation of the data

b. It allows a many-to-many relationship

c. It is conceptually simple

d. It will be dominant data base of the future

Question 3:

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

Question 4:

One data dictionery software package is called

a. DB/DC dictionary

b. TOTAL

c. ACCESS

d. Datapac

e. Data Manager

Question 5:

The function of a database is ...

a. to check all input data

b. to check all spelling

c. to collect and organize input data

d. to output data

Question 6:

What is the language used by most of the DBMSs for helping their users to access data?

a. High level language

b. SQL

c. Query Language

d. 4GL

Question 7:

The model for a record management system might be

a. handwritten list

b. a Rolodex card file

c. a business form

d. all of above

Question 8:

Primitive operations common to all record management system include

a. print

b. sort

c. look-up

d. all of above

Question 9:

In a large DBMS

a. each user can "see" only a small part of the entire database

b. each subschema contains every field in the logical schema

c. each user can access every subschema

Question 10:

Information can be transferred between the DBMS and a

a. spreadsheet program

b. word processor program

c. graphics program

d. all of the above

Answers:

1. c   2. b   3. e   4. a   5. c   6. c   7. d   8. c   9. a   10. d

Questions 1:

Which of the following fields in a student file can be used as a primary key?

a. class

b. Social Security Number

c. GPA

d. Major

Question 2:

Which of the following is not an advantage of the database approach

a. Elimination of data redundancy

b. Ability of associate deleted data

c. increased security

d. program/data independence

e. all of the above

Question 3:

Which of the following contains a complete record of all activity that affected the contents of a database during a certain period of time?

a. report writer

b. query language

c. data manipulation language

d. transaction log

e. none of the above

Question 4:

In the DBMS approach, application programs perform the

a. storage function

b. processing functions

c. access control

d. all of the above

e. none of the above

Question 5:

A set of programs that handle a firm's database responsibilities is called

a. database management system (DBMS)

b. database processing system (DBPS)

c. data management system (DMS)

d. all of above

Question 6:

Which is the make given to the database management system which is able to handle full text data, image data, audio and video?

a. full media

b. graphics media

c. multimedia

d. hypertext

Question 7:

A record management system

a. can handle many files of information at a time

b. can be used to extract information stored in a computer file

c. always uses a list as its model

d. both a and b

Question 8:

A command that lets you change one or more fields in a record is

a. insert

b. modify

c. lookup

d. none of above

Question 9:

A transparent DBMS

a. can not hide sensitive information from users

b. keeps its logical structure hidden from users

c. keeps its physical structure hidden from users

d. both b and c

Question 10:

A file produced by a spreadsheet

a. is generally stored on disk in an ASCII text fromat

b. can be used as is by the DBMS

c. both a and b

d. none of the above

Answers:

1.b   2.e   3.d   4.b   5.d   6.c   7.b   8.b   9.c   10.a

Questions 1:

Which of the following is not true of the traditional approach to information processing

a. there is common sharing of data among the various applications

b. it is file oriented

c. programs are dependent on the file

d. it is inflexible

e. all of the above are true

Question 2:

Which of the following hardware component is the most important to the operation of database management system?

a. high resolution video display

b. printer

c. high speed, large capacity disk

d. plotter

e. mouse

Question 3:

Generalized database management system do not retrieve data to meet routine request

a. true

b. false

Question 4:

Batch processing is appropriate if

a. large computer system is available

b. only a small computer system is avilbale

c. only a few transactions are involved

d. all of the above

e. none of the above

Question 5:

Large collection of files are called

a. fields

b. records

c. database

d. sectors

Question 6:

Which of the following is not a relational database?

a. dBase IV

b. 4th Dimension

c. FoxPro

d. Reflex

Question 7:

In order to use a record management system

a. you need to understand the low level details of how information is stored

b. you need to understand the model the record management system uses

c. bother a and b

d. none of the above

Question 8:

Sort/Report generators

a. are faster than index/report generators

b. require more disk space than indexed/report generators

c. do not need to sort before generating report

d. both a and b

Question 9:

If a piece of data is stored in two places in the database, then

a. storage space is wasted

b. changing the data in one spot will cause data inconsistency

c. in can be more easily accessed

d. both and b

Question 10:

An audit trail

a. is used to make backup copies

b. is the recorded history of operations performed on a file

c. can be used to restore lost information

d. none of the aobve

Answers:

1.a   2.c   3. b   4.e   5.c   6.d   7.b   8.b   9.d   10.b

Questions 1:

The relational database environment has all of the following components except

a. users

b. separate files

c. database

d. query languages

e. database

Question 2:

Database management systems are intended to

a. eliminate data redundancy

b. establish relationship among records in different files

c. manage file access

d. maintain data integrity

e. all of the above

Question 3:

One approach to standardization storing of data?

a. MIS

b. structured programming

c. CODASYL specification

d. none of the above

Question 4:

The language used application programs to request data from the DBMS is referred to as the

a. DML

b. DDL

c. query language

d. any of the above

e. none of the above

Question 5:

The highest level in the hierarchy of data organization is called

a. data bank

b. data base

c. data file

d. data record

Question 6:

Choose the RDBMS which supports full fledged client server application development

a. dBase V

b. Oracle 7.1

c. FoxPro 2.1

d. Ingress

Question 7:

Report generators are used to

a. store data input by a user

b. retrieve information from files

c. answer queries

d. both b and c

Question 8:

A form defined

a. where data is placed on the screen

b. the width of each field

c. both a and b

d. none of the above

Question 9:

A top-to-bottom relationship among the items in a database is established by a

a. hierarchical schema

b. network schema

c. relational schema

d. all of the above

Question 10:

The management information system (MIS) structure with one main computer system is called a

a. hierarchical MIS structure

b. distributed MIS structure

c. centralized MIS structure

d. decentralized MIS structure

Answers:

1.b   2.e   3.c   4.a   5.b   6. b   7.d   8.a   9.a   10.c

The database administration function includes

        ○   Application programming

        ○   Computer operations management

        ○   Database access planning

        ○   All of the above

Goals for the design of the logical schema include

        ○   Being able to access data efficiently

        ○   Being able to construct queries easily

        ○   Avoiding data in consistency

        ○   All of the above

The logical data structure with one to many relationship is a

        ○   Network

        ○   Chain

        ○   Tree

        ○   All of these

E-R model uses this symbol to represent weak entity set

        ○   Dotted rectangle

        ○   Diamond

        ○   Doubly outlined rectangle

        ○   None of these

The problem that occurs when one transaction updates a database item and then the transaction fails for some reason is _____.

○ Temporary Select Problem

○ Temporary Modify Problem

○ Dirty Read Problem

○ None

A data model is a collection of conceptual tools for describing

○ Data and data relationships

○ Data semantics and consistency constraints

○ Data,data relationship,data semantics and consistency constraints

○ None of the above

In SQL, which command is used to select data in rows and column from one or more tables?

○ Choose

○ Select

○ List

○ Browse

In a B tree of order 5, the following keys are inserted as follows :
7, 8, 1, 4, 13, 20, 2, 6 and 5
How many elements are present in the root of the tree ?

○ 1

○ 2

○ 3

○ 4

An entity relationship diagram is a tool to represent

- Data model
- Process model
- Event model
- Customer model

SET concept is used in

- Network Model
- Hierarchical Model
- Relational Model
- None of these

The method of access which uses key transformation is known as

- Direct
- Hash
- Random
- Sequential

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

- Projection
- Selection
- Union
- Join

If a relation scheme is in BCNF then it is also in

      ○ 1NF

      ○ 4NF

      ○ 3NF

      ○ None of these

In a Hierarchical model records are organized as

      ○ Graph

      ○ List

      ○ Links

      ○ Tree

The DBMS that is most difficult to use is _____ .

      ○ Microsoft s SQL Server

      ○ Microsoft s Access

      ○ IBM s DB2

      ○ Oracle Corporation s Oracle

A computer file contains several records. What does each record contain?

      ○ Bytes

      ○ Words

      ○ Fields

      ○ Database

Which of the following is not a consequence of concurrent operations?

- ○ Lost update problem
- ○ Update anomaly
- ○ Unrepeatable read
- ○ Dirty read

The way a particular application views the data from the database that the application uses is a

- ○ Module
- ○ Relational model
- ○ Schema
- ○ Sub schema

There exists a construct which returns a value 'true' if the argument subquery is:

- ○ empty
- ○ non-empty
- ○ in error
- ○ none of the above

How many primitive operators of relation algebra as proposed by codd

- ○ 2
- ○ 3
- ○ 4
- ○ 6

Which of the following relational algebra operations do not require the participating tables to be union-compatible?

○ Union

○ Intersection

○ Difference

○ Join

A table joined with itself is called

○ Join

○ Self Join

○ Outer Join

○ Equi Join

_____is a program or set of program that interacts with the database at some point in its execution

○ A database system

○ A database application

○ Both

○ None

Match the following :
I. 2 NF   (a) transitive dependencies eliminated
II. 3 NF   (b) multivalued attribute removed
III. 4 NF (c) contain no partial functional dependencies
IV. 5 NF   (d) contains no join dependency
Codes (I   II III IV)

○ (a) (c) (b) (d)

○ (d) (a) (b) (c)

○ (c) (d) (a) (b)

○ (d) (b) (a) (c)

Cartesian product in relational algebra is

- ○ Unary operator

- ○ Binary operator

- ○ Ternary operator

- ○ not defined

Use of UNIQUE while defining an attribute of a table in SQL means that the attribute values are

- ○ Distinct values

- ○ Cannot have NULL

- ○ Both (A) & (B)

- ○ Same as primary key

Which are the two ways in which entities can participate in a relationship?

- ○ Passive and active

- ○ Total and partial

- ○ Simple and Complex

- ○ All of the above

Goals for the design of the logical schema include

- ○ Avoiding data inconsistency

- ○ Being able to construct queries easily

- ○ Being able to access data efficiently

- ○ All of the above

Table is synonymous with the term

      ○   Record

      ○   Relation

      ○   Column

      ○   Field

The file organization that provides very fast access to any arbitrary record of a file is

      ○   Ordered file

      ○   Unordered file

      ○   Hashed file

      ○   B tree

An entity set that does not have sufficient attributes to form a primary key is a

      ○   Strong entity set

      ○   Weak entity set

      ○   Simple entity set

      ○   Primary entity set

Key to represent relationship between tables is called

      ○   Primary key

      ○   Secondary Key

      ○   Foreign Key

      ○   None of these

NULL is

○ The same as 0 for integer

○ The same as blank for character

○ The same as 0 for integer and blank for character

○ Not a value

In E-R Diagram derived attribute are represented by

○ Ellipse

○ Dashed ellipse

○ Rectangle

○ Triangle

A hash table has space for 75 records, then the probability of collision before the table is 6% full.

○ .15

○ .20

○ .25

○ .30

The result of the UNION operation between R1 and R2 is a relation that includes

○ All the tuples of R1

○ All the tuples of R2

○ All the tuples of R1 and R2

○ All the tuples of R1 and R2 which have common columns

An index is clustered, if

○ it is on a set of fields that form a candidate key

○ it is on a set of fields that include the primary key.

○ the data records of the file are organized in the same order as the data entries of the index.

○ the data records of the file are organized not in the same order as the data entries of the index.

The basic variants of time-stampbased method of concurrency control are

○ Total time stamp-ordering

○ Partial time stamp ordering

○ Multiversion Time stamp ordering

○ All of the above

Shadow paging has

○ No redo

○ No undo

○ Redo but no undo

○ Neither redo nor undo

Which construct in SQL is used to test whether a subquery has any tuples in its result?

○ UNIQUE

○ EXISTS

○ GROUP BY

○ EXCEPT

The rule that a value of a foreign key must appear as a value of some specific table is called a

○ Referential constraint

○ Index

○ Integrity constraint

○ Functional dependency

In an E-R diagram an entity set is represent by a

○ Rectangle

○ Ellipse

○ Diamond box

○ Circle

An entity instance is a single occurrence of on

○ Entity type

○ Relational type

○ Entity and relationship type

○ None of these

Relational Algebra is

○ Data Definition Language

○ Meta Language

○ Procedural query Language

○ None of the above

Which of the following is a valid SQL type?

     ○ Character

     ○ Numeric

     ○ Float

     ○ All of the above

ODBC stands for

     ○ Object Database Connectivity

     ○ Oral Database Connectivity

     ○ Oracle Database Connectivity

     ○ Open Database Connectivity

The relational model feature is that there

     ○ Is no need for primary key data

     ○ Is much more data independence than some other database models.

     ○ Are explicit relationships among records.

     ○ Are tables with many dimensions

Multivalued dependency among attribute is checked at which level?

     ○ 2NF

     ○ 3NF

     ○ 4NF

     ○ 5NF

The database schema is written in

- ○ HLL
- ○ DML
- ○ DDL
- ○ DCL

DIGITAL SYSTEMS

Inherited attribute is a natural choice in

○ Keeping track of variable declaration

○ Checking for the correct use of L values and R values

○ Both A and B

○ None of these

YACC builds up

○ SLR parsing table

○ Canonical LR parsing table

○ LALR parsing table

○ None of the above

In an absolute loading scheme which loader function is accomplished by assembler ?

○ re-allocation

○ allocation

○ linking

○ loading

A parser with the valid prefix property is advantageous because it

○ Detects error as soon as possible

○ Detects errors as and when they occur

○ Limits the amount of erroneous output passed to the text phase

○ All of these

The action of parsing the source program into proper syntactic classes is called

- ⚪ Syntax analysis

- ⚪ Lexical analysis

- ⚪ Interpretation analysis

- ⚪ General syntax analysis

Relocating bits used by relocating loader are specified by

- ⚪ Relocating loader itself

- ⚪ Linker

- ⚪ Assembler

- ⚪ Macro processor

What is the binary equivalent of the decimal number 368

- ⚪ 101110000

- ⚪ 110110000

- ⚪ 111010000

- ⚪ 111100000

AB+(A+B)' is equivalent to

- ⚪ A?B

- ⚪ A+B

- ⚪ (A+B)A

- ⚪ (A+B)B

A top down parser generates

- ○ Right most derivation
- ○ Right most derivation in reverse
- ○ Left most derivation
- ○ Left most derivation in reverse

Running time of a program depends on

- ○ The way the registers and addressing modes are used
- ○ The order in which computations are performed
- ○ The usage of machine idioms
- ○ All of these

Which of the following is the fastest logic

- ○ TTL
- ○ ECL
- ○ CMOS
- ○ LSI

A bottom up parser generates

- ○ Right most derivation
- ○ Right most derivation in reverse
- ○ Left most derivation
- ○ Left most derivation in reverse

The digital logic family which has the lowest propagation delay time is

- ○ ECL
- ○ TTL
- ○ CMOS
- ○ PMOS

Logic X-OR operation of (4ACO)$_H$ & (B53F)$_H$ results

- ○ AACB
- ○ 0000
- ○ FFFF
- ○ ABCD

12-bit 2's complement of −73.75 is

- ○ 01001001.1100
- ○ 11001001.1100
- ○ 10110110.0100
- ○ 10110110.1100

A grammar that produces more than one parse tree for some sentence is called

- ○ Ambiguous
- ○ Unambiguous
- ○ Regular
- ○ None of these

In order to implement a n variable switching function, a MUX must have

- ○ 2^n inputs
- ○ 2^n+1 inputs
- ○ 2^{n-1} inputs
- ○ 2^n-1 inputs

An optimizer compiler

- ○ Is optimized to occupy less space
- ○ Is optimized to take less time for execution
- ○ Optimizes the code
- ○ None of these

The absorption law in Boolean algebra say that

- ○ X + X = X
- ○ X . X = X
- ○ x + x . y = x
- ○ None of the above

Which of the following is the fastest logic?

- ○ ECL
- ○ TTL
- ○ CMOS
- ○ LSI

The linker

○ is similar to interpreter

○ uses source code as its input

○ is required to create a load module

○ none of the above

A latch is constructed using two cross-coupled

○ AND and OR gates

○ AND gates

○ NAND and NOR gates

○ NAND gates

Pee hole optimization

○ Loop optimization

○ Local optimization

○ Constant folding

○ Data flow analysis

The optimization which avoids test at every iteration is

○ Loop unrolling

○ Loop jamming

○ Constant folding

○ None of these

Scissoring enables

○ A part of data to be diaplayed

○ Entire data to be displayed

○ Full data display on full area of screen

○ No data to be displayed

The 2's complement of the number 1101101 is

○ 0101110

○ 0111110

○ 0110010

○ 0010011

Advantage of panic mode of error recovery is that

○ It is simple ti implement

○ It never gets into an infinite loop

○ Both A and B

○ None of these

Which of the following is not an intermediate code form?

○ Postfix notation

○ Syntax trees

○ Three address codes

○ Quadruples

A multiplexer is a logic circuit that

- ○ accepts one input and gives several output
- ○ accepts many inputs and gives many output
- ○ accepts many inputs and gives one output
- ○ accepts one input and gives one output

Shift reduce parsers are

- ○ Top down parser
- ○ Bottom up parser
- ○ May be top down or bottom up parser
- ○ None of the above

A compiler that runs on one machine and produces code for a different machine is called

- ○ Cross compilation
- ○ One pass compilation
- ○ Two pass compilation
- ○ None of the above

In a positive logic system, logic state 1 corresponds to

- ○ Positive voltage
- ○ Higher voltage level
- ○ Zero voltage level
- ○ Lower voltage level

Input to code generator

    ○ Source code

    ○ Intermediate code

    ○ Target code

    ○ All of the above

8-bit 1's complement form of –77.25 is

    ○ 01001101.0100

    ○ 01001101.0010

    ○ 10110010.1011

    ○ 10110010.1101

The Gray code for decimal number 6 is equivalent to

    ○ 1100

    ○ 1001

    ○ 0101

    ○ 0110

The output of lexical analyzer is

    ○ A set of regular expressions

    ○ Syntax tree

    ○ Set of tokens

    ○ Strings of character

Local and loop optimization in turn provide motivation for

- ○ Data flow analysis
- ○ Constant folding
- ○ Pee hole optimization
- ○ DFA and constant folding

Advantage of synchronous sequential circuits over asynchronous ones is

- ○ faster operation
- ○ ease of avoiding problems due to hazard
- ○ lower hardware requirement
- ○ better noise immunity

The NAND gate output will be low if the two inputs are

- ○ 00
- ○ 01
- ○ 10
- ○ 11

LR stands for

- ○ Left to right
- ○ Left to right reduction
- ○ Right to left
- ○ Left to right and right most derivation in reverse

In computers, subtraction is generally carried out by

- ○ 9's complement
- ○ 10's complement
- ○ 1's complement
- ○ **2's complement**

Which of the following is the most powerful parser?

