

SSC MOCK TEST - 424 (SOLUTION)

1. (4) As,

L	→ opposite →	O	↑	L
E	→ opposite →	V		E
N	→ opposite →	M		V
E	→ opposite →	V		M
V	→ opposite →	E		V
O	→ opposite →	L		O

Similarly,

F	→ opposite →	U	↑	I
I	→ opposite →	R		V
N	→ opposite →	M		T
G	→ opposite →	T		M
E	→ opposite →	V		R
R	→ opposite →	I		U

2. (3) Human take Oxygen, while Tree take Carbon dioxide.

3. (4) 'Henry', 'Siemen', Hertz are Measuring unit of Inductance, Conductance and Frequency respectively, while Resistance is a electrical parameter whose measuring unit is ohm.

4. (1) (A) $7 \rightarrow 7^2 \rightarrow 49 = 4 + 9 = 13 \neq 15$
 (2) $8 \rightarrow 8^2 \rightarrow 64 = 6 + 4 = 10$
 (3) $9 \rightarrow 9^2 \rightarrow 81 = 8 + 1 = 9$
 (4) $10 \rightarrow 10^2 \rightarrow 100 = 1 + 0 + 0 = 1$

5. (4) As,

G ₇	→ Consonant ×2 →	14
R ₁₈	→ Consonant ×2 →	36
A ₁	→ Vowel ×3 →	3
D ₄	→ Consonant ×2 →	8
U ₂₁	→ Vowel ×3 →	63
A ₁	→ Vowel ×3 →	3
T ₂₀	→ Consonant ×2 →	40
E ₅	→ Vowel ×3 →	15

Similarly,

R ₁₈	→ Consonant ×2 →	36
E ₅	→ Vowel ×3 →	15
L ₁₂	→ Consonant ×2 →	24
A ₁	→ Vowel ×3 →	3
T ₂₀	→ Consonant ×2 →	40
I ₉	→ Vowel ×3 →	27
V ₂₂	→ Consonant ×2 →	44
E ₅	→ Vowel ×3 →	15

6. (3) $25 \quad 36 \quad 52 \quad 74 \quad 103 \quad 140$
 $\quad \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow$
 $\quad \quad +11 \quad +16 \quad +22 \quad +29 \quad +37$
 $\quad \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow$
 $\quad \quad +5 \quad +6 \quad +7 \quad +8$

7. (4) P N N A R P P E T R R I V T T M X V V Q
 $\quad \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow$
 $\quad \quad +2 \quad +2 \quad +2 \quad +2 \quad +2 \quad +2 \quad +2 \quad +2 \quad +2 \quad +2$
 $\quad \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow$
 $\quad \quad +4 \quad +4 \quad +4 \quad +4$

8. (3) _ _ K _ _(i)

M > T > K(ii)

From equation (i) and (ii),

M > T > K > _ > _

Hence, three students are smaller than T.

9. (1) As, $(26 - 19)^2 = 49$

Similarly, $(25 - 17)^2 = 64$

10. (1) H H Z B H / O Z C H O / Z D H O H / E H O Z F

11. (1)

12. (3) **In first row,**

$$(13 + 12) + (13 + 12)^2 = 650$$

In second row,

$$(15 + 16) + (15 + 16)^2 = 992$$

In third row,

$$(8 + 9) + (8 + 9)^2 = 306$$

13. (2) $39 \div 3 \times 13 + 26 - 13 = 2$

After changing \div and $-$,

$$39 - 3 \times 13 + 26 \div 13 = 2$$

$$39 - 39 + 2 = 2$$

$$2 = 2$$

14. (2) 4. Nomination \rightarrow 5. Campaign \rightarrow 1. Polling \rightarrow 3. Result \rightarrow 2. Sworn

15. (2) Let the present age of son be x years.

