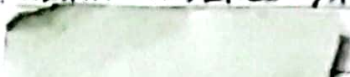



Question Booklet No.	690061	Question Booklet Series : <b>A</b>
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**AUAT — 2022**  
**2-Year MCA (P26)**  
**( TEST BASED ON MCQ )**

**Full Marks : 100**

**Duration : 2 Hours**

Roll No. of the Candidate : <u>2201P260061</u>
Date of Examination : <u>24/07/2022</u>
Name of Examination Centre : <u>ALIAH UNIVERSITY, NEWTOWN CAMPUS</u>
Signature of the Candidate : 


Signature of the Invigilator on Verification

**IMPORTANT INSTRUCTIONS**

*Candidates should read the below instructions carefully and follow them accordingly.*

1. The Question Booklet has paper seal pasted on it. Please do **NOT** open the Question Booklet until you are asked to do so by the Invigilator.
2. The Candidates must check immediately after breaking the seal that the Question Booklet contains **100 Multiple Choice Questions** in two parts (Part—I and Part—II).
3. Answer of questions of Part—I and Part—II both will have to be given on the **OMR Answer Sheet** provided for this purpose. Fill up the necessary fields that are intended for you by writing and/or shading appropriately. Otherwise the **OMR Answer Sheet cannot** be evaluated and will liable to be rejected. Question numbers progress from **1 to 100** continuously with alternative answers being shown as [A], [B], [C] and [D] for each question. Record your response by completely darkening the corresponding bubble. While responding, you should consider the best alternative answer and shade only one bubble with **black/blue ball point pen only**. For each correct response you will be awarded **1** mark. There will be negative marking for wrong responses. For each wrong response, **-0.25** mark will be awarded. Multiple responses against one **MCQ** will be treated as a wrong response.
4. On leaving the examination hall, candidates must submit the OMR Answer Sheet. They are allowed to keep the Question Booklet with them.
5. **OMR Answer Sheet** will be processed by electronic means. Any untoward/irrelevant remarks, folding or putting stray notes on the answer sheet, any damage to the answer sheet will lead to the rejection of the same and the sole liability shall remain with the candidate.
6. Rough Work may be done at the end of the Question Booklet.
7. No Candidate will be allowed to leave the examination hall before 60 minutes of the commencement of examination. Candidates leaving the examination hall before conclusions of the examination will not be allowed to take the Question Booklet with them while going outside the examination hall.
8. Use of any Electronic device like Mobile, Programmable Calculator etc. is strictly prohibited.

**DO NOT OPEN THE SEAL UNTIL INSTRUCTED TO DO SO**

**AUAT-2022/41-A**

**SEAL**



( PART—I : Core Subject )

1. Which of the following is an example of a ternary operator in C language?  
[A] ++  
[B] +=  
[C] ::  
[D] ?:
2. One Kilobyte (KB) is equal to  
[A] 1024 byte  
[B] 1000 byte  
[C] 1012 byte  
[D] 1016 byte
3. Which of the following is **not** a programming language?  
[A] Python  
[B] Ruby  
[C] Perl  
[D] Ubuntu
4. GUI stands for  
[A] Graph User Interface  
[B] Geographical User Interface  
[C] Graphical User Interface  
[D] Graphical Usable Interface
5. How long is an IPv6 address?  
[A] 32-bit  
[B] 64-bit  
[C] 128-bit  
[D] 256-bit
6. In computer science, what does LAN stand for?  
[A] Large Area Network  
[B] Local Area Network  
[C] Local Adjustable Network  
[D] Large Attribute Network
7. Which network protocol is used to send e-mail?  
[A] POP3  
[B] SMTP  
[C] SSH  
[D] FTP
8. Which of the following is/are an example of an Object-Oriented programming language?  
[A] C++  
[B] Java  
[C] C#  
[D] All of the above
9. Time complexity of an algorithm is  
[A] time taken by an algorithm to run  
[B] number of basic operations performed by an algorithm  
[C] Both [A] and [B]  
[D] None of the above
10. Computer Virus is a  
[A] Hardware  
[B] Software  
[C] Bacteria  
[D] Freeware
11. How many entries will be in the truth table of a 4-input NAND gate?  
[A] 32  
[B] 16  
[C] 8  
[D] 4
12. What will be the equivalent decimal value of  $(312)_8$ ?  
[A] 200  
[B] 202  
[C] 204  
[D] 208