- ○ SLR
- ○ LALR
- ○ Canonical LR
- ○ Operator precedence

Which of the following is used for grouping of characters into tokens (in a computer)

- ○ A parser
- ○ Code optimizer
- ○ Code generator
- ○ Scanner

_____or scanning is the process where the stream of characters making up the source program is read from left to right and grouped into tokens.

- ○ Lexical analysis
- ○ Diversion
- ○ Modeling
- ○ None of the above

A binary digit is called a

○ Bit

○ Byte

○ Number

○ Character

Which of the following can be accessed by transfer vector approach of linking?

○ External data segments

○ External subroutines

○ Data located in other procedure

○ All of these

Macro-processors are _____

○ Hardware

○ Compiler

○ Registers

○ None of the above

A combinational logic circuit which sends data coming from a single source to two or more separate destinations is

○ Decoder

○ Encoder

○ Multiplexer

○ Demultiplexer

DISCRETE MATHEMATICS

1) Let A and B be any two arbitrary events then which one of the following is true ?

    a. P(A intersection B) = P(A). P(B)
    b. P(A union B) = P(A) + P(B)
    c. P(AB) = P(A intersection B). P(B)
    d. P(A union B) >= P(A) + P(B)

Answer = D

2) If X and Y be the sets. Then the set (X - Y) union (Y- X) union (X intersection Y) is equal to?

    a. X union Y
    b. X^c union Y^c
    c. X intersection Y
    d. X^c intersection Y^c

Answer = A

3) If G is an undirected planer graph on n vertices with e edges then ?

    a. e<=n
    b. e<=2n
    c. e<=3n
    d. None of these

Answer = B

4) Which of the following statement is false ?

    a. G is connected and is circuitless
    b. G is connected and has n edges
    c. G is minimally connected graph
    d. G is circuitless and has n-1 edges

Answer = B

5) Probability that two randomly selected cards from a set of two red and two black cards are of same color is ?

    a. 1 / 2
    b. 1 / 3
    c. 2 / 3
    d. None of these

Answer = B

6) The number of circuits that can be created by adding an edge between any two vertices in a tree is ?

a. Two
b. Exactly one
c. At least two
d. None

Answer = B

7) In a tree between every pair of vertices there is ?

a. Exactly one path
b. A self loop
c. Two circuits
d. n number of paths

Answer = A

8) The minimum number of cards to be dealt from an arbitrarily shuffled deck of 52 cards to guarantee that three cards are from some same suit is ?

a. 8
b. 3
c. 9
d. 12

Answer = C

9) Context free languages are closed under ?

a. union, intersection
b. Intersection , complement
c. union , kleene star
d. Complement , kleene star

Answer = C

10) Let R be a symmetric and transitive relation on a set A. Then ?

a. R is reflexive and hence a partial order
b. R is reflexive and hence an equivalence relation
c. R is not reflexive and hence not an equivalence relation
d. None of above

Answer = D

1) A graph is a collection of.... ?

a. Row and columns
b. Vertices and edges
c. Equations
d. None of these

Answer = B
Explanation: A graph contains the edges and vertices

2) The degree of any vertex of graph is .... ?

   a. The number of edges incident with vertex
   b. Number of vertex in a graph
   c. Number of vertices adjacent to that vertex
   d. Number of edges in a graph

Answer = A
Explanation: The number of edges connected on a vertex v with the self loop counted twice is called the degree of vertex.

3) If for some positive integer k, degree of vertex d(v)=k for every vertex v of the graph G, then G is called... ?

   a. K graph
   b. K-regular graph
   c. Empty graph
   d. All of above

Answer = B
Explanation: A graph in which all vertices are of equal degree is called regular graph.

4) A graph with no edges is known as empty graph. Empty graph is also known as... ?

   a. Trivial graph
   b. Regular graph
   c. Bipartite graph
   d. None of these

Answer = A
Explanation: Trivial graph is the second name for empty graph.

5) Length of the walk of a graph is .... ?

   a. The number of vertices in walk W
   b. The number of edges in walk W
   c. Total number of edges in a graph
   d. Total number of vertices in a graph

Answer = B
Explanation: A walk is defined as finite altering sequence of vertices and edges. No Edges appear more than once but vertex may appear more than once.
6) If the origin and terminus of a walk are same, the walk is known as... ?

   a. Open
   b. Closed
   c. Path
   d. None of these

Answer = B
Explanation: A walk which begins and ends with same vertex is called closed walk otherwise it is open.

7) A graph G is called a ..... if it is a connected acyclic graph ?

    a. Cyclic graph
    b. Regular graph
    c. Tree
    d. Not a graph

Answer = C
for this Question.

8) Eccentricity of a vertex denoted by e(v) is defined by.... ?

    a. max { d(u,v): u belongs to v, u does not equal to v : where d(u,v) is the distance between u&v}
    b. min { d(u,v): u belongs to v, u does not equal to v }
    c. Both A and B
    d. None of these

Answer = A
Explanation: The eccentricity E(v) of a vertex V in the graph is the distance from v to the vertex farthest from v in G.

9) Radius of a graph, denoted by rad(G) is defined by.... ?

    a. max {e(v): v belongs to V }
    b. min { e(v): v belongs to V}
    c. max { d(u,v): u belongs to v, u does not equal to v }
    d. min { d(u,v): u belongs to v, u does not equal to v }

Answer = A
Explanation: The diameter or radius of a graph G is largest distance between two vertices in the graph G.

10) The complete graph K, has... different spanning trees?

    a. n^{n-2}
    b. n*n
    c. n^n
    d. n^2

Answer = A

1) A tour of G is a closed walk of graph G which includes every edge G at least once. A ..... tour of G is a tour which includes every edge of G exactly once ?

    a. Hamiltonian
    b. Planar
    c. Isomorphic
    d. Euler

Answer = D
Explanation: If some closed walk in a graph contains all the edges then the walk is called Euler.
2) Which of the following is not a type of graph ?

    a. Euler
    b. Hamiltonian
    c. Tree
    d. Path

Answer = D
Explanation:Path is a way from one node no another but not a graph.

3) Choose the most appropriate definition of plane graph ?

    a. A graph drawn in a plane in such a way that any pair of edges meet only at their end vertices
    b. A graph drawn in a plane in such a way that if the vertex set of graph can be partitioned into two non - empty disjoint subset X and Y in such a way that each edge of G has one end in X and one end in Y.
    c. A simple graph which is Isomorphic to Hamiltonian graph
    d. None of these

Answer = A
4) A continuous non - intersecting curve in the plane whose origin and terminus coincide ?

    a. Planer
    b. Jordan
    c. Hamiltonian
    d. All of these

Answer = B
Explanation: The jordan graph is the set of all vertices of minimum eccentricity that is the set of all vertices A where the greatest distance to other vertex B is minimal.
5) Polyhedral is.... ?

    a. A simple connected graph
    b. A plane graph
    c. A graph in which the degree of every vertex and every face is atleast 3
    d. All of above

Answer = D
Explanation: A polyhedral graph is the undirected graph formed from the vertices and edges of a convex polyhedron

6) A path in graph G, which contains every vertex of G once and only once ?

    a. Eulartour
    b. Hamiltonian Path
    c. Eular trail
    d. Hamiltonian tour

Answer = B
Explanation:A Hamiltonian circuit in a connected graph is defined as a closed walk that traverse every vertex of G exactly once except the starting vertex.

7) A minimal spanning tree of a graph G is.... ?

    a. A spanning sub graph
    b. A tree
    c. Minimum weights
    d. All of above

Answer = D
Explanation: A tree is said to be spanning tree of connected graph G if it is subgraph of G and contains all the vertices of G.
8) A tree having a main node, which has no predecessor is.... ?

    a. Spanning tree
    b. Rooted tree
    c. Weighted tree
    d. None of these

Answer = B
Explanation:A tree in which one vertex distinguish from all other is called rooted tree.

9) Diameter of a graph is denoted by diam(G) is defined by.... ?

    a. max (e(v) : v belongs to V)
    b. max(d(u,v))
    c. Both A and B
    d. None of these

Answer = C
Explanation: The diameter of a graph G is largest distance between two vertices in a graph G.

10) A vertex of a graph is called even or odd depending upon ?

    a. Total number of edges in a graph is even or odd
    b. Total number of vertices in a graph is even or odd
    c. Its degree is even or odd
    d. None of these

Answer = C
Explanation: The vertex of a graph is called even or odd based on its degree.
1) Let A and B be any two arbitrary events then which one of the following is true ?

    a. P(A intersection B) = P(A). P(B)
    b. P(A union B) = P(A) + P(B)
    c. P(AB) = P(A intersection B). P(B)
    d. P(A union B) >= P(A) + P(B)

Answer = D

2) If X and Y be the sets. Then the set (X - Y) union (Y- X) union (X intersection Y) is equal to?

    a. X union Y
    b. X^c union Y^c
    c. X intersection Y
    d. X^c intersection Y^c

Answer = A

3) If G is an undirected planer graph on n vertices with e edges then ?

    a. e<=n
    b. e<=2n
    c. e<=3n
    d. None of these

Answer = B

4) Which of the following statement is false ?

    a. G is connected and is circuitless
    b. G is connected and has n edges
    c. G is minimally connected graph
    d. G is circuitless and has n-1 edges

Answer = B

5) Probability that two randomly selected cards from a set of two red and two black cards are of same color is ?

    a. 1 / 2
    b. 1 / 3
    c. 2 / 3
    d. None of these

Answer = B

6) The number of circuits that can be created by adding an edge between any two vertices in a tree is ?

    a. Two
    b. Exactly one
    c. At least two
    d. None

Answer = B

7) In a tree between every pair of vertices there is ?

    a. Exactly one path
    b. A self loop
    c. Two circuits
    d. n number of paths

Answer = A

8) The minimum number of cards to be dealt from an arbitrarily shuffled deck of 52 cards to guarantee that three cards are from some same suit is ?

    a. 8
    b. 3
    c. 9
    d. 12

Answer = C

9) Context free languages are closed under ?

    a. union, intersection
    b. Intersection , complement
    c. union , kleene star
    d. Complement , kleene star

Answer = C

10) Let R be a symmetric and transitive relation on a set A. Then ?

    a. R is reflexive and hence a partial order
    b. R is reflexive and hence an equivalence relation
    c. R is not reflexive and hence not an equivalence relation
    d. None of above

Answer = D

A graph G is called a ..... if it is a connected acyclic graph

    ○ Cyclic graph

    ○ Regular graph

    ○ Tree

    ○ Not a graph

What is the probability of choosing correctly an unknown integer between 0 and 9 with 3 chances ?

    ○ 963/1000

    ○ 966/1000

    ○ 968/1000

    ○ 969/1000

In an undirected graph the number of nodes with odd degree must be

- ○ Zero
- ○ Odd
- ○ Prime
- ○ Even

A graph is a collection of

- ○ Row and columns
- ○ Vertices and edges
- ○ Equations
- ○ None of these

The relation { (1,2), (1,3), (3,1), (1,1), (3,3), (3,2), (1,4), (4,2), (3,4)} is

- ○ Reflexive
- ○ Transitive
- ○ Symmetric
- ○ Asymmetric

An undirected graph possesses an eulerian circuit if and only if it is connected and its vertices are

- ○ all of even degree
- ○ all of odd degree
- ○ of any degree
- ○ even in number

How many relations are there on a set with n elements that are symmetric and a set with n elements that are reflexive and symmetric ?

- ○ 2n(n+1)/2 and 2n.3n(n–1)/2
- ○ 3n(n–1)/2 and 2n(n–1)
- ○ 2n(n+1)/2 and 3n(n–1)/2
- ○ 2n(n+1)/2 and 2n(n–1)/2

The number of colours required to properly colour the vertices of every planer graph is

- ○ 2
- ○ 3
- ○ 4
- ○ 5

In how many ways can a president and vice president be chosen from a set of 30 candidates?

- ○ 820
- ○ 850
- ○ 880
- ○ 870

Consider an undirected random graph of eight vertices. The probability that there is an edge between a pair of vertices is ½. What is the expected number of unordered cycles of length three?

- ○ 1/8
- ○ 1
- ○ 7
- ○ 8

In a graph if e=(u, v) means

- ○ u is adjacent to v but v is not adjacent to u
- ○ e begins at u and ends at v
- ○ u is processor and v is successor
- ○ both b and c

A minimal spanning tree of a graph G is

- ○ A spanning sub graph
- ○ A tree
- ○ Minimum weights
- ○ All of above

The number of leaf nodes in a complete binary tree of depth d is

- ○ 2d
- ○ 2d–1+1
- ○ 2d+1+1
- ○ 2d+1

A partial ordered relation is transitive, reflexive and

- ○ Antisymmetric
- ○ Bisymmetric
- ○ Anti reflexive.
- ○ Asymmetric

In a graph if e=[u, v], Then u and v are called

○ Endpoints of e

○ Adjacent nodes

○ Neighbors

○ All of above

In how many ways can a hungry student choose 3 toppings for his prize from a list of 10 delicious possibilities?

○ 100

○ 120

○ 110

○ 150

A graph with n vertices will definitely have a parallel edge or self loop if the total number of edges are

○ greater than n–1

○ less than n(n–1)

○ greater than n(n–1)/2

○ less than n2/2

A vertex of a graph is called even or odd depending upon

○ Total number of edges in a graph is even or odd

○ Total number of vertices in a graph is even or odd

○ Its degree is even or odd

○ None of these

In any undirected graph the sum of degrees of all the nodes

○ Must be even

○ Are twice the number of edges

○ Must be odd

○ Need not be even

The expression a+a c is equivalent to

○ a

○ a+c

○ c

○ 1

A graph with one vertex and no edges is

- ○ multigraph
- ○ digraph
- ○ isolated graph
- ○ trivial graph

Length of the walk of a graph is

- ○ The number of vertices in walk W
- ○ The number of edges in walk W
- ○ Total number of edges in a graph
- ○ Total number of vertices in a graph

The number of colours required to properly color vertices of every planar graph is

- ○ 2
- ○ 3
- ○ 4
- ○ 5

- ○ A
- ○ B
- ○ C
- ○ D

A graph with no edges is known as empty graph. Empty graph is also known as

- ○ Trivial graph
- ○ Regular graph
- ○ Bipartite graph
- ○ None of these

Which two of the following are equivalent for an undirected graph G?
(i) G is a tree
(ii) There is at least one path between any two distinct vertices of G
(iii) G contains no cycles and has (n-1) edges
(iv)G has n edges

- ○ (i) and (ii)
- ○ (i) and (iii)

○ (i) and (iv)

○ (ii) and (iii)

Choose the most appropriate definition of plane graph

○ A graph drawn in a plane in such a way that any pair of edges meet only at their end vertices

○ A graph drawn in a plane in such a way that if the vertex set of graph can be partitioned into two non - empty disjoint subset X and Y in such a way that each edge of G has one end in X and one end in Y

○ A simple graph which is Isomorphic to Hamiltonian graph

○ None of these

A continuous non intersecting curve in the plane whose origin and terminus coincide

○ Planer

○ Jordan

○ Hamiltonian

○ All of these

A graph with n vertices will definitely have a parallel edge or self loop of the total number of edges are

○ more than n

○ more than n+1

○ more than (n+1)/2

○ more than n(n-1)/2

A debating team consists of 3 boys and 2 girls. Find the number of ways they can sit in a row?

○ 120

○ 24

○ 720

○ 12

Which one of the following statements is incorrect ?

○ The number of regions corresponds to the cyclomatic complexity.

○ Cyclometric complexity for a flow graph G is V(G) = N–E+2, where E is the number of edges and N is the number of nodes in the flow graph.

○ Cyclometric complexity for a flow graph G is V(G) = E–N+2, where E is the number of edges & N is the number of nodes in the flow graph.

○ Cyclometric complexity for a flow graph G is V(G) = P + 1, where P is the number of predicate nodes contained in the flow graph G.

Which of the following pair is not congruent modulo 7?

    ○   10, 24

    ○   25, 56

    ○   -31, 11

    ○   -64, -15

The maximum degree of any vertex in a simple graph with n vertices is

    ○ $n-1$

    ○ $n+1$

    ○ $2n-1$

    ○ n

The complete graph with four vertices has k edges where k is

    ○   3

    ○   4

    ○   5

    ○   6

Consider a weighted undirected graph with positive edge weights and let (u, v) be an edge in the graph. It is known that the shortest path from source vertex s to u has weight 53 and shortest path from s to v has weight 65. Which statement is always true ?

    ○   Weight (u, v) <= 12

    ○   Weight (u, v) = 12

    ○   Weight (u, v) >= 12

    ○   Weight (u, v) > 12

How many onto (or surjective) functions are there from an n-element (n => 2) set to a 2-element set?

    ○ 2^n

    ○ $2^n - 1$

    ○ $2^n - 2$

    ○ $2(2^n - 2)$

Suppose v is an isolated vertex in a graph, then the degree of v is

    ○   0

    ○   1

○ 2

○ 3

The number of nodes in a complete binary tree of height h (with roots at level 0) is equal to

○ $2^0 + 2^1 + \ldots 2^h$

○ $2^0 + 2^1 + \ldots 2^{h-1}$

○ $2^0 + 2^1 + \ldots 2^{h+1}$

○ $2^1 + \ldots 2^{h+1}$

Hasse diagram are drawn

○ Partially ordered sets

○ Lattices

○ Boolean algebra

○ None of these

In how many ways can 5 balls be chosen so that 2 are red and 3 are black

○ 910

○ 990

○ 970

○ 960

Circle has _____

○ No vertices

○ Only 1 vertex

○ 8 vertices

○ None of these

How many different words can be formed out of the letters of the word VARANASI?

