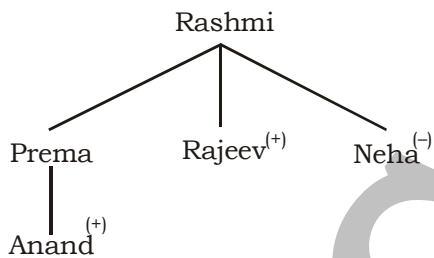


SSC MOCK TEST - 442 (SOLUTION)

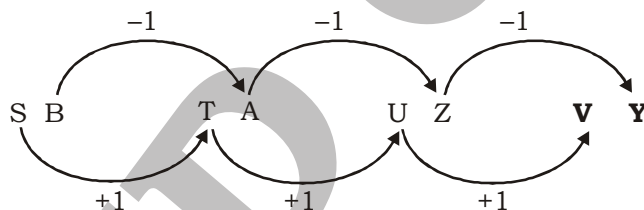
1. (3) Gambler goes to Casino, while Clerk goes to office.
2. (1) As,
 $M_{(13)} N_{(14)} \rightarrow (1 + 3) (1 + 4) \rightarrow 45$
 Similarly,
 $P_{(16)} R_{(18)} \rightarrow (1 + 6) (1 + 8) \rightarrow 79$
3. (4) As,
 $9^2 - 8^2 - 7^2 = -32$
 Similarly,
 $4^2 - 3^2 - 2^2 = 3$
4. (3) Except option (3), others are divisible by 13.
5. (4) Except Lion, others are herbivorous animals.
6. (3) (1) $1^2 + 9^2 + 2^2 + 0^2 = 86$
 (2) $2^2 + 2^2 + 2^2 + 3^2 = 21$
 (3) $2^2 + 5^2 + 2^2 + 6^2 = 69 \neq 72$
 (4) $8^2 + 9^2 = 145$
7. (4) 1. Pitiful \rightarrow 3. Pitiless \rightarrow 2. Plague \rightarrow 5. Plankton \rightarrow 4. Plaque

8. (2)



Anand is grandson of Rashmi.

9. (1)



10. (2)

$$17 + 4^2 = 33$$

$$33 + 5^2 = 58$$

$$58 + 6^2 = 94$$

$$94 + 7^2 = \mathbf{143}$$

11. (2)

From figure (i) and (ii), we can conclude that the alphabet C, D, A and E lie adjacent to the F. Thus, B lie opposite to F.

12. (4)

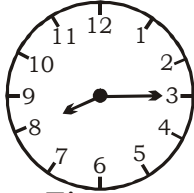
Column Ist figure,
 $49 - 36 = 13 \Rightarrow 13 \times 10 = 130$

Column IInd figure,
 $25 - 14 = 11 \Rightarrow 11 \times 10 = 110$

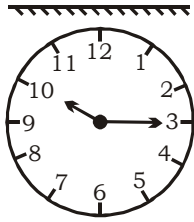
Column IIIrd figure,
 $35 - \mathbf{23} = 12 \Rightarrow 12 \times 10 = 120$

21. (1)

22. (2)



Figure



Image

The time in the clock will show 10:15.

23. (4) Words formed with the letters SDEU \Rightarrow USED, DUES and SUED

24. (1)

25. (4) Order of bags with respect to weight :

$S > T > W > V$

26. (3) Sama Veda is perhaps the earliest human literature on music. It naturally incorporates music, mantra, chhanda, linguistics, and above all, a reflection of the world view of rishis who communicated in the Arsha language, precursor to the more regimented Girvan (later called Sanskrit).

27. (4) In Deccan (South India), Alauddin's army led by Malik Kafur defeated Ram Chandra (Yadava ruler of Devagiri), PratapRudradeva (Kakatiya ruler of Warangal), VirBallal III (Hoyasala ruler of Dwarsamudra and VirPandya (Pandya ruler of Madurai).

29. (3) The word latex is also used to refer to natural latex rubber, particularly non-vulcanized rubber.

31. (1) Japan has the oldest unamended constitution in the world.

33. (3) A 40% solution of Formaldehyde known as Formalin is used in the preservation of biological specimens because of its hardening action on proteins.

