

109/2021

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

10573

Total Number of Questions : 100

Time : 75 Minutes

Maximum : 100 Marks

INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Assistant Superintendent in the examination hall IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Assistant Superintendent in the examination hall and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball-Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Assistant Superintendent in the examination hall has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

SEAL

109/2021

1. What was the early name of Volleyball ?
(A) Mintonette (B) Soccer (C) Rounders (D) Pulu
2. Who among the following received the Nobel Prize for Chemistry in 2020 ?
(A) Andrea M Ghez (B) Robert B Wilson
(C) Jennifer Doudna (D) Louise Gluck
3. Who is the author of the work, *The Blue Umbrella* ?
(A) Chetan Bhagath (B) Ruskin Bond
(C) R.K. Narayan (D) Charles Dickens
4. Where is the Indian Institute of Horticultural Research situated ?
(A) Chennai (B) Pune (C) Bhubaneswar (D) Bengaluru
5. Where is the headquarters of FICCI ?
(A) Bengaluru (B) Kolkata (C) Mumbai (D) New Delhi
6. Which is the first solar powered Airport in the world ?
(A) Cochin International Airport
(B) JFK International Airport, New York
(C) Chatrapati Shivaji Maharaj International Airport
(D) Heathrow Airport
7. The Blue Revolution denotes :
(A) Pollution free sky (B) Aquaculture production
(C) Removal of E-waste (D) Space Technology
8. 73rd constitutional amendment refers to :
(A) Educational Rights (B) RTI Act
(C) Panchayathi Raj (D) Nagarapalika
9. When did 'The Right to Food Act' come into existence ?
(A) 2013 (B) 2009
(C) 2021 (D) None of the above
10. The Parambikkulam dam is situated in _____ district.
(A) Pathanamthitta (B) Kollam
(C) Ernakulam (D) Palakkad

11. Who is the author of *Janani Navaratna Manjari* ?
 (A) Nirmalananda Swami (B) Vaikunta Swamikal
 (C) Chattampi Swamikal (D) Sri Narayana Guru
12. Who is the founder of 'Atma Bodhodaya Sangham' ?
 (A) Poikayil Kumara Guru (B) Subhananda Guru
 (C) Sadananda Swami (D) K. Kelappan
13. Which among the following is not a 'Jyothirlingapitha' ?
 (A) Vindhyachalam (B) Somanatham
 (C) Sreesailam (D) Rameswaram
14. How many chapters are there in 'Devi Mahathmyam' ?
 (A) 9 (B) 15 (C) 13 (D) 11
15. What was the early name of Sister Nivedita ?
 (A) Annie Besant (B) Margaret Elizabeth Noble
 (C) Sarah Bernhard (D) Emma Calve
16. Which among the following is a pilgrimage centre included in 'Char Dham' ?
 (A) Pandharpur (B) Ayodhya (C) Dwaraka (D) Gaya
17. Who is the author of *Tiruvaimozhi* ?
 (A) Tirumankai Alvar (B) Nammalvar
 (C) Tiru Kannappar (D) Poikai Alvar
18. Who among the following was a Nayanar saint ?
 (A) Karaikkal Ammaiyar (B) Andal
 (C) Ramanuja (D) Bhogar
19. Who is the author of *Tiruppugazh* ?
 (A) Tirumular (B) Agasthya
 (C) Arunagirinathar (D) Kapilar

20. Who among the following was a saint from Assam ?
(A) Sur Das (B) Jayadeva
(C) Mahapurusha Achyutananda (D) Srimantha Sankardev
21. ANSI stands for :
(A) American National Standards Infrastructure
(B) American National Science Institute
(C) American National Standards Institute
(D) American National Scientists Incorporation
22. Which of the following is/are procedural languages ?
(A) Pascal (B) Smalltalk (C) C (D) Both (A) and (C)
23. '\b' in C character constant means :
(A) Form feed (B) Backspace (C) Backslash (D) Carriage return
24. The 'for' loop is/are :
(A) Entry-controlled loop (B) Exit-controlled loop
(C) Both (A) and (B) (D) None of the above
25. Deriving one sub-class from many base classes is called :
(A) Multi-level inheritance (B) Hybrid inheritance
(C) Multiple inheritance (D) Hierarchical inheritance
26. The maximum number of nodes in a binary tree of height h is :
(A) h^2 (B) 2^{h-1} (C) $h^2 + 1$ (D) $2^{h+1} - 1$
27. The memory address of the first element of an array is called :
(A) Start address (B) Base address (C) First address (D) Floor address

