

CET (UG)-2016

Sr. No. : 170939

Booklet Series Code : A

Important : Please consult your Admit Card / Roll No. Slip before filling your Roll Number on the Test Booklet and Answer Sheet.

Roll No.

In Figures

In Words

--	--	--	--	--	--

O.M.R. Answer Sheet Serial No.

--	--	--	--	--	--

Signature of the Candidate : _____

Subject : COMPUTER SCIENCE

Time : 70 minutes

Number of Questions : 60

Maximum Marks : 120

DO NOT OPEN THE SEAL ON THE BOOKLET UNTIL ASKED TO DO SO

INSTRUCTIONS

1. Write your Roll No. on the Question Booklet and also on the OMR Answer Sheet in the space provided and nowhere else.
2. Enter the Subject and Series Code of Question Booklet on the OMR Answer Sheet. Darken the corresponding bubbles with **Black Ball Point / Black Gel pen**.
3. Do not make any identification mark on the Answer Sheet or Question Booklet.
4. To open the Question Booklet remove the paper seal gently when asked to do so.
5. Please check that this Question Booklet contains **60** questions. In case of any discrepancy, inform the Assistant Superintendent within 10 minutes of the start of test.
6. Each question has four alternative answers (A, B, C, D) of which only one is correct. For each question darken only one bubble (A or B or C or D), whichever you think is the correct answer, on the Answer Sheet with **Black Ball Point / Black Gel pen**.
7. If you do not want to answer a question, leave all the bubbles corresponding to that question blank in the Answer Sheet. No marks will be deducted in such cases.
8. Darken the bubbles in the OMR Answer Sheet according to the Serial No. of the questions given in the Question Booklet.
9. Negative marking will be adopted for evaluation i.e., 1/4th of the marks of the question will be deducted for each wrong answer. A wrong answer means incorrect answer or wrong filling of bubble.
10. For calculations, use of simple log tables is permitted. Borrowing of log tables and any other material is not allowed.
11. For rough work only the sheets marked "**Rough Work**" at the end of the Question Booklet be used.
12. The Answer Sheet is designed for **computer evaluation**. Therefore, if you do not follow the instructions given on the Answer Sheet, it may make evaluation by the computer difficult. **Any resultant loss to the candidate on the above account, i.e., not following the instructions completely, shall be of the candidate only.**
13. After the test, hand over the Question Booklet and the Answer Sheet to the Assistant Superintendent on duty.
14. In no case the Answer Sheet, the Question Booklet, or its part or any material copied/noted from this Booklet is to be taken out of the examination hall. Any candidate found doing so, would be expelled from the examination.
15. A candidate who creates disturbance of any kind or changes his/her seat or is found in possession of any paper possibly of any assistance or found giving or receiving assistance or found using any other unfair means during the examination will be expelled from the examination by the Centre Superintendent/Observer whose decision shall be final.
16. **Telecommunication equipment such as pager, cellular phone, wireless, scanner, etc., is not permitted inside the examination hall. Use of calculators is not allowed.**

SEAL

1. **Basic purpose of Microprocessor is to :**
(A) Store information
(B) Print data
(C) Compute data
(D) Send an e-mail
2. **Nowadays, the most attractive physical layer media used for high speed, low error rate and geographically large networks is :**
(A) Satellite Media
(B) Optical Fiber
(C) Wireless Networks
(D) Copper Media
3. **Which piece of hardware protects the resources of a private network from users of other networks ?**
(A) Cache server
(B) Proxy server
(C) Firewall
(D) Router
4. **In the below statement, _____ is a protocol.**
`http://www/pu.ac.in`
(A) www
(B) .ac.in
(C) http
(D) pu.ac.in
5. **A step by step procedure used to solve a problem using computers is known as :**
(A) Operating system
(B) Application Program
(C) System Software
(D) Algorithm
6. **An Unsolicited commercial/non-commercial e-mail is known as :**
(A) Usenet archive E-mail
(B) Spam E-mail
(C) E-mail with virus
(D) Faulty e-mail
7. **Which of the following function prototype is perfectly acceptable in 'C++' ?**
(A) `int Function(int Tmp = Show());`
(B) `float Function(int Tmp = Show(int, float));`
(C) `float = Show(int, float) Function(Tmp);`
(D) Both (A) and (B)