Father's age = $2x$ years

ATQ,

$$(x - 10) \times 3 = 2x - 10$$

$$3x - 30 = 2x - 10$$

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

\therefore Present age of son = 20 years

16. (2) Let at $6 : x$ O'clock will the hand of a clock be at right angle.

$$x \times \frac{11}{2} - 6 \times 30 = 90$$

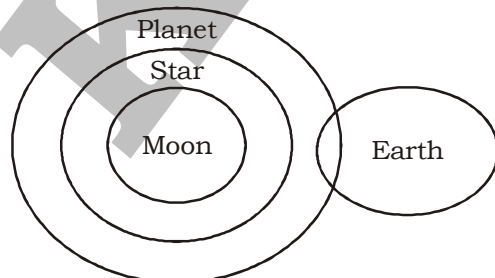
$$\frac{11x}{2} = 90 + 180$$

$$\frac{11x}{2} = 270$$

$$x = \frac{540}{11} = 49 \frac{1}{11} \text{ minute}$$

Hence at $6 : 49 \frac{1}{11}$ O'clock will the hand of clock be at right angle.

17. (3)



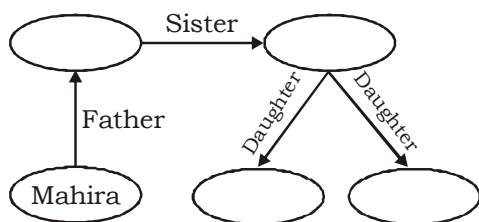
I. False II. False III. True

Hence, only conclusion III follows.

18. (2)

19. (1)

20. (3)



Hence, Mahira is the cousin of those girls.

21. (2)

In 100 years there are 5 odd day's
Last day of first century is Friday.

In 200 years there are = $5 \times 2 = \frac{10}{7}$ (3 odd days)

Last day of 2nd century is Wednesday.

In 300 years there are = $5 \times 3 = \frac{15}{7}$ (1 odd days)

Last day of 3rd century is Monday.

In 400 years there are = 0 odd days.

∴ Last day of 4th century is Sunday. This cycle is repeated.

Last day of century can not be, Tuesday, Thursday and Saturday.

22. (2)

As, M A D N E S S
 @ ! ^ % * ? ?

And, L O V E
 > & \$ *

Similarly, **S E L D O M**
 ? * > ^ & @

23. (2)

24. (2)

25. (1)

26. (2)

Amazon is the greatest river in the world by so many measures; the volume of water it carries to the sea (approximately 20% of all the freshwater discharge into the oceans), the area of land that drains into it, and its length and width. It is one of the longest rivers in the world.

28. (1)

BRICS is the acronym for an association of five major emerging national economies: Brazil, Russia, India, China and South Africa. Originally the first four were grouped as "BRIC", before the induction of South Africa in 2010. The BRICS members are all leading developing or newly industrialized countries.

29. (3)

"Public interest Litigation", in simple words, means litigation filed in a court of law, for the protection of "Public Interest", such as Pollution, Terrorism, Road safety, Constructional hazards etc. Any matter where the interest of public at large is affected can be redressed by filing a Public Interest Litigation in a court of law.

31. (2)

The Indian Air Force (IAF) conducted Exercise Desert Knight with the French Air and Space Force (FASF) and the United Arab Emirates (UAE) Air Force on January 23–24, 2024. The exercise took place over the Arabian Sea, with the IAF operating from its west coast bases and the UAE and France operating from Al Dhafra airbase.

32. (4)

Sankalp is a pilot project, launched by the Employees' State Insurance Corporation (ESIC) in collaboration with the Hindustan Latex Family Planning Promotion Trust, to prevent fresh HIV positive cases among members of the ESIC in the State through awareness camps.

33. (2)

Mixed melting point is considered to be the best criteria for purity of a substance. The purified sample is mixed with a small quantity of pure compound and melting point of mixture is determined. If melting point of mixture is same as that of the pure compound, the sample compound is pure, otherwise it requires further purification.

