



Jamia Millia Islamia (JMI), University – 2019



01. 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
02. 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
03. Which of the following words have similar meaning :
(I) Cacophonous (II) Cacographic (III) Calamitous (IV) Catastrophic
(V) Contraindicative (VI) Cataclysmic
(a) IV and VI only (b) I, II and V only (c) II, V and VI only (d) III, IV and VI only
04. 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 therain .
IV. Many in the audience have achievedin their respective fields.
Which of the following sequence of words 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
05. Clinical Practitionersintegrated 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
06. 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
07. The word similar in meaning to 'Dreary' is :
(a) Cheerful (b) Dreamy (c) Hard (d) Dismal
08. 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
09. 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. Match List – I and List – II and select correct group of matching.
- | 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 Area Network (d) Intranet Network
15. The binary coding system that represents 256 different characters or bit combination is:
 (a) BCD (b) ASCII (c) EBCDIC (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) 230 bytes (b) 233 bytes (c) 220 bytes (d) 223 bytes
26. $x = 0.125 E + 01$, $x = (1.01)_2$ 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
(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 11th 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 51th 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 5th in the class. The girl was 8th from the last. The position of the boy 'Z' , was 6th 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 except Moradabad?

- (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

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) $A \cap B = \phi$ (d) $A = B$
53. The value of $\tan^{-1}(\tan 13)$ is :
 (a) $\pi - 13$ (b) $A = C$ (c) $4\pi - 13$ (d) $-4\pi + 13$
54. $(\cot x \cdot \cot 2x - \cot 2x \cdot \cot 3x - \cot 3x \cdot \cot x)$ equals
 (a) $(\cot x + \cot 2x + \cot 3x)$ (b) $(\cot x - \cot 2x - \cot 3x)$ (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 $1 + \frac{1}{4.2!} + \frac{1}{16.4!} + \frac{2}{64.6!} + \dots + \infty$ 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 times 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 of 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 $x^2 + y^2 = a^2$, 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) $\frac{x^2}{9} + \frac{y^2}{25} = 1$ (c) $\frac{x^2}{9} - \frac{y^2}{25} = 1$ (d) $\frac{x^2}{9} + \frac{y^2}{25} = 1$
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 50th word.
 (a) AAJMI (b) AAMIJ (c) JAAMI (d) MAAJI
70. Evaluate $\lim_{x \rightarrow 0} \left[\frac{\sin x}{x} \right]$, where $[\]$ denotes the greatest integer function
 (a) 0 (b) 1 (c) -1 (d) does not exist
71. Evaluate $\lim_{x \rightarrow 0} \frac{\sqrt{1 - \cos 2x}}{x}$
 (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 its 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 $f : [0, 3] \rightarrow [1, 29]$ 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 $f : \mathbb{R} \rightarrow \mathbb{R}$ 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 $\text{adj}(3A^2 + 12A)$ is equal to
- (a) $\begin{pmatrix} 72 & -84 \\ -63 & 51 \end{pmatrix}$ (b) $\begin{pmatrix} 51 & 84 \\ 63 & 72 \end{pmatrix}$ (c) $\begin{pmatrix} 72 & -63 \\ -84 & 51 \end{pmatrix}$ (d) None of these
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 $\lim_{x \rightarrow 0} \left(1 + \frac{a}{x} + \frac{b}{x^2}\right)^{2x} = e^2$, then values of a and b are
- (a) $a \in \mathbb{R}, b \in \mathbb{R}$ (b) $a = 1, b \in \mathbb{R}$ (c) $a \in \mathbb{R}, b = 2$ (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) $|m| \leq 1$ (c) $|m| < 2$ (d) $|m| \geq 2$
85. Let $f(x) = (x^3 + ax^2 + bx + 5 \sin^2 x)$ be increasing for all $x \in \mathbb{R}$, then a and b satisfy
- (a) $a^3 - 3b - 15 > 0$ (b) $a^3 - 3b + 15 > 0$ (c) $a^3 - 3b + 15 \leq 0$ (d) $a^3 - 3b - 15 < 0$
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) ± 12 (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 $\int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} (x^3 + x \cdot \cos x + \tan^3 x + 1) dx$ 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 \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) 32 units (b) 52 units (c) 72 units (d) 92 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 $P(\text{neither A nor B})$ 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) 0^∞ (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 $\left(1, \frac{\pi}{6}\right)$. Let the slope of the curve at each point (x, y) be $\frac{y}{x} + \sec\left(\frac{y}{x}\right)$, $x > 0$. Then the equation of the 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 $P = \begin{bmatrix} 0 & \omega \\ \omega & 0 \end{bmatrix}$, where ω is a cube root of unity. then P^{24} is :
(a) P^2 (b) P (c) Identity Matrix (d) null Matrix
100. The area bounded by the curve $y^2 = x$ and $x^2 = y$ is :
(a) $1/3$ (b) $2/3$ (c) $4/3$ (d) $5/3$

Answer Key

01. (c) 02. (b) 03. (d) 04. (c) 05. (a) 06. (b) 07. (d) 08. (b) 09. (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)

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