8. A _____ is a network that connects computers in a limited geographic area, such as a school computer laboratory, small office, or computers at home.
- (A) Local area network (LAN) (B) Wide area network (WAN)
(C) Partial area network (PAN) (D) Boundless area network (BAN)
9. You want to use multiple operating system like linux, windows etc. concurrently on single machine. The best way to achieve this is :
- (A) Make machine multiple bootable like using GRUB
(B) Use virtualization software like VMWare
(C) It is not possible
(D) None of these
10. Today's desktop computers have typically 'X' amount of main memory, 'Y' speed of processor and 'Z' amount of hard-disk memory. Approximately X, Y, Z can be respectively, :
- (A) 4GB, 3kHz, 1000GB (B) 4MB, 3MHz, 1000MB
(C) 4GB, 3GHz, 1000KB (D) 4GB, 3.3 GHz, 1000GB
11. Which of the following is not a hardware ?
- (A) Hard-disk (B) RAM
(C) Processor (D) MS-Office
12. What is the meaning of putting your laptop using MS-Windows operating system in hibernate state ?
- (A) Stores open files & settings in RAM and goes to sleep mode
(B) Stores open files & settings in RAM and turn-off the laptop
(C) Stores open files & settings in Hard-disk and goes to sleep mode
(D) Stores open files & settings in Hard-disk and turn-off the laptop
13. In order to enhance performance of the computer, Disk defragmenter :
- (A) Consolidates parts of files lying at different locations on computer's hard disk
(B) Deletes temporary files related to Internet
(C) Deletes temporary files related to backup
(D) All of the above

14. Which of the following lists memory types from highest to lowest speed ?

- (A) Secondary storage, main memory, L2 cache, registers
- (B) Registers, L1 cache, secondary storage, main memory
- (C) Registers, L2 cache, main memory, secondary storage
- (D) L1 cache, registers, main memory, secondary storage

15. Gaining un-authorized access to a computer system would fall under which category of computer crime ?

- (A) Data theft
- (B) Theft of services
- (C) Destruction of data and software
- (D) Hacking

16. If somebody wants to see which URL's have been browsed by the user of a particular web browser, then which of following features is the most appropriate ?

- (A) History
- (B) Back Button
- (C) Forward Button
- (D) Refresh Button

17. What does a lock  symbol mean in the address bar of a web browser ?

- (A) It shows that current URL is locked
- (B) It indicates that the identity of URL proved by some third party
- (C) It is just a graphical symbol
- (D) It indicates that URL is a fake link

18. Which of the following would best fit the following description ?

"Proprietary Software is copied & given to a friend without permission of copyright owner."

- (A) Freeware
- (B) Piracy
- (C) Shareware
- (D) Public domain

19. In the e-mail address password@gmail.com "password" refers to:

- (A) Password
- (B) Client Computer
- (C) User Name
- (D) Server Name

20. An operating system is :
- (A) A collection of hardware components
 - (B) A collection of input-output devices
 - (C) A collection of software routines
 - (D) All of the above
21. If a table, student, has a column 'name' filled with names of the students of a class and you want to find all students that have an "S" somewhere in its name, you can do that via this SQL command :
- (A) Select * from student where name like '%S%'
 - (B) Select * from student where name = '%S%'
 - (C) Select * from student where name like '\$\$\$%'
 - (D) Select * from student where name = '\$\$\$'
22. A UPS :
- (A) Increases the storage capacity of a computer system
 - (B) Increases the process speed
 - (C) Provides backup power in the event of a power cut
 - (D) Increases I/O speed
23. A cookie is a :
- (A) Technique used to make internet connection fast
 - (B) Piece of data sent from user's web browser and stored in a website
 - (C) Piece of data sent from website and stored in user's web browser space
 - (D) Malicious code just like virus
24. Which of the following tag in HTML is generally not written in <head> tag ?
- (A) Title
 - (B) Table
 - (C) Meta
 - (D) Script
25. What will be the output for following C++ code snippet
- ```
for(int i=3;i<15;i+=3)
{
 printf("%d",i);
 ++i;
}
```
- (A) 3 6 9 12
  - (B) 3 6 9 12 15
  - (C) 3 7 11 15
  - (D) 3 7 11



