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1. Choose the most appropriate word from the options given below to complete the following sentence :
   Given the seriousness of the situation that he had to face, his …… was impressive.
   (a)beggary (b)nomenclature
   (c)nonchalance (d)jealousy
2. Select the option, which would best fill the blanks as follows.
   Football evokes a ……. response in India compared to cricket, the almost …… the nation.
   (a)tepid, boiling (b)lukewarm, electrifies
   (c)turbid, fascinating
   (d)apocryphal, genuinely fascinates
3. Which of the following words have similar meaning :
   (a)Cacophonic
   (b)Cacographic
   (c)Calamitous
   (d)Catastrophic
   (e)Contraindicative
   (f)Cataclysmic
   (a)IV and VI only (b)I, II and V only
   (c)II,V and VI only (d)III, IV and VI only
4. I. He is the most …… of the speakers to address us today.
   II. the belief in …… justice is the essence of his talk.
   III. This hall would have been full but for the ……rain .
   IV. Many in the audience have achieved ……..in their respective fields.
   Which of the following sequence of would most appropriately fit the blanks in the sentences given above?
   (a) Eminent, Imminent, Immanent, Eminence
   (b) Immanent, Imminent, Imminence, Imminence,
   (C) Eminent, Immanent, Imminent, Eminence
   (d)Eminent, Immanent, Imminent, Imminence
5. Clinical Practitioners ……integrated mindfulness……..borderline personality disorder, major depression, chronic pain, eating disorders. Number of such practitioners……increased substantially.
   (a) Have, in the ,a, such as, has
   (b) has, in the, the, like have
   (c) were, for ,a, like, has
   (d) have, for , a, like, has
6. Choose the statement where underlined and bold is used correctly.
   I. The minister insured the victims that everything would be all right
   II. He ensured that the company will not have to bear any loss.
   III. The actor got himself ensured against any accident.
   IV. The teacher insured students of good Results.
   (a) I (b) II (c) III (d) IV
7. The word similar in meaning to 'Dreary' is :
   (a)Cheerful (b)Dreamy
   (c)Hard (d)Dismal
8. Choose the appropriate word from the options given below to complete to complete the following sentence :
   The official answered……that the complaints of the citizens would be looked into,
   (a)Respectably (b)Respectfully
   (c)Reputably (d)Respectively
9. Which of the following sentence is/are grammatically incorrect:
   I. Bats are able to fly in the dark,
   II. Bats can fly in the dark.
   III. Bats have the ability of flying in the dark, if does not rain.
   IV. Bats cannot fly in the dark if it rains.
   V. Bats have the ability for flying in the dark.
   (a) III and V only
   (b) I only (c) II and IV
   (d) V and II only
10. Which is not the antonym of SANITY
    (a)LUNACY (b) INSANITY
    (c) STUPIDITY (d) RATIONALITY
11. Which of the following is not a Language processor:
    (a)Compiler (b)Loader
    (c)Interpreter (d) Assembler
12. If $(41)_6 = (121)_b$ then b is :
    (a) 1 (b) 2 (c) 3 (d)4
13. Mach List- I and List –II and select correct group of matching.

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List-I	List-II
P. RAM	1. Hertz
Q. CPU Speed	2.MB
R. Monitor	3.Bytes/Sec
S. CD-ROM Speed	4.Inch

(a) (P,2), (Q,1), (R,4),(S,3)
(b) (P,1), (1,2),(R,3), (S,4)
(c) (P,3), (Q,4), (R,2), (S,1)
(d) (P,4), (Q,3), (R,1), (S,2)

14. Bitcoin uses which network technology for transaction and mining.
(a) Peer to Peer Network
(b) Distributed
(c)Wide Are Network
(d) Intranet Network

15. The binary coding system that represents 256 different characters or bit combination is:
(a) BCD (b)ASCII
(c)EBCDEIC (d) Both b and c

16. The hexadecimal subtraction of $(256)_{16}$ from $(427)_{16}$ result in:
(a) $(3B1)_{16}$ (b)$(331)_{16}$
(c) $(371)_{16}$ (d) $(3D1)_{16}$