○ 64

○ 120

○ 40320

○ 720

The proposition ~qvp is equivalent to

○ p?q

○ q?p

○ p?q

○ p?q

A graph is tree if and only if

○ Is planar

○ Contains a circuit

○ Is minimally

○ Is completely connected

If B is a Boolean Algebra, then which of the following is true

○ B is a finite but not complemented lattice

○ B is a finite, complemented and distributive lattice

○ B is a finite, distributive but not complemented lattice

○ B is not distributive lattice

Let G be a simple undirected planar graph on 10 vertices with 15 edges. If G is a connected graph, then the number of bounded faces in any embedding of G on the plane is equal to

○ 3

○ 4

○ 5

○ 6

The number of distinguishable permutations of the letters in the word BANANA are,

○ 60

○ 36

○ 20

○ 10

If R is a relation "Less Than" from A = {1,2,3,4} to B = {1,3,5} then RoR-1 is

○ {(3,3), (3,4), (3,5)}

○ {(3,1), (5,1), (3,2), (5,2), (5,3), (5,4)}

○ {(3,3), (3,5), (5,3), (5,5)}

○ {(1,3), (1,5), (2,3), (2,5), (3,5), (4,5)}

Basic MCQs of Computer Science (IT)

1. Mostly which of the following device is used to carry user files?
A. Floppy Disk   B. Hard Disk
C. RAM   D. CDROM
Answer: A

2. Which device is used to backup the data?
A. Floppy Disk   B. Tape
C. Network Drive.   D. All of the above
Answer: D

3. In order to play and hear sound on a computer, one needs:
A. a sound card and speakers   B. a microphone
C. all of them required   D. none of them required
Answer: A

4. Which of the following are the cheapest memory devices in terms of Cost/Bit?
A. Semiconductor memories   B. Magnetic Disks
C. Compact Disks   D. Magnetic Tapes
Answer: C

5. Which of the following are the best units of data on an external storage device?
A. Bits   B. Bytes
C. Hertz   D. Clock cycles
Answer: B

6. Which of the following have the fastest access time?
A. Semiconductor Memories   B. Magnetic Disks
C. Magnetic Tapes   D. Compact Disks
Answer: A

7. Which of the following is a read only memory storage device?
A. Floppy Disk   B. CDROM
C. Hard Disk   D. None of these
Answer: B

8. Which of the following is a programming language?
A. Lotus   B. Pascal
C. MS-Excel   D. Netscape
Answer: B

9. What is a compiler?
A. A compiler does a conversion line by line as the program is run
B. A compiler converts the whole of a higher level program code into machine code in one step
C. A compiler is a general purpose language providing very efficient execution
D. None of the above
Answer: B

10. What is an interpreter?
A. An interpreter does the conversion line by line as the program is run
B. An interpreter is the representation of the system being designed
C. An interpreter is a general purpose language providing very efficient execution
D. None of the above
Answer: B

11. When a key is pressed on the keyboard, which standard is used for converting the keystroke into the corresponding bits?
A. ANSI   B. ASCII
C. EBCDIC   D. ISO
Answer: A

13. A Pixel is ………
A. A computer program that draws picture
B. A picture stored in secondary memory
C. The smallest resolvable part of a picture
D. None of these
Answer: C
14. Which device is used as the standard pointing device in a Graphical User Environment?
A. Keyboard   B. Mouse
C. Joystick   D. Track ball
Answer: B
15. Which number system is usually followed in a typical 32-bit computer?
A. 2   B. 10
C. 16   D. 32
Answer: A
16. Which number system is usually followed in a typical 32-bit computer?
A. Binary   B. Decimal
C. Hexadecimal   D. Octal
Answer: A
17. Which of the following is not an output device?
A. Scanner   B. Printer
C. Flat Screen   D. Touch Screen
Answer: D
18. Which of the following devices have a limitation that we can only store information to it but cannot erase or modify it?
A. Floppy Disk   B. Hard Disk
C. Tape Drive   D. CDROM
Answer: D
19. Which technology is used in Compact disks?
A. Mechanical   B. Electrical
C. Electro Magnetic   D. Laser
Answer: D
20. Which of the following storage devices can store maximum amount of data?
A. Floppy Disk   B. Hard Disk
C. Compact Disk   D. Magneto Optic Disk
Answer: B
21. Which of the following is the largest manufacturer of Hard Disk Drives?
A. IBM   B. Seagate
C. Microsoft   D. 3M
Answer: B
22. The programs which are as permanent as hardware and stored in ROM is known as
A. Hardware   B. Software
C. Firmware   D. ROM ware
Answer: C
23. Memory unit is one part of
A. Input device   B. Control unit
C. Output device   D. Central Processing Unit
Answer: D
24.Who built the first Mechanical Calculator
A. Joseph Marie Jacquard   B. John Mauchly
C. Blaise Pascal   D. Howard Aiken
Answer: C

25. The earliest calculating devices are
A. Abacus   B. Clock
C. Difference Engine   D. None of these
Answer: A
26. Punched cards were first introduced by
A. Powers   B. Pascal
C. Jacquard   D. Herman Hollerith
Answer: D
27. Word length of a Personal Computer is ___
A. 4 bits   B. 8 bits
C. 16 bits   D. 64 bits
Answer: B
28. Cursor is a ____
A. Pixel   B. Thin blinking line
C. Pointing device   D. None of these
Answer: B
29. Operating system, editors, and debuggers comes under?
A. System Software   B. Application Software
C. Utilities   D. None of the above
Answer: A
30. Which device is required for the Internet connection?
A. Joystick   B. Modem
C. CD Drive   D. NIC Card
Answer: B
31. What does DMA stand for?
A. Distinct Memory Access   B. Direct Memory Access
C. Direct Module Access   D. Direct Memory Allocation
Answer: B
32. When did John Napier develop logarithm?
A. 1416   B. 1614
C. 1641   D. 1804
Answer: B
33. A normal CD-ROM usually can store up to _____data?
A. 680 KB   B. 680 Bytes
C. 680 MB   D. 680 GB
Answer: C
34. ATM stands for?
A. Automatic Talking Machine
B. Automatic Teller Machine
C. Analog Teller Machine
D. Automatic Ticketing Machine
Answer:B
35. The Second Generation Computer was based on ………….
A. Vacuum Tube   B. Silicon Chips
C. Transistor   D. Bio Chips
Answer: C
36. The Third Generation Computer was made with ………….
A. Vacuum Tube   B. Discrete Components
C. IC   D. Bio Chips
Answer: C

37. he BIOS is the abbreviation of …………

A. Basic Input Output System   B. Best Input Output System

C. Basic Input Output Symbol   D. Base Input Output System

Answer: A

38. What do you call a single point on a computer screen

A. Cell   B. Element

C. Pixel   D. Bit

Answer: C

39. How was the generation of computer classified?

A. by the device used in memory & processor

B. by the speed of computer

C. by the model of the computer

D. by the accuracy of computer

Answer: A

40. Through which device the main components of the computer communicate with each other?

A. Keyboard   B. System Bus

C. Monitor   D. Memory

Answer: B

41. Which is a valid program to access the Internet?

A. Access   B. Front Page

C. Windows Explorer   D. Netscape

Answer: D

42. Which one is the Low Level Language?

A. Assembly   B. Visual Basic

C. Java   D. C++

Answer: A

43. Which is a volatile memory?

A. ROM   B. BIOS

C. PROM   D. RAM

Answer: D

44. The digital signals can be represented by

A. Binary Codes   B. 0 and 1

C. High and Low   D. all of the above

Answer: D

45. Which program can be used for email?

A. Internet Explorer   B. Outlook Express

C. NetMeeting   D. FrontPage

Answer: B

46. Modulator-demodulator is a device that converts:

A. Digital signal into analog signal

B. Analog signal into digital signal

C. Both A and B

D. None of the above

Answer: C

47. _____ is used for scanning the pictures and putting them in digitized form in the computer.

A. CD-ROM   B. Plotter

C. Bar-coder   D. Scanner

Answer: D

48. Animator, 3D Studio, Corel Draw and Flash are………….

A. Word processors   B. Spreadsheet packages

C. Multimedia S/W   D. None of the above

Answer: C

49. Which statement is valid?

A. 1 KB = 8 bytes

B. 1 MB = 8 KB

C. 1 KB = 1024 bytes

D. 1 MB = 1024 bytes

Answer: C

50. Which device is used to process data?

A. CPU

B. RAM

C. DCU

D. VDU

Answer: A

51. Who is known as the father of Computer Science?

A. Charles Babbage

B. Howard Aiken

C. Dr. Herman Hollerith

D. Blaise Pascal

Answer: A

52. What is the capacity of a 3.5" Floppy Disk?

A. 360KB

B. 720KB

C. 1.2MB

D. 1.44MB

Answer: D

53. A Personal Computer (PC) is a …………….. Computer.

A. Super

B. Main Frame

C. Mini

D. Micro

Answer: D

54. What type of printers are Dot Matrix Printers?

A. Laser

B. Inkjet

C. Impact

D. Drum

Answer: C

55. What is the full form of RAM?

A. Read Access Memory

B. Random Access Memory

C. Rapid access Memory

D. none

Answer: B

LINUX AND UNIX

The advantage of binary files over text files is that

◯ It is compact

◯ It can be accessed faster

◯ Many commands assume the named file to be a binary file

◯ They are more reliable

UNIX was developed by

◯ Bell labs

◯ Berkley software

◯ California university

◯ American defence academy

Mounting a file system results in the loading of

◯ Boot block

◯ Super block

◯ i-node table

◯ All of these

Profilers are

◯ Tools that analyze the run time behavior of a program

◯ Tools that check C code for cross file consistency

◯ Tools that keep track of evolving versions of a file

◯ None of the above

Which command is used to extract specific columns from the file?

◯ cut

◯ grep

◯ Past

◯ cat

Which of the following system calls,does not return control to the calling point, on termination?

◯ Fork

◯ Exec

◯ Ioct1

◯ Longjmp

The Unix command used to find out the number of characters in a file is

- ○ nc
- ○ wc
- ○ chcnt
- ○ c

Which command is used to display the characteristics of a process?

- ○ pid
- ○ ps
- ○ du
- ○ au

The command that can be used to restrict incoming messages to a user is

- ○ Mesg
- ○ Halt
- ○ Grep
- ○ Sleep

Which command is used to remove a file

- ○ Rename
- ○ MV
- ○ RM
- ○ Del

When a process makes a system call ,its mode changes from

- ○ User to kernel
- ○ Kernel to user
- ○ Restricted to unrestricted
- ○ Unrestricted to restricted

Which of the following file names can be found in more than one directory?

- ○ Passwd
- ○ Bin
- ○ Date
- ○ None of the above

Which of the following are not system calls?

- Chmod
- Open
- Lseek
- Getc

Which of the following files contains information related to password aging?

- Shadow
- Profile
- Password
- All of these

Environment variables can be accessed by

- System programs
- C programs
- Shell scripts
- None of the above

Which of the following system calls transforms an executable binary file into a process?

- Fork
- Exec
- Ioct1
- Longjmp

Which command allows you to view your file 24 lines at a time ?

- More
- Cat
- Pg
- None of the above

Which of the following keys is used to replace a single character with new text?

- S
- s
- r
- C

Which command will be used with vi editor to append text at end of line?

- ○ A
- ○ i
- ○ a
- ○ I

An attempt to read from locked file,results in

- ○ Prematured termination
- ○ A deadlock
- ○ An indefinite wait
- ○ None of the above

The tail command in UNIX

- ○ Can be used to look at the tail or bottom of the file
- ○ Can be used to display the list of last 10 files in the current directory
- ○ Can be used to display the list of last 15 in the current directory
- ○ None of the above

Which command is used to display the device name of the terminal you are using?

- ○ who
- ○ ls
- ○ tty
- ○ stty

Which of the following shell scripts looping features does not recognize the break command?

- ○ While
- ○ Until
- ○ For
- ○ None of the above

Kernel is not involved

- ○ When a read operation is done
- ○ When a pressed key is echoed on to the screen
- ○ In resource allocation
- ○ None of the above

The file that stores an integer as a sequence of characters is a

- ⊙ Text file
- ⊙ Data file
- ⊙ Binary file
- ⊙ Core

Which of the following command the file names in multiple columns?

- ⊙ IS–X
- ⊙ IS
- ⊙ IS–1
- ⊙ IS–f–X

Which of the following is not a communication command?

- ⊙ Write
- ⊙ Mail
- ⊙ Mesg
- ⊙ Grep

The sort command in UNIX

- ⊙ Used to sort a file
- ⊙ Used to sort the list of files in a directory
- ⊙ Both A and B
- ⊙ None of the above

Which of the following changes permission to deny write permission to group and others?

- ⊙ Chmod go-w filex
- ⊙ Chmod go w filex
- ⊙ Chmod go=w file
- ⊙ None of the above

Which command is used to create a directory?

- ⊙ CRDIR
- ⊙ MKDIR
- ⊙ MD
- ⊙ CR

Which one of the following options is not a shell in UNIX system?

○ Bourne Shell

○ C Shell

○ Net Shell

○ Korn Shell

Which of the following tools can be used to keep track of evolving version of a file?

○ Make

○ Yacc

○ SCCS

○ dv

Which of the following commands is used to count the total number of lines,words and characters contained in a file?

○ count p

○ wcount

○ wc

○ count w

Which of the following statement best explains a process?

○ It is a program.

○ It is a program in execution.

○ It is an instance of a program in execution.

○ It is a program that uses system calls.

Files that can store data in the same format as used in program are called

○ Binary files

○ Source file

○ Text file

○ Core

Which of the following sections of an executable binary file has all uninitialized data items?

○ BSS

○ Data

○ Header

○ Symbol

Shell functions

○ Are another name for shell procedures

○ Execute faster than shell procedures

○ Are executed by a new shell

○ Are not executed by new shell

Command_____compares two files byte by byte and displays the first mismatch.

○ cmp

○ comp

○ cmap

○ None of these

Which command is used to change protection mode of files starting with the string emp and ending with 1,2, or 3?

○ chmod 777 emp*

○ chmod u x emp[l-3]

○ chmod u r ??? emp

○ chmod 222 emp?

Which of the following commands is used for an automatic remainder service?

○ Write

○ Calender

○ Mail

○ Mesg

In which section of a process,the information about the arguments to the program are available?

○ Data

○ Text

○ Stack

○ User block

If cat x ,prints garbage ,then x is probably a

○ Data file

○ Binary file

○ Text file

○ Source file

Which of the following calls never returns an error?

○ Getpid

○ Fork

○ Ioct1

○ Open

The tar command in UNIX

○ Used to create compressed archives of directories and files

○ Used to extract directories and files from an archives

○ Both A and B

○ None of the above

Which command is used to display a file contents in octal form?

○ cd

○ of

○ od

○ oct

To allow only one user to work with a particular file at a particular time ,one has to

○ Semaphore

○ Critical region

○ Locking

○ Dedicated mode

Which command is used with vi editor to delete a single character?

○ Z

○ y

○ a

○ x

The cat command is used to

○ Print a file

○ Display a file

○ Capture a file

○ Copy a file

Which command is used with vi editor to move the cursor to the left?

- ○ i
- ○ k
- ○ j
- ○ h

Which of the following is not a filter?

- ○ cat
- ○ wc
- ○ grep
- ○ sort

O O P S

What will be the output of following program?
```
#include<iostream.h>
void main()
{
float x;
x=(float)9/2;
cout<<x;
}
```

- ○ 4.5
- ○ 4.0
- ○ 4

The term _____ means the ability to take many forms.

- ○ Inheritance
- ○ Polymorphism
- ○ Member function
- ○ Encapsulation

Runtime polymorphism is achieved by

- ○ Friend function
- ○ Virtual function
- ○ Operator overloading
- ○ Function overloading

Access to private data

- ○ Restricted to methods of the same class
- ○ Restricted to methods of other classes
- ○ Available to methods of the same class and other classes
- ○ Not an issue because the program will not compile

Additional information sent when an exception is thrown may be placed in

- ○ The throw keyword
- ○ The function that caused the error
- ○ The catch block
- ○ An object of the exception class

A static data member is given a value

○ Within the class definition

○ Outside the class definition

○ When the program is exeuted

○ Never

What will be the result of the expression 13 & 25?

○ 38

○ 25

○ 9

○ 12

In a class specifier ,data or function designated private are accessible

○ To any function in the program

○ Only if you the password

○ To member functions of that class

○ Only to public members of the class

Which of the statements are true ?
I. Function overloading is done at compile time.
II. Protected members are accessible to the member of derived class.
III. A derived class inherits constructors and destructors.
IV. A friend function can be called like a normal function.
V. Nested class is a derived class.

○ I, II, III

○ II, III, V

○ III, IV, V

○ I, II, IV

At which point of time a variable comes into existence in memory is determined by its

○ Scope

○ Storage class

○ Data type

○ All of the above

When the compiler cannot differentiate between two overloaded constructors, they are called

○ Overloaded

○ Destructed

○ Ambiguous

○ Dubious

The actual source code for implementing a template function is created when

○ The declaration of function appears.

○ The function is invoked.

○ The definition of the function appears.

○ None of the above.

Usually a pure virtual function

○ Has complete function body

○ Will never be called

○ Will be called only to delete an object

○ Is defined only in derived class

Which of the following is the valid class declaration header for the derived class d with base classes b1 and b2?

○ class d : public b1, public b2

○ class d : class b1, class b2

○ class d : public b1, b2

○ class d : b1, b2

The process of extracting the relevant attributes of an object is known as

○ Polymorphism

○ Inheritence

○ Abstraction

○ Data hiding

What features make C++ so powerful ?

○ Easy implementation

○ Reusing old code

○ Reusing old code

○ All of the above

Which of the following operator can be overloaded through friend function?