34. (1) Remote sensing is the acquisition of information about an object or phenomenon without making physical contact with the object and thus in contrast to on site observation. Remote sensing is used in numerous fields, including geography and most Earth Science disciplines.
35. (1) The Antikythera mechanism is an ancient analogue computer and orrery used to predict astronomical positions and eclipses for calendrical and astrological purposes, as well as the Olympiads, the cycles of the ancient Olympic Games.
36. (2) Alauddin Khilji was a militarist and imperialist to the core. He was very ambitious. Alauddin, whose original name was Ali Gurshap, assumed the title Sikandar-i-Sani (Alexander the Second) and proclaimed Delhi as Dar-ul-Khilafa (Seat of the Caliphate).
37. (3) A 42-day Mahamandal festival commenced at the Ram Mandir in Ayodhya following the Pran Pratishtha of Ram Lalla. Starting on January 24, the festival, overseen by Ram Mandir trustee Jagadguru Vishvesh Prapann Tirtha, includes daily Kalash puja and worship with forty-eight urns in the sanctum sanctorum.
39. (2) Each kidney is made up of about a million filtering units called nephrons. Each nephron filters a small amount of blood. The nephron includes a filter, called the glomerulus and a tubule. The nephrons work through a two-step process.
40. (4) The Union Cabinet approved a policy for long-term leasing of railway land for the PM Gati Shakti programme.
42. (2) The International Development Association (IDA) is an international financial institution which offers concessional loans and grants to the world's poorest developing countries. The IDA is a member of the World Bank Group and is headquartered in Washington, D.C., United States.
43. (3) Himalaya Diwas is celebrated every year on 9 September in the state of Uttarakhand, with an aim to conserve Himalayan ecosystem and region. It was officially declared as Himalaya Day in 2015 by the state's then Chief Minister.
44. (1) A new plant species, 'Andrographis theniensis,' was discovered in Tamil Nadu's Theni district in the Western Ghats. Named after its location, the plant closely resembles Andrographis megamalayana, featuring glabrous leaves and stems, a nine-veined lower lip, pale yellowish sparse hair on the middle lobe, and yellow anther. Andrographis, a tropical Asian genus, is known for treating various ailments in traditional medicine systems.
47. (4) Mumps is a relatively mild short term viral infection of the salivary glands that usually occurs during childhood. The salivary glands are also called the parotid glands; therefore, mumps is some times referred to as an inflammation of the parotid glands (epidemic parotitis).
49. (4) Taxes on tooth paste come under GST which is administered by State government. Sales tax is paid to sales tax authority in the state from where the goods are moved.
50. (1) Wajid Ali Shah was the tenth and last Nawab of Awadh, holding the position for 9 years, from February 13, 1847 to February 11, 1856. He was the Nawab when Awadh merged into British Empire.
51. (2)
$$\text{Profit \%} = \frac{\text{Real Weight} - \text{False Weight}}{\text{False Weight}} \times 100$$

$$= \left(\frac{1000 - 800}{800} \times 100 \right) \% = 25\%$$
52. (1) Ratio of efficiency of Rahim, Ram and Guru = 2 : 5 : 3
 Total work = 30 × (2 + 5 + 3) units = 300 units
 Time taken by Guru alone to complete the task = $\frac{300}{3} = 100$ hours
 Time taken by Guru to complete 60% of task = 60% of 100 = 60 hours

53. (3) Let the speed of three cars be x, y and z km/hours and distance between Begusarai and Patna be D km.

ATQ,

$$\left(\frac{D}{x} - \frac{D}{y} = \frac{D}{y} - \frac{D}{z} \right)$$

$$\frac{2D}{y} = \frac{D}{x} + \frac{D}{z}$$

$$\frac{2}{y} = \frac{1}{x} + \frac{1}{z} \quad \dots\dots\dots(i)$$

$$\frac{126}{x} - \frac{126}{y} = \frac{1}{4}$$

$$\frac{1}{x} - \frac{1}{y} = \frac{1}{4 \times 126} = \frac{1}{504} \quad \dots\dots\dots(ii)$$