26. Which of the following is correct sequence of stages of program development ?
- (A) Write - compile - link - test (B) Write - compile - document - run  
(C) Write - link - compile - run (D) Write - compile - link - document
27. Which of the following binary expressions is not correct ?
- (A)  $(x+y)' = x'y'$  (B)  $(x'+y)' = x.y$   
(C)  $(x'.y)' = x+y$  (D)  $(x'+y)' = x'.y'$
28. The Octal system uses powers of :
- (A) 2 (B) 10  
(C) 16 (D) 8
29. Digital Signatures is :
- (A) Digital Code which is attached to an electronically transmitted document to verify its sender's identity  
(B) Digital Code which is attached to an electronically transmitted document to verify its contents  
(C) Digital Code which is attached to an electronically transmitted document to verify its contents and the sender's identity  
(D) Scanned Handwritten Signatures
30. What will be the output of following C++ program ?
- ```
#include <iostream.h>
main()
{
    int i = 8;
    for(i = 0; 0; i < 10)
        cout << "t' < i;
    cout << "t End";
}
```
- (A) 8 8 8 8
(B) End
(C) 0 1 2 3 4 5 6 7 8 9 10 End
(D) 0 1 2 3 4 5 6 7 8 9 10
31. A display is configured to show 65000 colors. How many bytes are needed to store the color information for one pixel ?
- (A) 4 (B) 3
(C) 2 (D) 1

32. With SQL, how can you insert "Kaur" as the "LastName" in the "Persons" table ?
- (A) INSERT ('Kaur') INTO Persons (LastName)
 (B) INSERT INTO Persons (LastName) VALUES ('Kaur')
 (C) INSERT INTO Persons (LastName) 'Kaur'
 (D) INSERT INTO Persons ('Kaur') INTO LastName
33. Which of the following tag in HTML is used to add a row to a table ?
- (A) <td> (B) <row>
 (C) <tuple> (D) <tr>
34. Which of the following features will characterize an OS as multiprogrammed OS ?
- (a) More than one program may be loaded into main memory at the same time.
 (b) If a program waits for certain event another program is immediately scheduled.
 (c) If the execution of a program terminates, another program is immediately scheduled.
- (A) (a) only (B) (a) and (b) only
 (C) (a) and (c) only (D) (a), (b) and (c) only
35. How can you make an e-mail link in HTML?
- (A) <mail>pu@pu.ac.in</mail> (B)
 (C) (D) <mail href="pu@pu.ac.in">
36. Match the following :
- (a) HTML (i) Protocol for sending electronic mail on the Internet.
 (b) HTTP (ii) Company that charges a fee to enable organizations to connect to Internet.
 (c) ISP (iii) Set of tags and related rules that are used to create web pages.
 (d) SMTP (iv) Internet standard that supports exchange of information on Web.
- (A) (a)-(iv) (b)-(i) (c)-(ii) (d)-(iii) (B) (a)-(iv) (b)-(i) (c)-(iii) (d)-(ii)
 (C) (a)-(iii) (b)-(iv) (c)-(ii) (d)-(i) (D) (a)-(iii) (b)-(ii) (c)-(iv) (d)-(i)
37. Using the Hard Disk as an extension of RAM is a feature of :
- (A) Virtual memory (B) Cache
 (C) Direct Memory Access (DMA) (D) Virtual Reality
38. Three of the following numbers are the same. Which one is different ?
- (A) 1111101000_2 (B) 1750_4
 (C) 1200_{10} (D) $3E8_{16}$