34. (1) The Netherlands became India's third largest export destination in 2023-24, following the U.S. and UAE, despite a 3% dip in India's overall merchandise shipments.

38. (3) Krishna Prakash, renowned for leading Mumbai Police's counterterrorism unit, Force One, has received the Annual Hindi Sahitya Bharati Award at Mumbai's Sab Me Ram Shashwat Shri Ram event.

39. (1) Mallikarjun Mansur (31 December 1910 - 12 September 1992) was an Indian classical singer from Karnataka, an excellent vocalist in the khyal style in the Jaipur-Atrauligharana (singing style).

42. (1) International Date Line: The meridians of longitude are drawn joining the two poles through 360 divisions of the Equator. Each division shows 1 degree. Thus there are 360 lines which are di-vided into two groups each of 180 lines. There are 180 degrees of longitude to the east and 180 degrees to the west of Greenwich. The 180th line is one line only and it is known as the International Date Line.

43. (3) Indian Constitution empowers the President of India to convene the session of Parliament such that there should not be more than six months gap between two consecutive Parliament sessions.
44. (2) The Pahlavi dynasty was the ruling dynasty of Iran from 1925 to 1979.
46. (4) The Tibetan New Year Festival is popularly known as Losar in Sikkim. The people of Sikkim celebrate Losar in the month of February. The festivity continues through different culture performances for as long as one week.
47. (1) Halla Tomasdottir has been elected as Iceland's seventh President and will take office on 1 August 2024, succeeding Guana Johannesson.
48. (2) Comptroller and Auditor General of India (CAG): The Constitution of India (Article-148) provides for an independent office of the Comptroller and Auditor General of India (CAG). He is the head of the Indian Audit and Accounts Department.
50. (2) Silver nitrate is the basic substance from which silver bromide is obtained. The photographic films are impregnated with the light sensitive silver bromide (AgBr).

51. (1) Required percentage = $\left(\frac{10+5+4+3}{9+15+18+22+14+10+5+4+3} \times 100\right)\% = 22\%$

52. (3) Required percentage = $\left(\frac{4+3}{9+15+18+22+14+10+5+4+3} \times 100\right)\% = 7\%$

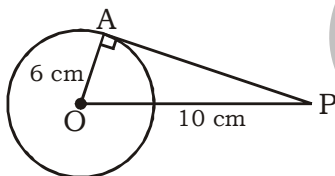
53. (2) Required percentage = $\left(\frac{18+22}{9+15+18+22+14+10+5+4+3} \times 100\right)\% = 40\%$

54. (3)

A	B	C
80	100	125

$$\text{Required \%} = \frac{125 - 80}{125} \times 100 = 36\%$$

55. (4)



So, length of PA = $\sqrt{(PO)^2 - (OA)^2}$
 $= \sqrt{(10)^2 - (6)^2} = 8 \text{ cm}$

56. (3) $\tan \theta = \frac{p}{q}$ [given]

$$\frac{p \sin \theta - q \cos \theta}{p \sin \theta + q \cos \theta} = \frac{\frac{p}{q} \tan \theta - 1}{\frac{p}{q} \tan \theta + 1}$$

$$= \frac{\frac{p}{q} \times \frac{p}{q} - 1}{\frac{p}{q} \times \frac{p}{q} + 1} = \frac{p^2 - q^2}{p^2 + q^2}$$

57. (1) $x + y = 2z$

$x = 2z - y$

$x - z = 2z - y - z$

$x - z = z - y$

$\therefore \frac{x}{x-z} + \frac{z}{y-z} = \frac{x}{x-z} - \frac{z}{z-y}$

$= \frac{x}{x-z} - \frac{z}{x-z} = \frac{x-z}{x-z} = 1$

58. (2) Length of train = $\frac{\text{length of platform} \times \text{time taken to cross boy}}{\text{Diff. in time}} = \frac{350}{27-9} \times 9$

$= \frac{350 \times 9}{18} = 175 \text{ m}$

59. (2) $1 + \frac{1}{2 + \frac{1}{3 + \frac{1}{21}}} = 1 + \frac{1}{2 + \frac{1}{3 + \frac{5}{21}}}$

