

002/2026

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

Total No. of questions : 100

Time : 1 Hour 30 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 Invigilator 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 Invigilator 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 Invigilator 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.

002/2026

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. Which of the following is/are the functions of an operating system?
 - (i) Process Management
 - (ii) Memory Management
 - (iii) POST
 - (iv) File Management

(A) All of the above (i), (ii), (iii) and (iv) (B) Only (i), (ii) and (iv)
(C) Only (i) and (ii) (D) Only (ii) and (iv)
2. Which of the following statement is/are correct about First Generation of computer?
 - (i) Made up of Vacuum tubes
 - (ii) Low power consumption
 - (iii) Required Air-Conditioned Rooms
 - (iv) Machine languages are used for programming

(A) Only (i), (iii) and (iv)
(B) Only (i) (ii) and (iii)
(C) All of the above (i) (ii), (iii) and (iv)
(D) Only (ii) and (iv)
3. Which of the following is a Hybrid Computer?
 - (A) PDA
 - (B) Notebook
 - (C) Vital Signs Monitors (VSM)
 - (D) Speedometer
4. Which of the following is a special software that enables a hardware device to perform an operation according to the command given by the end user?
 - (A) Compiler
 - (B) Utility software
 - (C) Device driver
 - (D) Firmware

5. Which of the following is a software that is distributed with its source code, allowing users to use, modify and redistribute it with its original rights?
- (A) Shareware (B) Open-source software
(C) Freeware (D) Proprietary software
6. Which option in Linux 'rm' command that the user is prompted for confirmation before removing each file and directory?
- (A) -r (B) -c
(C) -i (D) -rf
7. Which of the following statement is/are correct about Compilers?
- (i) Translates high-level program into a machine language program
(ii) Translates and executes the source code line by line during runtime
(iii) Compilation happens in multiple phases
(iv) Reports an error as soon as it finds one line and stops execution
- (A) Only (i) and (iii)
(B) Only (i), (ii) and (iv)
(C) Only (i)
(D) All of the above (i), (ii), (iii) and (iv)
8. Which of the following statement is/are the functions of Control Unit?
- (i) Fetching Instructions from main memory
(ii) Sending Control signals
(iii) Decoding Instructions
(iv) Performing Logical Operations
- (A) Only (i) and (iii)
(B) Only (i), (ii) and (iii)
(C) Only (i) and (iv)
(D) All of the above (i), (ii), (iii) and (iv)

9. Which of the following command is used to change the access permissions of files and directories?
- (A) pwd (B) cat
(C) chmod (D) ssh
10. Who developed the stored program concept?
- (A) Herman Hollerith (B) Blaise Pascal
(C) Charles Babbage (D) John von Neumann
11. Which of the following processor uses RISC architecture?
- (A) Intel Core i7 (B) Apple M2
(C) AMD Athlon (D) Intel Pentium Dual core
12. Which of the following is a Proprietary operating system owned by Apple?
- (A) Fedora Linux (B) Ubuntu
(C) macOS (D) FreeBSD
13. The expansion of BIOS is :
- (A) Basic Input Output Server (B) Basic Input Output Service
(C) Basic Input Output System (D) Basic Input Output Software
14. A process of loading the OS from Hard Disk to RAM is :
- (A) Booting (B) Starting
(C) Initiating (D) Beginning
15. Which of the following is active first during the normal PC boot process?
- (A) RAM BIOS (B) CMOS
(C) ROM BIOS (D) Hard disk information
16. Which storage size is the smallest?
- (A) Kilobyte (B) Gigabyte
(C) Terabyte (D) Megabyte

17. What type of memory is non-volatile and used to store firmware?
- (A) RAM (B) Register
(C) Cache (D) ROM
18. Which type of memory is primarily used for temporary storage while a program is running?
- (A) ROM (B) RAM
(C) Hard Drive (D) None of these
19. Which memory type is integrated directly into the CPU to speed up processes?
- (A) RAM (B) ROM
(C) SSD (D) Cache
20. What does DRAM stand for?
- (A) Dynamic Random Access Memory (B) Double Read Access Memory
(C) Direct Random Access Memory (D) Disk Random Access Memory
21. Which is an example of secondary storage?
- (A) RAM (B) Cache
(C) CPU Registers (D) SSD
22. What is the full form of EEPROM?
- (A) Electrically Erasable Programmable Read-Only Memory
(B) Electrically Enhanced Programmable Read-Only Memory
(C) Electrically Emitted Programmable
(D) None of these
23. In 8086 microprocessor, the address bus is _____ bit wide.
- (A) 12 bit (B) 10 bit
(C) 16 bit (D) 20 bit