17. Which type of Processors is ideal for Mobile phones and PDAs
(a) CISC (b) RISC
(c)VISC (d) LISC

18. RAID stands for
(a) Reproduce Array of Intelligent Disks
(b) Reproduce Array of Inexpensive Disks
(c)Redundant Array of Inexpensive Drives
(d)Redundant Array of independent Disks

19. Choose the ODD one out from the following :
(a) QWERTY (b) SULTRY
(c) AZERTY (d) CVORAK

20. What does XP stands for in the operating system "Windows XP"?
(a)Extra Power
(b)Extended Product
(c)Extra Performance
(d)Experience

21. The range of 2's complement representation of n-bit signed integer is:
(a)-2^n to 2^n (b) - (2^{n-1}) to (2^{n-1})
(c) -2^{n-1} to 2^{n-1} (d) -2^{n-1} to $2^{n-1}-1$

22. Consider the following lists, and then select the correct option after matching them.

List-I	List-II
1. Procedural Oriented Language	P.COBOL
2. Object Oriented Language	Q. HTML
3. Business Oriented Language	R. C++
4. Web Page	S. Pascal

23. When a computer is switched on, the BIOS is loaded from:
(a) Hard Disk (b) RAM
(c)ROM (d)CD-ROM

24. Which of the following is not a search engine:
(a)Zing (b)Google
(c)Yahoo (d) Bing

25. 8 GB is equal to :
(a) 2^{30} bytes (b) 2^{33} bytes
(c)2^{20} bytes (d) 2^{23} bytes

26. $x = 0.125E + 01, x = (1.01)_2$ and $y = (1.2)_8$
(a) x, y and z are equal
(b) Only x and y are equal
(c) Only x and z are equal
(d) All x, y and z are different

27. The product of two binary numbers 00001101 and 00001111 is :
(a)11000011 (b)01100011
(c)00001101 (d) 000100010

28. Which of the following group of statements are correct :
P. Mouse, Keyboard and plotter are all input devices.
Q. Unix, Windows and Linux are all input devices.
R. Register, Cache and Hard-disk are all memory Modules.
S. Monitor, Printer and Scanner are all output devices.
(a)P,Q (b) P,S (c) R,S (d)Q,R

29. Which one is the founder or inventor of BITCOIN the famous crypto currency.
(a) Satoshi Nakomoto (b)Peter Thiel
(c) Warren Buffet (d) Bitcoin.org

30. Which of the following group consists of volatile memory:
(a)RAM and Floppy Disk (b) Hard disk and ROM

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(c) RAM and Cache (d) Cache and ROM

