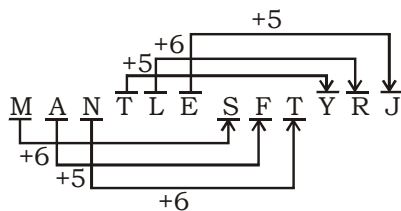
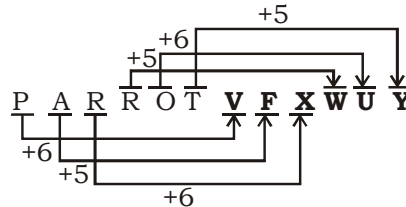


SSC MOCK TEST - 434 (SOLUTION)

1. (1) As,



Similarly,



2. (3) As, $2 + 4 + 3 = 9 \rightarrow 9^3 \rightarrow 729$

Similarly, $3 + 2 + 5 = 10 \rightarrow 10^3 \rightarrow 1000$

3. (1) Book is written by Author and Director makes the movie, while Poem is written by Poet.

4. (2) Except Sun, others are planet.

5. (3) Rank of Lucky from the top = $42 - 34 + 1 = 9$

So, Number of students between Komal and Lucky = Rank of Komal from the top - 9 - 1 = $13 - 9 - 1 = 3$

6. (2) H F D B Z X V T R P N L
 $\begin{matrix} \downarrow -2 & \uparrow -2 & \downarrow -2 & \uparrow -2 & \downarrow -2 & \uparrow -2 & \downarrow -2 & \uparrow -2 & \downarrow -2 & \uparrow -2 & \downarrow -2 & \uparrow -2 \end{matrix}$

7. (1) 6 16 40 92 200 420 864
 $\begin{matrix} \uparrow 10 & \uparrow 24 & \uparrow 52 & \uparrow 108 & \uparrow 220 & \uparrow 444 \end{matrix}$
 $\begin{matrix} \uparrow 14 & \uparrow 28 & \uparrow 56 & \uparrow 112 & \uparrow 224 \end{matrix}$
 $\begin{matrix} \times 2 & \times 2 & \times 2 & \times 2 \end{matrix}$

8. (1) As the colour of the milk is White and it is given that 'White means Purple'. So, the colour of milk is Purple.

9. (4) a/badn/aa/badn/aa/badn/aa/badn/a

10. (4) As,

SURROUND RRUSDNUO

Similarly,

MITIGATE ITIMETAG

11. (3) $45 + 50 + 60 = 155$

$55 + 51 + 49 = 155$

$26 + 65 + 64 = 155$

12. (4)

13. (4) B D A F C G E

14. (3)

15. (1) $78 \div 48 \times 8 + (26 \times 7) - 39 + (45 + 15) = 210$

After 48 and 39 changed to each other,

$78 \div 39 \times 8 + (26 \times 7) - 48 + (45 + 15) = 210$

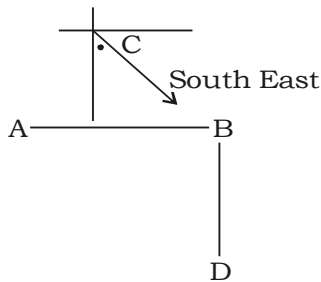
$2 \times 8 + 182 - 48 + 60 = 210$

$198 - 48 + 60 = 210$

$258 - 48 = 210$

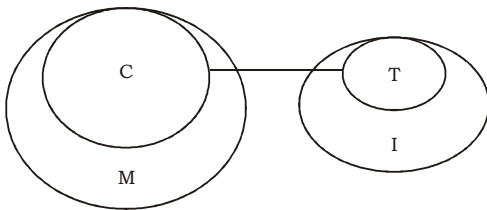
$210 = 210$

16. (2)



Hence, D is located in South-East of C.

17. (2)



I. False II. True III. False

Hence, only conclusion II follows.

18. (1) 3. Illness → 2. Diagnosis → 1. Prescription → 5. Recovery → 4. Follow-up

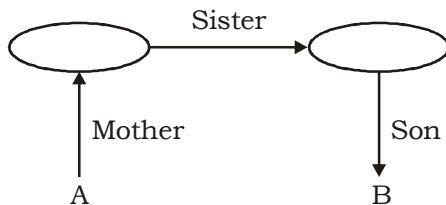
19. (3) As, $13 + 6^2 = 49$

$$49 + 6^3 = 265$$

$$\text{Similarly, } 15 + 6^2 = 51$$

$$51 + 6^3 = 267$$

20. (2)



Hence, A is the cousin of B.