39. Which SQL statement is used to update data in a database ?
- (A) SAVE (B) MODIFY
(C) SAVE AS (D) UPDATE
40. In context of SQL, what type of statement ALTER is ?
- (A) DCL (B) DDL
(C) DML (D) None of above
41. With SQL, how can you return the number of records in the "Persons" table ?
- (A) SELECT COLUMNS(*) FROM Persons (B) SELECT COLUMNS() FROM Persons
(C) SELECT COUNT() FROM Persons (D) SELECT COUNT(*) FROM Persons
42. Select the most appropriate data structure to implement the storage of the addresses of web pages visited in last one month in a Web Browser for the operation of "History" button.
- (A) Queue (B) Link List
(C) Array (D) Stack
43. What is the correct HTML for referring to an external style sheet ?
- (A) <link rel="stylesheet" type="text/css" href="mystyle.css">
(B) <style src="mystyle.css">
(C) <external>mystyle.css</external>
(D) <stylesheet>mystyle.css</stylesheet>
44. Which of the following statements is false ?
- (A) Data dictionary is also known as system catalog
(B) The information stored in data dictionary is called meta data
(C) Data dictionary is a centralized store of information about the database
(D) Data dictionary stores information contained in various tables of the database
45. Bug means :
- (A) A logical error in a program
(B) A difficult syntax error in a program
(C) Documenting programs using an efficient documentation tool
(D) All of the above

46. Find the closest number of comparisons using binary search method required to search 1000 in array $A = \{19, 25, 30, 35, 37, 45, 52, 69, 900\}$
- (A) 4 (B) 9
(C) 0 (D) Binary Search cannot be performed
47. ASCII code is a :
- (A) Four bit code (B) Five bit code
(C) Seven bit code (D) Eight bit code
48. If the ASCII code for "A" is 0100 0001, what is the ASCII code for "G" ?
- (A) 0100 1000 (B) 0100 0111
(C) 0011 0101 (D) 1100 1011
49. Which of the following is not a type of constructor ?
- (A) Copy constructor (B) Friend constructor
(C) Default constructor (D) Parameterized constructor
50. Which of the following concepts means "determining at runtime what method to invoke" ?
- (A) Data hiding (B) Dynamic Typing
(C) Dynamic binding (D) Dynamic loading
51. The output of an AND gate with three inputs, A, B, and C, is HIGH when _____.
- (A) $A = 1, B = 1, C = 0$ (B) $A = 0, B = 0, C = 0$
(C) $A = 1, B = 1, C = 1$ (D) $A = 1, B = 0, C = 1$
52. The output of a NOR gate is HIGH if _____.
- (A) All inputs are HIGH (B) Any input is HIGH
(C) Any input is LOW (D) All inputs are LOW
53. Which of the following expressions is in the sum-of-products (SOP) form ?
- (A) $(A + B)(C + D)$ (B) $(A) B (CD)$
(C) $AB (CD)$ (D) $AB + CD$

54. A C++ program contains the following declaration :
- ```
int x[8] = {10, 20, 30, 40, 50, 60, 70, 80};
```
- What is the meaning of  $(*x+2)$  ?
- (A) Memory Address of 3rd Element (B) 12  
(C) 22 (D) 32
55. Write array declaration statements for an array of integers with 6 rows and 10 columns :
- (A) Array\_name [6][10] (B) Array\_name [5][9]  
(C) Array\_name [[10] (D) Array\_name [6][
56. The feature of object oriented program in which a specific class of objects receives the features of a more general class describes :
- (A) Inheritance (B) Polymorphism  
(C) Encapsulation (D) Data Hiding
57. A/An \_\_\_\_\_ is a C++ class member function that is automatically executed when a class object goes out of scope.
- (A) Constructor (B) Destructor  
(C) Pointer (D) Operator
58. Which C++ identifier is not correct ?
- (A) Right (B) Wrong  
(C) %test (D) \_test
59. The function `fopen("filename", "r")` returns ?
- (A) Nothing  
(B) A value 0 or 1 depending on whether the file could be opened or not  
(C) A pointer to FILE filename, if it exists  
(D) A pointer to a new file after creating it
60. Bandwidth affects the rate of :
- (A) Transfer of data (B) Processing of data  
(C) Analysis of data (D) All of the above