13. Which of these sets of logic gates are known as universal gates?

- [A] XOR and XNOR
- [B] NOR and NAND
- [C] OR and AND
- [D] None of the above

14. What is the addition of the binary number  $101001 + 010011$ ?

- [A] 100100
- [B] 101100
- [C] 111000
- [D] 111100

15. In a broad sense, a railway track is an example of

- [A] Simplex
- [B] Half duplex
- [C] Full duplex
- [D] All of the above

16. 2's complement of 1011011 is

- [A] 0100101
- [B] 0100010
- [C] 0110101
- [D] 0111101

17. A digital circuit that can store only one bit is a

- [A] register
- [B] NOT gate
- [C] flip-flop
- [D] OR gate

18. One nibble is equal to how many bits?

- [A] 16
- [B] 8
- [C] 4
- [D] 2

19. USB stands for

- [A] Universal Serial Bus
- [B] Universal Sequential Bus
- [C] Unique Serial bus
- [D] Unique Sequential Bus

20. How many bits are needed to store one BCD digit?

- [A] 8
- [B] 4
- [C] 3
- [D] 2

21. Which of the following values is the correct value of this hexadecimal code ABCDEF?

- [A] 11259375
- [B] 11259379
- [C] 11259783
- [D] 11259390

22. In DOS, the maximum length of filename is

- [A] 5
- [B] 8
- [C] 10
- [D] 12

23. Which of the following is exclusively a sequential access storage device?

- [A] Hard disk
- [B] DVD
- [C] Magnetic disk
- [D] None of the above

24. In computer science, Stack is a data structure which follows

- [A] List In First Out
- [B] First In First Out
- [C] Last In Last Out
- [D] None of the above



25. What is the full form of ADT?

- [A] Abstract Data Type
- [B] Additional Data Type
- [C] Abstract Device Type
- [D] None of the above

26. Quick sort sorting algorithm is an example of

- [A] greedy approach
- [B] improved binary search
- [C] dynamic programming
- [D] divide and conquer

27. Maximum degree of any vertex in a simple graph of vertices  $n$  is

- [A]  $2n - 1$
- [B]  $n$
- [C]  $n + 1$
- [D]  $n - 1$

28. Project scheduling is an example of

- [A] greedy programming
- [B] dynamic programming
- [C] divide and conquer
- [D] None of the above

29. Which of the following data structures is non-linear type?

- [A] String
- [B] Lists
- [C] Stack
- [D] Graph

30. Which of the following is **not** the internal sort?

- [A] Insertion sort
- [B] Bubble sort
- [C] Merge sort
- [D] Heap sort

31. The functions used for dynamic memory allocation are

- [A] delete and free
- [B] free and realloc
- [C] malloc and free
- [D] malloc and calloc

32. The postfix expression:  $562 + * 124 /$  when evaluated gives which of the following results?

- [A] 37
- [B] -37
- [C] 40
- [D] 3

33. In prefix expression, the operator is placed

- [A] in-between the operands
- [B] after the operands
- [C] before the operands
- [D] None of the above

34. Which one of the following is **not** an input device?

- [A] Keyboard
- [B] Mouse
- [C] Speaker
- [D] Scanner

35. A complete binary tree with 15 nodes has \_\_\_\_\_ number of leaf nodes.

- [A] 8
- [B] 7
- [C] 6
- [D] 9

36. In the following post-order traversal of a binary tree: E, C, K, A, H, B, G, D, F, the root node is

- [A] E
- [B] H
- [C] F
- [D] D

37. The complexity of bubble-sort algorithm is

- [A]  $O(n^2)$
- [B]  $O(n)$
- [C]  $O(\log n)$
- [D]  $O(n \log n)$

38. Which of the following is a prerequisite of binary search algorithm?

- [A] Elements must be in ascending order
- [B] Elements must be sorted sequence
- [C] Elements must be in descending order
- [D] None of the above