21. (3)

22. (1) 20 July 2021 = Tuesday

28 Nov 2021 = ?

Number of days between 20 July and 28 November = $11 + 31 + 30 + 31 + 28 = 131$

20 July 2021 = Tuesday

28 Nov 2021 = ?

Number of days between 20 July and 28 November = $11 + 31 + 30 + 31 + 28 = 131$

$$\text{Number of odd days} = \frac{131}{7} \Rightarrow 5$$

28 Nov 2021 = Tuesday + 5 = Sunday

$$\text{Number of odd days} = \frac{131}{7} \Rightarrow 5$$

∴ 28 Nov 2021 = Tuesday + 5 = Sunday

23. (1)

24. (2)

25. (2)

KD

Campus

K D Campus Pvt. Ltd

1997, GROUND FLOOR OPPOSITE MUKHERJEE NAGAR POLICE STATION, OUTRAM LINES, GTB NAGAR, NEW DELHI – 09

26. (4) The mouth of Tapi river is in the Gulf of Khambhat. Tapi river originates from Betul district of Madhya Pradesh.
27. (2) The highest tides in the world occur in the Bay of Fundy on the eastern coast of North America, which is connected to the North Atlantic Ocean.
28. (1) Rub al-Khali is the largest sand desert in the world, it is located in the country of Saudi Arabia in the continent of Asia.
29. (3) Meghalaya is the state with the highest decadal population growth rate, with a population growth rate of 27.95%.
30. (2) Communal Award was announced by the British Prime Minister Ronaldo on 16 August 1932.
31. (3) JB Kripalani was the President of the Indian National Congress at the time of India's independence.
32. (3) The Swadeshi Ambedkar movement was propagated in Delhi by Syed Haider Raza while Bal Gangadhar Tilak did it in Mumbai and Pune.
33. (4) The Delhi Conspiracy of 1912 was executed by Basant Vishwas Amirchand Awadh Bihari and Balmukund under the leadership of Sachindra Nath Sanyal and Rasbihari Bose.
34. (2) The Montagu Declaration of 1917 was the result of the efforts of the Home Rule Movement which promised the formation of a responsible government.
35. (2) The ruler of Chittor at the time of Alauddin Khilji's invasion was Rana Ratan Singh.
36. (4) Lux metre is used to measure the intensity of light.
37. (3) If an object is placed in the middle of a plane mirror placed at right angles to each other, then the total number of images of the object will be three.
39. (2) The pH value of acid rain is less than 5.6. The cause of acid rain is gases like carbon dioxide, sulphur dioxide, nitrogen oxide present in the atmosphere.
40. (4) The smallest cell in the world belongs to the parasitic bacterium Mycoplasma gallisepticum.
41. (3) At present the chairman of the National Commission for Protection of Child Rights is Priyank Kanungo.
42. (2) Right to Constitutional Remedies is given under Article 32 of the Constitution which includes five types of writs.
43. (3) The right to free treatment is enshrined in the Directive Principles of the Constitution which have been included in Article 39A under the 42nd Constitutional Amendment.
44. (4) Simon Harris, 37, became the youngest Prime Minister (Taoiseach) of Ireland on April 9, 2024, succeeding Leo Varadkar. The Prime Minister is elected by members of the Dáil, the lower house of Ireland's bicameral parliament, the Oireachtas.
45. (1) India has invoked the WTO's Peace Clause for the fifth time, citing breach of rice subsidy limits. The clause shields developing nations from dispute challenges regarding subsidy breaches.
46. (2) The Centre has issued a draft notification delineating an Ecologically Sensitive Zone (ESZ) around Sukhna Wildlife Sanctuary, Chandigarh. ESZs are vital and delicate areas near protected zones, designated by the central government under the Environment (Protection) Act, 1986.
47. (1) The 'Yoga Mahotsav' at Wadia College Sports Ground, Pune, marked the 75-day countdown to the International Day of Yoga. Organized jointly by Morarji Desai National Institute of Yoga and National Institute of Naturopathy, Govt. of India, thousands gathered, actively participating in the Common Yoga Protocol.
48. (3) World Day for Safety and Health at Work is observed on April 28. The theme for this year is "A safe and healthy working environment as a fundamental principle and right at work".
50. (2) The Part III of the Constitution of India gives a detailed description on a charter of rights called the fundamental Rights'. These fundamental rights guarantee civil freedom to all the citizens of India to allow them to live in peace and harmony. These are the basic rights that every Indian citizen has the right to enjoy, irrespective of their caste, creed and religion, place of birth, race, color or gender. These fundamental rights include Right to Equality, Rights to Freedom, Right to Freedom of Religion, Cultural and Education Rights, Right against Exploitation, Right to Constitutional Remedies, etc.

