

**M.VOC MOBILE PHONE APPLICATION DEVELOPMENT  
(FINAL)**

1. Analytic function with constant real part is
  - (A) constant
  - (B) modulus
  - (C) imaginary
  - (D) analytic
  
2. If  $f(z)$  and  $g(z)$  are analytic, then  $f(z) + g(z)$  is
  - (A) analytic
  - (B) differentiable
  - (C) integrable
  - (D) not analytic
  
3. Let  $z = \frac{1}{\sqrt{2}} + \frac{i}{\sqrt{2}}$ . Then  $z^5 + \frac{1}{z^5}$  is
  - (A)  $\cos \frac{3\pi}{4}$
  - (B)  $2 \cos \frac{5\pi}{4}$
  - (C)  $2 \sin \frac{5\pi}{4}$
  - (D)  $\sin \frac{5\pi}{4}$
  
4. A function  $f(z)$  which is analytic everywhere in the finite plane except at infinity is called
  - (A) an entire function
  - (B) a meromorphic function
  - (C) an annulus
  - (D) a mimicus

5. The pole and its order of the function  $f(z) = \frac{\sin z}{z^4}$  are respectively

- (A) 4, 0
- (B) 0, 4
- (C) 2, 4
- (D) 1, 4

6. Number of real solutions of the equation  $x^3 - 1 = 0$  is

- (A) 3
- (B) 2
- (C) 1
- (D) 0

7. The sum of the squares of the eigen values of  $A = \begin{pmatrix} 3 & 1 & 4 \\ 0 & 2 & 6 \\ 0 & 0 & 5 \end{pmatrix}$  is

- (A) 36
- (B) 10
- (C) 8
- (D) 38

8. Two vectors  $X_1$  and  $X_2$  are orthogonal if

- (A)  $X_1^T X_2^T = I$
- (B)  $X_1^T X_2 = 0$
- (C)  $X_1^T X_2 = I$
- (D)  $X_1^T X_2^T = 0$

9. The eigen values of a matrix are 0, 1, 2. Then the matrix A is a

- (A) non singular matrix
- (B) unit matrix
- (C) diagonal matrix
- (D) singular matrix

10. If  $A$  is a symmetric matrix, then
- (A)  $A = A^{-1}$
  - (B)  $|A| = 0$
  - (C)  $A = A^T$
  - (D)  $A = -A^T$
11. Curvature of a straight line is
- (A) 1
  - (B) 0
  - (C) -1
  - (D)  $\omega$
12. If  $u = e^x \cos y$ , then  $x^3 \frac{\partial^2 u}{\partial x^2} =$
- (A) 0
  - (B)  $x^2 e^x \sin y$
  - (C)  $x^3 e^x$
  - (D)  $x^3 e^x \cos y$
13. The solutions of the equation  $x(10x-1) = 2$  are
- (A)  $x = 0$  or  $0.1$
  - (B)  $x = 2$  or  $0.3$
  - (C)  $x = 0.5$  or  $-0.4$
  - (D)  $x = -0.5$  or  $0.4$
14. A Bernoulli equation is given by  $\frac{dy}{dx} + P(x)y = Q(x)y^n$ . Then
- (A)  $n$  is 0
  - (B)  $n$  is 1
  - (C)  $n$  is a real number
  - (D)  $n$  is any real number but not 0 or 1

15. If  $n$  is a natural number, then the sixth term of the sequence  $x_n = 4 \times (0.5)^n$  is
- (A) 0.125
  - (B) 1
  - (C) 64
  - (D) 0.0625
16. Which of the following holds true for a vector quantity?
- (A) A vector has only magnitude
  - (B) A vector has only direction
  - (C) A vector has both magnitude and direction
  - (D) A vector can never be negative
17. Let  $A$  and  $B$  be two square matrices of order  $n$  and let  $A'$  be the transpose of  $A$ . Then which of the following is **NOT** true?
- (A)  $(A')' = A$
  - (B)  $(A + B)' = A' + B'$
  - (C)  $(AB)' = (BA)'$
  - (D)  $(kA)' = kA'$
18. Eigen values for the matrix  $\begin{bmatrix} 4 & 0 & 0 \\ 0 & -5 & 3 \\ 0 & -3 & 1 \end{bmatrix}$  are
- (A)  $-4, 2, -2$
  - (B)  $-4, -2, -2$
  - (C)  $-2, -2, 4$
  - (D)  $2, 2, -4$
19. Which of the following is **NOT** an example for a curve which is symmetric about  $y$ -axis?
- (A)  $x^2 = 4ay$
  - (B)  $x^2 = ay$
  - (C)  $x^2 = 4ax$
  - (D)  $x^2 = 2ay$