39. Which of the following is a non-volatile memory chip?

- [A] RAM
- [B] SRAM
- [C] DRAM
- [D] None of the above

40. What is the decimal value for the octal value 1?

- [A] 1
- [B] 8
- [C] 10
- [D] 100

41. In a business, A and C invested amounts in the ratio 2 : 1, whereas the ratio between amounts invested by A and B was 3 : 2. If ₹1,57,300 was their profit, how much amount did B receive?

- [A] ₹ 48,000
- [B] ₹ 48,200
- [C] ₹ 48,400
- [D] ₹ 48,600

42. A and B started a business in partnership investing ₹ 20,000 and ₹ 15,000 respectively. After six months, C joined them with ₹ 20,000. What will be B's share in total profit of ₹ 25,000 earned at the end of 2 years from the starting of the business?

- [A] ₹ 7,500
- [B] ₹ 9,000
- [C] ₹ 9,500
- [D] ₹ 10,000

43. P, Q, R enter into a partnership. P initially invests ₹ 25 lakhs and adds another ₹ 10 lakhs after one year. Q initially invests ₹ 35 lakhs and withdraws ₹ 10 lakhs after 2 years and R invests ₹ 30 lakhs. In what ratio should the profit be divided at the end of 3 years?

- [A] 18 : 19 : 19
- [B] 18 : 18 : 19
- [C] 19 : 19 : 18
- [D] 18 : 19 : 19

44. A, B, C subscribe ₹ 50,000 for a business. A subscribes ₹ 4,000 more than B and B ₹ 5,000 more than C. Out of a total profit of ₹ 35,000, A receives

- [A] ₹ 8,400
- [B] ₹ 11,900
- [C] ₹ 13,600
- [D] ₹ 14,700

45. What is the output of this statement "printf("%d", (a++))"?

- [A] The value of (a+1)
- [B] The current value of a
- [C] Garbage value
- [D] Error message



46. The ability of an operating system to control the activities of multiple programs at the same time is called
- [A] multitasking
  - [B] multi-processing
  - [C] multi-operating
  - [D] multi-paging
47. What is the Super Computer developed in India?
- [A] CRAY
  - [B] PARAM
  - [C] RAMAN
  - [D] KALAM
48. Integrated Circuits (IC) chips used in computers are made with
- [A] gold
  - [B] silver
  - [C] silicon
  - [D] copper
49. Find the odd one among the four.
- [A] Internet
  - [B] Windows
  - [C] Unix
  - [D] Linux
50. Directives are translated by the
- [A] pre-processor
  - [B] compiler
  - [C] linker
  - [D] editor
51. VIRUS stands for
- [A] Vital Information Recourse Under Siege
  - [B] Vital Information Reason Under Siege
  - [C] Vital Information Recourse Under System
  - [D] Virus Information Recourse Under Siege
52. How many instances of a class can be declared?
- [A] 1
  - [B] 10
  - [C] As per required
  - [D] None of the above
53. What does HTTP stand for?
- [A] Hypertext Transfer Protocol
  - [B] Hypertext Transfer Plotter
  - [C] Head Tail Transfer Plot
  - [D] Head Tail Transfer Protocol
54. If addition had higher precedence than multiplication, then the value of the expression  $(1 + 2 * 3 + 4 * 5)$  would be which of the following?
- [A] 105
  - [B] 69
  - [C] 47
  - [D] 27
55. Array is which type of data structure?
- [A] Primary
  - [B] Secondary
  - [C] Linear
  - [D] Non-linear
56. A structure in C contains
- [A] homogeneous data
  - [B] heterogeneous data
  - [C] only integer and character type data
  - [D] None of the above
57. What is the output of the statement: `printf ("%d", 9/5)?`
- [A] 1.8
  - [B] 1.0
  - [C] 2.0
  - [D] None of the above