- ○ ->
- ○ =
- ○ ( )
- ○ *

The keyword friend does not appear in

- ○ The class allowing access to another class
- ○ The class desiring access to another class
- ○ The private section of a class
- ○ The public section of a class

Exception handling is targeted at

- ○ Run-time error
- ○ Compile time error
- ○ Logical error
- ○ All of the above

Function templates can accept

- ○ Any type of parameters
- ○ Only one parameter
- ○ Only parameters of the basic type
- ○ Only parameters of the derived type

If the variable count exceeds 100, a single statement that prints "Too many" is

- ○ if (count<100) cout << "Too many";
- ○ if (count>100) cout >> "Too many";
- ○ if (count>100) cout << "Too many";
- ○ None of these.

The mechanism that binds code and data together and keeps them secure from outside world is known as

- ○ Abstraction
- ○ Inheritance
- ○ Encapsulation
- ○ Polymorphism

The operator << when overloaded in a class

- ○ must be a member function
- ○ must be a non member function
- ○ can be both (A) & (B) above
- ○ cannot be overloaded

To access the public function fbase() in the base class, a statement in a derived class function fder() uses the statement.fbase();

- ○ fbase();
- ○ fder();
- ○ base::fbase();
- ○ der::fder();

In which case is it mandatory to provide a destructor in a class?

- ○ Almost in every class
- ○ Class for which two or more than two objects will be created
- ○ Class for which copy constructor is defined
- ○ Class whose objects will be created dynamically

_____ members of a base class are never accessible to a derived class.

- ○ Public
- ○ Private
- ○ Protected
- ○ A,B and C

What is the error in the following code?
```
class t
{
virtual void print();
}
```

- ○ No error
- ○ Function print() should be declared as static.
- ○ Function print() should be defined.
- ○ Class t should contain data members.

It is possible to declare as a friend

- ○ A member function
- ○ A global function
- ○ A class
- ○ All of the above

A struct is the same as a class except that

- ○ There are no member functions
- ○ All members are public
- ○ Cannot be used in inheritance hierarchy
- ○ It does have a this pointer

C++ was originally developed by

- ○ Clocksin and Melish
- ○ Donald E.Knuth
- ○ Sir Richard Hadlee
- ○ Bjarne Stroustrup

What is the output of the following code
char symbol[3]={'a','b','c'};
for (int index=0; index<3; index++)
cout << symbol [index];

- ○ a b c
- ○ "abc"
- ○ abc
- ○ 'abc'

If we create a file by 'ifstream', then the default mode of the file is _____

- ○ ios :: out
- ○ ios :: in
- ○ ios :: app
- ○ ios :: binary

The following can be declared as friend in a class

- ○ An object
- ○ A class
- ○ A public data member

○ A private data member

The polymorphism can be characterized by the phrase

○ One interface,multiple methods

○ Multiple interfaces,one method

○ One interface,one method

○ None of the above

A virtual class is the same as

○ An abstract class

○ A class with a virtual function

○ A base class

○ None of the above

Member functions, when defined within the class specification

○ Are always inline

○ Are not inline

○ Are inline by default, unless they are too big or too complicated

○ Are not inline by default.

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 ?

○ Derived class constructor followed by Base class constructor.

○ Base class constructor followed by derived class constructor.

○ Base class constructor will not be called.

○ Base class constructor will not be called.

The operator that cannot be overloaded is

○ ++

○ : :

○ ~

○ ( )

Which of the following declarations are illegal?

○ void *ptr;

○ char *str = "hello";

○ char str = "hello";

○ const *int p1;

Identify the operator that is NOT used with pointers

○ ->

○ &

○ *

○ >>

Which of the following statements is NOT valid about operator overloading?

○ Only existing operators can be overloaded

○ Overloaded operator must have at least one operand of its class type

○ The overloaded operators follow the syntax rules of the original operator

○ None of the above

Overloading a postfix increment operator by means of a member function takes

○ No argument

○ One argument

○ Two arguments

○ Three arguments

Which of the following will produce a value 10 if x = 9.7?

○ floor(x)

○ abs(x)

○ log(x)

○ ceil(x)

Which of the following is not the characteristic of constructor?

○ They should be declared in the public section.

○ They do not have return type.

○ They can not be inherited.

○ They can be virtual.

You may override the class access specifiers

○ Public members

○ Public and protected members

○ Any specific class members you choose

○ No class members

You separated a derived class name from its access specifier with

- ○ A colon
- ○ Two colons
- ○ Atleast one space
- ○ A semi colon

Consider the following statements:
int x = 22,y=15;
x = (x>y) ? (x+y) : (x-y);
What will be the value of x after executing these statements?

- ○ 22
- ○ 37
- ○ 7
- ○ 5

A friend function to a class, C cannot access

- ○ Private data members and member functions
- ○ Public data members and member functions
- ○ Protected data members and member functions
- ○ The data members of the derived class of C

The members of a class by default are

- ○ Public
- ○ Protected
- ○ Private
- ○ Mandatory to specify

If x =5, y =2 then x ^y equals_____.
(where ^ is a bitwise XOR operator)

- ○ 00000111
- ○ 10000010
- ○ 10100000
- ○ 11001000

SET-1

1. A script is a

a. Program or sequence of instructions that is interpreted or carried out by processor directly

b. Program or sequence of instruction that is interpreted or carried out by another program

c. Program or sequence of instruction that is interpreted or carried out by web server only

d. None of above

3. When compared to the compiled program, scripts run

a. Faster

b. Slower

c. The execution speed is similar

d. All of above

4. PHP is a widely used ……………. scripting language that is especially suited for web development and can be embedded into html

a. Open source general purpose

b. Proprietary general purpose

c. Open source special purpose

d. Proprietary special purpose

5. Which of the following is not true?

a. PHP can be used to develop web applications.

b. PHP makes a website dynamic.

c. PHP applications can not be compiled.

d. PHP can not be embedded into html.

6. The most portable version of PHP tag that is compatible to embed in XML or XHTML too is:

a. <? ?>

b. <script language="php"> </script>

c. <% %>

d.

7.   Which of the following variables is not a predefined variable?

a. $get

b. $ask

c. $request

d. $post

8.   You can define a constant by using the define() function. Once a constant is defined

a.   It can never be changed or undefined

b.   It can never be changed but can be undefined

c.   It can be changed but can not be undefined

d.   It can be changed and can be undefined

9.   The following piece of script will output:
```
<?
$email='admin@psexam.com';

$new=strstr($email, '@&rsquo       ;
print $new;
?>
```

a.   admin

b.   admin@psexam

c.   @psexam.com

d.   psexam.com

10. Which of the following function returns the number of characters in a string variable?

a.   count($variable)

b.   len($variable)

c.   strcount($variable)

d.   strlen($variable)

11. When you need to obtain the ASCII value of a character which of the following function you apply in PHP?

a.   chr( );

b.   asc( );

c.   ord( );

d.   val( );

12. A variable $word is set to "HELLO WORLD", which of the following script returns in title case?

a.   echo ucwords($word)

b.   echo ucwords(strtolower($word)

c.   echo ucfirst($word)

d.   echo ucfirst(strtolower($word)

13. The difference between include() and require()

a.   are different how they handle failure

b.   both are same in every aspects

c.   is include() produced a Fatal Error while require results in a Warning

d.   none of above

14. When a file is included the code it contains, behave for variable scope of the line on which the include occurs

a.   Any variable available at that line in the calling file will be available within the called file from that point

b.   Any variable available at that line in the calling file will not be available within the called file

c.   Variables are local in both called and calling files

d.   None of above

15. Which of the following method sends input to a script via a URL?

a.   Get

b.   Post

c.   Both

d.   None

16. Which of the following method is suitable when you need to send larger form submissions?

a.   Get

b.   Post

c.   Both Get and Post

d.   There is no direct way for larger form. You need to store them in a file and retrieve

17. Which of the following mode of fopen() function opens a file only for writing. If a file with that name does not exist, attempts to create anew file. If the file exist, place the file pointer at the end of the file after all other data.

a.   W

b.   W+

c.   A

d.   A+

18. The function setcookie( ) is used to

a.   Enable or disable cookie support

b.   Declare cookie variables

c.   Store data in cookie variable

d.   All of above

19. To work with remote files in PHP you need to enable

a.   allow_url_fopen

b.   allow_remote_files

c.   both of above

d.   none of above

20. fopen($file_doc,"r+&rdquo   opens a file for

a.   reading

b.   writing

c.   none of above

d.   both of above

Answers:

1. A script is a

b. Program or sequence of instruction that is interpreted or carried out by another program

3. When compared to the compiled program, scripts run

b. Slower

4. PHP is a widely used ……………. scripting language that is especially suited for web development and can be embedded into html

a. Open source general purpose

5. Which of the following is not true?

d. PHP can not be embedded into html.

6. The most portable version of PHP tag that is compatible to embed in XML or XHTML too is:

d.

7. Which of the following variables is not a predefined variable?

b. $ask

8. You can define a constant by using the define() function. Once a constant is defined

a. It can never be changed or undefined

9. The following piece of script will output:
```
<?
$email='admin@psexam.com';

$new=strstr($email, '@&rsquo        ;
print $new;
?>
```

c. @psexam.com

10. Which of the following function returns the number of characters in a string variable?

d. strlen($variable)

11. When you need to obtain the ASCII value of a character which of the following function you apply in PHP?

c. ord( );

12. A variable $word is set to "HELLO WORLD", which of the following script returns in title case?

b.   echo ucwords(strtolower($word)

13. The difference between include() and require()

a.   are different how they handle failure

14. When a file is included the code it contains, behave for variable scope of the line on which the include occurs

a.   Any variable available at that line in the calling file will be available within the called file from that point

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a.   Get

16. Which of the following method is suitable when you need to send larger form submissions?

b.   Post

17. Which of the following mode of fopen() function opens a file only for writing. If a file with that name does not exist, attempts to create anew file. If the file exist, place the file pointer at the end of the file after all other data.

c.   A

18. The function setcookie( ) is used to

c.   Store data in cookie variable

19. To work with remote files in PHP you need to enable

a.   allow_url_fopen

20. fopen($file_doc,"r+&rdquo   opens a file for

d.   both of above

SET-3

1. In mail($param2, $param2, $param3, $param4), the $param2 contains:

a.   The message

b.   The recipient

c.   The header

d.   The subject

2. mysql_connect( ) does not take following parameter

a. database host

b. user ID

c. password

d. database name

3. Study following steps and determine the correct order

(1) Open a connection to MySql server

(2) Execute the SQL query

(3) Fetch the data from query

(4) Select database

(5) Close Connection

a. 1, 4, 2, 3, 5

b. 4, 1, 2, 3, 5

c. 1, 5, 4, 2, 1

d. 4, 1, 3, 2, 5

4. Which of the following is not a session function?

a. sssion_decode

b. session_destroy

c. session_id

d. session_pw

5. When uploading a file if the UPLOAD_ERR-OK contains value 0 it means

a. Uplaod is not successful, error occurred

b. The file uploaded with success

c. Uploaded file size is 0

d. File upload progress is 0% completed

6. Which of the following delimiter syntax is PHP's default delimiter syntax

a. <? php ?>

b. <% %>

c. <? ?>

d. <script language="php"> </script>

7. Which of the following statement produce different output

a. <?echo "This is php example"; ?>

b. <P="This is php example"; ?>

c. <?PHP echo "This is php example"; php?>

d. <script language="php"> print "This is php example";</script>

8. Which of the following delimiter is ASP style?

a.

b. <% %>

c. <? ?>

d. <script language="php"> </script>

9. Php supports all four different ways of delimiting. In this context identify the false statement

a. You can use any of the delimiting style

b. You can use different delimiting styles in same page

c. You can use any delimiting style but must use a single style consistently for a page

d. Variables declared in previous blocks are remenbered on later blocks too!

10. Which of following commenting is supported by Php

a. Single line c++ syntax - //

b. Shell syntax - #

c. Both of above

d. None of above

11. To produce the output6 I love the summer time, Which of the ofllowing statement should be used?

a. <? Php print ("<P> I love the summer time</p>"   ;?>

b. <? Php $ season="summer time"; print"<p> I love the $ season</p>"; ?>

c. <?Php $ message="<p> I love the summer time </p>; ecdho $ message; ?>

d. All of above

12. Which of following function return 1 when output is successful?

a. echo ( )

b. print ( )

c. both

d. None

13. Which of followng statement is more suitable if you want to output a blend of static text and dynamic information stored within one or several variables?

a. echo ( )

b. print ( )

c. Print f ( )

d. None of above

14. Which of the following type specifier is invalid in print f ( ) functions

a. % a

b. % b

c. % c

d. % d

15. Which of the following function can assign the output to a string variable

a.   echo ( )

b.   print ( )

c.   print f ( )

d.   s print f ( )

16. Which of the following data type is not seal or datetype supported by PHP

a.   Array

b.   String

c.   Float

d.   Boolean

17. Which of the following data type is compound datatype supported by PHP

a.   Array

b.   String

c.   Float

d.   Boolean

18. If a boolean variable $ alive= 5;

a. $ alive is false

b. $ alive is true

c. $ alive is overflow

d.   the statement is snot valid

19. For integer data type PHP 6 introduced

a.   8 bit integer value

b.   16 bit integer value

c.   32 bit integer value

d.   64 bit integer value

20. For integer data type PHP 5 and earlier supported

a.   8 bit integer value

b.   16 bit integer value

c.   32 bit integer value

d.   64 bit integer value

Answers:

1. In mail($param2, $param2, $param3, $param4), the $param2 contains:

d.   The subject

2. mysql_connect( ) does not take following parameter

d.   database name

3. Study following steps and determine the correct order

(1)   Open a connection to MySql server

(2)   Execute the SQL query

(3)   Fetch the data from query

(4)   Select database

(5)   Close Connection

a. 1, 4, 2, 3, 5

4. Which of the following is not a session function?

d.   session_pw

5. When uploading a file if the UPLOAD_ERR-OK contains value 0 it means

b.   The file uploaded with success

6.   Which of the following delimiter syntax is PHP's default delimiter syntax

a.

7.   Which of the following statement is invalid?

c.   <?PHP echo "This is php example"; php?>

8.   Which of the following delimiter is ASP style?

b.   <% %>

9.   Php supports all four different ways of delimiting. In this context identify the false statement

c.   You can use any delimiting style but must use a single style consistently for a page

10.   Which of following commenting is supported by Php

c.   Both of above

11.   To produce the output "I love the summer time", Which of the ofllowing statement should be used?

d.   All of above

12.   Which of following function return 1 when output is successful?

b.   print ( )

13.   Which of followng statement is more suitable if you want to output a blend of static text and dynamic information stored within one or several variables?

c.   Printf ( )

14.   Which of the following type specifier is invalid in print f ( ) functions

a.   % a

15. Which of the following function can assign the output to a string variable

d.   sprintf ( )

16. Which of the following data type is not seal or datetype supported by PHP

a.   Array

17. Which of the following data type is compound datatype supported by PHP

a.   Array

18. If a boolean variable $ alive= 5;

b. $ alive is true

19. For integer data type PHP 6 introduced

d.   64 bit integer value

20. For integer data type PHP 5 and earlier supported

c.   32 bit integer value

SET-4

1. Trace the odd data type

a. floats

b. integer

c. doubles

d. Real number

2. Which of the folowing are valid float values?

a. 4.5678

b. 4.0

c. 7e4

d. All of above

3. In php string data are

a. delimited by single quote

b. delimited by double quote

c. delimited by <<< identifier

d. All of above

4. Which of the following delimiting method is known as string Interpolation

a. delimited by single quote

b. delimited by double quote

c. delimited by <<< identifier

d. All of above

5. Which datatypes are treaded as arrays

a. Integer

b. Float

c. String

d. Booleans

6. Which of following are compound data type?

a. Array

b. Objects

c. Both

d. None

7. Casting operator introduced in PHP 6 is

a. (array)

b. (int64)

c. (real) or (double) or (float)

d. (object)

8. When defining identifier in PHP you should remember that

a. Identifier are case sensitive. So $result is different than $ result

b. Identifiers can be any length

c. Both of above

d. None of above

9. Identify the invalid identifier

a. my-function

b. size

c. –some word

d. This&that

10. Which of folowiing variable assignment is 'by value' assignment in PHP

a. $value1= $value?

b. $value1= & $value?

c. $value1= & $value?

d. None

11. Identify the variable scope that is not supported by PHP

a. Local variables

b. Function parameters

c. Hidden variables

d. Global variables

12. The output of ofllowing script would be

$somerar=15;

function ad it () {

GLOBAL $somevar;

$somerar++ ;

echo "somerar is $somerar";

}

addit ();

a. somerar is 15

b. somerar is 16

c. somerar is 1

d. somerar is $ somerar

13. Variable scope on which a variable does not loose its value when the function exists and use that value if the function is called again is:

a. Local

b. function parameter

c. static

d. None of above

14. The left association operator % is used in PHP for

a. percentage

b. bitwise or

c. division

d. modulus

15. The left associative dot operator (.) is used in PHP for

a. multiplication

b. concatenation

c. separate object and its member

d. delimeter

16. Trace the false statement

a. Any code found within an included file will inherit the variable scope of the location of its caller

b. Because the included code will be embedded in a PHP execution block, the PHP execution block, the

PHP escape tags (<?php?>   aren't required on the file to be included

c. For the inclusion of remote files the allow-url-pope must be enabled ad URL wrapper must be supported

d. Including a file produces the same result as copying the data from the file specified into the location in which the statement appears.