20.  $\lim_{x \rightarrow 0} \frac{25}{x}$  is equal to
- (A) 0
  - (B) 25
  - (C)  $\frac{1}{2}$
  - (D)  $\frac{3}{2}$
21. Which of the following is an example of non-linear differential equation?
- (A)  $y' = mx + c$
  - (B)  $x + x' = 0$
  - (C)  $x^4 + (y')^2 = 0$
  - (D)  $x'' + 2x = 0$
22. Which of the following is **NOT** a standard method for finding the solutions of differential equations?
- (A) Variable Separable
  - (B) Homogenous equation
  - (C) Orthogonal method
  - (D) Bernoulli's equation
23. If  $X$  is a random variable, taking values  $x$ , probability of success and failure being  $p$  and  $q$  respectively and  $n$  trials being conducted, then is the probability that  $X$  takes values  $x$  using Binomial distribution, is
- (A)  $P(X = x) = {}^n C_x p^x q^x$
  - (B)  $P(X = x) = {}^n C_x p^x q^{(n-x)}$
  - (C)  $P(X = x) = {}^x C_n q^x p^{(n-x)}$
  - (D)  $P(X = x) = {}^n C_x p^n q^x$

24. If  ${}^n P_r = 3024$  and  ${}^n C_r = 126$ , then  $n$  and  $r$  respectively
- (A) 9, 4
  - (B) 10, 3
  - (C) 12, 4
  - (D) 11, 4
25. The number of rectangles and squares in an 8 by 8 chess board respectively are
- (A) 296, 204
  - (B) 1292, 204
  - (C) 204, 1092
  - (D) 204, 1296
26. A critical point to the function  $f(x, y) = \sin(x) \cdot \cos(y)$  is
- (A)  $\left(\frac{\pi}{4}, \frac{\pi}{4}\right)$
  - (B)  $\left(\frac{-\pi}{4}, \frac{\pi}{4}\right)$
  - (C)  $\left(0, \frac{\pi}{2}\right)$
  - (D) (0, 0)
27. The number of proper subsets of a given finite set with  $n$  elements is
- (A)  $2^n - 2$
  - (B)  $2^n - 1$
  - (C)  $n + 1$
  - (D)  $2n + 1$
28. If  $A$  and  $B$  are two subsets of a set  $X$ , then  $A \cap (A \cup B)' =$
- (A)  $A$
  - (B)  $B$
  - (C)  $\phi$
  - (D)  $A'$

29. Let  $n$  be an integer and  $f(t) = t^n$ . Then the Laplace transform of  $f(t)$  is
- (A)  $n!$
  - (B)  $t^{n+1}$
  - (C)  $\frac{n!}{s^{n+1}}$
  - (D)  $\frac{n^2}{s^2}$
30. The partial sums of the first  $n$  and  $n + 1$  numbers of the Fibonacci sequence are both divisible by 11. The smallest value of  $n$  for which this is true is
- (A)  $n = 8$
  - (B)  $n = 10$
  - (C)  $n = 11$
  - (D)  $n = 9$

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31. Which CPU scheduling is suitable for time-sharing systems?
- (A) shorted job first scheduling
  - (B) first come first served scheduling
  - (C) priority scheduling
  - (D) round robin scheduling
32. One process communicating with other process in the Operating Systems environment is called as
- (A) no communication
  - (B) inter process communication
  - (C) systems call
  - (D) threading
33. A waiting process is never again able to change state, because, the resources it has requested, are held by other waiting processes. This situation is called
- (A) deadlock
  - (B) process
  - (C) processor
  - (D) CPU
34. Address generated by the CPU is commonly referred to as a logical address, whereas address seen by the memory unit is referred as
- (A) global address
  - (B) physical address
  - (C) local address
  - (D) universal address
35. One major advantage of ..... is that programs can be larger than physical memory.
- (A) cache memory
  - (B) non cache memory
  - (C) virtual memory
  - (D) all cache memory
36. Which type of network is used for small geographical area such as in a one building?
- (A) WLAN
  - (B) LAN
  - (C) MAN
  - (D) WAN



37. In the IPv4 addressing format, the number of networks allowed under Class C addresses is
- (A)  $2^{14}$
  - (B)  $2^7$
  - (C)  $2^{21}$
  - (D)  $2^{24}$
38. Which of the following transport layer protocols is used to support electronic mail?
- (A) SMTP
  - (B) IP
  - (C) TCP
  - (D) UDP
39. What do you mean by broadcasting in Networking?
- (A) Addressing a packet to all machine
  - (B) Addressing a packet to some machine
  - (C) Addressing a packet to a particular machine
  - (D) Addressing a packet to except a particular machine
40. An attempt to make a computer resource unavailable to its intended users is called
- (A) denial-of-service attack
  - (B) virus attack
  - (C) worms attack
  - (D) botnet process
41. Which representation is most efficient to perform arithmetic operations on the numbers?
- (A) Sign- magnitude
  - (B) 1's compliment
  - (C) 2's compliment
  - (D) 9's compliment
42. Which of the following defines a class?
- (A) Parent of an object
  - (B) Instance of an object
  - (C) Blueprint of an object
  - (D) Scope of an object