58. Network Protocols are
- [A] sets of rules that govern the network
  - [B] sets of maps that connect the network
  - [C] sets of computers present in the network
  - [D] sets of products available in the network

59. Who defines the user-defined function?
- [A] Compiler
  - [B] Interpreter
  - [C] Loader
  - [D] Programmer

60. In computer science, SQL stands for
- [A] Structured Query Language
  - [B] Structured Query List
  - [C] Simple Query Language
  - [D] None of the above

61. 1, 9, 25, 49, ?, 121. What will come at the place of question mark?
- [A] 100
  - [B] 91
  - [C] 64
  - [D] 81

62. Sunday, Monday, Wednesday, Saturday, Wednesday, Monday, .....
- [A] Sunday, Sunday
  - [B] Sunday, Monday
  - [C] Sunday, Wednesday
  - [D] Wednesday, Sunday

63. A is son of C while C and Q are the sisters to one another. Z is the mother of Q. If P is the son of Z, which one of the following statements is correct?
- [A] Q is the grandfather of A
  - [B] P is the maternal uncle of A
  - [C] P is the cousin of A
  - [D] Z is the brother of C

64. Pointing at a photo, Dinesh said, "His father is only son of my mother." The photo belongs to
- [A] Dinesh
  - [B] Dinesh's brother
  - [C] Dinesh's father
  - [D] Dinesh's son

65. Ajit has a certain average for 9 innings. In the tenth innings, he scores 100 runs thereby increasing his average by 8 runs. His new average is
- [A] 20
  - [B] 21
  - [C] 28
  - [D] 32

66. The average temperature for Wednesday, Thursday and Friday was  $40^{\circ}\text{C}$ . The average for Thursday, Friday and Saturday was  $41^{\circ}\text{C}$ . If temperature on Saturday was  $42^{\circ}\text{C}$ , what was the temperature on Wednesday?
- [A]  $39^{\circ}\text{C}$
  - [B]  $44^{\circ}\text{C}$
  - [C]  $38^{\circ}\text{C}$
  - [D]  $41^{\circ}\text{C}$

67. How many terms are there in 20, 25, 30, ....., 140?
- [A] 22
  - [B] 25
  - [C] 23
  - [D] 24

68. Find the 15th term of the sequence 20, 15, 10, ....
- [A] -45
  - [B] -50
  - [C] -55
  - [D] 0

69. Two buses start from a bus terminal with a speed of 20 km/h at interval of 10 minutes. What is the speed of a man coming from the opposite direction towards the bus terminal if he meets the buses at interval of 8 minutes?
- [A] 3 km/h  
[B] 4 km/h  
[C] 5 km/h  
[D] 7 km/h
70. Walking at  $\frac{3}{4}$  of his normal speed, Rabi is 16 minutes late in reaching his office. The usual time taken by him to cover the distance between his home and office is
- [A] 48 minutes  
[B] 54 minutes  
[C] 60 minutes  
[D] 72 minutes
71. How many Permutations of the letters of the word APPLE are there?
- [A] 600  
[B] 120  
[C] 240  
[D] 60
72. What type of data type does the atoi() function return?
- [A] Integer  
[B] Character  
[C] Float  
[D] None of the above
73. Among the following what is right way to Initialize array?
- [A] `int num[6] = { 2, 4, 12, 5, 45, 5 };`  
[B] `int n[] = { 2, 4, 12, 5, 45, 5 };`  
[C] `int n[6] = { 2, 4, 12 };`  
[D] `int n(6) = { 2, 4, 12, 5, 45, 5 };`
74. In C programming, & is a
- [A] Binary operator  
[B] Unary operator  
[C] Not an operator  
[D] None of the above
75. Which of the following is **not** an arithmetic operation?
- [A]  $X * = 65;$   
[B]  $X / = 42;$   
[C]  $X \% = 2;$   
[D]  $X ! = 56;$
76. The difference between the value of the number increased by 20% and the value of the number decreased by 25% is 36. What is the number?
- [A] 720  
[B] 80  
[C] 7.2  
[D] 0.8
77. 40 % is the passing marks. A student gets 250 marks yet fails by 38 marks. What are the maximum marks?
- [A] 800  
[B] 840  
[C] 720  
[D] 750
78. By increasing the radius of a sphere by 50 percent, by how much percent will the area of its surface increase?
- [A] 100  
[B] 125  
[C] 150  
[D] 180
79. Sara can type 10 pages in 5 minutes. Athena can type 5 pages in 10 minutes. Working together, how many pages can they type in 30 minutes?
- [A] 15  
[B] 65  
[C] 75  
[D] 85
80. A train is moving at a speed of 132 kmph. If the length of the train is 110 meters, how long will it take to cross a railway platform 165 m long?
- [A] 6.0s  
[B] 7.5s  
[C] 7.0s  
[D] 8.5s