28. Linked list is/are best suited :
- For relatively permanent collections of data
 - For the size of the structure and the data in the structure are constantly changing
 - Both (A) and (B)
 - None of the above
29. Queue is a _____ list.
- LIFO
 - LIFO
 - FIFO
 - FILO
30. Which of the following sorting algorithms can be used to sort a random linked list with minimum time complexity ?
- Quick sort
 - Insertion sort
 - Heap sort
 - Merge sort
31. Which among these instructions does not belong to machine control instructions ?
- NOP
 - STI
 - HLT
 - LOCK
32. ISR stands for :
- Internal Signal Request
 - Interrupt Service Request
 - Interrupt Signal Routine
 - Interrupt Service Routine
33. In 8086 processor, the port reserved for CLK is :
- 20
 - 17
 - 19
 - 22
34. The fastest data access is provided by using :
- Caches
 - DRAM's
 - SRAM's
 - Registers
35. The last on the hierarchy scale of memory devices is :
- Secondary memory
 - Main memory
 - TLB
 - Flash drives
36. To overcome the lag in the operating speed of the I/O device and the processor we use :
- Buffer spaces
 - Status flags
 - Interrupt signals
 - Exceptions

37. The method of synchronizing the processor with the I/O device in which the device sends a signal when it is ready is :
- (A) Signal handling (B) Exceptions
(C) DMA (D) Interrupts
38. The last statement of an assembly language source program should be :
- (A) Stop (B) OP (C) Return (D) End
39. TII stands for :
- (A) Table of Incomplete Instructions
(B) Translation of Instructions Information
(C) Table of Information Instructions
(D) Translation of Information Instructions
40. Which of the following is the important characteristics of computers ?
- (A) Accuracy (B) Speed (C) Storage (D) All of the above
41. Identify false statement :
- (A) You can find deleted files in recycle bin
(B) You can restore any files in recycle bin if you ever need
(C) You can increase free space of disk by sending files in recycle bin
(D) You can right click and choose empty recycle bin to clean it at once
42. You should save your computer from :
- (A) Viruses (B) Worms (C) Time bombs (D) All of the above
43. World Wide Web is being standard by :
- (A) W3C (B) World Wide Consortium
(C) World Wide Web Standard (D) World Wide Corporation
44. A process can be :
- (A) Single threaded (B) Multithreaded
(C) Both (A) and (B) (D) None of the above

45. The register context and stacks of a thread are deallocated when the thread :
(A) Terminates (B) Blocks (C) Unblocks (D) Spawns
46. Messages sent by a process :
(A) Have to be of a fixed size
(B) Have to be of a variable size
(C) Can be of fixed or variable sized
(D) None of the above
47. Deadlocks can be described more precisely in terms of a directed graph called :
(A) Bar graph
(B) Line graph
(C) System resource allocation graph
(D) World Cloud
48. The wait for graph can be obtained from resource allocation graph by :
(A) Removing the resource nodes and collapsing the appropriate edges
(B) Collapsing the resource nodes and removing the appropriate edges
(C) Both (A) and (B)
(D) None of the above
49. Which of the following commands can be used to get information about yourself ?
(A) who am i (B) i/u (C) pwd (D) which
50. Which option will be used with ps command to show the entire command line of the process being run ?
(A) -4 (B) -1 (C) -f (D) -2
51. Redundancy is minimized with a computer based database approach :
(A) True
(B) False
(C) Sometimes true or sometimes false
(D) Can't predict
52. The hybrid inheritance is a mixture of :
(A) Multiple and hierarchical inheritance
(B) Single and multiple inheritance
(C) Multi-level and hierarchical inheritance
(D) Multiple and multi-level inheritance

53. A _____ ensures that transactions execute automatically.
- (A) Integrity control algorithm (B) Local applications
(C) Concurrency control algorithm (D) None of the above
54. Goals for the design of the logical schema include :
- (A) Being able to access data efficiently
(B) Being able to construct queries easily
(C) Avoiding data inconsistency
(D) All of the above
55. An operation that increase the length of a list in database is :
- (A) modify (B) insert (C) look-up (D) All of the above
56. RAID stands for :
- (A) Rapid Action In Disaster
(B) Random Access Internal Disks
(C) Rapid Application Interface Design
(D) Redundant Arrays of Independent Disks
57. Oracle supports :
- (A) inner join and outer join
(B) outer join and semi join
(C) inner join, outer join and semi join
(D) inner join, outer join, semi join and anti join
58. There exists a construct which returns a value 'true' if the argument subquery is :
- (A) Empty (B) An error
(C) Non-empty (D) None of the above
59. In order to use a DBMS, it is important to understand :
- (A) Physical schema
(B) One subschema
(C) All subschemas that the system supports
(D) Both (A) and (C)

60. Report generators are used to :
(A) Store data input by a user (B) Retrieve information from the files
(C) Answer queries (D) Both (B) and (C)
61. Which layer of OSI determines the interface of the system with the user ?
(A) Application (B) Session (C) Network (D) Data link
62. In a _____ Link, the only traffic is between the two connected devices.
(A) Secondary (B) Primary (C) Dedicated (D) None of these
63. Local Area Networks can transmit :
(A) Slower than telecommunications over public telephone lines
(B) Faster than telecommunications over public telephone lines
(C) Using twisted pair wiring or Coaxial cables
(D) Both (A) and (C)
64. Which topology feature is a point-to-point line configuration ?
(A) Mesh (B) Ring (C) Star (D) All of the above
65. For pure ALOHA, the maximum channel utilization is :
(A) 100% (B) 18% (C) 50% (D) 36%
66. The network that requires human intervention to route signals is called a :
(A) Bus network (B) Star network
(C) T-switched network (D) Ring network
67. ISDN stands for :
(A) Indian Standard Digital Network
(B) Integrated Services Digital Network
(C) Intelligent Services Digital Network
(D) Integrated Services Data Network
68. The program used to determine the round trip delay between a workstation and a destination address is :
(A) Tracert (B) Traceroute (C) Ping (D) Pop