43. All member functions of a local class must be
- (A) defined outside class body
  - (B) defined outside the function definition
  - (C) defined inside the class body
  - (D) defined at starting of program
44. Which type of program is recommended to include in try block?
- (A) Static memory allocation
  - (B) Dynamic memory allocation
  - (C) Const reference
  - (D) Pointer
45. .... may be used to model the processing of data, where each activity represents one process step.
- (A) Activity diagrams
  - (B) Structural models
  - (C) Behavioral models
  - (D) State diagrams
46. What is the worst case complexity of bubble sort?
- (A)  $O(n \log n)$
  - (B)  $O(\log n)$
  - (C)  $O(n)$
  - (D)  $O(n^2)$
47. Which of the following is the most commonly used data structure for implementing Dijkstra's Algorithm?
- (A) Max priority queue
  - (B) Stack
  - (C) Circular queue
  - (D) Min priority queue
48. To access the services of the operating system, the interface is provided by the
- (A) Library
  - (B) System calls
  - (C) Assembly instructions
  - (D) API

49. Arrange the tasks involved in requirements elicitation in an appropriate manner.
- I Consolidation
  - II Prioritization
  - III Requirements Gathering
  - IV Evaluation
- (A) III, I, II, IV  
(B) II, III, IV, I  
(C) III, II, IV, I  
(D) III, IV, II, I
50. In DMA transfers, the required signals and addresses are given by the
- (A) processor  
(B) device drivers  
(C) DMA controllers  
(D) the program itself
51. What will be the height of the hash tree with branching factor 2 and with 8 records?
- (A) 7  
(B) 4  
(C) 8  
(D) 5
52. When two or more bits in a data unit has been changed during the transmission, the error is called
- (A) burst error  
(B) random error  
(C) inverted error  
(D) double error
53. Packet sniffers involve
- (A) Active receiver  
(B) Legal receiver  
(C) Passive receiver  
(D) Partially-active receiver

54. Select all the Clustering Algorithms from the given list below.

- I k – Means
- II DBSCAN
- III k – Nearest Neighbors
- IV Agglomerative Hierarchical Clustering
- V Naïve Bayes

- (A) I, III, V
- (B) I, II, IV
- (C) II, III, IV
- (D) III, IV, V

55. Find the 2's Complement for the given Binary Number:

**1111**

- (A) 0001
- (B) 0111
- (C) 1010
- (D) 1001

56. What is the full form of CNN?

- (A) Convoluted Neural Network
- (B) Convolutional Neural Network
- (C) Computerised Neural Network
- (D) Comparative Neural Networking

57. Which protocol establishes the initial logical connection between a server and a client?

- (A) Transmission control protocol
- (B) User datagram protocol
- (C) Datagram congestion control
- (D) Mount protocol

58. The algorithm to remove and place new contents into the cache is called

- (A) deletion algorithm
- (B) renewal algorithm
- (C) replacement algorithm
- (D) updation

59. Depth First Search is equivalent to which of the traversal in the Binary Trees?

- (A) Post-order Traversal
- (B) Pre-order Traversal
- (C) Level-order Traversal
- (D) In-order Traversal

60. Which was the first purely object oriented programming language developed?

- (A) SmallTalk
- (B) Kotlin
- (C) C++
- (D) Java

**Direction:** Read the following passage carefully and answer the questions given below.

I felt the wall of the tunnel shiver. The master alarm squealed through my earphones. Almost simultaneously, Jack yelled down to me that there was a warning light on. Fleeting but spectacular sights snapped into and out of view, the snow, the shower of debris, the moon, looming close and big, the dazzling sunshine for once unfiltered by layers of air. The last twelve hours before re-entry were particular bone-chilling. During this period, I had to go up in to command module. Even after the fiery re-entry splashing down in 81° water in south pacific, we could still see our frosty breath inside the command module.

61. The word 'Command Module' used twice in the given passage indicates

- (A) an alarming journey
- (B) a commanding situation
- (C) a journey into outer space
- (D) a frightful battle

62. Which one of the following reasons would one consider as more as possible for the warning lights to be on?

- (A) There was a shower of debris
- (B) Jack was yelling
- (C) A catastrophe was imminent
- (D) The moon was looming close and big

63. The statement that the dazzling sunshine was "for once unfiltered by layers of air" means
- (A) that the sun was very hot
  - (B) that there was no strong wind
  - (C) that the air was unpolluted
  - (D) None of the above

**Direction:** Read the following passage carefully and answer the questions given below.

Laws of nature are not commands but statements of acts. The use of the word "law" in this context is rather unfortunate. It would be better to speak of uniformities in nature. This would do away with the elementary fallacy that a law implies a law giver. If a piece of matter does not obey a law of nature it is punished. On the contrary, we say that the law has been incorrectly stated.

64. If a piece of matter violates nature's law, it is not punished because
- (A) it is not binding to obey it
  - (B) there is no superior being to enforce the law of nature
  - (C) it cannot be punished
  - (D) it simply means that the facts have not been correctly stated by law
65. Laws of nature differ from man-made laws because
- (A) the former state facts of Nature
  - (B) they must be obeyed
  - (C) they are natural
  - (D) unlike human laws, they are systematic
66. The laws of nature based on observation are
- (A) conclusion about the nature of the universe
  - (B) true and unfalsifiable
  - (C) figments of the observer imagination
  - (D) subject to change in the light of new facts
67. The author is not happy with word 'law' because
- (A) it connotes rigidity and harshness
  - (B) it implies an agency which has made them
  - (C) it does not convey the sense of nature's uniformity
  - (D) it gives rise to false beliefs

**Direction:** Read the following passage carefully and answer the questions given below.

The Indian middle class consist of so many strata that it defies categorisation under a single term class, which would imply a considerable degree of homogeneity. Yet two paradoxical features characterise its conduct fairly uniformly; extensive practice and intensive abhorrence of corruption.