**PART—II**

**( General Knowledge, General English & Islamic History and Culture )**

- 81.** Jhum is  
[A] a folk dance  
[B] the name of a river  
[C] a tribe  
[D] a type of cultivation
- 82.** World Environment Day is celebrated on  
[A] 5th June  
[B] 22nd April  
[C] 16th September  
[D] 12th May
- 83.** Ellora caves are located in the State of  
[A] Madhya Pradesh  
[B] Maharashtra  
[C] Tamil Nadu  
[D] Bihar
- 84.** Alfred Nobel invented  
[A] Dynamite  
[B] X-ray  
[C] Dynamo  
[D] Diesel Engine
- 85.** Deficiency of vitamin A results in  
[A] night blindness  
[B] rickets  
[C] scurvy  
[D] hair fall
- 86.** Fill in the blank with the most appropriate option :  
Raj Kapoor is an excellent actor, \_\_\_\_?  
[A] is he  
[B] isn't he  
[C] aren't she  
[D] are she
- 87.** Fill in the blank with an appropriate participle :  
Weather \_\_\_\_, the cricket match will be played.  
[A] allowing  
[B] permitting  
[C] happening  
[D] favourable
- 88.** Fill in the blanks with a relative pronoun :  
He is here, \_\_\_\_ is fortunate.  
[A] who  
[B] whose  
[C] which  
[D] that
- 89.** Fill in the blank with an appropriate article/preposition :  
She suffers \_\_\_\_ a heart disease.  
[A] about  
[B] in  
[C] from  
[D] on
- 90.** Fill in the blank with an appropriate article/preposition :  
He is afraid \_\_\_\_ spiders.  
[A] from  
[B] in  
[C] about  
[D] of

91. Which is **not** one of the five pillars of Islam?

- [A] Roza
- [B] Namaz
- [C] Zakat
- [D] Paradise

92. What does 'Shirk' mean?

- [A] Putting partners to Allah
- [B] Lying to others
- [C] Killing others
- [D] Disobeying parents

93. The followers of Islam are known as

- [A] Jews
- [B] Christians
- [C] Hindus
- [D] Muslims

94. Who was the first slave embracing Islam?

- [A] Hadrat Musaab bin Umair(R.A.)
- [B] Hadrat Zaid Bin Haris (R.A.)
- [C] Hadrat Bilal bin Rubbah Habshi (R.A)
- [D] Hadrat Hamza (R.A.)

95. The famous city of Gaza is in

- [A] Jordan
- [B] Palestine
- [C] Egypt
- [D] Iran

96. Which country has the highest per capita income in the Muslim world?

- [A] Kuwait
- [B] Turkey
- [C] Iran
- [D] Saudi Arabia

97. Hadrat Muhammad's (PBUH) foster mother's name was

- [A] Maryum
- [B] Halema
- [C] Zubeda
- [D] None of them

98. In the Battle of Badar, how many Sahabah(RA) were martyred?

- [A] 14
- [B] 17
- [C] 20
- [D] 11

99. The basic meaning of Aqeeda is

- [A] pillar
- [B] nikah
- [C] relief
- [D] belief

100. In the Battle of Badar, the number of Muslim soldiers was

- [A] 213
- [B] 313
- [C] 413
- [D] 513