51. (3) Mangoes of ₹20 are available for ₹19.

$$\text{Hence, discount} = \left(\frac{1}{20} \times 100 \right) \% = 5\%$$

$$\text{If one gets mangoes of ₹20 for ₹18, then discount} = \left(\frac{2}{20} \times 100 \right) \% = 10\%$$

$$\therefore \text{Required integer} = \left(\frac{2}{20} \times 27 \right) = 2.7 \approx 3$$

52. (3) If the time taken by B to complete the work be x days.

Time taken by A to complete the work = (x - 5) days.

ATQ,

$$\frac{1}{x} + \frac{1}{x-5} = \frac{9}{100}$$

$$\frac{x-5+x}{x^2-5x} = \frac{9}{100}$$

$$9x^2 - 45x = 200x - 500$$

$$9x^2 - 245x + 500 = 0$$

$$9x^2 - 225x - 20x + 500 = 0$$

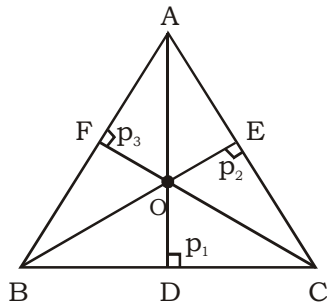
$$9x(x-25) - 20(x-25) = 0$$

$$(9x-20)(x-25) = 0$$

$$x = 25, \text{ because } x \neq \frac{20}{9}$$

\therefore Time taken by B to complete the work alone is 25 days.

53. (3)



Let the side of ΔABC be x.

O is the point in the interior of ΔABC .

OD, OE and OF are perpendicular.

Clearly, $\Delta OAB + \Delta OBC + \Delta OAC = \Delta ABC$

$$\frac{1}{2} \times x \times p_3 + \frac{1}{2} \times x \times p_1 + \frac{1}{2} \times x \times p_2 = \frac{\sqrt{3}}{4} x^2$$

$$\frac{1}{2} \times (p_1 + p_2 + p_3) = \frac{\sqrt{3}}{4} x^2$$

$$p_1 + p_2 + p_3 = \frac{\sqrt{3}}{2} x$$

$$\therefore x = \frac{2}{\sqrt{3}} (p_1 + p_2 + p_3)$$

54. (2) $\frac{5}{\sec^2 \theta} + \frac{2}{1 + \cot^2 \theta} + 3 \sin^2 \theta = 5 \cos^2 \theta + \frac{2}{\operatorname{cosec}^2 \theta} + 3 \sin^2 \theta$
 $= 5 \cos^2 \theta + 2 \sin^2 \theta + 3 \sin^2 \theta = 5(\cos^2 \theta + \sin^2 \theta) = 5$

55. (4) $\frac{42 - 12 \times 3 + 8 \div 2 + 15}{8 \times 2 - 4 + 9 \div 3} = \frac{42 - 12 \times 3 + 4 + 15}{8 \times 2 - 4 + 3}$
 $= \frac{42 - 36 + 4 + 15}{16 - 4 + 3} = \frac{25}{15} = \frac{5}{3}$

56. (1) Let the length of train be x m.

ATQ,

$$\frac{x}{14} = \frac{x + 210}{40}$$

$$40x = 14x + 210 \times 14$$

$$28x = 210 \times 14$$

$$x = \frac{210 \times 14}{28} = 105 \text{ m}$$

\therefore Speed of train = $\frac{105}{14} = 7.5 \text{ m/s}$

57. (1) Let the sum of age of Suraj's son be x years.