In the several recent surveys of popular perceptions of corruptions, politicians of course invariably and understandably top the list, closely followed by bureaucrats, policemen, lawyers, businessmen and others. The quintessential middle class. If teachers do not figure high on this priority list, it is not for lack of trying, but for lack of oppurtunities. Over the years, the sense of shock over acts of corruption in the middle class has witnessed a steady decline, as its ambitions for a better material life have soared but the resources for meeting such ambitions have not kept pace.

What is fascinating, however, is the intense yearning of this class for a clean corruptionless politics and society, a yearning that has again and again surfaced with any figure public or obscure, focus on his mission of eradicating corruption. Even the repeated failure of this promise on virtually every man's part has not subjected it to the law of diminishing returns.

68. The intense Middle Class intensely yearns for
- (A) better material resources
  - (B) extensive practice of corruption
  - (C) clean honest society
  - (D) law of increasing returns
69. Teachers are not high on the list of corruption because they do not have
- (A) courage
  - (B) opportunities
  - (C) support
  - (D) ambition
70. The Indian Middle class is
- (A) defiant
  - (B) mysterious
  - (C) homogeneous
  - (D) stratified

71. Who figure on top of the list of corruption?

- (A) Businessmen
- (B) Lawyers
- (C) Politicians
- (D) Policemen

72. This yearning, over the years, has

- (A) persisted
- (B) soared
- (C) declined
- (D) disappeared

73. Choose the correct option.

Vain and prone to violence, Caravaggio could not handle success: the more his ..... as an artist increased, the more ..... his life became.

- (A) notoriety, providential
- (B) eminence, tumultuous
- (C) eminence, dispassionate
- (D) notoriety, temperance

74. Choose the correct option.

He goes ..... Sunday ..... church, and sits ..... the boys.

- (A) on, to, among
- (B) by, to, in
- (C) on, in, beside
- (D) to, on, over

75. Choose the correct option.

The news about the bank ..... threw the financial market into a .....

- (A) fraud, turmoil
- (B) account, epidemic
- (C) cheating, confidence
- (D) safety, suspicion



76. Identify the meaning of the underlined part of the sentence.

Many of the workers demurred at working on Sundays and other holidays.

- (A) demanded extra wages
- (B) agreed enthusiastically
- (C) expressed willingness
- (D) showed reluctance

77. Identify the meaning of the underlined part of the sentence.

The nights are clear but suffused with sloth and sullen expectation.

- (A) covered
- (B) coloured
- (C) spread over
- (D) filled

78. Select the most appropriate meaning of the idiom/phrase underlined.

“Between the devil and deep sea”

- (A) To be in temper
- (B) To be in dilemma
- (C) To choose correctly
- (D) To live dangerously

79. Select the synonym of the capitalized word.

**DOLEFUL**

- (A) Mournful
- (B) Bright
- (C) Jovial
- (D) Colourful

80. Select the synonym of the capitalized word.

**MOTTLE**

- (A) Spoil
- (B) Mark with spots
- (C) Erase
- (D) Mellow

81. Fill in the blanks.

Won't they ..... travelling for two weeks by then?

- (A) has been
- (B) will have been
- (C) had been
- (D) have been

82. Select the correct tense to complete the sentence.

I finally reached my mom. .... her all day.

- (A) I'd been calling
- (B) I have called
- (C) I called
- (D) I was calling

83. Choose the option that best fits the sentence.

He went with ..... younger sisters.

- (A) his both
- (B) both his
- (C) two his
- (D) only his

84. Choose the correct meaning of the phrase.

To make clean breast of

- (A) To gain prominence
- (B) To praise oneself
- (C) To confess without of reserve
- (D) To destroy before it blooms

85. Choose the correct meaning of the phrase.

To keeps one's temper

- (A) To become hungry
- (B) To be in good mood
- (C) To preserve ones energy
- (D) To be aloof from

86. Choose the correct meaning of the phrase.

To catch a tartar

- (A) To trap wanted criminal with great difficulty
- (B) To catch a dangerous person
- (C) To meet with disaster
- (D) To deal with a person who is more than one's match

87. Choose the correct meaning of the phrase.

To drive home

- (A) To find one's roots
- (B) To return to place of rest
- (C) Back to original position
- (D) To emphasise

88. Choose the correct meaning of the phrase.

To have an axe to grind

- (A) A private end to serve
- (B) To fail to arouse interest
- (C) To have no result
- (D) To work for both sides

89. Choose the option that best fits the sentence.

It looks like our ..... fears are coming true.

- (A) bad
- (B) worse
- (C) worst
- (D) worsen





90. Choose a correct meaning for the underlined part of the sentence.

She was ridiculed for waving her hand histrionically while speaking to her parents.