Distance travel by third car when meet the first car = (126 + 18) km = 144 km

Distance travel by first car when meet the third car = (126 - 18) = 108 km

ATQ,

$$\frac{144}{z} = \frac{108}{x}$$

$$\frac{4}{z} = \frac{3}{x} \quad \dots\dots\dots(iii)$$

Adding equation (i) and from (ii) ×2,

$$\frac{2}{x} - \frac{2}{y} = \frac{2}{504}$$

$$\frac{2}{y} - \frac{1}{x} = \frac{1}{z}$$

$$\frac{1}{x} = \frac{2}{504} + \frac{1}{z}$$

$$\frac{3}{x} = \frac{6}{504} + \frac{3}{z}$$

$$\frac{4}{z} = \frac{1}{84} + \frac{3}{z} \quad \text{[From equation (ii)]}$$

$$\frac{1}{z} = \frac{1}{84}$$

$$z = 84$$

Speed of third car = 84 km/hr

54. (2) Cost price of TV = ₹7500

Profit = 15%

$$\text{SP of the TV} = ₹ 7500 \times \frac{115}{100} = ₹8625$$

$$\text{Discount} = \text{MP} - \text{SP} = 10000 - 8625 = ₹1375$$

Let the discount percentage = x%

ATQ,

$$\frac{10000 \times x}{100} = 1375$$

$$x = 13.75\%$$

55. (4) Radii of faces of the frustum of cone = 6 cm and 4 cm

Height of frustum of cone = 10.5 cm

$$\text{Volume of frustum of cone} = \frac{1}{3} \pi h [R^2 + r^2 + Rr]$$

$$= \frac{1}{3} \times \frac{22}{7} \times 10.5 [6^2 + 4^2 + 6 \times 4]$$

$$= \frac{1}{3} \times \frac{22}{7} \times 10.5 \times 76 = 836 \text{ cm}^3$$

56. (2) $\sqrt{x} - \frac{1}{\sqrt{x}} = 2\sqrt{2}$

Squaring both sides,

$$x + \frac{1}{x} - 2 \times \sqrt{x} \times \frac{1}{\sqrt{x}} = 8$$

$$x + \frac{1}{x} - 2 = 8$$

$$x + \frac{1}{x} = 10$$

Squaring both sides,

$$x^2 + \frac{1}{x^2} + 2 \times x \times \frac{1}{x} = 100$$

$$x^2 + \frac{1}{x^2} = 98$$

57. (1) $\tan \theta = \cot(60^\circ + \theta)$

$$\tan[90^\circ - (90^\circ - \theta)] = \cot(60^\circ + \theta)$$

$$\cot(90^\circ - \theta) = \cot(60^\circ + \theta)$$

$$[\because \tan(90 - \theta) = \cot \theta]$$

$$90^\circ - \theta = 60^\circ + \theta$$

$$2\theta = 30^\circ$$

$$\therefore \theta = 15^\circ$$

58. (2) $\frac{\cos \theta}{1 - \sin \theta} + \frac{\cos \theta}{1 + \sin \theta} = 4$

$$\cos \theta \left[\frac{1 - \sin \theta + 1 + \sin \theta}{1 - \sin^2 \theta} \right] = 4$$

$$\frac{\cos \theta \times 2}{\cos^2 \theta} = 4$$

$$\frac{2}{\cos \theta} = 4$$

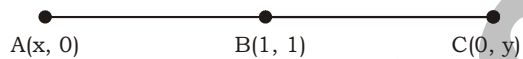
$$\cos \theta = \frac{1}{2} = \cos 60^\circ$$

$$\theta = 60^\circ$$

$$\therefore \tan \theta + \operatorname{cosec} \theta = \tan 60^\circ + \operatorname{cosec} 60^\circ = \left(\sqrt{3} + \frac{2}{\sqrt{3}} \right)$$

$$= \left(\frac{3+2}{\sqrt{3}} \right) = \frac{5}{\sqrt{3}} = \frac{5 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{5\sqrt{3}}{3}$$

59. (4) If the points are collinear then slope of AB = Slope of BC = Slope of AC



Slope of AB = Slope of BC = Slope of AC

$$\frac{1-0}{1-x} = \frac{y-1}{0-1} = \frac{0-y}{x-0}$$

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

$$(1-x)(y-1) = -1$$

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

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

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

$$-1 + \frac{1}{x} = \frac{1}{y}$$

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

60. (3) $(a + b + c)^2 = a^2 + b^2 + c^2 + 2(ab + bc + ca)$

$(2)^2 = 26 + 2(ab + bc + ca)$

$4 - 26 = 2(ab + bc + ca)$

$ab + bc + ca = -11$

$\therefore a^3 + b^3 + c^3 - 3abc = (a + b + c)(a^2 + b^2 + c^2 - ab - bc - ca)$
 $= 2[26 - (-11)] = 2 \times 37 = 74$

61. (4) Let the number male of be x and the number of female be y.

