

## Post of Forest Apprentice in Tamil Nadu Forest Subordinate Service (Group-VI Services)

1. In which topology, the switch is the server and the peripherals are the clients?  
(A) Mesh (B) Tree  
(C) Ring (D)  Star  
(E) Answer not known
  
2. What is EDI?  
(A) Electrical Data Interchange (B) Electronic Data Information  
(C) Electrical Data Information (D)  Electronic Data Interchange  
(E) Answer not known
  
3. What is SMDS in Network?  
(A) Simple Mode Data Services  
(B) Simplex Mode Data system  
(C)  Switched Multi-Megabit Data Services  
(D) Switched Megabit Data Supply  
(E) Answer not known
  
4. How many physical channels are required to link  $n$  devices in a fully connected mesh network?  
(A)   $n(n-1)/2$  (B)  $n/2$   
(C)  $(n-1)/2$  (D)  $(n+1)/2$   
(E) Answer not known

5. Name the processes on each machine that communicate at a given layer?
- (A) Master – Slave Processes
  - (B) Primary – Secondary Processes
  - (C) Peer-to-peer Processes
  - (D) Multipoint Processes
  - (E) Answer not known
6. If a message is intended for a computer pathway down the line, each system bounces it along in sequence until it reaches the destination is called
- (A) Daisy Chain
  - (B) Hybrid
  - (C) Mesh
  - (D) Tree
  - (E) Answer not known
7. Name the layer, which is concerned with the syntax and semantics of the information exchanged between two systems?
- (A) Physical layer
  - (B) Session layer
  - (C) Presentation layer
  - (D) Data link layer
  - (E) Answer not known
8. Transmission media are usually categorized as
- (A) Guided or unguided
  - (B) Fixed or unfixd
  - (C) Determinate or indeterminate
  - (D) Metallic or nonmetallic
  - (E) Answer not known

9. What is BNC in guided media?  
(A)  Bayonet Neil Concelman (B) Boyce Normal form code  
(C) Byte Number Connector (D) Byte Net Connector  
(E) Answer not known
10. The radio communication spectrum is divided into bands based on  
(A) Amplitude (B)  Frequency  
(C) Cost and hardware (D) Transmission medium  
(E) Answer not known
11. A parabolic dish antenna is based on the geometry of a  
(A) Circle (B) Square  
(C)  Parabola (D) Line  
(E) Answer not known
12. What is the limitation of the crossbar switch while using more inputs and outputs in a grid?  
(A)  Cross points (B) Inputs  
(C) Outputs (D) Inputs and outputs  
(E) Answer not known
13. In \_\_\_\_\_ each packet of a message follows the same path from sender to receiver.  
(A)  The virtual approach to packet switching  
(B) Circuit switching  
(C) Message switching  
(D) The datagram approach to packet switching  
(E) Answer not known

14. Who developed network systems that used packets to transfer information between computers over a network in 1960s?
- (A) Thomas Marill and Lawrence G. Roberts
  - (B) Robert Metcalfe and David Boggs
  - (C) John Murphy and J.C.R. Licklider
  - (D) Leonard Kleinrock and Paul Baran
  - (E) Answer not known
15. Connecting personal computers and consumer electronics to let them share resources and exchange information up to a few kilometers in size is called
- (A) PAN
  - (B) MAN
  - (C) LAN
  - (D) WAN
  - (E) Answer not known
16. Internet working device that forwards packets between networks by processing the routing information included in the packet or data gram is called
- (A) Bridges
  - (B) Switches
  - (C) Repeaters
  - (D) Routers
  - (E) Answer not known
17. A network in which nodes are arranged hierarchically is called
- (A) A ring network
  - (B) A tree network
  - (C) A star network
  - (D) A bus network
  - (E) Answer not known

18. A large computer network that usually spans a city or a large campus is called
- (A)  Metropolitan Area Network    (B) Wide Area Network  
(C) Global Area Network    (D) Enterprise Private Network  
(E) Answer not known
19. A network under the administrative control of a single organization, but supports a limited connection to a specific external network is called
- (A) Internet    (B)  Extranet  
(C) Darknet    (D) Intranet  
(E) Answer not known
20. Which routing algorithm operate by having each router maintain a table giving the best known distance to each destination and which line to use to get there?
- (A) Shortest Path Routing    (B) Link State Routing  
(C) Hierarchical Routing    (D)  Distance Vector Routing  
(E) Answer not known
21. Structural flowcharts differ from traditional flowcharts by
- (A)  Restricted to composition of basic forms  
(B) Pseudo codes  
(C) Structured flowcharts with multiple entries  
(D) Structured English  
(E) Answer not known

22. A testing technique that exercise specific paths in a component's control structure to ensure complete coverage of maximum error detection is
- (A) Basis path testing                      (B) Integration testing  
(C) Smoke testing                            (D)  Unit testing  
(E) Answer not known
23. Which person does not belongs to Inspection team?
- (A) Moderator                                (B) Designer  
(C)  Manager                                    (D) Implementer  
(E) Answer not known
24. \_\_\_\_\_ Diagrams can be expressed using informal notations.
- (A)  Data flow                                (B) Structured English  
(C) HIPO                                        (D) Pseudo code  
(E) Answer not known
25. \_\_\_\_\_ test is conducted at the developer site by a representative group of end users.
- (A) Beta                                        (B)  Alpha  
(C) Smoke                                      (D) Unit  
(E) Answer not known
26. Data compression will send \_\_\_\_\_ amount of data in fewer bits only.
- (A) Little                                        (B)  Same  
(C) Absolute                                    (D) Relative  
(E) Answer not known