- (A) Dramatically
- (B) Referring to history
- (C) In a lunatic
- (D) Vehemently





91. Look carefully at the sequence of symbols to find the pattern.  
Select correct pattern that replaces the ?.

E m E | m m m | E W E | W ? W

- (A) 
- (B) 
- (C) 
- (D) 





92. Look carefully at the sequence of symbols to find the pattern.  
Select correct pattern that replaces the ?.

○ ○ ● | ▲ △ △ | □ ?

- (A) 
- (B) 
- (C) 
- (D) 

93. Look carefully at the sequence of symbols to find the pattern.  
Select correct pattern that replaces the ?.

△ □ △ | □ ○ □ | ○ ◇ ○ | ◇ □ ?

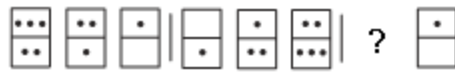
- (A) 
- (B) 
- (C) 
- (D) 

94. Look carefully at the sequence of symbols to find the pattern.  
Select correct pattern that replaces the ?.



- (A) □ □  
 (B) L □  
 (C) | □  
 (D) J |

95. Look carefully at the sequence of symbols to find the pattern.  
Select correct pattern that replaces the ?.



- (A)   
 (B)   
 (C)   
 (D)

**Direction:** Study the information and answer the questions.

<b>J</b>	<b>A</b>	<b>U</b>	<b>N</b>	<b>K</b>	<b>B</b>	<b>I</b>	<b>D</b>	<b>H</b>	<b>L</b>	<b>O</b>	<b>C</b>	<b>E</b>	<b>M</b>	<b>F</b>	<b>P</b>
@	1	*	5	#	7	?	9	\$	!	&	3	%	2	+	=

If first and last letter is vowel then both are interchanged their respective codes.

If first letter is vowel and the last letter is consonant then both are codes as middle letter of the word.

If first letter is consonant and last letter vowel is then both are codes as "9".

If first letter and last letter is consonant then both are codes as adjacent letters.

96. What is the coded pattern of CKNUP?

- (A) ##5\*=  
 (B) ##5=\*  
 (C) 3#5\*\*

(D) ##5\*\*

97. What is the coded pattern of AMJDO?

(A) &29#1

(B) 12@9&

(C) &2@91

(D) 22@91

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98. What is the coded pattern of BLEFU?

- (A) 7!%+\*
- (B) 9%%+9
- (C) 9!\*+9
- (D) 9!%+9

99. What is the coded pattern of INEHC?

- (A) %5%\$?
- (B) %5\$\$%
- (C) %5%\$%
- (D) %9%\$%

100. What is the possible word of the code?

\*5\*3\*

- (A) ANUKF
- (B) ANECF
- (C) BNUCF
- (D) ANUCF

**Direction:** Study the information and answer the questions.

"Payments gets fully disclosed" is coded as 'mar par wed lim'

"Fully more have reforms" is coded as 'par jat yar kar'

"Cash gets have given" is coded as 'limgurhal yar'

"More legal cash board" is coded as 'jar wel pal hal'

101. What does the code 'hal' represent?

- (A) More
- (B) Board
- (C) Have
- (D) Cash

102. What is the code for the word 'gets'?
- (A) hal
  - (B) lim
  - (C) mar
  - (D) kar
103. What does the 'par' represents?
- (A) Disclosed
  - (B) Fully
  - (C) Reforms
  - (D) Both (A) and (C)
104. What is the code for the word 'given'?
- (A) hal
  - (B) kar
  - (C) lim
  - (D) gur
105. What may be the code for 'legal gets'?
- (A) wel wed
  - (B) pal wed
  - (C) hal par
  - (D) None of the above
106. If UDOMETER is coded as DUMOTERE then how will SUBLEASE be coded?
- (A) UBLBESAE
  - (B) USLBAEES
  - (C) USBAELES
  - (D) USLBEAES
107. PROMOTION is written in a certain coded message as QSP89, then what will be the code for DEMOTION?
- (A) EG89
  - (B) DE89
  - (C) DE117
  - (D) EF89



108. If Pen is coded as Pencil, Pencil as Chalk, Chalk as Slate, Slate as Paper, then by which do you mostly write?

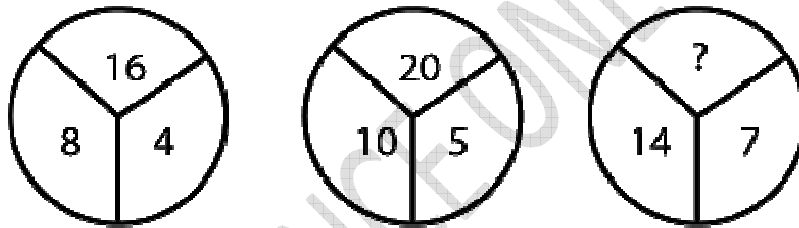
- (A) Pen
- (B) Chalk
- (C) Pencil
- (D) Slate