Suraj's age = 3x years

ATQ,

$$4(x - 4) - 6 = (3x - 2)$$

$$4x - 16 - 6 = 3x - 2$$

$$x = 20 \text{ years}$$

\therefore Present age of Suraj = $3 \times 20 = 60 \text{ years}$

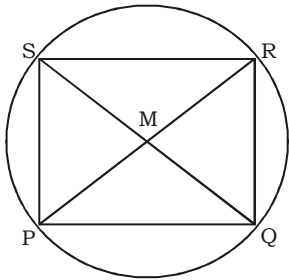
58. (3) $\frac{9}{20} - \left[\frac{1}{5} + \left\{ \frac{3}{4} + \left(\frac{7}{9} - \frac{1}{3} + \frac{1}{4} \right) \right\} \right] = \frac{9}{20} - \left[\frac{1}{5} + \left\{ \frac{3}{4} + \left(\frac{7}{9} - \frac{7}{12} \right) \right\} \right]$

$$= \frac{9}{20} - \left[\frac{1}{5} + \left\{ \frac{3}{4} + \left(\frac{28 - 21}{36} \right) \right\} \right] = \frac{9}{20} - \left[\frac{1}{5} + \left\{ \frac{3}{4} + \frac{7}{36} \right\} \right]$$

$$= \frac{9}{20} - \left[\frac{1}{5} + \frac{27 + 7}{36} \right] = \frac{9}{20} - \left[\frac{36 + 34}{180} \right]$$

$$= \frac{9}{20} - \frac{60}{180} = \frac{81 - 60}{180} = \frac{21}{180} = \frac{7}{60}$$

59. (2)



PQ = x cm, QR = 16.8 cm, RS = 14 cm, PS = 25.2 cm

As,

$$\Delta PMS \sim \Delta QMR$$

Hence,

$$\frac{MS}{MR} = \frac{25.2}{16.8} \quad \dots\dots(i)$$

Now, $\Delta PQM \sim \Delta SRM$

Hence,

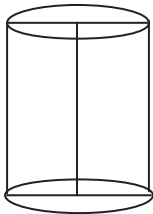
$$\frac{x}{14} = \frac{MS}{MR} \quad \dots\dots(ii)$$

From (1) and (2),

$$\frac{x}{14} = \frac{25.2}{16.8}$$

$$\therefore x = 21 \text{ cm}$$

60. (4)



$$\text{CSA of cylinder} = 462 \text{ cm}^2$$

$$\text{Base area} = 346.5 \text{ cm}^2$$

$$\pi r^2 = 346.5$$

$$r = \sqrt{\frac{346.5}{22}} \times 7 = 10.5 \text{ cm}$$

$$\text{CSA of cylinder} = 2\pi rh$$

$$462 = 2 \times \frac{22}{7} \times 10.5 \times h$$

$$h = \frac{462 \times 7}{44 \times 10.5} = 7 \text{ cm}$$

$$\therefore \text{Volume} = \pi r^2 h = \frac{22}{7} \times 10.5 \times 10.5 \times 7 = 2425.5 \text{ cm}^3$$

61. (4) Area of square = 1764 sq. cm

$$\text{Side} = \sqrt{1764} = 42 \text{ cm}$$

Radius of circle = 42 cm

$$\text{Length of rectangle} = 42 \times \frac{2}{3} = 28 \text{ cm}$$

Breadth = 15 cm

$$\therefore \text{Area} = 28 \times 15 = 420 \text{ cm}^2$$

62. (1) Required ratio = $8 \times \frac{75}{100} : 9 \times \frac{200}{3} \times \frac{1}{100} : 15 \times \frac{80}{100}$

$$= 8 \times 75 : 3 \times 200 : 15 \times 80 = 8 \times 3 : 3 \times 8 : 3 \times 16 = 1 : 1 : 2$$

63. (1) $O(x, y) = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$, where, $x_1 = -3$, $x_2 = 5$, $y_1 = 4$ and $y_2 = 6$

$$O(x, y) = \left(\frac{-3 + 5}{2}, \frac{4 + 6}{2} \right)$$

$$O(x, y) = (1, 5)$$

64. (4) Let dimensions of the rectangular stone be $3x$, $2x$ and x respectively.