31. A , B and C scored 681 runs such that four times A's run is equal to 5 times B's run which is equal to seven time C's run. Difference between A's and C's run is :
(a) 105 (b)450 (c)97 (d)125
32. When the price of computer was reduced by 20% the sale increased by 60%. What was the increase in total revenue?
(a)30% (b) 28% (c)55% (d)40%
33. A watch ticks 90 times in 95 second and an another watch ticks 315 times in 323 seconds. If both the watches are started together, how many times they will tick together in the first hour?
(a)110 times (b)101 times
(c) 320 times (d) 210 times
34. Rama gets down on an elevator at 11^{th} floor of a multi-storey building and rides up at the rate of 57 floors per minute. At the same time, Somaya gets another elevator at the 51^{th} floor of the same building and rides down at the rate of 63 floors per minute. If they travel at these rates, at which floor they will cross each other?
(a)19 (b)28 (c)30 (d)32
35. If 7 parallel lines are intersected by another set of 7 parallel lines, the numbers of parallelograms formed is :
(a) 441 (b) 400 (c) 49 (d) 98
36. The results of a class were declared. The boy 'X' stood 5^{th} in the class. The girl was 8^{th} from the last. The position of the boy 'Z' , was 6^{th} after 'X' and 'Y'. The total number of students in the class were:
(a) 24 (b) 29 (c) 25 (d)26
37. A is 30 days older to B and C is 50 weeks older to A. If C was born on Tuesday, on which day was B born?
(a) Tuesday (b) Thursday
(c) Wednesday (d) Monday
38. Branches of 5 nationalized banks A, B, C, D and E in Uttar Pradesh are as follows:
A,B,C,D and E are in Lucknow and Kanpur,
A,B and E are in Kanpur and Allahabad,
B,C, and D are in Lucknow and Varanasi,
B,E and D are in Allahabad and saharabpur,
C, E and D are in Saharanpur and Moradabad?
Which bank has branches in all cities exceptMoradabad?
(a) A (b)B (c) C (d) D
39. Select IDD ONE OUT from the following pairs:
(a)May : January (b) September : November
(c) October : April (d) January : December
40. If A+B means A is the daughter of B, $A \times B$ means A is the son of B and A-B means A is the wife of B , then $P \times Q - S$ means :
(a) S is the father of P
(b)Q is the daughter of S
(c) A is the Father of Q
(d) None of these
41. In the following series 50 is wrongly. Which number will come at the place of 50?
5,16,50,158,481,.....
(a) 51 (b)53 (c)48 (d) 49
42. Jamia central library has 510 visitors on Sunday and 240 visitors on other days. Then the average number of visitors per day in a 30 days month beginning with a Sunday is:
(a)285 (b)276 (c)250 (d)280
43. 6 : 43 ::5:? , then what number can be put at the place of "?".
(a)63 (b)52 (c)26 (d)31
44. Next term in the following series is : 122,197,290.....
(a) 399 (b)400 (c)401 (d)402
45. Selected the ODD number form given alternatives.
(a)2197 (b)3375
(c)4099 (d)2744
46. In the following series, how many '8' are not preceded by '7' and followed by '9': 7,8,9,9,8,5,4,3,8,9,5,8,9,8,7,7,8,9
(a) One (b) Two (c) Three (d) Four
47. Looking at a portrait of a man, Sanjay said, "His mother is the wife of my father's son. Brothers and sisters I have none". At whose portrait was Sanjay looking
(a)His son (b) His nephew
(c) His Cousin (d) His cousin
48. In a certain code LATE is written as PEXI then code for TRACE is :
(a)XUEGH (b) XVFGI
(c)XVEGI (d) XVELI

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49. Statement : S1: Some cats are rats
S2: All tats are bats
S3: Some bats are birds
Conclusion:
C1: Some birds are cats
C2: Some bats are cats
C3: Some birds are tats
C4: No birds is a tat
Which of the conclusion(s) follows from the above statement S1,S2 and S3:
(a)Only C3 follows.
(b)Either C1 or C4 and C3 follows
(c) Either C1 or C4 and C2 follows
(d) None

50. A liquid container is usually filled up in 8 hrs. Due to a leak since the beginning it took 2 hrs. more to fill up the container. The leak could empty the filled container in:
(a)30 hrs. (b)40 hrs.
(c)28 hrs. (d)34 hrs.

51. Let A and B be two sets containing 2 elements and 4 elements respectively. The number of subsets of $A \times B$ having 3 or more elements is:
(a)256 (b)220 (c)219 (d)211

52. If A,B and C are three sets such that $A \cap B = A \cap C$, and $A \cup B = A \cup C$, then
(a) $A = C$ (b) $B = C$
(c) $A \cap B = \emptyset$ (d) $A = B$

53. The value of $\tan^{-1}(\tan 13)$ is :
(a) $\pi - 13$ (b) $A = C$
(c) $4\pi - 13$ (d) $-4\pi n + 13$

54. $(\cot x.\cot 2x - cot2x.\cot 3x - \cot 3x.\cot x)$ equals
(a)$(\cot x + \cot 2x + cot3x)$
(b)$(\cot x - \cot 2x - cot3x)$
(c) 1 (d) -1

55. Value of $\tan\left(\frac{\pi}{8}\right)$is :
(a)$\sqrt{2} - 1$ (b) $1 - \sqrt{2}$
(c) $1 - \frac{1}{\sqrt{2}}$ (d)$1 + \frac{1}{\sqrt{2}}$

56. The number of complex numbers Z such that $|Z - 1| = |Z + 1| = |Z - i|$
(a) 1 (b) 2 (c) ∞ (d) 0

57. If ω is a cube root of unity and $(1 + \omega)^7 = A + B$ equals
(a) -1 (b)0 (c)2 (d)-2

58. If $x + y + z = 5$ and $xy + yz + zx = 3$, then the least and greatest value of x are
(a) $\frac{10}{3}, 5$ (b) $-1, \frac{13}{3}$
(c) $-\frac{17}{3}, 7$ (d) None