109. Find which option will substitute the question mark.

**AC EG BD FH IK ??**

- (A) IJ
- (B) OP
- (C) JL
- (D) JK

110. Which one from the given alternative will replace the question mark?



- (A) 22
- (B) 24
- (C) 28
- (D) 27

111. Look carefully at the sequence of symbols to find the pattern. Select correct alternative that replaces the ?.

**C<sup>3</sup>F<sup>6</sup> L<sup>12</sup>?**

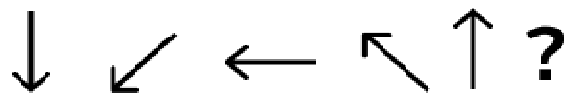
- (A) O<sup>13</sup>
- (B) Q<sup>17</sup>
- (C) P<sup>15</sup>
- (D) O<sup>15</sup>

112. A river flows west to east and on the way turns left and goes in a semi-circle round a hillock, and then turns left at right angles. In which direction in the river finally flowing?

- (A) West
- (B) East
- (C) North
- (D) South

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113. Find which option will substitute the question mark.



(A)

(B)

(C)

(D)

114. Find which option will substitute the question mark.



(A)

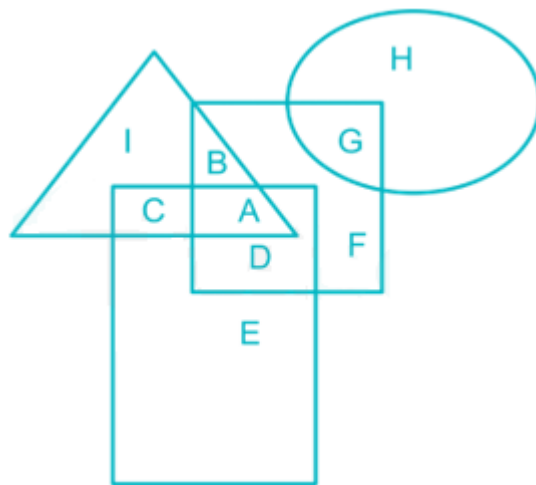
(B)

(C)

(D)

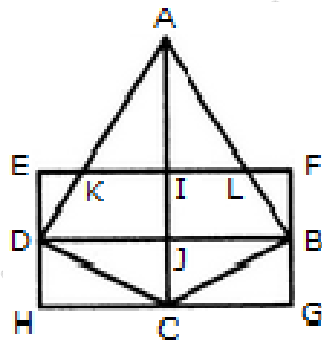
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115. In the following figure, square represents Teachers, triangle represents swimmers, circle represents Nurses and rectangle represents Women. Which set of letters represents Teachers who are either swimmers or nurses?



- (A) D, F  
 (B) A, B, D, F, G  
 (C) A, B, G  
 (D) I, C, H

116. How many triangles are there in the figure given below?

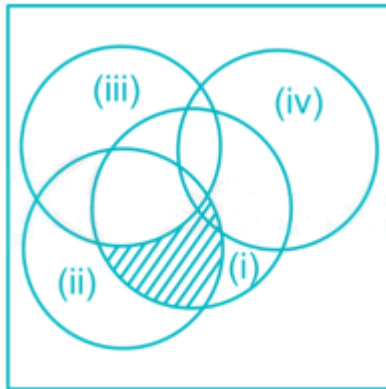


- (A) 15  
 (B) 14  
 (C) 13  
 (D) 12

117. The following diagram represents people who speak different languages.

- (i) Kannada
- (ii) English
- (iii) Hindi
- (iv) Marathi

What does the shaded area include?

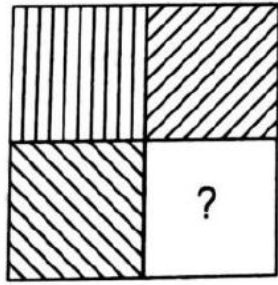


- (A) People who speak Kannada and English
- (B) People who speak English and Hindi
- (C) People who speak Kannada, English and Hindi
- (D) People who speak Kannada, English and Marathi

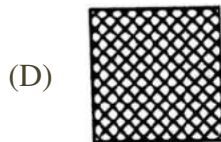
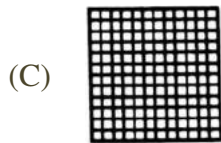
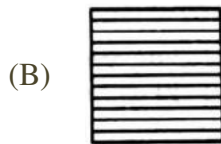
118. All the faces of a cube are painted with blue color. Then it is cut into 125 small equal cubes. How many small cubes will be formed having only one face colored?

- (A) 54
- (B) 45
- (C) 57
- (D) 55

119. Select a figure from the four alternatives, which when placed in the missing portion (?) of the original figure as shown by the figure (X), would complete the pattern.

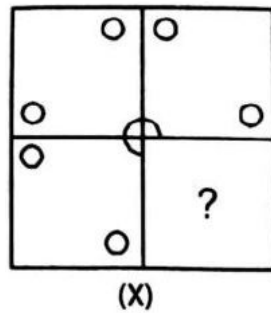


(X)



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120. Select a figure from the four alternatives, which when placed in the missing portion (?) of the original figure as shown by the figure (X), would complete the pattern.