32. The major issue in waterfall model is
- (A) No documentation                      (B)  We cannot back track  
(C) More complex to continue            (D) Concurrency in development  
(E) Answer not known
33. The problem analysis phase may be known as the \_\_\_\_\_ phase.
- (A) Analysis of problem                      (B) Study of problem  
(C)  Feasibility study                      (D) Detailed analysis  
(E) Answer not known
34. What factors determines the profitability of a system?
- (A) Cost benefit analysis and pay back period  
(B)  Return on investment and net present value  
(C) Economic feasibility and technical feasibility  
(D) None  
(E) Answer not known
35. \_\_\_\_\_ is a term coined to includes graphics, sound, picture and animation.
- (A) Cinema                                      (B) Picture  
(C)  Multimedia                                      (D) Visual unit  
(E) Answer not known
36. Data capture is the \_\_\_\_\_ and \_\_\_\_\_ of new data.
- (A) Identifying and Capturing            (B) Identifying and Key-in  
(C)  Identifying and Acquisition            (D) Identifying and Analysing  
(E) Answer not known



37. Text selection can be done
- (A) ✓ By using the arrow key while holding SHIFT key
  - (B) By using the arrow key while holding CTRL key
  - (C) By dragging the mouse right button
  - (D) By pressing cut and paste key
  - (E) Answer not known
38. \_\_\_\_\_ technique that simplifies the design of a component without changing its function or behaviour.
- (A) Refinement
  - (B) Information hiding
  - (C) ✓ Refactoring
  - (D) Restructuring
  - (E) Answer not known
39. Component based Software Engineering design is a process using
- (A) Programs of different modules
  - (B) ✓ Reusable software components
  - (C) Component based software solutions
  - (D) Emphasize programming software to composing software
  - (E) Answer not known
40. The ratio of the size of the original data to the size of the compressed data is called as
- (A) Compressed rate
  - (B) ✓ Compression ratio
  - (C) Compressed image
  - (D) Hit ratio
  - (E) Answer not known

41. The transformation that moves objects without deformation is known as \_\_\_\_\_ transformations.
- (A) Composite (B) Geometric  
 (C) Affine (D)  Rigid-body  
 (E) Answer not known
42. On a color monitor system with multiple bits per pixel, the frame buffer is called as a
- (A) Bitmap (B)  Pixmap  
 (C) Refresh buffer (D) Display file  
 (E) Answer not known
43. The device for specifying a coordinates position  $(x, y)$  is known as
- (A)  Locator (B) Coordinator  
 (C) Actuator (D) Valuator  
 (E) Answer not known
44. In two-dimensional translation, a point  $(x, y)$  can move to the new position  $(x', y')$  by using the equation
- (A)  $x' = x + ty, y' = y + tx$  (B)  $x' = x - ty, y' = y - tx$   
 (C)   $x' = x + tx, y' = y + ty$  (D)  $x' = x - tx, y' = y - tx$   
 (E) Answer not known
45. The transformation that is used to alter the size of the object is
- (A) Translation (B)  Scaling  
 (C) Reflection (D) Rotation  
 (E) Answer not known

46. During scaling, if scale factors are  $S_x = S_y = S_z = S > 1$  then the scaling is called
- (A)  Magnification (B) Reduction  
(C) Reflection (D) Rotation  
(E) Answer not known
47. \_\_\_\_\_ is the ratio of vertical points to horizontal points necessary to produce equal length lines in both directions on the screen.
- (A)  Aspect ratio (B) Bitmap ratio  
(C) Pixmap ratio (D) Vertical retrace  
(E) Answer not known
48. The process of returning to the left of the screen after refreshing each scan line is called as
- (A) Vertical retrace (B)  Horizontal retrace  
(C) Bitmap retrace (D) Pixmap retrace  
(E) Answer not known
49. The Algorithm that is used to fill in an area that is not defined within a single color boundary is \_\_\_\_\_ algorithm.
- (A) Boundary fill (B) Area fill  
(C)  Flood fill (D) Scan fill  
(E) Answer not known
50. During Scaling if  $S_x = S_y > 1$  it means
- (A) Uniform reduction (B)  Uniform elongation  
(C) No change (D) Shape distortion  
(E) Answer not known

51. The resolution of raster scan display is  
(A) High (B)  Low  
(C) Very high (D) Medium  
(E) Answer not known
52. Refresh rate for a monitor is measured in  
(A)  Hz (B) MHz  
(C) KHz (D) GHz  
(E) Answer not known
53. How is the mirror image of an object obtained relative to an axis of reflection?  
(A) Rotating the object  $90^\circ$  (B)  Rotating the object  $180^\circ$   
(C) Rotating the object  $270^\circ$  (D) Rotating the object  $360^\circ$   
(E) Answer not known
54. What happens when reflection is about the line  $y = 0$ ?  
(A)  Flips  $y$  values  
(B) Flips  $x$  values  
(C) Flips both  $x$  and  $y$  values  
(D) Flips neither  $x$  nor  $y$  values  
(E) Answer not known