59. The sum of integers from 1 to 100 that are divisible by 2 or 5 is
(a) 3000 (b)3050 (c)3600 (d)3250

60. The remainder when 27^{40} is divided by 12 is
(a) 3 (b) 7 (c)9 (d) 11

61. The sum of the series $1 + \frac{1}{4.2!} + \frac{1}{16.4!} + \frac{1}{64.6!} + \cdots + \infty$is
(a) $\frac{e-1}{\sqrt{e}}$ (b) $\frac{e+1}{\sqrt{e}}$ (c) $\frac{e-1}{2\sqrt{e}}$
(d) $\frac{e+1}{2\sqrt{e}}$

62. If the sum of two number is 6 time s their mean, then the numbers are in the ratio
(a)$\frac{3+\sqrt{2}}{3-\sqrt{2}}$ (b) $\frac{3+2\sqrt{2}}{3-2\sqrt{2}}$ (c) $\frac{3+\sqrt{3}}{3-\sqrt{3}}$ (d) $\frac{3+3\sqrt{3}}{3-3\sqrt{3}}$

63. The orthocenter of triangle formed by (0,0), and (3,4)is
(a) $(2,0)$ (b) $\left(\frac{3}{2}, 2\right)$
(c) $\left(\frac{3}{4}, 3\right)$ (d)$\left(3, \frac{3}{4}\right)$

64. A ray of light passing through the point (1,2) reflects on the X axis at point A and the reflected ray passes through the point (5,3) , the coordinates f A are
(a)(5,0) (b) (-5,0)
(c) $\left(\frac{13}{5}, 0\right)$ (d) $\left(-\frac{13}{5}, 0\right)$

65. From a point on the circle $x^2 + y^2 = a^a$, tangents are drawn to the circle $x^2 + y^2 = b^2$, the chord of contact of these tangents is tangent at $x^2 + y^2 = c^2$, then a , b and c , are in
(a)A.P. (b)G.P (c)H.P (d)None

66. If the chord of contact of tangents from a point P to the parabola $y^2 = 4ax$ touches the parabola $x^2 = 4by$, the locus of P is
(a)Circle (b)parabola
(c)Ellipse (d) Hyperbola

67. A man running around a race course notes that the sum of the distance from two flag posts from him is always 10m and the distance between the flag posts is 8m. The equation of path traced by man is
(a) $\frac{x^{25}}{25} + \frac{y^2}{9} = 1$ (b) $\frac{x^2}{9} + \frac{y^2}{25} = 1$

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(c) $\frac{x^2}{9}-\frac{y^2}{25}=1$ (d)$\frac{y^2}{9}-\frac{x^2}{25}=1$

68. The vertices of a parallelogram ABCD are A(3,-1,2),B(1,2,-4) and C(-1,1,2). The fourth vertex D is
(a)(1,2,8) (b)(1,-2,8)
(c)(-2,1,8) (d)(-2,1,8)

69. If all the words with or without meaning, formed using all the letters of the word JAMIA are arranged in a dictionary, then what will be the 50^{th} word.
(a)AAJMI (b)AAMIJ
(c)JAAMI (d)MAAJI

70. Evaluate $\lim_{x\to 0}\left[\frac{\sin x}{x}\right]$, where [] denotes the greatest integer function
(a)0 (b)1 (c)-1 (d)does not exist

71. Evaluate $\lim_{x\to 0}\frac{\sqrt{1-\cos 2x}}{x}$
(a)$\sqrt{2}$ (b)$-\sqrt{2}$ (c)1 (d)none

72. The mean of 5 observations is 4.4 and their variance is 8.24 . If three of the observations are 1,2 and 6, the other two observations are :
(a)4 and 5 (b)5 and 9
(c)4 and 9 (d)5 and 8

73. Three letters are dictated to three persons and an envelope is addressed to each of them, the letters are inserted into the envelope at random so that each envelope contains exactly one letter. What is the probability that at least one letter is in it's proper envelope
(a)1/3 (b)2/3 (c)2/5 (d)1/5

74. A tourist visits four cities A, B, C and D in a random order. What is the probability that he visits A before B.
(a)1/2 (b)1/3 (c)1/4 (d)1/5