- (A)
- (B)
- (C)
- (D)

121. What will be the output of the program in 16 bit platform (Turbo C under DOS)?

```
#include<stdio.h>
int main()
{
    extern int i;
    i = 20;
    printf("%d\n", sizeof(i));
    return 0;
}
```

- (A) 2  
 (B) 4  
 (C) vary from compiler  
 (D) Linker Error : Undefined symbol 'i'

122. What is the output of the program?

```
#include<stdio.h>
int main()
{
    extern int a;
    printf("%d\n", a);
    return 0;
}
int a=20;
```

- (A) 20
- (B) 0
- (C) Garbage Value
- (D) Error

123. Which of the declaration is correct?

- (A) int length;
- (B) char int;
- (C) int long;
- (D) float double;

124. Which of the following operations are INCORRECT?

- (A) int i = 35; i = i%5;
- (B) short int j = 255; j = j;
- (C) long int k = 365L; k = k;
- (D) float a = 3.14; a = a%3;

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125. Which of the structure is INCORRECT?

- 1:    struct aa  
      {  
          int a;  
          float b;  
      };
- 2:    struct aa  
      {  
          int a;  
          float b;  
          struct aa var;  
      };
- 3:    struct aa  
      {  
          int a;  
          float b;  
          struct aa \*var;  
      };

- (A) 1  
(B) 2  
(C) 3  
(D) 1,2,3

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126. Which of the structure is correct?

```
1: struct book
   {
       char name[10];
       float price;
       int pages;
   };
```

```
2: struct aa
   {
       char name[10];
       float price;
       int pages;
   }
```

```
3: struct book
   {
       char name[10];
       float price;
       int pages;
   }
```

- (A) 1
- (B) 2
- (C) 3
- (D) Either 1 or 2

127. In which numbering system can the binary number 1011011111000101 be easily converted to?

- (A) Decimal system
- (B) Hexadecimal system
- (C) Octal system
- (D) No need to convert

128. Which bitwise operator is suitable for **turning off** a particular bit in a number?

- (A) && operator
- (B) & operator
- (C) || operator
- (D) ! operator

129. Which bitwise operator is suitable for **turning on** a particular bit in a number?

- (A) && operator
- (B) & operator
- (C) || operator
- (D) | operator

130. What will be the output of the program ?

```
#include<stdio.h>
int main()
{
    int a[5] = {5, 1, 15, 20, 25};
    int i, j, m;
    i = ++a[1];
    j = a[1]++;
    m = a[i++];
    printf("%d, %d, %d", i, j, m);
    return 0;
}
```

- (A) 2, 1, 15
- (B) 1, 2, 5
- (C) 3, 2, 15
- (D) 2, 3, 20

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131. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    static int a[2][2] = {1, 2, 3, 4};
    inti, j;
    static int *p[] = {(int*)a, (int*)a+1, (int*)a+2};
    for(i=0; i<2; i++)
    {
        for(j=0; j<2; j++)
        {
            printf("%d, %d, %d, %d\n", *(*p+i)+j), *(*j+p)+i),
                *(*i+p)+j), *(*p+j)+i));
        }
    }
    return0;
}
```

- (A) 1, 1, 1, 1  
2, 3, 2, 3  
3, 2, 3, 2  
4, 4, 4, 4
- (B) 1, 2, 1, 2  
2, 3, 2, 3  
3, 4, 3, 4  
4, 2, 4, 2
- (C) 1, 1, 1, 1  
2, 2, 2, 2  
2, 2, 2, 2  
3, 3, 3, 3
- (D) 1, 2, 3, 4  
2, 3, 4, 1  
3, 4, 1, 2  
4, 1, 2, 3

132. Output for the code given below is

```
#include <stdio.h>
int main() {
    char *p = "Phone";
    p++;
    char c = (*p);
    ++c;
    p--;
    printf("%c%s", c, p++);
}
```

- (A) Phone
- (B) iPhone
- (C) jPhone
- (D) phone

133. What will be the output of the C Program?

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int *j = (int*)malloc(4 * sizeof(int));
    *j = 9;
    free(j);
    printf("%d", *j);
    return 0;
}
```

- (A) Compilation Error
- (B) 0
- (C) Some Garbage value
- (D) Nothing Prints

134. Property which allows to produce different executable for different platforms in C is called?

- (A) File inclusion
- (B) Selective inclusion
- (C) Conditional compilation
- (D) Recursive macros

135. Which of the following typecasting is accepted by C language?

- (A) Widening conversions
- (B) Narrowing conversions
- (C) Widening and Narrowing conversions
- (D) No conversions are accepted

136. Find the output of the following code.

```
#include <stdio.h>
int min(int x, int y){
    return(y<x)? y : x;
}
int main(){
    int a[]={-5, 9, 8, -8, -2};
    int z = a[0], n=5, i=0, c=a[0];
    for(i=1; i<n; i++){
        c=min(a[i], c+a[i]);
        z=min(z,c);
    }
    printf("%d", z);
}
```

- (A) -10
- (B) 10
- (C) -9
- (D) -11

137. What is the output of the program given below?

```
#include <stdio.h>
int main(){
    int c[]={5,0,3,4,5};
    int j, *q=c;
    for(j=0; j<*q; j++){
        printf("%d", *c);
        ++q;
    }
}
```