17. Which of the following functions require the allow-url-fopen must be enabled?

a. include()

b. require()

c. both of above

d. None of above

18. Which function includes the specified file even the statement evaluates to false in which block the function is placed.

a. include ()

b. require ()

c. both of above

d. None of above

19. On failure of which statement the script execution stops displaying error/warning message?

a. rinclude ()

b. require ()

c. both of above

d. None of above

20. Trace the function that does continue the script execution even if the file inclusion fails

a. include ()

b. require ()

c. both of above

d. None of above

Answers:

1. Trace the odd data type

b. integer

2. Which of the folowing are valid float values?

d. All of above

3. In php string data are

d. All of above

4. Which of the following delimiting method is known as string Interpolation

c. delimited by <<< identifier

5. Which datatypes are treaded as arrays

c. String

6. Which of following are compound data type?

c. Both

7. Casting operator introduced in PHP 6 is

b. (int64)

8. When defining identifier in PHP you should remember that

c. Both of above

9. Identify the invalid identifier

d. This&that

10. Which of folowiing variable assignment is 'by value' assignment in PHP

a. $value1= $value2

11. Identify the variable scope that is not supported by PHP

c. Hidden variables

12. The output of ofllowing script would be

$somerar=15;

function ad it () {

GLOBAL $somevar;

$somerar++ ;

echo "somerar is $somerar";

}

addit ();

b. somerar is 16

13. Variable scope on which a variable does not loose its value when the function exists and use that value if the function is called again is:

c. static

14. The left association operator % is used in PHP for

d. modulus

15. The left associative dot operator (.) is used in PHP for

b. concatenation

16. Trace the false statement

b. Because the included code will be embedded in a PHP execution block, the PHP execution block, the

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19. On failure of which statement the script execution stops displaying error/warning message?

b. require ()

20. Trace the function that does continue the script execution even if the file inclusion fails

a. include ()

Programming Languages

Question 1:

Electronic spreadsheets are most useful in a situation where relatively .... data must be input but ...... calculations are requied.

a. little; simple

b. large; simple

c. large; complex

d. little; complex

Question 2:

The two basic types of record access methods are

a. sequential and randon

b. direct and immediate

c. sequential and indexed

d. on-line and real-time

e. none of above

Question 3:

Which file organization is allowed by a direct access storage device?

a. direct only

b. sequential and direct only

c. indexed and direct only

d. sequential, indexed and direct

e. none of above

Question 4:

Sequential file organization is most appropriate for which of following applications?

a. Grocery store checkout

b. bank checking account

c. payroll

d. airline reservations

e. none of above

Question 5:

Which of the following file organization is most effieient for a file with a high degree of file activity?

a. sequential

b. ISAM

c. VSAM

d. B-Tree

e. All of above

Question 6:

One disadvantage of a direct access file is:

a. the delay in computiong the storage address

b. duplication of address locations

c. unsued, but available, storage locations

d. all of above

Question 7:

All computers execute

a. BASIC programs

b. COBOL programs

c. Machine language program

d. FORTRAN programs

e. PL/1 programs

Question 8:

Which of the following is most oriented to scientific programming?

a. FORTRAN

b. COBOL

c. BASIC

d. PL/1

e. RPG

Question 9:

All of the following are disadvantage of RPG except:

a. it is a very machine dependent language

b. it is very limited in scope

c. is not suited for complex problems requiring extensive programming logic

d. it has larger storage requierments

e. all of the above are disadvantages

Question 10:

Which of the following is not one of the process that a high level language program msut go through before it is ready to be executed?

a. translation

b. controlling

c. lading

d. linking

e. all of the above are necessary process

Answers:

1. d   2. a   3. d   4. c   5. a   6. a   7. c   8. a   9. b.   10.a

SET-2

Question 1:

Which of the following is not true of FORTRAN?

a. it was developed for scientific and mathematical applications

b. it is one of the oldest high-level languages

c. it is a problem oriented language

d. it requires extensive internal documentation

e. all of above

Question 2:

All of the following are divisions of the COBOL program except:

a. input-output

b. indentification

c. procedure

d. data

e. all of above divisions

Question 3:

In a COBOL program, the input output section is within the …. division

a. identification

b. procedure

c. configuration

d. environment

e. none of above

Question 4:

Which of hte following is not characteristic of COBOL

a. it is a very standardized language

b. it is a very efficient in terms of coding and execution

c. it has limited facilities for mathematical notation

d. it is very readable language

e. all of the above are characteristics

Question 5:

Which of the following is an example of problem oriented language?

a. BASIC

b. PL/1

c. FORTRAN

d. All of above

e. none of above

Question 6:

In the evaluation of a computer language, all of the following characteristics should be considered except?

a. application oriented features

b. efficiency

c. readability

d. softare development aids

e. hardware maintainance costs

Question 7:

A factor in the selection of a source language is

a. programmer skill

b. language availability

c. program compatibility with other software

d. all of athe above

Question 8:

A computer generated output that lets programmer follow the execution of their programs line by line is a

a. core dump

b. trace routine

c. detail listing

d. source listing

Question 9:

In BASIC, description comments are put in the source program with the

a. PRINT statement

b. REMARK statement

c. INPUT statement

d. DATA statement

Question 10:

Which of the following generations of language will likely include the languages of the featuer?

a. first generation

b. second dgeneration or third generation

c. fourth generation

d. fifth generation

Answers:

1. b   2.a   3.d   4.b   5.d   6.e   7.d   8.b   9.b   10.c

SOFTWARE ENGINEERING

1) What is Software ?

    a. Set of computer programs, procedures and possibly associated document concerned with the operation of data processing.
    b. A set of compiler instructions
    c. A mathematical formula
    d. None of above

Answer = A
Explanation: Computer software or just software, is a collection of computer programs and related data that provides the instructions for telling a computer what to do and how to do it.

2) Which of the following is not the characteristic of software ?

    a. Software does not wear out
    b. Software is flexible
    c. Software is not manufactured
    d. Software is always correct

Answer = D
 Explanation:A Software is not correct until it meets all the user requirements.

3) Which of the following is not a product matrix ?

    a. Size
    b. Reliability
    c. Productivity
    d. Functionality

Answer = C
Explanation: Software metric are used to quantitatively characterize the different aspects of software process or software product. Product metrics are the measures for the software product.

4)Which of the following is not a process metric ?

    a. Productivity
    b. Functionality
    c. Quality
    d. Efficiency

Answer = B
Explanation: Software metric are used to quantitatively characterize the different aspects of software process or software product.Process metrics qualify the attributes of software development and environment.

5) Efforts is measured in terms of ?

    a. Person - Months
    b. Persons
    c. Rupees
    d. Months

Answer = A
Explanation:Most appropriate unit of Effort is Person-Months , meaning thereby number of persons involved for specified months

6) Infrastructure software are covered under ?

    a. Generic Products
    b. Customised Products
    c. Generic and Customised Products
    d. None of the above

Answer = A
Explanation:Generic products are developed for anonymous customers. The target is generally the entire world and many copies are expected to be sold. Infrastructure software like operating systems, compilers, word processors etc are covered under this category.
7) Management of software development is dependent upon ?

    a. People
    b. Product
    c. Process
    d. All of above

Answer = D
Explanation:The management of software development is dependent upon four factors : People, Product, Process and Project.

8) During software development which factor is most crucial ?

    a. People
    b. Process
    c. Product
    d. Project

Answer = A
Explanation:Software development requires good managers. The manager who can understand the requirements of people. Hence , people are the crucial and criticle during software development.

9) Milestones are used to ?

    a. Know the cost of the project
    b. Know the status of the project
    c. Know the user expectations
    d. None of the above

Answer =A
Explanation:Milestones are used to measure the process or status of the project
10) The term module in the design phase refers to ?

    a. Functions
    b. Procedures
    c. Sub programs
    d. All of the above

Answer =D
Explanation: All the terms have the same meaning.

SET-2

1) Spiral Model was developed by?

    a. Bev Littlewood
    b. Berry Bohem
    c. Roger Pressman
    d. Victor Bisili

Answer = B
Explanation: Spiral model was developed by Berry Bohem in 1986 in his article "A Spiral Model of Software Development and Enhancement"

2) Which model is popular for students small projects ?

    a. Waterfall Model
    b. Spiral Model
    c. Quick and Fix model
    d. Prototyping Model

Answer = A
3) Which is not a software life cycle model?

    a. Spiral Model
    b. Waterfall Model
    c. Prototyping Model
    d. Capability maturity Model

Answer = D
Explanation:Capability maturity model is not a software life cycle model
4) Project risk factor is considered in ?

    a. Spiral Model
    b. Waterfall Model
    c. Prototyping Model
    d. Iterative enhancement Model

Answer = A
Explanation:Aim of Risk analysis phase in the spiral model is to eliminate the high risk problems before they threaten the project operation or cost.

5) SDLC stands for ?

   a. Software design life cycle
   b. Software development life cycle
   c. System design life cycle
   d. System development life cycle

Answer = B
Explanation:Full form of SDLC is software development life cycle.

6) Build and Fix model has?

   a. 3 Phases
   b. 1 Phases
   c. 2 Phases
   d. 4 Phases

Answer = C
Explanation:Build and fix model has 2 phases one is " build " and other is " fix " .
7) SRS stands for ?

   a. Software requirement specification
   b. Software requirement solution
   c. System requirement specification
   d. None of Above

Answer = A
Explanation: SRS acts as a contract between the developer and the user.
8) Waterfall model is not suitable for ?

   a. Small Projects
   b. Complex Projects
   c. Accommodating change
   d. None of Above

Answer = C
Explanation:Waterfall model does not accommodate any change that's why this model is used in those situations where requirements are well understood.

9) RAD stands for ?

   a. Rapid Application Development
   b. Relative Application Development
   c. Ready Application Development
   d. Repeated Application Development

Answer =A
Explanation:No Explanation for this Question.

10) RAD Model was purposed by ?

    a. IBM
    b. Motorola
    c. Microsoft
    d. Lucent Technologies

Answer =A
Explanation:RAD Model was purposed by IBM in 1980s through the book of James Martin entitles "Rapid Application Development"

SET-3

1) Software engineering aims at developing ?

    a. Reliable Software
    b. Cost Effective Software
    c. Reliable and cost effective Software
    d. None Of Above

Answer = C
Explanation:Software engineering is the process that aims at developing the software's that are Reliable and cost effective as well.
2) A good specification should be ?

    a. Unambiguous
    b. Distinctly Specific
    c. Functional
    d. All of Above

Answer = D
Explanation:A good specification should have all the qualities such as unambiguos, distinctly specific and functional.

3) Which of the following is a tool in design phase ?

    a. Abstraction
    b. Refinement
    c. Information Hiding
    d. All of Above   **Answer = D**

4) Information hiding is to hide from user, details ?

    a. that are relevant to him
    b. that are not relevant to him
    c. that may be maliciously handled by him
    d. that are confidential

Answer = C
Explanation:Information hiding is just the process of making inaccessible certain details that have no effect on the other parts of the program.

5) Which of the following comments about object oriented design of software, is not true ?

    a. Objects inherit the properties of class
    b. Classes are defined based on the attributes of objects
    c. an object can belong to two classes
    d. classes are always different

Answer = C
Explanation:An object can not belong to two classes.

6) Design phase includes?

    a. data, architectural and procedural design only
    b. architectural, procedural and interface design only
    c. data, architectural and interface design only
    d. data, architectural, interface and procedural design

Answer = D
Explanation:Design phase included the design of whole software including data, architectural, interface and procedural design.

7) To completely write the program in FORTRAN and rewrite the 1% code in assembly language, if the project needs 13 days, the team consists of ?

    a. 13 programmers
    b. 10 programmers
    c. 8 programmers
    d. 100/13 programmers

Answer = C
Explanation: Writing the whole program in FORTRAN takes 100 man-day, remaining 1% code requires 4 man-day. If it is completed in 13 days then 104/13 = 8 programmers it required.

8) If 99% of the program is written in FORTRAN and the remaining 1% in assembly language, the percentage increase in the programming time compared to writing the entire program in FORTRAN and rewriting the 1% in assembly language is ?

    a. 10
    b. 5
    c. 13
    d. 8

Answer = B
Explanation:The first case takes 99+10=109 man-day. The second case require 100+4=104 man-day.
Percentage = (109-104)*100/100 = 5

9) If the entire program is written in FORTRAN, the percentage increase in the execution time, compared to writing the entire program in FORTRAN and rewriting the 1% in assembly language is ?

    a. 0.9
    b. 0.8
    c. 8
    d. 9

Answer = B
Explanation:Let the first case takes 100 units of time to execute. Second case will take 99 +(1/5) units of time. As the 1% coding in assembly language will take 1/5 units of time. Hence the required percentage = 0.8*100/100 = 0.8.

10) If 99% of the program is written in FORTRAN and the remaining 1% in assembly language the percentage increase in the execution time, compared to writing the 1% in assembly language is ?

    a. 0.9
    b. 0.1
    c. 1
    d. 0

Answer = D
Explanation:In both cases the final program will have the same 99% of code in FORTRAN and the remaining 1% in assembly language. Hence the execution time will remain same.

SET-4

1) White box testing, a software testing technique is sometimes called ?

    a. Basic path
    b. Graph Testing
    c. Dataflow
    d. Glass box testing

Answer = D
Explanation: White box testing also named as clear box testing, transparent testing, glass box testing and structural testing. It is a method in which the internal structure of application is tested.

2) Black box testing sometimes called ?

    a. Data Flow testing
    b. Loop Testing
    c. Behavioral Testing
    d. Graph Based Testing

Answer = C
Explanation: Black box testing is a method that tests for the functionality of an application.

3) Which of the following is a type of testing ?

    a. Recovery Testing
    b. Security Testing
    c. Stress Testing
    d. All of above

Answer = D
Explanation: Recovery testing is a method for testing how well a software can recover from crashes. Security testing ensures that the software protects the data and performs its all functions. Stress testing determines the robustness of software.
4) The objective of testing is ?

    a. Debugging
    b. To uncover errors
    c. To gain modularity
    d. To analyze system

Answer = B
Explanation: The main objecting of testing is to make the software error free.

5) ...... is a black box testing method ?

    a. Boundary value analysis
    b. Basic path testing
    c. Code path analysis
    d. None of above

Answer = A
Explanation:In boundary value analysis, we choose an input from test cases from an equivalence class such that the input lies on the edge of equivalence class.

6) Structured programming codes includes ?

    a. sequencing
    b. alteration
    c. iteration
    d. multiple exit from loops
    e. only A, B and C

Answer = E
Explanation:These three constructs are sufficient to program any algorithm. Moreover, as far as possible single entry single exit control constructs are used.

7) An important aspect of coding is ?

    a. Readability
    b. Productivity
    c. To use as small memory space as possible
    d. brevity

Answer = A
Explanation:Readability and understandability as a clear objective of coding activity can itself help in producing software that is more maintainable.

8) Data structure suitable for the application is discussed in ?

    a. data design
    b. architectural design
    c. procedural design
    d. interface design

Answer = A
Explanation: Data design is the first and most important design activity, where the main issue is to select the appropriate data structure.

9) In object oriented design of software , objects have ?

    a. attributes and names only
    b. operations and names only
    c. attributes, name and operations
    d. None of above

Answer = C
Explanation: The objects contains attributes, names and operations as well.

10) Function oriented metrics were first proposed by ?

    a. John
    b. Gaffney
    c. Albrecht
    d. Basili

Answer = C
Explanation:Albrecht suggests a measure called Function point, which are derives using a empirical relationship based on the countable measures of software information domain.

SET-5

1) Given a source code with 10 operators includes 6 unique operators, and 6 operand including 2 unique operands. The program volume is ?

    a. 48
    b. 120
    c. 720
    d. insufficient data

Answer = A

2) In the system conceps, term organization ?

    a. implies structure and order
    b. refers to the manner in which each component fuctions with other components of the system
    c. refers to the holism of system
    d. means that part of the computer system depend on one another

Answer = A

3) In the system concepts, the term integration ?

    a. implies structure and order
    b. refers to the manner in which each component functions with other components of the system
    c. means that parts of computer system depends on one another
    d. refers to the holism of systems

Answer = D

4) Project indicator enables a software project manager to ?

    a. assess the status of an ongoing project
    b. track potential risks
    c. uncover problem araes before they " go critical "
    d. All of above

Answer = D

5) Once object oriented programming has been accomplished, unit testing is applied for each class. Class tests includes ?

    a. Fault based testing
    b. Random testing
    c. Partition teting
    d. All of above

Answer = D

6) .... Developed a set of software quality factors that has been given the acronym FURPS - Functinality, Usability, Reliability, performance, Supportability ?

    a. Hewlett - Packard
    b. Rambaugh
    c. Booch
    d. Jacobson   **Answer = A**

7) In system design, we do following ?

    a. Hardware design after software
    b. Software design after hardware
    c. Parallel hardware and software design
    d. No hardware design needed

Answer = C

8) The document listing all procedures and regulations that generally govern an organization is the ?

    a. Personal poling bank
    b. Organizing manual
    c. Administration policy manual
    d. Procedure log

Answer = B

9) A turnkey package includes ?

    a. Software
    b. Hardware
    c. Traning
    d. All of above

Answer = D

10) Detailed design is expressed by ?

    a. CSPEC
    b. PSPEC
    c. MINI SPEC
    d. Code SPEC

Answer = C

SET-6

1) In functional decomposition, the data flow diagram ?

    a. is ignored
    b. is partitioned according to the closeness of the datagram and storage items
    c. is partitioned according to the logical closeness of the actigram
    d. Both A and C
    e. None of above

Answer = C

2) Which of the following is done in order a data in phase 1 of the system development life cycle ?

    a. Reviewing policies and procedures
    b. Using **Question**naires to contact surveys
    c. Conducting Interviews
    d. All of above
    e. None of above

Answer = D

3) A graphic representation of an information system is called ?

a. Flow chart
b. Pictogram
c. Data flow diagram
d. Histogram
e. None of above

Answer = C

4) To avoid errors in transcription and transposition, during data entry the system analyst should ?

a. Provide for a check digit
b. Provide for a hash totals
c. Provide batch totals
d. All of above

Answer = D

5) In the system concepts, the term integration ?

a. implies structure and order
b. refers to the manner in which each component functions with other component of the system
c. means that part of the computer system depend on one another
d. refers to the holism of system
e. None of above

Answer = D
Explanation: system integration is the bringing together of the component subsystems into one system and ensuring that the subsystems function together as a system. In information technology, systems integration is the process of linking together different computing systems and software applications physically or functionally, to act as a coordinated whole

6) RAD is a linear sequential software development process model. RAD is an acronym for ?

a. Rapid Application Development
b. Rapid Action Development
c. Rough Application Development
d. Rough Action Development

Answer = A
Explanation: Rapid application development (RAD) is a software development methodology that uses minimal planning in favor of rapid prototyping. The "planning" of software developed using RAD is interleaved with writing the software itself

7) In risk analysis of spiral model, which of the following risk includes ?

   a. Technical
   b. Management
   c. Both A and B
   d. None of these

Answer = C

8) The model remains operative until the software is retired ?

   a. Waterfall
   b. Incremental
   c. Spiral
   d. None of these

Answer = C
Explanation: The spiral model is based on continuous refinement of key products for requirements definition and analysis, system and software design, and implementation (the code). At each iteration around the cycle, the products are extensions of an earlier product. This model uses many of the same phases as the waterfall model, in essentially the same order, separated by planning, risk assessment, and the building of prototypes and simulations
9) A quantitative measure of the degree to which a system, component, or process posses a given attribute ?

   a. Measure
   b. Measurement
   c. Metric
   d. None of these

Answer = C
10) RAD is not appropriate when ?

   a. Fast finding already done
   b. Technical risks are high
   c. Testing is not needed
   d. None of above

Answer = B
Explanation: RAD model may not be useful for large, unique or highly complex projects.This method cannot be a success if the team is not sufficiently motivated and nor is unable to work cohesively together.