$= 1 + \frac{1}{2 + \frac{21}{68}} = 1 + \frac{1}{\frac{157}{68}}$

$= 1 + \frac{68}{157} = \frac{225}{157}$

60. (2) Ratio of values of 50 paise, 25 paise and 10 paise coins = $\frac{2}{2} : \frac{3}{4} : \frac{5}{10} = 4 : 3 : 2$

Sum of the ratio = $4 + 3 + 2 = 9$

Value of 25 paise coins = $\frac{3}{9} \times 90 = ₹ 30$

Number of 25 paise coins = $30 \times 4 = 120$

61. (1) Here, $12 - 2 = 10$

$16 - 6 = 10$

$24 - 14 = 10$

Now, LCM of 12, 16 and 24 = 48

The greatest 4-digit number exactly divisible by 48 = 9984

\therefore Required number = $9984 - 10 = 9974$

62. (1) A 15 \rightarrow 4 bricks/hour
 B 20 \rightarrow 3 bricks/hour
 (60) Total work units

Together (A + B) can add $(4 + 3) = 7$ bricks/hour

ATQ,

They build the wall in 12 hours

∴ Per hour work = $\frac{60}{12} = 5$ bricks/hour

(7 - 5) units → 280 bricks

2 units → 280 bricks

1 unit → $\frac{280}{2} = 140$ bricks

60 units → $140 \times 60 = 8400$ bricks

63. (2) We know that

$$l = a + (n - 1)d \rightarrow \begin{array}{l} \text{common} \\ \text{Diff.} \end{array}$$

\swarrow last term \downarrow first term \searrow no. of terms

Here,

$l = 4950$

$a = 1125$

$d = 225$

So,

$4950 = 1125 + (n - 1)225$

$(4950 - 1125) = (n - 1)225$

$(n - 1) = \frac{3825}{225}$

$(n - 1) = 17$

$n = 17 + 1 = 18$

64. (1) That month will have 5 Sundays.

∴ Required average = $\frac{5 \times 510 + 25 \times 240}{30} = \frac{2550 + 6000}{30}$

= $\frac{8550}{30} = 285$

65. (3) $25\% = \frac{1}{4}$

Vivek	Aryan	Ram
3	4	5

Ratio = 3 : 4 : 5

∴ Required Percentage = $\frac{2}{3} \times 100 = 66.66\%$

66. (3)

CP	:	SP
(100 - 12.5)	:	(100 + 5)
87.5	:	105
35	:	42
$\xrightarrow{\quad +7 \quad}$		

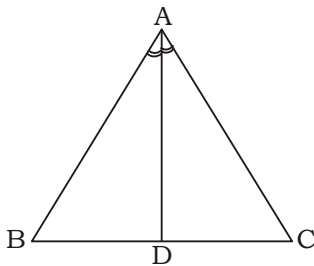
∴ Required percentage = $\frac{7}{35} \times 100 = 20\%$

67. (3) $a^2 + b^2 + 2b + 4a + 5 = 0$
 $a^2 + 4a + b^2 + 2b + 5 = 0$
 $a^2 + 4a + 4 + b^2 + 2b + 1 = 0$
 $(a + 2)^2 + (b + 1)^2 = 0$
 It is possible only when
 $a + 2 = 0$
 $a = -2$ and, $b + 1 = 0$
 $b = -1$

$\therefore \frac{a-b}{a+b} = \frac{-2+1}{-2-1} = \frac{-1}{-3} = \frac{1}{3}$

68. (4) $4\pi(r+2)^2 - 4\pi r^2 = 704$
 $(r+2)^2 - r^2 = \frac{704}{4\pi}$
 $r^2 + 4r + 4 - r^2 = \frac{704 \times 7}{4 \times 22} = 56$
 $4r = 56 - 4 = 52$
 $r = 13$ m

69. (1)

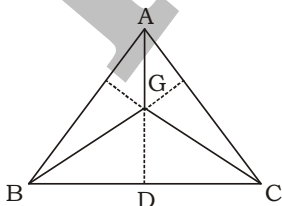


$$\frac{AB}{AC} = \frac{BD}{DC} = \frac{5}{7.5 - 5}$$

$$= \frac{50}{25} = \frac{2}{1} = 2 : 1$$

70. (1) Expression = $\sqrt[3]{p(p^2 - 3p + 3)} - 1$
 $= \sqrt[3]{p^3 - 3p^2 + 3p - 1} = \sqrt[3]{(p-1)^3} = p - 1$
 $= 101 - 1 = 100$