- (A) 5
- (B) 0
- (C) 4
- (D) 3

138. Output of the following code.

```
#include <stdio.h>
int main(){
    inti=4;
    for(i=0; i=-4; i++){
        printf("%d", i);
        if(i!=-3)
            break;
    }
    return 0;
}
```

- (A) -1
- (B) 0
- (C) -4
- (D) -3

139. Determine the output for the given piece of C programming code.

```
#include <stdio.h>
void function(int[][3]);
int main(void){
    int a[3][3] = {1,2,3,4,5,6,7,8,9};
    function(a);
    printf("%d", a[2][1] - a[1][2]);
    return 0;
}
void function(int a[][3])
{
    ++a;
    a[1][1]++;
}
```

- (A) 7
- (B) 5
- (C) 4
- (D) 3

140. Among 4 header files, which should be included to use the memory allocation functions like malloc(), calloc(), realloc() and free()?

- (A) #include<string.h>
- (B) #include<math.h>
- (C) #include<stdlib.h>
- (D) #include<memory.h>

141. If `fopen()` function is not able to open a file, it will return?

- (A) Compilation error
- (B) 0
- (C) EOF
- (D) NULL

142. Output of the following code is

```
#include <stdio.h>
void main(){
    int n =11, res =1;
    do
    {
        n-=5;
        res *=5;
    }while(n>5);
    printf("%d", n*res);
}
```

- (A) 25
- (B) 30
- (C) 35
- (D) 20

143. Select the correct output of the execution.

```
#include <stdio.h>
int fun(int n){
    if(n!=0){
        return n -fun(n-5);
    }else{
        return n;
    }
}
int main(){
    int n =10, z;
    z=fun(n);
    printf("%d", z);
}
```

- (A) 4
- (B) 6
- (C) 10
- (D) 5



144. What is the main difference between Structure and Union in C Programming?
- (A) A Structure is a user-defined datatype, a Union is a built-in datatype
  - (B) Structure uses multiple memory locations, a Union use only a single memory location
  - (C) Structure combines data items of different kind – like a record, Union stores different data types in the same memory location
  - (D) Structure can have only one single data item, Union can have multiple data items

145. What will be the output of the following program?

```
#include <stdio.h>
int main() {
    int n = 010101, count = 0;
    while(n!=0) {
        n/=10;
        ++count;
    }
    printf("%d", count);
    return 0;
}
```

- (A) 6
  - (B) 3
  - (C) 5
  - (D) 4
146. The C Preprocessors are specified with ..... symbol.
- (A) #
  - (B) \$
  - (C) “”
  - (D) &
147. Which of the following is **NOT** possible statically in C language?
- (A) Cuboidal Array
  - (B) Rectangular Array
  - (C) Jagged Array
  - (D) Multidimensional Array
148. The standard header ..... is used for variable list arguments (...) in C.
- (A) <stdio.h>
  - (B) <stdlib.h>
  - (C) <math.h>
  - (D) <stdarg.h>

149. What is the `sizeof(char)` in a 32-bit C compiler?

- (A) 1 bit
- (B) 2 bits
- (C) 1 Byte
- (D) 2 Bytes

150. What is the output of the following program?

```
#include <stdio.h>
int main()
{
    static int i=5;
    if(--i){
        main();
        printf("%d ",i);
    }
}
```

- (A) 4231
- (B) 1234
- (C) 0000
- (D) Compiler error

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## FINAL ANSWER KEY

**Subject Name: 621 M VOC MOBILE PHONE APPLICATION DEVELOPMENT**

SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key
1	A	31	D	61	C	91	A	121	D
2	A	32	B	62	C	92	B	122	A
3	B	33	A	63	D	93	A	123	A
4	A	34	B	64	B	94	D	124	D
5	B	35	C	65	A	95	A	125	B
6	C	36	B	66	D	96	D	126	A
7	D	37	C	67	B	97	C	127	B
8	B	38	A	68	C	98	D	128	B
9	D	39	A	69	B	99	C	129	D
10	C	40	A	70	D	100	D	130	C
11	B	41	C	71	C	101	D	131	C
12	D	42	C	72	A	102	B	132	B
13	C	43	C	73	B	103	B	133	B
14	D	44	B	74	A	104	D	134	C
15	D	45	A	75	A	105	D	135	C
16	C	46	D	76	D	106	B	136	A
17	C	47	D	77	C	107	D	137	A
18	C	48	B	78	B	108	C	138	C
19	C	49	D	79	A	109	C	139	D
20	A	50	C	80	B	110	C	140	C
21	C	51	B	81	D	111	D	141	D
22	C	52	A	82	A	112	B	142	A
23	B	53	C	83	B	113	D	143	D
24	A	54	B	84	C	114	B	144	C
25	B	55	A	85	B	115	C	145	D
26	C	56	B	86	B	116	A	146	A
27	A	57	D	87	D	117	D	147	C
28	C	58	C	88	A	118	A	148	D
29	C	59	B	89	C	119	B	149	C
30	B	60	A	90	A	120	C	150	C