SYSTEM ANALYSIS AND SOFTWARE ENGINEERING

Question 1

A transaction processing system is concerned with

    A. Operational day-to-day activities.
    B. Strategic decision-making support.
    C. A large database of specialised knowledge.
    D. Support for an organisation's management needs.

Question 2

A store manager of Red Fried Chicken only makes operational decisions based on daily reports.
An example of a decision the manager would make is

    A. Changing the type of products sold.
    B. Reducing the price of unsold chickens.
    C. Implementing a national TV campaign.
    D. Opening a new store in a nearby suburb.

Question 3

Which of the following could not be considered an organisational goal?

    A. Increase company profit margin.
    B. Expand customer base.
    C. Provide quality service.
    D. Complete backups every Friday.

Question 4

An organisation's goal is to 'improve the communication of events to members'. Which of the following strategies would best achieve this aim?

    A. Reduce labour costs.
    B. Produce a regular newsletter.
    C. Make sure all membership information is accurate.
    D. Use a spreadsheet to keep track of finances.

Question 5

The profile of an audience can include its

    A. Employment category, income level and average age.
    B. Employment category, favourite colour and average age.
    C. Tax file number, income level and years of employment.
    D. Educational level, Medicare number and name of doctor.

Question 18

Which of the following is not a component of an information system?

    A. Equipment
    B. End-user
    C. Organisational goals
    D. Procedures

Question 19

Which of the following would not be considered an end-user of an information system?

    A. A student who accesses information on a website.
    B. A programmer who writes code for a software module.
    C. A customer who uses a credit card in an EFTPOS machine.
    D. A sales assistant in a video shop who searches a database for a specific title.

Question 20

Which of the following would improve the effectiveness of a system?

    A. Install a barcode reader to reduce the time needed to enter data.
    B. Make it easier for employees to access information by developing a database.
    C. Allow management to make timely decisions by providing up-to-date information in a spreadsheet.
    D. Automate a manual process to reduce salaries.

Question 28

The correct order of steps to solve a problem is

    A. Analyse, design, develop, test, evaluate, implement, document.
    B. Analyse, design, test, develop, document, implement, evaluate.
    C. Design, analyse, develop, document, implement, test, evaluate.
    D. Analyse, design, develop, test, document, implement, evaluate.

Question 29
A sales assistant needs to record a sale by manually completing a form in a docket book. What is a likely problem that this practice could lead to?

    A. It takes too long for sales to be recorded and processed.
    B. The sales assistant is under-qualified for the task.
    C. The use of a docket book is old fashioned.
    D. The information in the docket book is not timely.

Question 34
A milestone in project management indicates

    A. The passing of 50% of the time allocated to the project.
    B. The completion of the project.
    C. The conclusion of an important stage of a project and has zero time duration.
    D. The conclusion of an important stage of a project and has a time duration equal to the sum of the time durations for each step of that stage.

Question 35
A project has a critical path of 21 days. The 'testing the solution' task has a slack time (or lag time) of three days. What is the minimum time the project can be completed?

    A. 18 days
    B. 21 days
    C. 24 days
    D. Depends on whether the 'testing the solutio' task lies on the critical path.

Question 40
Which of the following is a primary source of data?

    A. A student reads the voltage across a lamp using a voltmeter.
    B. The meaning of a word is read from a dictionary.
    C. A website provides information on the cost of air flights.
    D. A sales brochure indicates what items are on special.

Question 41
A database of patient information for a medical clinic is to be developed. From the patient's data below, which is the least important?

    A. Patient's name
    B. Patient's age
    C. Patient's allergies
    D. Patient's credit rating

Question 42
Constraints on data to be used in a presentation include

    A. Copyright restrictions, trademarks, validation techniques.
    B. Copyright restrictions, trademarks, privacy regulations.
    C. Copyright, privacy regulations, validation techniques.
    D. Proofreading, validation techniques, testing the message.

Question 44
Which design tool would be most appropriate for a website?

    A. Layout diagrams
    B. Nassi-Schneidermann diagram
    C. Storyboard
    D. Data flow diagram

Question 45
A web-based solution has been developed and needs to be tested. Which attributes should be tested?

    A. Useability, functionality, spelling.
    B. Useability, spelling, presentation.
    C. Useability, functionality, presentation.
    D. Spelling, functionality, presentation.

Question 62
A patient's medical records are found at the tip. Which of the following is true?

    A. This is a breach of the *Health Records Act 2001*.
    B. This is a breach of the *Privacy Amendment (Private Sector) Act 2000*.
    C. This is embarrassing but is not actually in breach of any law.
    D. The owner of the tip is liable for damages.

Question 64
One way to secure data for transmission over a network is to

    A. Validate the data
    B. Encrypt the data
    C. Decrypt the data
    D. Archive the data
    E.

Question 65

A disaster recovery plan should include

    A. Biometric technology replacement plan, backup plan, recovery plan, test plan.
    B. Biometric technology replacement plan, emergency plan, backup plan, recovery plan.
    C. Biometric technology replacement plan, emergency plan, backup plan, test plan.
    D. Emergency plan, backup plan, recovery plan, test plan.

Question 66

Accidental damage to an information system can be caused by

    A. User error.
    B. Failure to follow file management procedures.
    C. Failure of hardware components.
    D. All of the above.

SET-2

Question 1.

How many steps are in the systems development life cycle (SDLC)?
A. 4
B. 5
C. 6
D. 10

Question 2.

The first step in the systems development life cycle (SDLC) is:
A. Analysis.
B. Design.
C. Problem/Opportunity Identification.
D. Development and Documentation.

Question 3.

Most modern software applications enable you to customize and automate various features using small custom-built "miniprograms" called:
A. macros.
B. code.
C. routines.
D. subroutines.

Question 4.

The organized process or set of steps that needs to be followed to develop an information system is known as the:
A. analytical cycle.
B. design cycle.
C. program specification.
D. system development life cycle.

Question 5.

How many steps are in the program development life cycle (PDLC)?
A. 4
B. 5
C. 6
D. 10

Question 6.

The make-or-buy decision is associated with the _____ step in the SDLC.
A. Problem/Opportunity Identification
B. Design
C. Analysis
D. Development and Documentation

Question 7.

In the Analysis phase, the development of the _____ occurs, which is a clear statement of the goals and objectives of the project.
A. documentation
B. flowchart
C. program specification
D. design

Question 8.

Actual programming of software code is done during the _____ step in the SDLC.
A. Maintenance and Evaluation
B. Design
C. Analysis
D. Development and Documentation

Question 9.

Enhancements, upgrades, and bug fixes are done during the
_____ step in the SDLC.
A. Maintenance and Evaluation
B. Problem/Opportunity Identification
C. Design
D. Development and Documentation

Question 10.

The _____ determines whether the project should go
forward.
A. feasibility assessment
B. opportunity identification
C. system evaluation
D. program specification

Question 11.

Technical writers generally provide the _____ for the new
system.
A. programs
B. network
C. analysis
D. documentation

Question 12.

_____ design and implement database structures.
A. Programmers
B. Project managers
C. Technical writers
D. Database administrators

Question 13.   _____ spend most of their time in the beginning stages of the
SDLC, talking with end-users, gathering information, documenting
systems, and proposing solutions.
A. Systems analysts
B. Project managers
C. Network engineers
D. Database administrators

Question 14.

_____ manage the system development, assign staff, manage the budget and reporting, and ensure that deadlines are met.
A. Project managers
B. Network engineers
C. Graphic designers
D. Systems analysts

Question 15.

_____ is the process of translating a task into a series of commands that a computer will use to perform that task.
A. Project design
B. Installation
C. Systems analysis
D. Programming

Question 16.

Debugging is:
A. creating program code.
B. finding and correcting errors in the program code.
C. identifying the task to be computerized.
D. creating the algorithm.

Question 17.

Translating the problem statement into a series of sequential steps describing what the program must do is known as:
A. coding.
B. debugging.
C. creating the algorithm.
D. writing documentation.

Question 18.

Translating the algorithm into a programming language occurs at the _____ step of the PDLC.
A. Debugging
B. Coding
C. Testing and Documentation
D. Algorithm Development

Question 19.

The problem statement should include all of the following EXCEPT:
A. input.
B. output.
C. processing.
D. storage.

Question 20.

The problem statement includes the _____, which lists specific input numbers a program would typically expect the user to enter and precise output values that a perfect program would return for those input values.
A. testing plan
B. error handler
C. IPO cycle
D. input-output specification

Answers

1. c
2. c
3. a
4. d
5. b
6. b
7. c
8. d
9. a
10. a
11. d
12. d
13. a
14. a
15. d
16. b
17. c
18. b
19. d
20. a

THEORY OF AUTOMATA

(1) For a given input, it provides the compliment of Boolean AND output.
NAND box (NOT AND)
DELAY box
OR box
AND box

(2) It delays the transmission of signal along the wire by one step (clock pulse).
NAND box (NOT AND)
DELAY box
OR box
AND box

(3) For the given input, it provides the Boolean OR output
NAND box (NOT AND)
DELAY box
OR box
AND box

(4) For the given input, AND box provides the Boolean AND output.
True
False

(5) The current in the wire is indicated by 1 and 0 indicates the absence of the current.
True
False

(6) Any language that can not be expressed by a RE is said to be regular language.
True
False

(7) If L1 and L2 are regular languages is/are also regular language(s).
L1 + L2
L1L2
L1
All of above

(8) Let L be a language defined over an alphabet Σ, then the language of strings, defined over Σ, not belonging to L, is called Complement of the language L, denoted by Lc or L'.
True   False

(9) To describe the complement of a language, it is very important to describe the -----------of that language over which the language is defined.
Alphabet
Regular Expression
String
Word

(10) For a certain language L, the complement of Lc is the given language L *i.e.* (Lc)c = Lc
True
False

(11) If L is a regular language then, --------- is also a regular language.
Lm
Ls
Lx
Lc

(12) Converting each of the final states of F to non-final states and old non-final states of F to final states, FA thus obtained will reject every string belonging to L and will accept every string, defined over Σ, not belonging to L. is called
Transition Graph of L
Regular expression of L
Complement of L
Finite Automata of L

(13) If L1 and L2 are two regular languages, then L1 U L2 is not a regular.
True
False

(14) De-Morgan's law for sets is expressed by,

(15) If L1 and L2 are regular languages, then these can be expressed by the corresponding FAs.
True
False

(16) L= language of words containing even number of a's. Regular Expression is
(a+b)aa(a+b)
(b+aba)
a+bbaaba
(a+b)ab(a+b)

(17) The regular expression defining the language L1 U L2 can be obtained, converting and reducing the previous ------------- into a ----------- as after eliminating states.

GTG, TG

FA, GTG

FA, TG

TG, RE

(18) The language that can be expressed by any regular expression is called a Non regular language.

True

False

(19) The languages -------------- are the examples of non regular languages.

PALINDROME and PRIME

PALINDROME and EVEN-EVEN

EVEN-EVEN and PRIME

FACTORIAL and SQURE

(20) Let L be any infinite regular language, defined over an alphabet Σ then there exist three strings x, y and z belonging to Σ such that all the strings of the form $XY^n Z$ for n=1,2,3, … are the words in L. called.

Complement of L

Pumping Lemma

Kleene's theorem

None in given

(21) Languages are proved to be regular or non regular using pumping lemma.

True

False

(22)   ------------------- is obviously infinite language.

EQUAL-EQUAL

EVEN-EVEN

PALINDROME

FACTORIAL

(23)   If, two strings x and y, defined over Σ, are run over an FA accepting the language L, then x and y are said to belong to the same class if they end in the same state, no matter that state is final or not.

True

False

Myhill Nerode theorem is consisting of the followings,

L partitions Σ into distinct classes.

If L is regular then, L generates finite number of classes.

If L generates finite number of classes then L is regular.
<mark>All of above</mark>

The language Q is said to be quotient of two regular languages P and R, denoted by---
if PQ=R.
R=Q/P
<mark>Q=R/P</mark>
Q=P/R
P=R/Q

If two languages R and Q are given, then the prefixes of Q in R denoted by Pref(Q in R).
<mark>True</mark>
False

(27)   Let Q = {aa, abaaabb, bbaaaaa, bbbbbbbbbb} and R = {b, bbbb, bbbaaa, bbbaaaaa}
Pref (Q in R) is equal to,
<mark>{b,bbba,bbbaaa}</mark>
{b,bba,bbaaa}
{ab,bba,bbbaa}
{b,bba,bbba}

If R is regular language and Q is any language (regular/ non regular), then Pref (Q in R) is ---------.
Non-regular
Equal
<mark>Regular</mark>
Infinite

"CFG" stands for _____
Context Free Graph
<mark>Context Free Grammar</mark>
Context Finite Graph
Context Finite Grammar

(29)   _____ states are called the halt states.
<mark>ACCEPT and REJECT</mark>
ACCEPT and READ
ACCEPT AND START
ACCEPT AND WRITE

(30)   The part of an FA, where the input string is placed before it is run, is called
_____
State
Transition
Input Tape
Output Tape

In new format of an FA (discussed in lecture 37), This state is like dead-end non final
state
ACCEPT
REJECT
STATR
READ

For language L defined over {a, b}, then L partitions {a, b}into …… classes
Infinite
Finite
Distinct
Non-distinct

The major problem in the earliest computers was
To store the contents in the registers
To display mathematical formulae
To load the contents from the registers
To calculate the mathematical formula
Between the two consecutive joints on a path

One character can be pushed and one character can be popped
Any no. of characters can be pushed and one character can be popped
One character can be pushed and any no. of characters can be popped
Any no. of characters can be pushed and any no. of characters can be popped

(35)   In pumping lemma theorem (x y^n z) the range of n is
n=1, 2, 3, 4………..
n=0, 1, 2, 3, 4……….
n=…….-3,-2,-1, 0, 1, 2, 3, 4……
n=…….-3,-2,-1, 1, 2, 3, 4……

(36)   The PDA is called non-deterministic PDA when there are more than one out
going edges from……… state
START or READ
POP or REJECT
READ or POP
PUSH or POP

Identify the TRUE statement:
A PDA is non-deterministic, if there are more than one READ states in PDA
A PDA is never non-deterministic
Like TG, A PDA can also be non-deterministic
A PDA is non-deterministic, if there are more than one REJECT states in PDA

There is a problem in deciding whether a state of FA should be marked or not when the language Q is infinite.
True
False

If an effectively solvable problem has answered in yes or no, then this solution is called ---------
Decision procedure
Decision method
Decision problem
Decision making

The following problem(s) ------------- is/are called decidable problem(s).
The two regular expressions define the same language
The two FAs are equivalent
Both a and b
None of given

To examine whether a certain FA accepts any words, it is required to seek the paths from ------- state.
Final to initial
Final to final
Initial to final
Initial to initial

The high level language is converted into assembly language codes by a program called compiler.
TRUE
FALSE

Grammatical rules which involve the meaning of words are called ---------------
Semantics
Syntactic
Both a and b
None of given

Grammatical rules which do not involve the meaning of words are called --------------
Semantics
Syntactic
Both a and b
None of given

The symbols that can't be replaced by anything are called -----------------
Productions
Terminals
Non-terminals
All of above

The symbols that must be replaced by other things are called _____
Productions
Terminals
Non-terminals
None of given

(47)   The grammatical rules are often called_____
Productions
Terminals
Non-terminals
None of given

The terminals are designated by _____ letters, while the non-terminals are designated by _____ letters.
Capital, bold
Small, capital
Capital, small
Small, bold

The language generated by _____ is called Context Free Language (CFL).
FA
TG
CFG
TGT

(49)   Σ = {a,b} Productions S→XaaX   X→aX   X→bX
     X→Λ

This grammar defines the language expressed by_____
<mark>(a+b)aa(a+b)</mark>
(a+b)a(a+b)a
(a+b)aa(a+b)aa
(a+b)aba+b)

(50)   S → aXb|b   XaX → aX|bX|Λ The given CFG generates the language in English _____
<mark>Beginning and ending in different letters</mark>
Beginning and ending in same letter
Having even-even language
None of given

(51)   The CFG is not said to be ambiguous if there exists atleast one word of its language that can be generated by the different production trees,
TRUE
<mark>FALSE</mark>

The language generated by that CFG is regular if _____
No terminal → semi word
No terminal → word
<mark>Both a and b</mark>
None of given

The production of the form no terminal → Λ is said to be null production.
<mark>TRUE</mark>
FALSE

(54)   A production is called null able production if it is of the form N → Λ
<mark>TRUE</mark>
FALSE

(55)   The productions of the form nonterminal → one nonterminal, is called _____
Null production
<mark>Unit production</mark>
Null able production
None of given

(56)   CNF is stands for
Context Normal Form
Complete Normal Form
<mark>Chomsky Normal Form</mark>
Compared Null Form