69. A network which is used for sharing data, software and hardware among several users owning microcomputers is called :
- (A) WAN (B) LAN (C) MAN (D) VAN
70. Which of the following TCP/IP protocols is used for file transfer with minimal capability and minimal overhead ?
- (A) RARP (B) FTP (C) TFTP (D) TELNET
71. Level 0 DFD is similar to :
- (A) Use case diagram (B) Context diagram
(C) System diagram (D) None of these
72. Project risk factor is considered in :
- (A) Waterfall model (B) Build and fix model
(C) Spiral model (D) RAD
73. Software engineering primarily aims at :
- (A) Reliable software
(B) Cost effective software
(C) Reliable and cost effective software
(D) None of the above
74. Software design phase will usually be :
- (A) Top-down (B) Bottom-up (C) Random (D) Centre fringing
75. In an object oriented software design, inheritance is a kind of :
- (A) Module (B) Relationship (C) Optimization (D) Testing
76. Waterfall model has _____ steps/phases.
- (A) 4 (B) 8 (C) 6 (D) 7
77. During validation :
- (A) Process is checked
(B) Product is checked
(C) Developer's performance is evaluated
(D) Customer checks the product

78. SDLC stands for :
- (A) Software Design Life Cycle
 - (B) Software Development Life Cycle
 - (C) Software Description Life Cycle
 - (D) Software Design Levels Cycle
79. Which one is not a requirement elicitation technique ?
- (A) FAST
 - (B) QFD
 - (C) DFD
 - (D) Interviews
80. Software quality is :
- (A) Conformation to requirements
 - (B) Level of satisfaction
 - (C) Fitness for the purpose
 - (D) All of the above
81. Text within `` _____ `` is displayed as.
- (A) Bold
 - (B) Italic
 - (C) List
 - (D) Intended
82. `` _____ `` tag is used to.
- (A) Display the numbered list
 - (B) Display the bulleted list
 - (C) Underline the text
 - (D) None of the above
83. What is the correct way of describing XML data ?
- (A) XML uses DTD to describe data
 - (B) XML uses a description node to describe data
 - (C) XML uses XSL to describe data
 - (D) XML uses a validator to describe data
84. Comments in XML document is given by :
- (A) `<? _____>`
 - (B) `<! _____!>`
 - (C) `<! _____>`
 - (D) `</ _____>`
85. The XML DOM object is :
- (A) Entity
 - (B) Entity reference
 - (C) Comment reference
 - (D) Comment data
86. _____ is a sub interface of `ServletRequest`.
- (A) `HttpServletRequest`
 - (B) `HttpServlet`
 - (C) `HttpServletResponse`
 - (D) `Servlet`

87. Suppose the two parameters in the doGet or doPost methods is request and response. To send a cookie to a client, use :
- (A) response.addCookie(cookie) (B) response.sendCookie(cookie)
(C) request.addCookie(cookie) (D) request.sendCookie(cookie)
88. Which is the client side JavaScript object ?
- (A) Database (B) Cursor (C) Client (D) FileUpload
89. _____ keyword is used to declare variables in JavaScript.
- (A) var (B) dim
(C) string (D) None of the above
90. Find the value of Math.round(-20.5).
- (A) -21 (B) -20 (C) 20 (D) 21
91. Which of the following is an anti-virus program ?
- (A) Norton (B) Quick Heal (C) K7 (D) All of these
92. Computer viruses are :
- (A) Naturally occurring (B) Manmade
(C) Machine made (D) All of the above
93. Files can have :
- (A) Read access (B) Copy access
(C) Write access (D) All of the above
94. Packet filtering firewalls are deployed on :
- (A) Repeaters (B) Routers (C) Hubs (D) Switches
95. Which hash algorithm is used by DSS ?
- (A) SHA-1 (B) SHA-2
(C) MD5 (D) Does not use hash algorithm
96. What is the size of the RSA signature hash after the MD5 and SHA-1 processing ?
- (A) 32 bytes (B) 36 bytes (C) 42 bytes (D) 48 bytes

97. FDDI is a :
- (A) Ring network (B) Star network
(C) Mesh network (D) None of the above
98. Where is an IPS commonly placed in a network ?
- (A) In the front of the firewall (B) In line with the firewall
(C) Behind the firewall (D) On the end user's device
99. Compiler can identify :
- (A) Syntax error (B) Logical error
(C) Semantic error (D) All of the above
100. In which of the following, a person is constantly followed/chased by another person or group of several peoples ?
- (A) Phishing (B) Bulling (C) Stalking (D) Identity theft

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