ATQ,

$$\frac{40.8x + 21y}{x + y} = 32$$

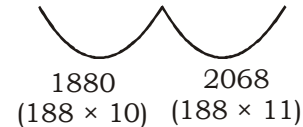
$40.8x + 21y = 32x + 32y$

$8.8x = 11y$

$$\frac{x}{y} = \frac{11}{8.8} = \frac{5}{4}$$

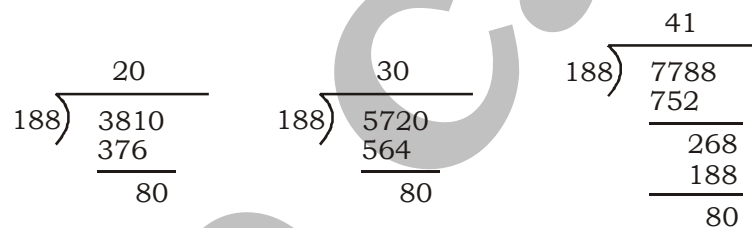
Required Percentage = $\frac{5}{9} \times 100 = \frac{500}{9}\% = 55\frac{5}{9}\%$

62. (3) 3840, 5720, 7788



So, the greatest number, d can be 188

Now,

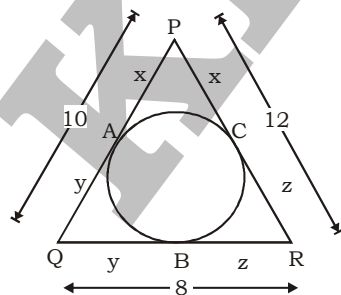


$r = 80 \quad r = 80 \quad r = 80$

In all three cases r is same.

So, $(d + r) = (188 + 80) = 268$

63. (1)



Let $PA = PC = x$ (Tangent from point P)

$QA = QB = y$ (Tangent from point Q)

$RB = RC = z$ (Tangent from point R)

Now,

$$x + y + y + z + z + x = 16 + 12 + 8$$

$$2(x + y + z) = 36$$

$$x + y + z = 18 \quad \text{.....(i)}$$

$$x + y = 16 \quad \text{.....(ii)}$$

$$y + z = 8 \quad \text{.....(iii)}$$

$$x + z = 12 \quad \text{.....(iv)}$$

Solving equation (i) and (iii)

$$\begin{array}{r} x + y + z = 18 \\ - y + z = 8 \\ \hline x = 10 \end{array}$$

Solving equation (i) and (iv)

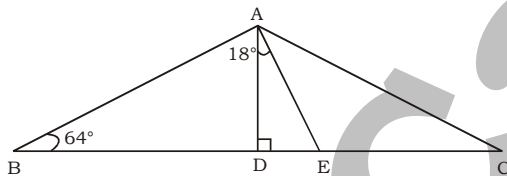
$$\begin{array}{r} x + y + z = 18 \\ - x + z = 12 \\ \hline y = 6 \end{array}$$

$$PC = x = 10 \text{ cm}$$

$$QB = y = 6 \text{ cm}$$

$$\therefore PC + QB = 10 + 6 = 16 \text{ cm}$$

64. (3)



In $\triangle ABD$,

$$\angle BAD = 180^\circ - 90^\circ - 64^\circ = 26^\circ$$

$$\angle BAE = 26^\circ + 18^\circ = 44^\circ$$

$$\angle BAE = \angle EAC = 44^\circ \text{ (AE is the angle bisector).}$$

In $\triangle ABC$,

$$\angle ACB = 180^\circ - 88^\circ - 64^\circ = 28^\circ$$

65. (1) Let total sum invested be $200x$.