55. Which of the following is the transformation matrix for reflection relative to the coordinate origin?

(A)  $\begin{bmatrix} -1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

(B)  $\begin{bmatrix} -1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

(C)  $\begin{bmatrix} 1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

(D)  $\begin{bmatrix} -1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & -1 \end{bmatrix}$

(E) Answer not known

56. What do positive values for the rotation angle define for a rotation transformation?

(A) Clockwise rotation about pivot point

(B) Counter clockwise rotation about pivot point

(C) Clockwise rotation about fixed point

(D) Counter clockwise rotation about fixed point

(E) Answer not known

57. Which of the following device is used for specifying a coordinate position,  $(x, y)$ ?

(A) Locator

(B) Stroke

(C) Choice

(D) Pick

(E) Answer not known

58. In which mode, the processing is suspended until the required values are received?

(A) Request

(B) Sample

(C) Event

(D) Pick

(E) Answer not known

59. To which of the following can the odd parity rule be applied?
- (A) curve (B) arc  
(C)  polygon (D) chord  
(E) Answer not known
60. Which algorithm used 4-connected or 8-connected to fill polygons?
- (A)  boundary – fill (B) flood – fill  
(C) fill – area (D) area – fill  
(E) Answer not known
61. The return statement is not needed for \_\_\_\_\_ methods.
- (A) recursive (B) static  
(C)  void (D) int  
(E) Answer not known
62. Any variable if is to be declared in the method header is known as
- (A) Actual parameter (B)  Formal parameter  
(C) Local parameter (D) Global parameter  
(E) Answer not known
63. One of the following is not a unconditional control transfer
- (A) goto (B) break  
(C) continue (D)  if  
(E) Answer not known

64. \_\_\_\_\_ refers to the procedure of representing essential features with out including the back round details.
- (A) Dynamic binding (B) Data binding  
(C)  Abstraction (D) Encapsulation  
(E) Answer not known
65. Which one of the following is called extraction operator?
- (A)  >> (B) <<  
(C) >>> (D) <<<<  
(E) Answer not known
66. \_\_\_\_\_ operator is called as reference operator.
- (A)  & (B) \*  
(C) ~ (D) ;  
(E) Answer not known
67. Which one of the following is not a error trapping functions?
- (A) fail() (B) eof()  
(C) bad() (D)  get()  
(E) Answer not known
68. Pick the operator from the following that can be overloaded in C++
- (A) ?: (B) .  
(C)  - (D) ::  
(E) Answer not known

69. The new and delete in C++ are  
(A) Methods (B)  Keywords  
(C) Variables (D) Symbols  
(E) Answer not known
70. When a file is opened in read or write mode, the file pointer is set  
 (A) at the beginning of the file (B) at the end of the file  
(C) in the middle of the file (D) not set in any place  
(E) Answer not known
71. In Java int data type occupy \_\_\_\_\_ bytes.  
(A) 2 bytes (B) 8 bytes  
(C) 1 byte (D)  4 bytes  
(E) Answer not known
72. What is the order of precedence of following operators?  
1. &  
2. ^  
3. ?:  
(A)  1, 2, 3 (B) 2, 1, 3  
(C) 3, 2, 1 (D) 2, 3, 1  
(E) Answer not known
73. The default access specifier for main() method in Java is  
(A) Private (B)  Public  
(C) Protected (D) Static  
(E) Answer not known



74. Which one of the following can not be operands of arithmetic operators?  
(A) Numeric (B)  Boolean  
(C) Characters (D) Numeric and Characters  
(E) Answer not known
75. \_\_\_\_\_ package contains the exception stack overflow in Java.  
(A)  Java.lang (B) Java.util  
(C) Java.io (D) Java.Net  
(E) Answer not known
76. An array elements are always stored in \_\_\_\_\_ memory locations.  
(A)  Sequential (B) Random  
(C) Sequential and Random (D) Dynamic  
(E) Answer not known
77. What is the range of byte data type in Java?  
(A)  -128 to +127 (B) 0 to 32767  
(C) -32766 to +32767 (D) 0 to 255  
(E) Answer not known
78. Any variable defined inside a method is referred as a  
(A) Global variables (B) Formal parameter  
(C) Actual parameter (D)  Local variable  
(E) Answer not known
79. In inheritance a new class is also called as  
(A) Child class (B) Extended class  
(C) Derived class (D)  All the above  
(E) Answer not known

80. In interface all variables must be declared as
- (A) Public static
  - (B) Protected final
  - (C) Private static final
  - (D)  Public static final
  - (E) Answer not known
81. The world wide web was developed in
- (A) 1967
  - (B) 1988
  - (C)  1989
  - (D) 1947
  - (E) Answer not known
82. Which of the following is incorrectly paired?
- (A) Internet services – FTP
  - (B) Protocol – Set of rules
  - (C)  HTML – Web browser
  - (D) URL – Uniform resource locator
  - (E) Answer not known
83. A Search Engine is a tool used
- (A)  To searches the web with one or more keyword
  - (B) To submits the search to more than one search engine
  - (C) To hire a real person to perform our search
  - (D) To organizes its content hierarchically by subject
  - (E) Answer not known