Volume of stone = 10368

$$3x \times 2x \times x = 10368$$

$$6x^3 = 10368$$

$$x^3 = 1728$$

$$x = 12$$

Dimensions are 36 dm, 24 dm and 12 dm.

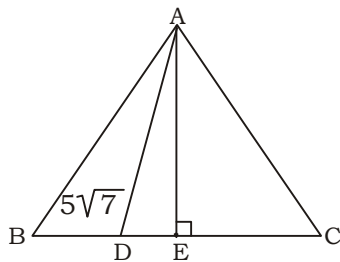
Entire surface area of a stone = $2(lb + bh + hl)$

$$= 2(36 \times 24 + 24 \times 12 + 12 \times 36)$$

$$= 2(864 + 288 + 432) = 3168 \text{ dm}^2$$

$$\therefore \text{Total cost of polishing} = 3168 \times 0.02 = ₹63.36$$

65. (4)



$$9AD^2 = 7AB^2 \text{ (By theorem)}$$

$$9 \times (5\sqrt{7})^2 = 7 \times AB^2$$

$$7AB^2 = 1575$$

$$\therefore AB = \sqrt{\frac{1575}{7}} = 15 \text{ cm}$$

66. (1) Required average = $\frac{2 \times 18 + 3 \times 21}{2 + 3} = \frac{36 + 63}{5} = \frac{99}{5} \text{ kg}$

Overall profit = 20%

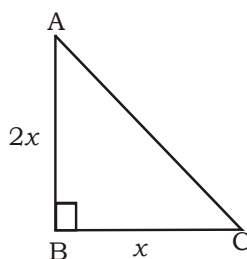
$$\text{Total S.P.} = 450 + 450 \times \frac{20}{100} = ₹540$$

$$\text{S.P. of } \frac{1}{3} \text{ rd goods} = 450 \times \frac{1}{3} \times \frac{90}{100} = ₹135$$

So, S.P. of rest goods = ₹(540 - 135) = ₹405

$$\therefore \text{Profit\%} = \frac{405 - 300}{300} \times 100 = 35\%$$

68. (3)



$$AC = \sqrt{(2x)^2 + x^2} = \sqrt{5}x$$

$$\sin A = \frac{x}{\sqrt{5}x} = \frac{1}{\sqrt{5}}$$

$$\cot C = \frac{x}{2x} = \frac{1}{2}$$

$$\therefore \sin A + \cot C = \frac{1}{\sqrt{5}} + \frac{1}{2} = \frac{2 + \sqrt{5}}{2\sqrt{5}}$$

69. (3) Let radius of circle be x cm, side of square be y cm and side of equilateral triangle be z cm.

ATQ,

$$2\pi x = 4y = 3z$$

$$x = \frac{4y}{2\pi} = \frac{2y}{\pi}$$

$$z = \frac{4y}{3}$$

$$\text{Area of circle 'C'} = \pi x^2 = \pi \times \frac{4}{\pi^2} y^2 = \frac{4}{\pi} y^2 > y^2$$

$$\text{Area of square, } S = y^2$$

$$\text{Area of triangle 'T'} = \frac{\sqrt{3}}{4} z^2 = \frac{\sqrt{3}}{4} \times \frac{4 \times 4}{3 \times 3} y^2 = \frac{4}{3\sqrt{3}} y^2$$

$$\text{or, } \frac{4}{3\sqrt{3}} < y^2$$

$$\therefore T < S < C$$

70. (2) $18 \text{ carat gold} = \frac{3}{4} \text{ pure gold} = \frac{3}{4} \times 24 = 18$

$20 \text{ carat gold} = \frac{5}{6} \text{ pure gold} = \frac{5}{6} \times 24 = 20$

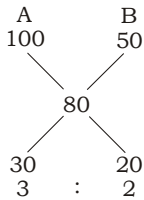
\therefore Required ratio = $18 : 20 = 9 : 10$

71. (4) CP of 1000 kg of mixture

$110000 - 30000 = ₹ 80000$

\therefore CP of one kg of mixture = ₹80

By the method of alligation :