24. In 8086 microprocessor the register AX is formed by grouping :
- (A) AH and AL (B) BH and BL
(C) CH and CL (D) DH and DL
25. In 8086, Example for Non maskable interrupts is :
- (A) TRAP (B) RST6.5
(C) INTR (D) RST6.6
26. _____ is the index of the first element in a C array.
- (A) -1 (B) 0
(C) 1 (D) Depends on compiler
27. What is the output of following code snippet in C?
- ```
int a[] = {2,4,8,16};
printf("%d", 2[a]);
```
- (A) Compile error (B) 2  
(C) 4 (D) 8
28. What happens if NULL is passed to a pointer in call by reference?
- (A) Value becomes zero (B) Compilation error  
(C) Runtime error (D) Program works normally
29. Which of the following statement(s) is/are correct about memory representation of two-dimensional arrays?
- (i) Stored in column-major order  
(ii) Stored in row-major order  
(iii) Elements of each row are stored contiguously  
(iv) Each row occupies equal memory
- (A) (i) and (iii) (B) (i), (iii) and (iv)  
(C) (ii), (iii) and (iv) (D) (ii) and (iv)

30. What is the scope of a parameter variable inside a function?

- |                        |                 |
|------------------------|-----------------|
| (A) Program-wide scope | (B) Local scope |
| (C) Static scope       | (D) Global      |

31. Consider the code :

```
int x =1;
void fun() {
int x = 2;
{
int x = 3;
printf("%d",x);
}
}
```

What will be the Output?

- |                   |       |
|-------------------|-------|
| (A) Compile error | (B) 1 |
| (C) 2             | (D) 3 |

32. In call by value, \_\_\_\_\_ memory is used to store the copied values.

- |              |                   |
|--------------|-------------------|
| (A) Register | (B) Heap          |
| (C) Stack    | (D) Static Memory |

33. What will be the output of  $x = (9 > 8) ? 10 : 20 ;$  ?

- |        |        |
|--------|--------|
| (A) 5  | (B) 10 |
| (C) 20 | (D) 3  |

34. What is the correct syntax to access a structure member?

Given: struct Employee em;

- |              |                   |
|--------------|-------------------|
| (A) em->name | (B) em:name       |
| (C) em.name  | (D) Employee.name |



**35.** Which of the following statement(s) is/are correct about structure in C?

- (i) Structure is a user-defined data type
- (ii) Structure can store variables of different data types
- (iii) Structure members are stored in contiguous memory locations
- (iv) All of the above

- (A) (i) (B) (i) and (ii)
- (C) (i) and (iii) (D) (iv)

**36.** In call by value, changes made inside the function :

- (A) Affect the actual arguments
- (B) Do not affect the actual arguments
- (C) Affect only global variables
- (D) Always cause compilation errors

**37.** What is the output of the following code?

```
struct data
{
 int x;
 float y;
};
struct data d = {9};
printf("%d %.1f", d.x, d.y);
```

- (A) 9 garbage (B) 9 0.0
- (C) 0 0.0 (D) Run time error

**38.** Which of the following is TRUE about function declarations and function definitions?

- (A) Every function declaration must match exactly with its definition
- (B) A function declaration can differ from definition in parameter types
- (C) A function definition must appear before any function declaration
- (D) A function declaration must contain the function body

**39.** SQL views are also known as :

- (A) Simple Tables (B) Virtual Tables
- (C) Complex Tables (D) Actual Tables

40. How many Primary keys can have in a Table?  
(A) Only 1 (B) Only 2  
(C) Depends on number of Columns (D) Depends on DBA
41. Which of the following is not Constraint in SQL?  
(A) Primary Key (B) Not Null  
(C) Check (D) Union
42. A command that lets you change one or more field in a table is :  
(A) INSERT (B) MODIFY  
(C) LOOK-UP (D) JAVAT
43. Which command is used to change the definition of table in SQL?  
(A) CREATE (B) UPDATE  
(C) ALTER (D) SELECT
44. What is the full form of SQL?  
(A) Structured Query List (B) Structured Query Language  
(C) Simple Query Language (D) System Query Language
45. Which of the following is not a DDL Command?  
(A) TRUNCATE (B) ALTER  
(C) CREATE (D) UPDATE
46. Which DML command is used to delete records from a database table?  
(A) DELETE (B) ALTER  
(C) DROP (D) RENAME
47. In SQL which function is used to calculates the sum of a set of values?  
(A) AVG (B) MAX  
(C) SUM (D) MIN