84. The title given within title Tag appears
- (A) On the Screen
  - (B) On the Web Page
  - (C) On the Address Box
  - (D) On the bar at the top of the Browser Window
  - (E) Answer not known
85. Which part contains the actual page content?
- (A) Head Section
  - (B) Body Section
  - (C) HTML FORM
  - (D) Script Section
  - (E) Answer not known
86. Name the attribute of anchor tag that tells the browser to get another html document on the web?
- (A) Align
  - (B) Font
  - (C) Href
  - (D) Color
  - (E) Answer not known
87. Table cell can be specified by which of the following tag?
- (A) < Table >
  - (B) < tr >
  - (C) < td >
  - (D) < /tr >
  - (E) Answer not known
88. TCP / IP stands for
- (A) Transformation Control Protocol / Internet Protocol
  - (B) Transmission Control Processor / Internet Processor
  - (C) Transmission Control Protocol / Internet Protocol
  - (D) Transfer Common Programs / Information Processor
  - (E) Answer not known

89. Web Indexes use \_\_\_\_\_ links to present their list of resources.
- (A) Tool (B) Link symbol  
(C) ✓ Hyper text (D) Protocol  
(E) Answer not known
90. Each host computer on the Internet has a unique number called
- (A) Serial No (B) Port address  
(C) ✓ IP address (D) Web address  
(E) Answer not known
91. A Folder of Internet shortcuts is
- (A) Internet Explorer (B) ✓ Favorites  
(C) Internet Shortcut (D) History  
(E) Answer not known
92. What does the number 99 refers in the command  
<BODY BGCOLOR = "#99FF FF">?
- (A) Amount of Green Color (B) Amount of Blue Color  
(C) Amount of Black Color (D) ✓ Amount of Red Color  
(E) Answer not known
93. How to receive a feed back from web page?
- (A) Using Frames (B) Using Ordered list  
(C) ✓ Using Forms (D) Using Tables  
(E) Answer not known

94. The symbol which is differentiating the email address and website address?
- (A) # (B) .  
(C)  @ (D) a  
(E) Answer not known
95. Which is used to list the Unread mail?
- (A) Drafts (B) Sent Items  
(C)  Inbox (D) Trash  
(E) Answer not known
96. Which is the newest and best standard method for sending attachments?
- (A)  MIME (B) POP  
(C) SMTP (D) HTTP  
(E) Answer not known
97. The email address has two main parts, joined by
- (A) \$ (B)  @  
(C) / (D) &  
(E) Answer not known
98. When you replay to a message, the subject of the original message is preceded by
- (A) RS (B) FW  
(C) RW (D)  Re  
(E) Answer not known

99. To delete the email message click on
- (A)  Trash icon (B) Folder icon  
(C) Cut icon (D) Delete icon  
(E) Answer not known
100. New messages are stored in which folder?
- (A) Sent (B) Draft  
(C)  Inbox (D) Junk  
(E) Answer not known
101. Which of the following operation of two propositions A and B is true if atleast any of the propositional variable A or B is true?
- (A)  OR ( $\vee$ )  
(B) AND ( $\wedge$ )  
(C) Negation ( $\neg$ )  
(D) Implication ( $\rightarrow$ )  
(E) Answer not known
102. Which of the following is the inverse of the statement  
“If you do your homework, you will not be punished”.
- (A) You will not be punished if you do your homework  
(B)  If you do not do your homework you will be punished  
(C) If you will not be punished, you do your homework  
(D) If you are punished, you do your homework  
(E) Answer not known

103. Which of the following is not a proposition?
- (A) Toronto is the capital of Canada
  - (B)  $1 + 2 = 3$
  - (C)   $x + 1 = 2$
  - (D)  $2 * 5 = 6$
  - (E) Answer not known
104. Which of the following sets is infinite?
- (A)   $A = \{x : x \text{ is a prime number}\}$
  - (B)  $B = \{x : x \text{ is irrational and } x^2 - 1 = 0\}$
  - (C)  $C = \{x : x \in \mathbb{Z} \text{ and } -2 \leq x \leq 2\}$
  - (D)  $D = \{(x : x \in \mathbb{Z} \text{ and } x - 2 = 0)\}$
  - (E) Answer not known
105. If  $A = \{x : x \text{ is an even natural number } \leq 10\}$  and  $B = \{x : x \text{ is an odd natural number } \leq 10\}$  what is  $B - A$ ?
- (A)  $\{2, 4, 6, 8, 10\}$
  - (B)   $\{1, 3, 5, 7, 9\}$
  - (C)  $\{\}$
  - (D)  $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$
  - (E) Answer not known

106. When is a function said to be an odd function?
- (A) On an interval  $(a, b)$ , if it is either increasing or decreasing
  - (B)  $f(-x) = f(x)$
  - (C)   $f(-x) = -f(x)$
  - (D)  $f(x) = [x]$  which is the greatest integer less than or equal to  $x$
  - (E) Answer not known
107. If  $f(x) = x^3, f : R \rightarrow R$   $g(x) = \frac{1}{x}; g : R - \{0\} \rightarrow R - \{0\}$  find  $g \circ f$
- (A)  $1/x$
  - (B)  $1/x^2$
  - (C)   $1/x^3$
  - (D)  $x$
  - (E) Answer not known
108. How is a graph called if there are no non trivial cycles?
- (A) Cyclic
  - (B)  Acyclic
  - (C) Loop
  - (D) Loopless
  - (E) Answer not known
109. What does the meet operation of a poset correspond to?
- (A)  Greatest common divisor
  - (B) Least common multiple
  - (C) Prime number
  - (D) Perfect number
  - (E) Answer not known