Proof(Kleene's Theorem Part II)
 If a TG has more than one start states, then

Eliminate the old start state
Replace the old start state with final state
Replace the old final state with new start state

Question # 2
While finding RE corresponding to TG, we connect the new start state to the old start state by the transition labeled by
Select correct option:
a
b
null string

Question # 3 of 10 (Start time: 05:49:03 PM) Total Marks: 1
Which of the following regular expression represents same language? a. (a+ab)b. (ba+a)c. a(aab)d. (ab)
a+b)a(a+b)b(a+b)+ (a+b)b(a+b)a(a+b).
{ x}, { x}+, {a+b}

Select correct option:
a and b
a and c
c and d

Question # 4 of 10 (Start time: 05:50:32 PM) Total Marks: 1
(a+ b)= (a + b)this expression is _____
Select correct option:
False

Question # 5 of 10 (Start time: 05:51:30 PM) Total Marks: 1
Let FA3 be an FA corresponding to FA1+FA2, then the initial state of FA3 must correspond to the initial state of
Select correct option:
FA1 only
FA2 only
FA1 and FA2

Question # 6 of 10 (Start time: 05:53:01 PM) Total Marks: 1
Which of the following statement is NOT true about TG?
Select correct option:
<mark>There exists exactly one path for certain string</mark>
There may exist more than one paths for certain string
There may exist no path for certain string
There may be no final state

Question # 7 of 10 (Start time: 05:54:06 PM) Total Marks: 1
Kleene's theorem states
Select correct option:
All representations of a regular language are equivalent.
All representations of a context free language are equivalent.
All representations of a recursive language are equivalent
<mark>Finite Automata are less powerful than Pushdown Automata.</mark>

Question # 8 of 10 (Start time: 05:55:36 PM) Total Marks: 1
What do automata mean?
Select correct option:
Something done manually
<mark>Something done automatically</mark>

Question # 9 of 10 (Start time: 05:56:51 PM) Total Marks: 1
A language accepted by an FA is also accepted by
Select correct option:
TG only
GTG only
RE only
<mark>All of the given</mark>

Question # 10 of 10 (Start time: 05:58:16 PM) Total Marks: 1
If r1 = (aa + bb) and r2 = (a + b) then the language (aa + bb)(a + b) will be generated by
Select correct option:
<mark>(r1)(r2)</mark>
(r1 + r2)
(r2)(r1)
(r1)
Question No: 1

If r1 = (aa + bb) and r2 = (a + b) then the language (aa + bb)(a + b) will be generated
by
► (r1)(r2)
► (r1 + r2)
► (r2)(r1)

► (r1)

Question No: 2

"One language can be expressed by more than one FA". This statement is _____
   ► True
   ► False
   ► Some times true & sometimes false
   ► None of these

Question No: 3

Who did not invent the Turing machine?
   ► Alan Turing
   ► A. M. Turing
   ► Turing
   ► None of these

Question No: 4

Which statement is true?
   ► The tape of turing machine is infinite.
   ► The tape of turing machine is finite.
   ► The tape of turing machine is infinite when the language is regular
   ► The tape of turing machine is finite when the language is nonregular.

Question No: 5

A regular language:
   ► Must be finite
   ► Must be infinite
   ► Can be finite or infinite
   ► Must be finite and cannot be infinite

Question No: 6

Every regular expression can be expressed as CFG but every CFG cannot be expressed as a regular expression. This statement is:
   ► Depends on the language
   ► None of the given options
   ► True
   ► False

Question No: 7

Above given FA corresponds RE r. then FA corresponding to rwill be

This statement is
  ▶ <mark>True</mark>
  ▶ False
  ▶ Depends on language
  ▶ None of these

Question No: 8

Consider the language L of strings, defined over Σ = {a,b}, ending in a
  ▶ There are finite many classes generated by L, so L is regular
  ▶ <mark>There are infinite many classes generated by L, so L is regular</mark>
  ▶ There are finite many classes generated by L, so L is non-regular
  ▶ There are infinite many classes generated by L, so L is non-regular

Question No: 9

Above given TG has _____ RE.
  ▶ (aa+aa+(ab+ab)(aa+ab)(ab+ba))
  ▶ <mark>(aa+bb+(ab+ba)(aa+bb)(ab+ba))</mark>
  ▶ (aa+bb+(ab+ba)(aa+bb)(ab+ba))
  ▶ None of these

Question No: 10

The word 'formal' in formal languages means
  ▶ <mark>The symbols used have well defined meaning</mark>
  ▶ They are unnecessary, in reality
  ▶ Only the form of the string of symbols is significant
  ▶ None of these

Question No: 11

Let A = {0, 1}. The number of possible strings of length 'n' that can be formed by the elements of the set A is
  ▶ n!
  ▶ <mark>n^2</mark>
  ▶ n^m
  ▶ 2^n

Question No: 12

Choose the correct statement.
- ► A Mealy machine generates no language as such
- ► A Moore machine generates no language as such
- ► A Mealy machine has no terminal state
- ► All of these

Question No: 13

TM is more powerful than FSM because
- ► The tape movement is confined to one direction
- ► It has no finite state control
- ► It has the capability to remember arbitrary long sequences of input symbols
- ► None of these

Question No: 14

If L1 and L2 are expressed by regular expressions r1 and r2, respectively then the language expressed by r1 + r2 will be _____
- ► Regular
- ► Ir-regular
- ► Can't be decided
- ► Another Language which is not listed here

Question No: 15

Like TG, a PDA can also be non-deterministic
- ► True
- ► False

The above machine is a/anTG _____
- ► Finite Automata
- ► Turing machine
- ► FA
- ► TG

The language of all words (made up of a's and b's) with at least two a's can not be described by the regular expression.
- ► a(a+b)a(a+b)(a+b)ab
- ► (a+b)aba(a+b)
- ► baba(a+b)
- ► none of these

Question No: 18

In FA, if one enters in a specific state but there is no way to leave it, then that specific state is called

▶ Dead State
▶ Waste Basket
▶ Davey John Locker
▶ All of these

Question No: 19

If L is a regular language then, L^c is also a _____ language.
▶ Regular
▶ Non-regular
▶ Regular but finite
▶ None of the given

Question No: 20

In CFG, the symbols that can't be replaced by anything are called____
▶ Terminal
▶ Non-Terminal
▶ Production
▶ All of given

Question No: 21

Which of the following is NOT a regular language?
▶ String of 0's whose length is a perfect squere
▶ Set of all palindromes made up of 0's and 1's
▶ String of 0's whose length is a prime number
▶ All of the given options

Question No: 22

Choose the incorrect (FALSE) statement.
▶ A Mealy machine generates no language as such
▶ A Mealy machine has no terminal state
▶ For a given input string, length of the output string generated by a Moore machine is not more than the length of the output string generated by that of a Mealy machine
▶ All of these

Question No: 23

Pumping lemma is generally used to prove that:
► A given language is infinite
► A given language is not regular
► Whether two given regular expressions of a regular language are equivalent or not
► None of these

Question No: 24

Which of the following is a regular language?
► String of odd number of zeroes
► Set of all palindromes made up of 0's and 1's
► String of 0's whose length is a prime number
► All of these

Question No: 25

Choose the incorrect statement:
► (a+b)aa(a+b)generates Regular language.
► A language consisting of all strings over $\sum=\{a,b\}$ having equal number of a's and b's is a regular language
► Every language that can be expressed by FA can also be expressed by RE
► None of these

Question No: 26

Left hand side of a production in CFG consists of:
► One terminal
► More than one terminal
► One non-terminal
► Terminals and non-terminals

TRENDS AND TECHNOLOGIES

What hides your identity from the Web sites you visit?

- ○ Web log
- ○ Click stream
- ○ An anonymous Web browsing service
- ○ None of the above

In which file the compiler manage the various objects, which are used in windows programming ?

- ○ Control File
- ○ Binary File
- ○ Text File
- ○ Obj File

E-commerce infrastructure involves

- ○ Web servers
- ○ E-catalogs
- ○ Network
- ○ All of these

Which type of application is built by app wizard in MFC?

- ○ SDI
- ○ MDI
- ○ Dialog
- ○ All of these

Which of the following programs can use key logger software?

- ○ E-mail
- ○ Instant messages
- ○ Applications
- ○ All of the above

M-Commerce" refers to

- ○ a myth which does not exist in reality
- ○ the ability of business to reach potential customers wherever they arE
- ○ the ability to have large capacity of memory storage dealing trade and commerce
- ○ None of the above

What component of .NET includes services used to support web services?

- ⚪ Platform
- ⚪ Framework
- ⚪ Visual Studio
- ⚪ System

MFC stands for

- ⚪ Microsoft File Class
- ⚪ Microsoft Foundation Class
- ⚪ Microsoft Form Class
- ⚪ None of the above

Which of the following is a dilemma faced by businesses today?

- ⚪ Customers want businesses to know them, but want to be left alone
- ⚪ Customers want businesses to provide what they want, but do not want businesses to monitor their habits and preferences
- ⚪ Customers do not like ads but want to know what services and products are available
- ⚪ All of the above

Which infrastructure includes application servers, data servers, and clients?

- ⚪ Client/server
- ⚪ Thin Client
- ⚪ 2-tier infrastructure
- ⚪ 3-tier infrastructure

Which of the following is false concerning Enterprise Resource Planning (ERP) ?

- ⚪ It attempts to automate and integrate the majority of business processes.
- ⚪ It shares common data and practices across the enterprise
- ⚪ It is inexpensive to implement.
- ⚪ It provides and access information in a real-time environment.

What is it called when IT specialists within your organization develop the systems?

- ⚪ Insourcing
- ⚪ Selfsourcing
- ⚪ Outsourcing
- ⚪ All of the above

What is the unauthorized use, duplication, distribution or sale of copyrighted software?

- ○ Fair Use Doctrine
- ○ Pirated software
- ○ Counterfeit software
- ○ Privacy

At any given time Parallel Virtual Machine (PVM) has _____ send buffer and _____ receive buffer.

- ○ one-one
- ○ one-two
- ○ two-two
- ○ two-one

Which is the most valuable electronic commerce to the individual customer in long run ?

- ○ Business to Customer
- ○ Business to Business
- ○ Customer to Customer
- ○ None of the above

The Linker allows access for LIB. files for

- ○ Runtime
- ○ Source code
- ○ Execution
- ○ All of these

Which segment is eBay an example?

- ○ B2B
- ○ C2B
- ○ C2C
- ○ None of the above

What is an electronic representation of cash?

- ○ Digital cash
- ○ Electronic cash
- ○ E-cash
- ○ All of the above

The best products to sell in B2C e-commerce are

- ○ Small products
- ○ Digital products
- ○ Specialty products
- ○ Fresh products

Telnet is a

- ○ Network of telephones
- ○ Television network
- ○ Remote login
- ○ None of these

One of the distinguished features of super-computer over other category of computer is

- ○ parallel processing
- ○ highest accuracy level
- ○ more speed
- ○ more capacity

Which is used to connect messages sent to a program along with functions meant for handling such messages?

- ○ Message queue
- ○ Message handler
- ○ Message map
- ○ Windows procedure

Organizations with both physical and online presences are referred to as what?

- ○ Multi-presence organizations
- ○ Dual-presence companies
- ○ Click-and-mortar
- ○ All of the above

The idea of MFC document architecture was created by

- ○ Microsoft
- ○ Oracle
- ○ Xerox
- ○ IBM

LDAP stands for

○ Light weight Data Access Protocol

○ Light weight Directory Access Protocol

○ Large Data Access Protocol

○ Large Directory Access Protocol

Which of the following is not one of the four primary focuses of e-government?

○ G2G

○ G2B

○ IG2B

○ IG2G

Cookies are used to do which of the following?

○ Store your ID and password for subsequent logons to the site

○ Store contents of electronic shopping carts

○ To track web activity

○ All of the above and more

Which of the following applies to the implementation of an idea?

○ Copyright

○ Intellectual property

○ Patent

○ Denial-of-service attack

What is the meaning of 'Hibernate' in Windows XP/Windows 7 ?

○ Restart the computers in safe mode

○ Restart the computers in normal mode.

○ Shutdown the computer terminating all the running applications.

○ Shutdown the computer without closing the running applications.

A document supports_____view.

○ One

○ One or more

○ Two

○ None of these

External data is stored in the

- ○ Customer file
- ○ Forecast allocation file
- ○ Market forecast file
- ○ All of these

Electronic credit card can be

- ○ Unencrypter form only
- ○ Encrypter form only
- ○ Both A and C
- ○ None of these

_____is not a category of EPS.

- ○ E banking
- ○ Direct payments
- ○ Retailing payments
- ○ Cash on delivery

A technique used to gain personal information for the purpose of identity theft, often by e-mail, is called?

- ○ Phishing
- ○ Carding
- ○ Brand spoofing
- ○ All of the above

The trend to outsource IT functions to other countries is termed

- ○ Foreign outsourcing
- ○ Offshore outsourcing
- ○ External outsourcing
- ○ Outer outsourcing

EPS is needed because

- ○ Inexpensive
- ○ Global breakthrough
- ○ Fast and secure
- ○ All of these

Which class is used to control the data being used by application?

- ○ Document class
- ○ View class
- ○ Frame class
- ○ Application class

Sales figures in the market forecast file are updated by the

- ○ Market research procedure
- ○ Sales analysis procedures
- ○ Sales forecasting
- ○ All of the above

A honey pot is an example of what type of software?

- ○ Encryption
- ○ Security-auditing
- ○ Virus
- ○ Intrusion-detection

Which of the following describes e-commerce?

- ○ Buying products from each other
- ○ Buying services from each other
- ○ Selling services from each other
- ○ All of the above

What are plastic cards the size of a credit card that contains an embedded chip on which digital information can be stored?

- ○ Customer relationship management systems cards
- ○ E-government identity cards
- ○ FEDI cards
- ○ Smart cards

_____ is not an E-Commerce application.

- ○ House banking
- ○ Buying stocks
- ○ Conducting an auction
- ○ Evaluating an employee

The programming that provides complex solution uses

- ○ MFC
- ○ API
- ○ GUI
- ○ None of these

Enterprise Resource Planning (ERP)

- ○ has existed for over a decade
- ○ does not integrate well with the functional areas other than operations
- ○ is inexpensive to implement
- ○ automate and integrates the majority of business processes

A clustering technique that permits a convenient graphical display is

- ○ partition based clustering
- ○ probabilistic model based clustering
- ○ hierarchical clustering
- ○ agglomerative clustering

To compare, overlay or cross analyze to maps in GIS

- ○ both maps must be in digital form
- ○ both maps must be at the same equivalent scale.
- ○ both maps must be on the same coordinate system
- ○ All of the above

The mercantile process model consists of the following phases

- ○ The pre-purchase phase
- ○ Purchase consummation phase
- ○ Post-purchase Interaction phase
- ○ All of the above

What is the electronic commerce activities performed between a government and its business partners for such purposes as purchasing direct and indirect materials, soliciting bids for work, and accepting bids for work?

- ○ G2G
- ○ G2B
- ○ G2C
- ○ IG2G

_____ is sometimes said to be object oriented, because the only way to manipulate kernel objects is by invoking methods on their handles.

- ○ Windows NT
- ○ Windows XP
- ○ Windows VISTA
- ○ Windows 95/98

What is a workstation with a small amount of processing power and costs less than a full powered workstation?

- ○ Client/server network
- ○ Intranet
- ○ Extranet
- ○ Thin client

WEB TECHNOLOGIES

The term byte stuf fing refers to

- Data stuffing used wi th character oriented hardware
- Data stuffing used wi th bi t oriented hardware
- Data stuffing used with both A and B
- Data stuffing used wi th byte oriented hardware

What does the URL need to access documents ?
I. Path name
II. Host name
III. DNS
IV. Retrieval method
V. Server port number

- I, II, III
- I, III, V
- I, II, IV
- III, IV, V

The most popular way to materialize XML document is to use

- DTD
- XSLT
- HTML
- SOAP

Output of XML document can be viewed as

- Word processor
- Web browser
- Notepad
- None of the above

XML

- Can be used as a database
- Cannot be used as a database
- XML is not a database ,it is language
- None of these

What is so great about XML?

○ Easy data exchange

○ High speed on network

○ Both A and B

○ None of the above

Let most segment of a name inn DNS represents

○ Individual Network

○ Individual computer

○ Domain name

○ Network type

How many root element can an XML document have ?

○ One

○ Two

○ Three

○ As many as the memory provides

The tags in XML are

○ Case insensitive

○ Case sensitive

○ Browser dependent

○ None of these

Which of the following attributes below are used for a font name?

○ Fontname

○ fn

○ Font

○ Face

Which of the following statement is true?

○ An XML document can have one root element.

○ An XML document can have one child element.

○ XML elements have to be in lower case.

○ All of the above.

Which of the following statement is true?

○ All the statements are true.

○ All XML elements must have closing tag.

○ All XML elements must be lower case.

○ All XML documents must have a DTD.

CIDR stands for

○ Classified Internet Domain Routing

○ Classless Inter Domain Routing

○ Classless Internet Domain Routing

○ Classified Inter Domain Routing

Which of the following protocol is not used in the internet?

○ Telnet

○ WIRL

○ HTTP

○ Gopher

The XML DOM object is

○ Entity

○ Entity reference

○ Comment reference

○ Comment data

Attributes in XML are

○ Elements inXML

○ Child nodes

○ A way of attaching characteristics or properties to elements of a document

○ None of these

XML uses the features of

○ HTML

○ XHTML

○ VML

○ SGML

What are empty elements and is it valid?