48. LIKE operator is used in which of the following clause in SQL :
- (A) HAVING (B) SELECT  
(C) GROUPBY (D) WHERE
49. What is the most common type of Join?
- (A) Inner Join (B) Joined Table  
(C) Inside Join (D) Joined
50. Who is the father of RDBMS?
- (A) Charles Babbage (B) Edgar F. Codd  
(C) Donald (D) Dennis M Ritchie
51. To add comments to the data dictionary in SQL which command used?
- (A) LOCK (B) CALL  
(C) COMMENT (D) REVOKE
52. Which OOP principle groups data and the functions that work on it into one unit?
- (A) Inheritance (B) Polymorphism  
(C) Encapsulation (D) Abstraction
53. Which of the following makes a class “effectively” final even without using the final keyword?
- (A) All methods are static  
(B) Constructor is private  
(C) Class has no abstract methods  
(D) No subclass is created in the program
54. What is the main use of a Destructor?
- (A) To allocate memory  
(B) To release resources held by the object  
(C) To copy objects  
(D) To overload operators

55. Which of the following is NOT a type of inheritance in JAVA?
- (A) Single inheritance
  - (B) Multilevel inheritance
  - (C) Hierarchical inheritance
  - (D) Distributed inheritance
56. The default access specifier for class members in C++ is :
- (A) Public
  - (B) Private
  - (C) Protected
  - (D) Friend
57. Polymorphism allows to handle multiple data types using :
- (A) Arrays
  - (B) Generic classes
  - (C) One method name with different behaviors
  - (D) Primitive conversion
58. Which option best describes the purpose of applying inheritance?
- (A) Encapsulation
  - (B) Code reusability
  - (C) Data abstraction
  - (D) Function overloading
59. Function Overloading is an example of :
- (A) Run-time Polymorphism
  - (B) Compile-time Polymorphism
  - (C) Dynamic Binding
  - (D) Data Abstraction
60. Which of the following is true about final classes in Java?
- (A) They cannot have constructors
  - (B) They cannot be inherited
  - (C) They can have abstract methods
  - (D) Their objects cannot be instantiated
61. How do objects in Object Oriented Programming communicate with each other?
- (A) Through global functions
  - (B) By calling methods on each other
  - (C) Using special OOP communication operators
  - (D) By accessing each other's memory directly

62. Abstraction in Object-Oriented Programming is primarily used to achieve which of the following?
- (A) To speed up the execution of programs
  - (B) To reduce code complexity and increase reusability
  - (C) Hiding internal implementation details and showing only the essential features
  - (D) To ensure secure data manipulation without external interference
63. In object-oriented programming, what is the primary function of a constructor?
- (A) To restrict access to the class methods
  - (B) To initialize a newly created object
  - (C) To create a copy of an existing class
  - (D) To destroy objects and free up memory
64. The main objective of Garbage Collection in a programming environment is :
- (A) To clean up syntax errors in code
  - (B) To reclaim memory occupied by objects that are no longer reachable
  - (C) To delete files from the hard drive
  - (D) To remove unused methods from the code
65. Which of the following device forwards packets between networks by processing the routing information included in the packet?
- (A) Firewall
  - (B) Bridge
  - (C) Hub
  - (D) Router
66. DNS is an internet service that translates domain names to or from :
- (A) MAC Address
  - (B) IP Address
  - (C) Both of these
  - (D) None of these
67. Token passing is used in which topology :
- (A) Star
  - (B) Mesh
  - (C) Ring
  - (D) Bus

- 68.** Which of the following connectors is used with coaxial cable?
- (A) RJ45 (B) RJ11  
(C) BNC (D) SC
- 69.** Which remote login protocol sends data in plain text without encryption?
- (A) SSH (B) Telnet  
(C) HTTPS (D) SSL
- 70.** Which layer is responsible for logical addressing (IP addressing)?
- (A) Data Link (B) Network  
(C) Transport (D) Session
- 71.** Which IEEE standard is used for Wi-Fi?
- (A) 802.3 (B) 802.5  
(C) 802.15 (D) 802.11
- 72.** A proxy firewall operates mainly at which OSI layer?
- (A) Network layer (B) Data link layer  
(C) Application layer (D) Physical layer
- 73.** Which class is used for multicast communication?
- (A) Class D (B) Class C  
(C) Class A (D) Class E
- 74.** Which protocol is used for sending emails?
- (A) HTTP (B) SMTP  
(C) FTP (D) DNS
- 75.** The default port number used by DHCP server is :
- (A) 80 (B) 67  
(C) 53 (D) 21