110. When is a state said to be an accepting state?
- (A) If its input is 1
  - (B)  If its output is 1
  - (C) If its input is 0
  - (D) If its output is -1
  - (E) Answer not known
111. What is an acceptor?
- (A)  An automata that computes a boolean function
  - (B) An automata that has a finite number of states
  - (C) An automata where there is no element of choice
  - (D) An automata that has infinite number of states
  - (E) Answer not known
112. Find the domain of  $f(x) = 2\sqrt{x+4}$
- (A)  $(-4, \infty)$
  - (B)  $[-4, \infty]$
  - (C)   $[-4, \infty)$
  - (D)  $(-4, 4)$
  - (E) Answer not known
113. Which of the following is defined as the union of all the power of the base language?
- (A) Hasse's diagram
  - (B)  Kleene's star
  - (C) Cross
  - (D) Universe
  - (E) Answer not known

114. Identify the incorrect statement
- (A) A DFA is a way to implement regular grammar
  - (B) A pushdown automaton is a way to implement regular grammar
  - (C) A DFA can remember finite amount of information
  - (D) A push down automaton PDA can remember infinite amount of information
  - (E) Answer not known
115. Which among the following is false?
- (A) Deterministic pushdown automata has more powers than Non-Deterministic pushdown automata
  - (B) For Type-2 grammar we can design push down automata
  - (C) For Type-3 grammar we can design finite automata
  - (D) Non-Deterministic pushdown automata has more powers than Deterministic pushdown automata
  - (E) Answer not known
116. Which of the following language is generated by Type-0 grammars?
- (A) Regular
  - (B) Context-free
  - (C) Context-sensitive
  - (D) Recursively-enumerable
  - (E) Answer not known

117. When is a sequence of elements in a partial order an ascending chain?

- (A)   $n \leq m \Rightarrow l_n \leq l_m$
- (B)  $n = m \Rightarrow l_n = l_m$
- (C)  $n > m \Rightarrow l_n > l_m$
- (D)  $n \geq m \Rightarrow l_n \geq l_m$
- (E) Answer not known

118. Which of the following is logically equivalent to

$$\neg(P \wedge Q) \rightarrow (\neg P \vee (\neg P \vee Q))$$

- (A)  $\neg P \wedge \neg Q$
- (B)  $P \wedge Q$
- (C)   $\neg P \vee Q$
- (D)  $P \vee \neg Q$
- (E) Answer not known

119. Which of the following is a tautology?

- (A)   $P \vee \neg P$
- (B)  $P \wedge \neg P$
- (C)  $\neg P \vee Q$
- (D)  $P \vee \neg Q$
- (E) Answer not known

120. Which of the following is incorrect?
- (A) A function is one to one if it is either strictly increasing or strictly decreasing
  - (B) One-to-one function never assigns the same value to two different domain elements
  - (C) For onto function, range and co-domain are equal
  - (D) If a function,  $f$  is not bijective, inverse function of  $f$  can be easily defined
  - (E) Answer not known
121. The \_\_\_\_\_ keeps a copy of the complete state of the system that includes all register, collects hardware fault signals and manages the hardware recovery actions.
- (A) Instruction decode unit (IDU)
  - (B) Instruction sequence unit (ISU)
  - (C) Dedicated co-processor (COP)
  - (D) Recovery unit (RU)
  - (E) Answer not known
122. Which of the following is the first generation microprocessor
- (A) INTEL 4004, INTEL 8008
  - (B) INTEL 8085, INTEL 8080
  - (C) INTEL 8086, INTEL 8088
  - (D) INTEL 80386, INTEL 80486
  - (E) Answer not known

123. Using \_\_\_\_\_, the CPU may execute a program with the device address as an input parameter to compute the starting address of the interrupt service routine.
- (A) Polling scheme
  - (B)  Daisy chaining priority scheme
  - (C) Vectored Interrupt
  - (D) Independent Interrupt request
  - (E) Answer not known
124. NMOS technology were used in \_\_\_\_\_ generation microprocessors.
- (A) Fourth
  - (B)  Second
  - (C) Third
  - (D) Fifth
  - (E) Answer not known
125. \_\_\_\_\_ is used to connect a number of slow and medium speed devices and operate simultaneously by interleaving their data transmission.
- (A) Selector channel
  - (B) Execution of IO instruction
  - (C) IO Bus structure
  - (D)  Multiplexer channel
  - (E) Answer not known

126. In which addressing mode, the instruction specifies the name of the register in which the address of the data available?
- (A) Register addressing
  - (B) Implied addressing
  - (C) Register indirect addressing
  - (D) Immediate addressing
  - (E) Answer not known
127. The flag conditions are altered after execution of an instruction in this group which performs different arithmetic operations are called as
- (A) Branching Instructions
  - (B) Logical Instructions
  - (C) Arithmetic Instructions
  - (D) Machine control Instructions
  - (E) Answer not known
128. In 8086 processor, which flag is set if a certain register content becomes zero following an increment or decrement operation of that register?
- (A) Sign flag
  - (B) Parity flag
  - (C) Zero flag
  - (D) Carry flag
  - (E) Answer not known