○ No there is no such terms as empty element

○ Empty elements are element with no data

○ No it is not valid to use empty element

○ None of these

Well formed XML document means

○ It contains a root element

○ It contain an element

○ It contains one or more elements

○ Must contain one or more elements and root element must contain all other elements

A header in CGI script can specify

○ Format of the document

○ New locat ion of the document

○ A and B both

○ Start of the document

In HTML URI is used to

○ Create a frame document

○ Create a image map in the webpage

○ Customize the image in the webpage

○ Identify a name or a resource on the internet

The MIME text file is saved with

○ HMT extension

○ HTML extension

○ THM extension

○ None of these

Namespace

○ Distinguishes one XML vocabulary from another

○ Provides the spaces in the names

○ Is a querying language

○ None of these

Microsoft XML schema data types for hexadecimal digits representing octates

- ○ UID
- ○ UXID
- ○ UUID
- ○ XXID

XML DSOs has the property for the number of pages of data the recordset contains

- ○ Count
- ○ Number
- ○ Pagecount
- ○ Pagenumber

Which type of web document is run at the client site

- ○ Static
- ○ Dynamic
- ○ Active
- ○ All of the above

FDDI (Fiber Distributed Data Interconnect) is an example of

- ○ Token ring
- ○ Token bus
- ○ Star topology
- ○ Multipoint network

Hardware that calculates CRC uses

- ○ Shift register
- ○ Xor unit
- ○ Both A and B
- ○ Instruction register

DOM is a

- ○ A parser
- ○ Specification
- ○ Coding style
- ○ None of these

MSXML is

- ○ A Microsoft language
- ○ XML parser that ships with IE5.0
- ○ Used for interacting with XML
- ○ None of these

Each list item in an ordered or unordered list has which tag?

- ○ List tag
- ○ Is tag
- ○ Li tag
- ○ Ol tag

What is XML?

- ○ Subset of SGML,Extensible Markup Language
- ○ Superset of SGML,Extensible Markup Language
- ○ Like SGML ,Extended Markup Language
- ○ None of these

www is based on which model?

- ○ Local server
- ○ Client server
- ○ 3 tier
- ○ None of these

XML is a

- ○ Imperative language
- ○ Declarative language
- ○ Standard
- ○ None of these

What is the use of web font in HTML?

- ○ That is the core font that is used to develop web pages
- ○ That enables to use fonts over the web without installation
- ○ That is the special font that is developed by Microsoft corporation
- ○ All of the above

Which of the following tags below are used for multi line text input control?

○ Textml tag

○ Text tag

○ Textarea tag

○ Both a and b

Which tags are commonly used by search engines?

○ Headings

○ Title

○ Paragraph

○ All of these

The HTML tags are enclosed within

○ Curly braces

○ Parentheses

○ Angle brackets

○ Square brackets

BCC in the internet refers to

○ Black carbon copy

○ Blind carbon copy

○ Blank carbon copy

○ Beautiful carbon copy

All exceptions in Java are subclasses of built in class called

○ Exception

○ Error

○ Throwable

○ Raise

Which Layer is not present in TCP/ IP model?

○ Application Layer

○ Internet Layer

○ Transport Layer

○ Presentation Layer

Which of the following identifies a specific web page and its computer on the Web?

- ○ Web site
- ○ Web site address
- ○ URL
- ○ Domain Name

Node in XML is

- ○ Any part of the document whether it is elements ,attributes or otherwise
- ○ Referred only to the attributes
- ○ Referred to the top element in the document
- ○ None of these

XML document can be viewed in

- ○ IE 3.0
- ○ IE 2.0
- ○ IE 6.0
- ○ IE X.0

DMSP stands for

- ○ Distributed Mail System Protocol
- ○ Distributed Message System Protocol
- ○ Distributed Message System Pool
- ○ Distributed Mail System Pool

The main function of a browser is to

- ○ Compile HTML
- ○ Interpret HTML
- ○ De-compile HTML
- ○ Interpret CGI programs

Characteristic encoding is

- ○ Method used to represent numbers in a character
- ○ Method used to represent character in a number
- ○ Not a method
- ○ None of these

The web standard allows programmers on many different computer platforms to dispersed format and display the information server.These programs are called

- ○ Web browsers
- ○ HTML
- ○ Internet Explorer
- ○ None of these

XPATH used to

- ○ Address your documents by specifying a location path
- ○ Address the server
- ○ Store the IP of the server
- ○ None of these

Unl ike Ipv4, Ipv6 does not include the following field in the base header

- ○ Next Header field
- ○ Field for Fragmentation information
- ○ Flow Label
- ○ Kind field

PEDAGOGY & TEACHING MCQS

1. Which one of the following statements is not suitable for teachers.
(a) They really take interest in students
(b) They are capable of guiding students and maintaining discipline
(c) They are not interested in moulding themselves according to the new situation
(d) They are very much enthusiastic about such tasks as are done by teachers
Ans. (c)

2. The aim of a teacher is
(a) to help students get through in the examination
(b) to make students disciplined
(c) to develop the abilities of students
(d) to develop the social behaviours among students
Ans. (c)

3. Why will you ask **Question**s from students during the course of a lecture?
(a) Are the students carefully listening to your lecture?
(b) To learn which one of the students is the brightest one
(c) To learn whether students are understanding (the lecture) or not
(d) To assists the students
Ans. (a)

4. A teacher with sober thoughts, in accordance with the rules
(a) allows students to, make mistakes but instructs them to reduce the number of such mistakes
(b) instructs his students not to commit any mistake at any point of time
(c) takes so many. precautions so that students never make mistakes
(d) give right punishment to those students who make mistakes
Ans. (c)

5. If a teacher has to prove his credibility in the evaluation of answer booklets, then he should be
(a) dutiful
(b) very much regular
(c) impartial
(d) high-handed
Ans. (c)

6. The lecture will be communicated more effectively if teachers
(a) read the prepared notes
(b) prepares good notes in advance and use them as their guides
(c) engage students in immediate discussions
(d) quote examples from other teaching sessions/lectures and engage students in immediate discussions
Ans. (b)

7. As a teacher, what will you do if students do not attend your class?

(a) Blame students for their absence from the class
(b) Ponder over the present attitude of students in a calm manner
(c) Think about using some interesting techniques of teaching
(d) Try to understand the reasons (for this behaviour) and try to eliminate them
Ans. (d)

8. Those students, who frequently ask **Question**s in the class
(a) should be advised to meet the teacher outside the classroom
(b) should be encouraged to take part in debates in the class
(c) should be encouraged to find out the answers on their own
(d) should be encouraged to ask **Question**s on a continuous basis
Ans. (b)

9. Teachers should not have such expectations from their students as are beyond the development stage of the latter. If the former do so they
(a) generate inferiority
(b) generate inferiority, high levels of tension and perplexity among students
(c) generate motivation among students to learn more
(d) None of these
Ans. (b)

10. The objective of education is to implement all the abilities o1children to the maximum possible extent. This indicates that
(a) the teacher and parents should know how able the children are, or how much capable they are
(b) they should be given good opportunities and a conducive environment, which are helpful in their development to the maximum extent.
(c) it is important that their character is helpful, persuasive and sympathetic
(d) All of these
Ans. (b)

11. One will have more chances of being successful as a teacher, if
(a) He belongs to the family of teachers
(b) He is trained in teaching
(c) He has ethical values and a good character
(d) He can organize his teaching material systematically and conveys the same effectively.
Ans. (d)

12. Effective teaching is a function of
(a) Clear and precise communication
(b) Perfect classroom discipline
(c) Regular teaching
(d) Students self-learning

Ans. (a)

13. Which of the following is most desirable for a teacher?
(a) To be punctual in the class
(b) Clear, precise, and systematic presentation of the subject-matter.
(c) To be strict disciplinarian
(d) To be permissive in the class
Ans. (b)

14. A good teacher is one who
(a) is highly intelligent
(b) lives simple life
(c) has mastery over his teaching subject
(d) has genuine interest in his students
Ans. (d)

15. The teacher should
(a) keep distance with his students
(b) help the students to get good marks
(c) do whatever is needed to promote the welfare of his students
(d) teach well and think that his job is over
Ans. (c)

16. Which of the following is most important for a teacher?
(a) Classroom discipline
(b) Subject he is teaching
(c) Students of the class
(d) Time available for teaching
Ans. (c)

17. What I like about teaching is that it is the
(a) Most peaceful job
(b) Resort of even the least competent persons
(c) Most challenging job
(d) Most lucrative job because of the scope for private tuition
Ans. (c)

18. Which is the most sensible idea about teaching and research?
(a) They are two entirely different kinds of activities
(b) They cannot go together
(c) Thy are two sides of the same coin
(d) They interfere with each other
Ans. (c)

19. A good teacher is one who
(a) Reads a lot

(b) Publishes lots of research gaper
(c). Teaches well
(d) Cooperates well with the principal
Ans. (c)

20. I will appreciate the teacher who
(a) has strict control over his students
(b) knows the problems of students and helps them
(c) is friendly with the students
(d) has a charming personality
Ans. (b)

21. Four children are abused by a fifth one, All these four children react differently to the abuse and the ways in which they react are listed below. Which one of the reactions shows the maximum emotional maturity?
(a) Retorts with another abuse
(b) Runs away from the scene
(c) Keeps silent
(d) Gives turn to the situation with humour
Ans. (c)

22. Communication will be effective
(a) if it is delivered slowly and clearly
(b) if it is delivered in a calm situation
(c) if it reaches the receiver completely
(d) if it reaches the receiver as intended by the sender
Ans. (d)

23. Communication in the classroom often fails because
(a) the students are inattentive
(b) the teacher is monotonous in delivering the message
(c) the students have no interest in the lesson being taught
(d) there is very much noise in and around the classroom
Ans. (b)

24. Which of the following will make communication more effective?
(a) Cutting jokes in between
(b) Using multi-sensory appeal
(c) Speaking with high authority
(d) Telling what is useful to the listeners
Ans. (d)

25. Teaching will be effective if the teacher
(a) is a master of the subject
(b) has much experience in teaching the subject
(c) starts from what students know already
(d) uses many instructional aids

Ans. (c)

26. One can be a good teacher, if he
(a) has genuine interest in teaching
(b) knows how to control students
(c) knows his subject
(d) has good expression
Ans. (a)

27. A college teacher will really help the students when she
(a) dictates notes in the class
(b) is objective in her evaluation
(c) encourages students to ask **Question**s
(d) covers the syllabus completely in the class
Ans. (b)

28. Which is the more desirable outcome of teaching in higher education?
(a) Increase student's achievement
(b) Increase in the level of independent thinking of students
(c) Higher percentage of result
(d) Increase in the number of students who opt for the subject
Ans. (b)

29. Which of the following statements has the high probability of being correct as applied to higher education?
(a) All students cannot learn and so all do not learn
(b) All students can learn but all do not learn
(c) All students can learn and so all learn
(d) All students cannot learn but all want to learn
Ans. (b)

30. A teacher has to be
(a) a strict disciplinarian
(b) well versed in the subject
(c) a continuous learner in the subject
(d) sympathetic towards slow learners
Ans. (d)

31. In higher education, research and teaching are two different activities that
(a) cannot go together
(b) can go, if at all, only in sequential order
(c) can go together
(d) can go together only at the, expense of each other
Ans. (c)

32. The facial expressions of students relate to which element of the communication process?
(a) Message
(b) Receiver
(c) Channel
(d) Sender
Ans. (a)

33. Which, is most desirable?
(a) The teacher should make good use of the black-board
(b) The teacher should speak clearly and loudly
(c) The teacher should not allow students to make noise in the class
(d) The teacher shouldexp1ain as simply as possible difficult aspects of the subjectmatter
Ans. (d)

34, Which is the least important in teaching?
(a) Punishing the students
(b) Maintaining discipline in the class
(c) Lecturing in impressive ways
(d) Drawing sketches and diagrams on the black-board if needed
Ans. (a)

35. Absenteeism in the class can be minimized by
(a) telling students that it is bad to be absent in the class
(b) punishing the students
(c) teaching the class effectively and regularly
(d) ignoring the fact of absenteeism
Ans. (c)

36. The most important skill of teaching is
(a) making students understand what the teacher says
(b) covering the course prescribed in his subject
(c) keeping students relaxed while teaching
(d) taking classes regularly
Ans. (a)

37. Students learn more from a teacher who is
(a) affectionate
(b) one who communicates his ideas precisely and clearly
(c) gentle
(d) hard working

Ans. (d)

38. Effective teaching, by and large, is a function of
(a) Teacher's scholarship
(b) Teacher's honesty
(c) Teacher's making students learn and understand
(d) Teacher's liking for the job of teaching
Ans. (c)

39. My reaction to the statement "A good teacher is essentially a good researcher" is that this is
(a) My firm belief
(b) Something I find difficult to agree to
(c) Something which I accept only as an opinion
(d) Only a hypothesis
Ans. (a)

40. The psychological aspects of the classroom are best managed by
(a) the class teacher
(b) the subject teacher
(c) the principal
(d) the students themselves
Ans. (a)

41. Which is "feedback" in the newspaper's communication?
(a) Articles
(b) Editorials
(c) Letters to the Editor
(d) News
Ans. (C)

42. Which of the following steps would you consider first for an effective communication?
(a) Select the channel of communication
(b) Plan the evaluation procedure
(c) Specify the objectives of communication
(d) Identify various media for communication
Ans. (A)

43. Books can be powerful source of communication, provided
(a) content is abstract
(b) content is illustrative
(c) Medium is Hindi
(d) content is presented through good print
Ans. (b)

44. To make classroom teaching more effective every teacher should
(a) discuss with colleagues
(b) analyze responses of students
(c) keep him/herself abreast of development in the area in his/her subject
(d) publish his/her writings
Ans. (B)

45. Meaningful learning takes place when
(a) students are interested in the topics taught
(b) explanations are given within the reach of the students
(c) the new content being taught is related to the previous knowledge of the students
(d) students raise **Question**s and get them clarified
Ans. (A)

46. A teacher is effective if he/she
(a) explains everything in the class
(b) repeats explanations for each student
(c) provides a variety of learning experiences
(d) answers all **Question**s raised by students
Ans. (C)

47. Majority of students in a large class are found dozing. There may be something wrong with
(a) the students concerned
(b) the teaching process
(c) the content taught
(d) the time of inst   Ans. (A)

48. Generalizability of a new teaching method can be tested through research across
(a) Different teachers
(b) Different subjects
(c) Different levels/grades
(d) All the above
Ans. (D)

49. Good teaching is best reflected by
(a) attendance of students
(b) number of distinctions
(c) meaningful **Question**s asked by students
(d) pin-drop silence in the class
Ans. (c)

50. The main aim of classroom teaching is
(a) to give information

(b) to develop inquiring mind
(c) to develop personality of students
(d) to help students pass examinations
Ans. (b)

- Bit means Binary Digit

- 1 byte = 8 bits

- 1 mega byte = 1048576 bytes

- 1 kilo byte = 1024 bytes

- A combination of 16 bits are called word.

- A terabyte = 1 trillion bytes

- Our PC belongs to 4th generation

- Fred Cohen coined the word computer virus

- First computer virus was created in 1970 at Bell laboratories

• WORM means Write Once Read Many

• Power of a super computer is measured in FLOPS (Floating Point Operations per Second)

• WWW/http: (hypertext transfer protocol) was created by Tim Burner Lee in 1992

• Intel means Integrated Electronics

• 1 worksheet contains 256 columns

• G.W.Basic G.W stands for Gate Way

• Super Computer was created by J.H.Van Tassel

• CORBA is Common Object Request Broker Architecture

• URL is Uniform or Universal Resource Locator

• Intel invented RAM chip

• Information stored on disk as series of bumps on its shiny side.

• DVDs hold more information than CDs. They use smaller bumps and have two reflective layers

• Recordable CDs do not have bumps. There are patches of color on disk to change the reflected

laser light

• In 1951 Univac – 1, the world's first commercial computer was designed by John Mauchly and J.

Presper Eckert. They built ENIAC, the first electronic computer in 1946

• In 1968 mainframe was built.

• In 1976 first supercomputer the Cray-1 was developed

• In 1981 IBM produce the IBM PC.

• In 1998 IBM made quantum computer

• Super computers uses parallel processing

• In 1974, computer games were introduced.

• PROM is the abbreviation of programmable read only memory

•

• What was the world's first high level programming language 1957: IBM FORTRAN

- A JPEG is a picture file format – what does JPEG stand for: Joint Photographic Experts Group

- During World War II, IBM built the computers the Nazis used to manage their death/concentration camps

- Registers are temporary storage areas within the CPU.

- First apple computer was built in garage.

- The language of small talk is object oriented.

- Shell is an operating environment.

- Virtual memory is also known as virtual page.

- NOS refer to operating systems for a network.

- In EBCDIC each character is denoted by 8 bits.

- Diodes are used in analog computer circuits as limiter.

- Wetware stands for any organic intelligence.

- GIGO stands for garbage in garbage out.

- Application of flip-flap are counters, shift register and transfer register.

- Bootstrap is associated with computer.

- FORTRAN stands for formula translator.

- A group of character that is termed as a single entity is called word.

- Clip art is a computer prepared art.

- Mark sensing is another term for OMR.

- Authorization to make multiple software copies is called site licensing.

- Antivirus is also known as vaccines.

- Free software is also known as public domain software.

- In computer DFD stands for Data Flow Diagram.

- Cyber Space is called to Virtual world of the computer.

- What does the sun in SUN Microsystems stand for Stanford University Network

- What does Intel stand for- Integrated Electronics

- All PCs have a BIOS what does bios stand for-Basic Input Output System

- What is the common name for an integrated circuit A Chip

- In WWW terms what does i.e. mean on a domain name-Ireland

- What company introduced the first commercial minicomputer 65 DEC

- Name the first web browser publicly available NCSA Mosaic

- The world's most powerful super computer is called ASCI white.

- World Wide Web was invented in 1993 by Tim Bareness Lee.

- The B-programming language was developed by Ken Thompson.

- The 1st commercially produced and sold computer (1951) was UNIVAC.

- The transformation from heavy computers to PCs was made possible using microprocessors.

- The first microprocessor was developed in 1971 by Intel.

- A pentium 4 (P-4) employs roughly 40 million transistors.

- Mark-1, Apple-1, and collossus were initial desktop computers.

- Binary digits are briefed as bit.

- A collection of bits is called byte.

- The first home computer (1977), which was sold in millions of units was Apple II.

- 'PARAM' is a supercomputer.

- Father of the Computer.. Charles Babbage

- What does CMOS stand for in a computer- Complementary metal Oxide semi-conductor