76. Which protocol is used to access web pages?  
(A) FTP (B) HTTP  
(C) SMTP (D) DNS
77. Which protocol is used to Load web pages in a browser?  
(A) FTP (B) SMTP  
(C) HTTP (D) SNMP
78. Which of the following uniquely identifies a device on the internet?  
(A) Port Number (B) IP Address  
(C) URL (D) Web Server
79. An advantage of open web server software is :  
(A) Users cannot modify the source code (B) It is proprietary  
(C) It allows community-driven updates (D) It restricts customization
80. Which technology allows storing files online?  
(A) Hard Disk (B) Cloud Storage  
(C) ROM (D) Cache Memory
81. Cloud storage can be more vulnerable to online attacks because :  
(A) It has no file system (B) It cannot encrypt data  
(C) It relies on public networks (D) It is offline
82. The purpose of MIME type is to :  
(A) Identify server IP (B) Identify content type of a file  
(C) Identify browser type (D) Translate domain names
83. Which of the following is NOT a type of malicious software?  
(A) Worm (B) Trojan  
(C) Firewall (D) Spyware

84. A Top-Level Domain (TLD) example is :
- (A) homepage.html (B) ftp://  
(C) .org (D) search.php
85. Search engines primarily work by :
- (A) Uploading websites (B) Acting as servers  
(C) Indexing and retrieving webpages (D) Storing user data
86. Which of the following statements are correct about Domain Names?
- (i) Domain names are used instead of IP addresses to make web navigation easier  
(ii) A domain name must always end with a top-Level domain.  
(iii) Domain names are case-sensitive.
- (A) Only (i) and (ii) (B) Only (ii) and (iii)  
(C) Only (i) and (iii) (D) All the above (i), (ii) and (iii)
87. Which of the following statements are correct about HTTP and HTTPS?
- (i) HTTP does not encrypt data transmitted between browser and server.  
(ii) HTTPS uses SSL/TLS to provide secure communication  
(iii) HTTPS is slower than HTTP because of encryption.
- (A) Only (i) and (ii) (B) Only (ii) and (iii)  
(C) All the above (i), (ii) and (iii) (D) Only (i) and (iii)
88. Which of the following statements are correct about IP Address?
- (i) An IP Address uniquely identifies a device in a network.  
(ii) IPv4 addresses use 32 bits.  
(iii) IP Address and MAC Address are the same.
- (A) Only (i) and (ii) (B) Only (ii) and (iii)  
(C) All the above (i), (ii) and (iii) (D) Only (i) and (iii)



89. `<pre>` tag is used for :
- (A) To add pre-fix texts in html page
  - (B) Preserve formatting in html page
  - (C) Both (A) and (B) are correct
  - (D) None of the above
90. Which of the following tags defines an item in a definition list?
- (A) `<dt>`
  - (B) `<dd>`
  - (C) `<di>`
  - (D) `<dl>`
91. `<p style="background-color :#FFFFFF">` tag sets which of the following colour?
- (A) Green
  - (B) Blue
  - (C) Black
  - (D) None of the above
92. What happens if the author omits `<tbody>` inside a table?
- (A) Browser throws an error
  - (B) The table won't render
  - (C) Only Chrome inserts `<tbody>`
  - (D) Browser automatically inserts a `<tbody>` element in the DOM
93. What does `method="post"` in a form guarantee?
- (A) Data is placed in the request body, not URL
  - (B) Data is encrypted
  - (C) Data cannot be intercepted
  - (D) Data is completely hidden from all debugging tools
94. What does `loading="lazy"` do in images?
- (A) Disables caching
  - (B) Loads all images at once
  - (C) Defers loading until near viewport
  - (D) Reduces resolution

- 95.** Which has higher specificity in CSS -Advanced Layout and Responsive Design?
- (A) Class selectors (B) Inline styles  
(C) ID selectors (D) None of the above
- 96.** What does @media (max-width: 600px) do?
- (A) Matches width  $\leq$  600px. (B) Matches high-resolution screens  
(C) Matches width  $\geq$  600px. (D) Matches width exactly 600px
- 97.** Behavior of === in Javascript :
- (A) Always false for objects (B) Compares values only  
(C) Compares value and type (D) Performs type coercion
- 98.** The pattern attribute uses what type of syntax :
- (A) SQL-like syntax (B) Xpath  
(C) JSON (D) Regular Expressions
- 99.** Which PHP Operator is explicitly described as ternary in the manual?
- (A) ?: (B) :?  
(C) :! (D) !:
- 100.** Which statement correctly describes the \$\_SERVER superglobal?
- (A) It is a string containing the URL of the current request  
(B) It is an array containing information such as headers, paths, and script locations  
(C) It is a function that returns server configuration  
(D) It is a constant that stores the document root
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