129. \_\_\_\_\_ is a special purpose register which, at a given time stores the address of the next instructions to be fetched.
- (A) Stack pointer
  - (B) Temporary register
  - (C) Register A
  - (D) Program counter
  - (E) Answer not known
130. If the memory unit with 4096 words, how many bits are needed to specify an address?
- (A) 10 bits
  - (B) 12 bits
  - (C) 24 bits
  - (D) 16 bits
  - (E) Answer not known
131. Which register is used to hold memory operand?
- (A) Computer register
  - (B) Address register
  - (C) Data register
  - (D) Accumulator
  - (E) Answer not known
132. Find the correct sequence of phases for instruction cycle?
- (A) Fetch, Decode, Read Effective address, Execute
  - (B) Decode, Fetch, Execute, Read Effective Address
  - (C) Decode, Execute, Fetch, Read Effective Address
  - (D) Fetch, Execute, Read Effective Address, Decode
  - (E) Answer not known

133. Which one of the following is the data manipulation instruction?

- (A) Load LD
- (B) Exchange XCH
- (C) Enable interrupt EI
- (D) Skip
- (E) Answer not known

134. Arrange the following item according to the year of Introduction?

- (I) Pentium II
- (II) Pentium Pro
- (III) Pentium 4
- (IV) 80486
- (A) IV, II, III, I
- (B) IV, I, II, III
- (C) IV, II, I, III
- (D) IV, I, III, II
- (E) Answer not known

135. How many registers are in 8085 to store 8-bit data?

- (A) 4
- (B) 6
- (C) 5
- (D) 7
- (E) Answer not known



136. In parallel processing the amount of processing that can be accomplished during a given interval of time is called
- (A) Speed
  - (B) Multi task
  - (C) Efficiency
  - (D) Through put
  - (E) Answer not known
137. Dividing an arithmetic operation into sub operation for execution is called as
- (A) Arithmetic pipeline
  - (B) Vector pipeline
  - (C) Logical pipeline
  - (D) Shift pipeline
  - (E) Answer not known
138. A memory constructed with  $512 \times 8$  ROM chip. How many address lines are needed to represent an memory address?
- (A) 8
  - (B) 9
  - (C) 10
  - (D) 11
  - (E) Answer not known

139. A memory which has the property of locality of reference is in
- (A) Main memory
  - (B) Secondary storage memory
  - (C) Cache memory
  - (D) Virtual memory
  - (E) Answer not known
140. \_\_\_\_\_ is a procedure used to identify the highest priority source by software?
- (A) Priority interrupt
  - (B) Hardware priority
  - (C) Vector priority
  - (D) Polling
  - (E) Answer not known
141. Which control statement is used to execute the loop atleast once, before checking the condition?
- (A) For statement
  - (B) If statement
  - (C) While statement
  - (D) Do... while statement
  - (E) Answer not known
142. Which character is added automatically at the end of every string?
- (A) \ 0 (or) NULL character
  - (B) \ n (or) Newline character
  - (C) \ t (or) Horizontal tab
  - (D) \ r (or) Carriage return
  - (E) Answer not known

143. What is the worst case of computing time of quick sort?
- (A)  $O(n^2)$
  - (B)  $O(n \log_2 n)$
  - (C)  $O(n^2 \log n)$
  - (D)  $O(n)$
  - (E) Answer not known
144. How to assign the address of V to another variable PV?
- (A)  $PV = address(v)$
  - (B)  $PV = addr(v)$
  - (C)  $PV = \&v$
  - (D)  $PV = *v$
  - (E) Answer not known
145. Write the asymptotic computing time for the addition of two polynomials where  $n$  and  $m$  are orders of given polynomials.
- (A)  $O(n)$
  - (B)  $O(n^2)$
  - (C)  $O(n + m)$
  - (D)  $O(nm)$
  - (E) Answer not known

146. Operating systems keep track of users waiting for resources such as CPU, printing etc is an example of
- (A) Stack
  - (B) Queue
  - (C) Tree
  - (D) Graph
  - (E) Answer not known
147. While adding any element into a Queue, what condition is to be checked?
- (A) rear = n
  - (B) front = rear
  - (C) rear = 0
  - (D) front = 0
  - (E) Answer not known
148. Which searching techniques require the input to be sorted files?
- (A) Linear and Binary
  - (B) Linear and Fibonacci
  - (C) Binary and Fibonacci
  - (D) Binary, Fibonacci and Interpolation
  - (E) Answer not known
149. The top most node in the tree is called as
- (A) Leaf node
  - (B) Non-terminal node
  - (C) Terminal node
  - (D) Root node
  - (E) Answer not known

150. What is the prefix form of the infix expression  $A / B * * C * D + E$ ?
- (A)  $+ * / * * ABCDE$
  - (B)  $+ * / A * * BCDE$
  - (C)  $+ / * A * * BCDE$
  - (D)  $+ / * AB * * CDE$
  - (E) Answer not known
151. What implies if  $O(n)$  is the computing time of an algorithm?
- (A) Quadratic
  - (B) Linear
  - (C) Exponential
  - (D) Cubic
  - (E) Answer not known
152. In Quick sort if key  $k_i$  is placed in position  $s(i)$ , then  $k_j \leq k_{s(i)}$  for  $j < s(i)$  and  $k_j \geq k_{s(i)}$  for  $j > s(i)$ . After this positioning has been made the original file is partitioned into
- (A) Two sub files
  - (B) Single file
  - (C) Three sub files
  - (D) Four sub files
  - (E) Answer not known

153. The function used to store the result on char buffer and can be printed later on the monitor is

- (A) Lprintf ( )
- (B) printf ( )
- (C) Sprintf ( )
- (D) Buffprint ( )
- (E) Answer not known

154. Function calling itself is termed as

- (A) Nested function
- (B) Recursion
- (C) Sub function
- (D) Function call
- (E) Answer not known

155. main ( )

```
{  
    int dat = 100, * var;  
    var = & dat;  
    printf ("%d, %d", dat, * var);  
}
```

What is the output of the above program?