Required ratio = $3 : 2$

72. (4) $\frac{3}{5}$ % of total distance

$40 \times 3 + 60 \times 4.5$

$= 120 + 270 = 390 \text{ km}$

Total distance = $\frac{390}{3} \times 5 = 650 \text{ km}$

Remaining distance = $650 - 390 = 260 \text{ km}$

\therefore Average speed = $\frac{260}{4} = 65 \text{ kmph}$

73. (3) Let the appeared candidates in the year 1992 = 500

and qualified candidates in the year 1992 = 400

Number of qualified female candidate = $\frac{400}{8} \times 3 = 150$

\therefore Required% = $\left(\frac{150}{500} \times 100 \right) \% = 30\%$

74. (3) Total no of student in

B. A = $42 + 50 + 40 + 45 + 48 + 52 = 277$

MBA = $50 + 45 + 42 + 52 + 60 = 301$

BSC = $38 + 46 + 54 + 50 + 48 + 54 = 290$

M.Com = $58 + 45 + 46 + 40 + 55 + 42 = 286$

\therefore Required answer is B.A

75. (3) Percentage of student who success out of the students joined in

$$2010 = \left(\frac{5700 \times 18}{8550 \times 22} \times 100 \right) \% = 54.54\%$$

$$2011 = \left(\frac{5700 \times 17}{8550 \times 15} \times 100 \right) \% = 75.55\%$$

$$2015 = \left(\frac{5700 \times 15}{8550 \times 12} \times 100 \right) \% = 83.33\%$$

$$2016 = \left(\frac{5700 \times 12}{8550 \times 16} \times 100 \right) \% = 50\%$$

∴ Required answer is 2015.

KD

Campus

K D Campus Pvt. Ltd

1997, GROUND FLOOR OPPOSITE MUKHERJEE NAGAR POLICE STATION, OUTRAM LINES, GTB NAGAR, NEW DELHI – 09

MEANINGS IN ALPHABETICAL ORDER

Affluent	(especially of a group or area) having a great deal of money; wealthy	धनी
Arable	(of land) used or suitable for growing crops	कृषि योग्य
Connoisseur	an expert judge in matters of taste	विशेषज्ञ
Contemporaries	a person or thing living or existing at the same time as another	समकालीन
Convalescent	(of a person) recovering from an illness or operation	जानेवाला
Debonair	confident, stylish, and charming (typically used of a man)	खुशमिजाज
Demagogue	a political leader who seeks support by appealing to the desires and prejudices of ordinary people rather than by using rational argument	दुर्जनों का नेता
Denominator	the number below the line in a common fraction; a divisor	भाजक
Destitute	without the basic necessities of life	निराश्रित
Dilettante	a person who cultivates an area of interest, such as the arts, without real commitment or knowledge	पतला
Feign	pretend to be affected by (a feeling, state, or injury)	बहाना करना
Feint	a deceptive or pretended blow, thrust, or other movement, especially in boxing or fencing	भुलावा
Gnash	grind (one's teeth) together, typically as a sign of anger	दांत पीसना
Inception	the establishment or starting point of an institution or activity	आरंभ
Parity	the state or condition of being equal, especially regarding status or pay	समानता
Pleasant	giving a sense of happy satisfaction or enjoyment	सुखद
Plump	having a full rounded shape	मोटा
Privy	sharing in the knowledge of (something secret or private)	गुप्त
Sprawling	spreading out over a large area in an untidy or irregular way	विशाल
Sprout	(of a plant) put forth shoots	अंकुर
Sterilised	made free from bacteria or other living microorganisms	रोगाणु
Venerable	accorded a great deal of respect, especially because of age, wisdom, or character	सम्मानित

SSC MOCK TEST - 434 (ANSWER KEY)

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

76. (1) Change 'I and Radhika' into 'Radhika and I'. When First Person and Third Person pronouns come in a sentence, Third Person pronoun is followed by First Person pronoun.
77. (3) Replace 'and' by 'but'. 'But for' means 'without'.
86. (2) A conditional sentence takes following form:
 (i) if + sub + had + v₃, sub + would have + v₃ +
 or
 (ii) Had + sub + v₃, sub + would have + v₃ +
87. (4) Since the Reporting verb is in Past Tense, 'would' should be used in Indirect Speech.
90. (2) The correct spelling of 'Convelescent' is 'Convalescent'.
91. (2) The correct spelling of 'Demogogue' is 'Demagogue'.