71. (4)



Area of $\triangle ABC = 6 \times \text{ar}(\triangle BGD) = 6 \times 6 = 36 \text{ cm}^2$

72. (1) $(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$

$$(4\sqrt{3})^2 = 16 + 2(ab + bc + ca)$$

$$48 = 16 + 2(ab + bc + ca)$$

$$2(ab + bc + ca) = 48 - 16 = 32$$

$$ab + bc + ca = 16$$

73. (4) $40\% = \frac{2}{5}$

$\begin{array}{r} 5 \\ 5 \\ 5 \\ \hline 125 \\ \downarrow \times 400000 \\ \boxed{50,000000} \end{array}$ <p style="text-align: center; margin-top: 5px;">Three years ago</p>	$\begin{array}{r} 7 \\ 7 \\ 7 \\ \hline 343 \\ \downarrow \times 400000 \\ \boxed{137200000} \end{array}$ <p style="text-align: center; margin-top: 5px;">Present value</p>
---	---

74. (3) $40\% = \frac{2}{5}$, $25\% = \frac{1}{4}$

$$\begin{array}{l} A : B : C \\ 2 : 5 \\ \hline 1_{\times 5} : 4_{\times 5} \\ 2 : 5 : 20 \end{array}$$

$$\therefore \text{Required\%} = \frac{20-2}{2} \times 100 = 900\%$$

75. (1) $5a + \frac{1}{3a} = 5$

Multiply by $\frac{3}{5}$ on both sides,

$$5 \times \frac{3}{5}a + \frac{3}{5} \times \frac{1}{3a} = 5 \times \frac{3}{5}$$

$$3a + \frac{1}{5a} = 3$$

$$\therefore 9a^2 + \frac{1}{25a^2} + \frac{6}{5} = 9$$

$$9a^2 + \frac{1}{25a^2} = 9 - \frac{6}{5} = \frac{39}{5}$$

MEANINGS IN ALPHABETICAL ORDER

Assorted	of various sorts put together; miscellaneous	मिश्रित
Dirge	a lament for the dead, especially one forming part of a funeral rite	शोकगीत
Disparate	essentially different in kind; not allowing comparison	मुक्तलिफ
Docile	ready to accept control or instruction; submissive	विनम्र
Effete	(of a person) affected, overrefined, and ineffectual	अशक्त
Epicure	a person who takes particular pleasure in fine food and drink	रसिया
Felony	a crime, typically one involving violence	घोर अपराध
Grime	dirt ingrained on the surface of something	जमी हुई कीट
Homogenous	of the same kind; alike	सजातीय
Incursion	an invasion or attack, especially a sudden or brief one	चढ़ाई
Infallible	incapable of making mistakes or being wrong	अचूक
Irrevocable	not able to be changed, reversed, or recovered; final	स्थिर
Kaleidoscopic	having complex patterns of colors; multicolored	जल्दी जल्दी बदलता हुआ
Motley	incongruously varied in appearance or character; disparate	पंचमेल
Retreat	(of an army) withdraw from enemy forces as a result of their superior power or after a defeat	पीछे हटना
Rotund	(of a person) plump	गोल
Spine	the backbone	रीढ़ की हड्डी
Supple	bending and moving easily and gracefully; flexible	कोमल
Venial	denoting a sin that is not regarded as depriving the soul of divine grace	क्षम्य
Vertebrae	each of the series of small bones forming the backbone	कशेरुका
Violation	the action of violating someone or something	उल्लंघन

SSC MOCK TEST - 442 (ANSWER KEY)

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

76. (3) Add 'to' after 'reach'.

77. (2) Replace 'about' by 'for'.

90. (4) The correct spelling of 'Legitemacy' is 'Legitimacy', 'Suprimacy' is 'Supremacy' and 'Idiosy' is 'Idiocy'.

91. (1) The correct spelling of 'Grivence' is 'Grievance', 'Resemblence' is 'Resemblance' and 'Allowence' is 'Allowance'.