- (A) 100, 1000
- (B) 100, 10
- (C) 100, 0
- (D) 100, 100
- (E) Answer not known

156. What is the output of the program?

```
main ()  
{  
int x;  
char ch = 'A';  
x = ch+ '8';  
printf ("%d", x);  
}
```

- (A) 0
- (B) 9
- (C) 121
- (D) Ch8
- (E) Answer not known

157. What are different types of file queries available?

- (I) Simple Query
  - (II) Range Query
  - (III) Functional Query
  - (IV) Boolean Query
- (A) I & IV
  - (B) II & III
  - (C) I & II
  - (D) I, II, III & IV
  - (E) Answer not known

158. What is the method of maintaining a file and index?
- (A) Cylinder surface indexing method
  - (B) Sequential method
  - (C) Indexed method
  - (D) Indexed sequential access method
  - (E) Answer not known
159. How to get bucket address using mid-square hash function?
- (A)  $f_D(X) = X \bmod M$
  - (B) Squaring the identifier and then using an appropriate number of bits from the middle of the square
  - (C)  $X$  is partitioned into several parts, these parts are added together
  - (D) Each identifier  $X$  is interpreted as a number using some radix  $r$
  - (E) Answer not known
160. `main ()`  
`{`  
`printf("Welcome");`  
`main ();`  
`}`  
What happens to the output of the program?
- (A) "Welcome" will be printed once
  - (B) "Welcome" will be printed infinite no of times
  - (C) Logical error
  - (D) No output
  - (E) Answer not known



161. The Assembler directive "RESB" is used to
- (A) Generate one-byte integer constant
  - (B) Generate one-word integer constant
  - (C) Reserve the indicated number of bytes for data
  - (D) Reserve the indicated number of words for data
  - (E) Answer not known
162. Which of the following is used to refer to segments of code that are rearranged within a single object program unit?
- (A) Program blocks
  - (B) Control sections
  - (C) External references
  - (D) Literal pools
  - (E) Answer not known
163. What is the part of compiler that performs lexical analysis?
- (A) Parser
  - (B) Scanner
  - (C) Modifier
  - (D) Interpreter
  - (E) Answer not known
164. Three address code is
- (A) Intermediate language
  - (B) Machine language
  - (C) Natural language
  - (D) High language
  - (E) Answer not known
165. What is a symbol table?
- (A) The data structure created by compiler to store information
  - (B) Memory in which program needed by compiler is stored
  - (C) The space in which symbols which are used by compiler are stored
  - (D) Auxiliary storage device
  - (E) Answer not known

166. What is the purpose of batch processing?
- (A) to avoid the error                       (B) to speedup the processing  
(C) to save memory                          (D) to secure data  
(E) Answer not known
167. Which of the following is not an assembler directive?
- (A) START                                      (B) BYTE  
 (C) LDA                                        (D) RESW  
(E) Answer not known
168. Numbers, quoted character strings and other self-defining data are classified as
- (A) Identifier                                   (B) Literal  
(C) Terminals                                 (D) Variables  
(E) Answer not known
169. Which of the following will transfer a process from wait-state to a ready state?
- (A) Process creation                        (B) Process scheduling  
(C) Process suspending                       (D) Process resuming  
(E) Answer not known
170. In which state, the process may be suspended
- (A) Blocked state                            (B) Ready state  
 (C) Blocked or Ready state                (D) Running state  
(E) Answer not known

171. A file system is concerned with
- (A) Physical organization of Information
  - (B) Logical organization of Information
  - (C) Processor management
  - (D) Device management
  - (E) Answer not known
172. A situation in which two processes are unknowingly by waiting on resources that are unavailable is called
- (A) Race condition
  - (B) Stalemate
  - (C) Multi processor systems
  - (D) Taggle state
  - (E) Answer not known
173. Which page replacement algorithm replace a resident page that has not been accessed in near past?
- (A) FIFO replacement algorithm
  - (B) Optimal page replacement algorithm
  - (C) Clock page replacement algorithm
  - (D) Least recently used algorithm
  - (E) Answer not known
174. Expand Spooling
- (A) Small peripheral operation online
  - (B) Simultaneous peripheral operation online
  - (C) Spontaneous primary operation online
  - (D) Simultaneous primary operation online
  - (E) Answer not known

175. Which type of loading will load routines in main memory at time of execution?
- (A) Static loading
  - (B) Dynamic loading
  - (C) Compile-time loading
  - (D) Schedule loading
  - (E) Answer not known
176. \_\_\_\_\_ merges adjacent holes into single larger hole.
- (A) Merging
  - (B) Binding
  - (C) Coalescing
  - (D) Segmentation
  - (E) Answer not known
177. In which situation a process or a set of processes is blocked and waiting for resource held by other waiting processes?
- (A) Semaphore
  - (B) Mutual exclusion
  - (C) Deadlock
  - (D) Monitor
  - (E) Answer not known
178. In which situation, a process indefinitely wait for a resource?
- (A) Deadlock release
  - (B) No deadlock
  - (C) Starvation
  - (D) Deadlock avoidance
  - (E) Answer not known