75. The function $f:[0,3]\to[1,29]$ defined by $f(x)=2x^3-15x^2+36x+1$ is
(a)one one and onto
(b)onto but not one - one
(c)one – one but not onto
(d)neither one – one nor onto

76. If $f:R\to R$ be given by $f(x)=(3-x^3)^{\frac{1}{3}}$, then $f(f(f(f(x))))$ is
(a)$x^{\frac{1}{3}}$ (b)x^3 (c)x (d)$3-x^3$

77. If the matrix A is both symmetric and skew – symmetric, then
(a)A is diagonal matrix (b)a is a null matrix
(c)a is a square matrix (d)none

78. If $A=\begin{pmatrix}2 & -3\\ -4 & 1\end{pmatrix}$, then $adj(3A^2+12A)$ is equal to
(a)$\begin{pmatrix}72 & -84\\ -63 & 51\end{pmatrix}$ (b) $\begin{pmatrix}51 & 84\\ 63 & 72\end{pmatrix}$
(c) $\begin{pmatrix}51 & 84\\ 63 & 72\end{pmatrix}$ (d)$\begin{pmatrix}72 & -63\\ -84 & 51\end{pmatrix}$

79. If a,b,c are in A.P, then value of determinant $\begin{vmatrix}x+2 & x+3 & x+2a\\ x+3 & x+4 & x+2b\\ x+4 & x+5 & x+2c\end{vmatrix}$ is
(a)0 (b)1 (c)x (d)$2x$

80. If a determinant of order 3×3 is formed using the numbers 1 or -1 , then the minimum value of determinant is :
(a)-2 (b)-4 (c)0 (d)-8

81. Number of points at which the function $f(x)=\min(|x|,|x+1|,|x-4|)$ is not differentiable :
(a)3 (b)4 (c)5 (d)6

82. Consider two functions $f(x)$ and $g(x)$ such that $f(x)=|x|+[x]$ and $g(x)=|x|\times[x]$, where $[x]$ denotes the greatest integer function
(a)$f(x)$ is continuous at $x=1, g(x)$ is continuous at $x=1$
(b)$f(x)$ is continuous at $x=1, g(x)$ is discontinuous at $x=1$
(c) $f(x)$ is discontinuous at $x=1, g(x)$ is continuous at $x=1$
(d) $f(x)$ is discontinuous at $x=1, g(x)$ is continuous at $x=1$

83. If $\lim_{x\to 0}\left(1+\frac{a}{x}+\frac{b}{x^2}\right)^{2x}=e^2$, then values of a and b are
(a)$a\in R, b\in R$ (b)$a=1, b\in R$
(c)$a\in R, b=2$ (d)$a=1, b=2$

84. If m is the slope of tangent at any point on the curve $e^y=1+x^2$, then
(a)$|m|>1$ (b)$|m|\le 1$
(c)$|m|<2$ (d)$|m|\ge 2$

85. Let $f(x)=(x^3+ax^2+bx+5\sin^2 x)$ be increasing for all $x\in R$, then a and b satisfy
(a)$a^3-3b-15>0$ (b)$a^3-3b+15>0$
(c)$a^3-3b+15\le 0$ (d)$a^3-3b-15<0$

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86. The points of extremum of the function $f(x) = \int_1^x e^{-\frac{t^2}{2}}(1-t^2)dt$ are
(a)± 1 (b)0 (c)$\pm\frac{1}{2}$ (d)± 2

87. Value of $\int_1^2 e^{2x}\left(\frac{1}{x} - \frac{1}{2x^2}\right)dx$ is
(a)$\frac{e^2(e^2-4)}{4}$ (b)$\frac{e^2(e^2-2)}{4}$
(c) $\frac{e^2(e^2+2)}{2}$ (d) $\frac{e^2(e^2-2)}{2}$

88. Value of $\int_{-\frac{\pi}{2}}^{\frac{\pi}{2}}(x^3 + x.\cos x + \tan^3 x + 1)\,dx$ is
(a)0 (b)π (c)2π (d)3π

89. $\int \frac{d\theta}{1-\tan\theta}$ equal to :
(a)$\frac{\theta}{2} - \frac{1}{2}\log|\cos\theta - \sin\theta| + c$
(b) $\frac{\theta}{2} + \frac{1}{2}\log|\cos\theta - \sin\theta| + c$
(c) $\frac{\theta}{3} - \frac{1}{3}\log|\cos\theta - \sin\theta| + c$
(d) $\frac{\theta}{3} + \frac{1}{3}\log|\cos\theta - \sin\theta| + c$