179. The messages are sent to and received from mailboxes, or ports are
- (A) Direct communication
  - (B) Symmetric communication
  - (C) Indirect communication
  - (D) Automatic buffering
  - (E) Answer not known
180. Which is considerably cheaper for storing data?
- (A) Magnetic tape
  - (B) Hard disk
  - (C) Optical disk
  - (D) Super disk
  - (E) Answer not known
181. Database is defined as
- (A) The collection of data
  - (B) The collection of records
  - (C) The collection of interrelated data
  - (D) The collection of logically interrelated data
  - (E) Answer not known
182. A file which has more than one index, with a different key is known as
- (A) Hashed file
  - (B) Indexed file
  - (C) Transaction file
  - (D) Inverted file
  - (E) Answer not known

183. Storage structure and access methods used by the database system in specified by special type of DDL is called as
- (A) ✓ Data storage and definition language
  - (B) Database language
  - (C) Query language
  - (D) Database language and query language
  - (E) Answer not known
184. Normalization improves performance by avoiding redundancy, Redundancy can lead to
- (A) Partial dependency
  - (B) Consistencies
  - (C) ✓ Inconsistencies
  - (D) Transitive dependency
  - (E) Answer not known
185. Which one of the following is correct if a relation 'R' is in 5<sup>th</sup> Normal form?
- (A) It can further non loss decomposed
  - (B) 'R' is already in 3NF
  - (C) 5NF design is always dependency preserving and loss less
  - (D) ✓ It cannot be further non loss decomposed
  - (E) Answer not known
186. E-R model is intended primary for the database design process by allowing the specification of an enterprise
- (A) Data
  - (B) Schema
  - (C) ✓ Scheme
  - (D) Subschema
  - (E) Answer not known

187. A clustered is similar to the mechanism used in  
(A) Table (B) Relation  
(C)  Dictionary (D) Column  
(E) Answer not known
188. A term is that element of the system which contains data about data that is description of other data. What is that?  
(A) Object (B) Database  
(C) Cluster (D)  Data dictionary  
(E) Answer not known
189. Application programs and terminal activities are not disturbed if any changes are made either in storage representation or access methods is known as  
(A) Logical data independence (B) Distribution rule  
(C)  Physical data independence (D) High level data independence  
(E) Answer not known
190. In which design process multiple entity set are synthesized into a higher level entity set on the basis of common features?  
(A) Top-down  
(B) Generalization  
(C)  Bottom-up  
(D) Specialization  
(E) Answer not known

191. The lower level entity set membership is evaluated on the basis of whether or not an entity satisfies an explicit condition or predicate is known as
- (A) Predicate condition defined
  - (B) User defined
  - (C)  Condition defined
  - (D) Disjoined defined
  - (E) Answer not known
192. Our goals of database design with functional dependencies are
- (A)  BCNF, losslessness, dependency preservation
  - (B) 3NF, lossyness, preservation
  - (C) BCNF, lossyness, dependency
  - (D) BCNF, 3NF, Functional dependency
  - (E) Answer not known
193. Identify the following Rule, “if a Foreign key exists in a relation, either the foreign key value must match a candidate key value on tuple in its relation” it is called as which rule?
- (A) Assertion Rule
  - (B) Relational model Rule
  - (C) Integrity constraints Rule
  - (D)  Referential integrity Rule
  - (E) Answer not known



194. LIKE operator in oracle is used to find the
- (A) Name
  - (B) Character
  - (C) Character using wild
  - (D)  Wild character
  - (E) Answer not known
195. Select distinct customer-name from borrower when customer name \_\_\_\_\_ (Select customer-name from depositor). What is the suitable element for filling the dash?
- (A) AS
  - (B) =
  - (C)  IN
  - (D) ALL
  - (E) Answer not known
196. What is the serious problem in creating / using views?
- (A)  to express update, insert, delete with them
  - (B) to express copy of the original table
  - (C) to modify the original table
  - (D) to express another table name for table
  - (E) Answer not known
197. When two entities are associated, it is called
- (A) Unary
  - (B)  Binary
  - (C) Ternary
  - (D) Degree
  - (E) Answer not known

198. Who is incharge of designing, implementing and maintaining the database?
- (A) Database manager
  - (B) Database server manager
  - (C) Database administrator
  - (D) Database designer
  - (E) Answer not known
199. Dependencies that are satisfied by all relations is called as
- (A) Non-trivial dependency
  - (B) Functional dependency
  - (C) Multivalued dependency
  - (D) Trivial dependency
  - (E) Answer not known
200. \_\_\_\_\_ function will find the location of the  $n^{\text{th}}$  occurrence string  $X$  in the string data starting from the position,  $S$ .
- (A) SUBSTR (data,  $X, S, N$ )
  - (B) INSTR (data,  $X$ )
  - (C) INSTR (data  $X, S, N$ )
  - (D) INITCAP (data  $X, S, N$ )
  - (E) Answer not known
-