90. If $|\vec{a} + \vec{b}| = |\vec{a} - \vec{b}|$, then
(a)$\vec{a}$ is parallel to $\vec{b}$
(b)$\vec{a}$ is perpendicular to to $\vec{b}$
(c) $\vec{a} = \vec{b}$ (d)none

91. Distance between the two planes $2x + y + 2z = 8$ and $4x + 2y + 4z + 5 = 0$ is
(a)$\frac{3}{2}$ units (b)$\frac{5}{2}$ units
(c)$\frac{7}{2}$ units (d)$\frac{9}{2}$ units

92. A man is known to speak truth 3 out of 4 times . He throws a die and reports that it is a six. The probability that it is actually a six is :
(a)1/8 (b)5/8 (c)7/8 (d)3/8

93. The probability of shooter hitting a target is 3/4 . The minimum number of times that he must fire so that the probability of hitting the target at least once is more than 0.99 is :
(a)2 (b)3 (c)4 (d)5

94. If A and B are two independent event such that $P(A) = 0.3, P(B) = 0.6$, then P (neither A nor B) is
(a)0.28 (b)0.30 (c)0.32 (d)0.18

95. Period of the function $f(x) = \cos\left(\frac{2x}{3}\right) - \sin\left(\frac{4x}{5}\right)$ is
(a)5π (b)10π (c)15π (d)20π

96. Which of the following is not an indeterminate form:
(a)0^0 (b)o^∞ (c)∞^0 (d)1^∞

97. The area of the region described by A $\{(x,y): x^2 + y^2 \leq 1 \text{and } y^2 \leq 1 - x\}$ is
(a)$\frac{\pi}{2} + \frac{4}{3}$ (b) $\frac{\pi}{2} - \frac{4}{3}$
(c) $\frac{\pi}{2} - \frac{2}{3}$ (d) $\frac{\pi}{2} + \frac{2}{3}$

98. A curve passes through the point $\left(1, \frac{\pi}{6}\right)$. L the slope of the curve at each point (x,y) $\frac{y}{x} + \sec\left(\frac{y}{x}\right)$, $x > 0$. Then the equation of t curve is :
(a)$\sin\left(\frac{y}{x}\right) = \log x + \frac{1}{2}$
(b)$\cos\left(\frac{2y}{x}\right) = \log x + 2$
(c) $\sec\left(\frac{2y}{x}\right) = \log x + 2$
(d) $\cos\left(\frac{2y}{x}\right) = \log x + \frac{1}{2}$

99. Let $= \begin{bmatrix} 0 & \omega \\ \omega & 0 \end{bmatrix}$, where ω is a cube root of uni . then P^{24} is :
(a)P^2 (b)P
(c)Identity Matrix (d) null Matrix

100. The area bounded by the curve $y^2 = x$ a $x^2 = y$ is :
(a)1/3 (b)2/3 (c)4/3 (d)5/3

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1. C
2. B
3. D
4. C
5. A
6. B
7. D
8. B
9. A
10. D
11. B
12. D
13. A
14. A
15. B
16. D
17. B
18. B
19. B
20. D
21. D
22. *
23. C
24. A
25. A
26. A
27. A
28. D
29. A
30. C
31. D
32. B
33. B
34. C
35. A
36. A
37. C
38. A
39. D
40. A
41. D
42. A
43. C
44. C
45. D
46. D
47. A
48. C
49. C
50. B
51. C
52. B
53. B
54. C
55. A
56. D
57. C
58. B
59. B
60. C
61. D
62. B
63. D
64. C
65. B
66. D
67. A
68. B
69. D
70. B
71. D
72. C
73. B
74. A
75. D
76. C
77. B
78. B
79. A
80. A
81. A
82. A
83. B
84. B
85. C
86. B
87. D
88. B
89. B
90. B
91. C
92. D
93. C
94. A
95. A
96. D
97. C
98. C
99. C
100. A