$$200x \text{ of } \frac{2}{4} = 200x \times \frac{2}{4} = 100x$$

$$200x \text{ of } \frac{1}{5} = 200x \times \frac{1}{5} = 40x$$

$$\text{Remaining Amount} = 200x - (100x + 40x) = 60x$$

ATQ,

$$\frac{100x \times 4 \times 3}{100 \times 2} + \frac{40x \times 3 \times 10}{100 \times 3} + \frac{60x \times 5 \times 6}{100 \times 2} = 646$$

$$6x + 4x + 9x = 646$$

$$19x = 646$$

$$x = \frac{646}{19} = 34$$

$$x = 34$$

$$\therefore \text{Total sum} = 200x = 200 \times 34 = ₹6800$$

66. (1) $5\sin\theta - 4\cos\theta = 0$

$$5\sin\theta = 4\cos\theta$$

$$\therefore \frac{5\sin\theta - 2\cos\theta}{5\sin\theta + 3\cos\theta}$$

Putting the value of $5\sin\theta$

$$\frac{4\cos\theta - 2\cos\theta}{4\cos\theta + 3\cos\theta} = \frac{2\cos\theta}{7\cos\theta} = \frac{2}{7}$$

67. (3) Let the side of cube be x cm.

$$\text{Volume of cube} = (\text{side})^3 = x^3 \text{ cm}^3$$

Let the cube is cut along its height So, the sides of cuboid is x cm, x cm and $\frac{x}{3}$ cm.

$$\text{Total surface area of cuboid} = 2(lb + bh + lh) = 2\left(x \times x + x \times \frac{x}{3} + x \times \frac{x}{3}\right) \text{ cm}^2$$

$$= 2\left(x^2 + \frac{2x^2}{3}\right) \text{ cm}^2 = \frac{10x^2}{3} \text{ cm}^2$$

$$\text{Total surface area of cube} = 6 \times (\text{side})^2 = (6 \times x^2) \text{ cm}^2$$

$$\therefore \text{Required ratio} = 6x^2 : \left(2 \times \frac{10x^2}{3}\right) = 18x^2 : 20x^2 = 9 : 10$$

68. (2) $\frac{2}{3} \div \frac{3}{10}$ of $\frac{4}{9} - \frac{4}{5} \times 1 \frac{1}{9} \div \frac{8}{15} - \frac{3}{4} + \frac{3}{4} \div \frac{1}{2}$

$$= \frac{2}{3} \div \frac{12}{90} - \frac{4}{5} \times \frac{10}{9} \div \frac{8}{15} - \frac{3}{4} + \frac{3}{4} \div \frac{1}{2}$$

$$= \frac{2}{3} \times \frac{90}{12} - \frac{4}{5} \times \frac{10}{9} \times \frac{15}{8} - \frac{3}{4} + \frac{3}{4} \times \frac{2}{1}$$

$$= 5 - \frac{5}{3} - \frac{3}{4} + \frac{3}{2}$$

$$= \frac{60 - 20 - 9 + 18}{12} = \frac{49}{12} = 4 \frac{1}{12}$$

69. (4) 6 women can complete the work in 3 days.

Therefore 4 women can complete the work in $\frac{3 \times 6}{4} = \frac{9}{2}$ days

Work done by 4 women in 3 days = $\frac{3}{9} \times 2 = \frac{2}{3}$

Remaining work = $1 - \frac{2}{3} = \frac{1}{3}$

16 children do $\frac{1}{3}$ work in 3 days.

Now, $\frac{M_1 D_1}{W_1} = \frac{M_2 D_2}{W_2}$

$$\frac{16 \times 3}{\frac{1}{3}} = 9 \times D_2$$

$$D_2 = \frac{16 \times 3 \times 3}{9} = 16 \text{ days}$$

70. (2) The smallest 3 digit number divisible by 6 is 102 and the largest one is 996.

Let there be n such numbers.

The set of numbers forms an arithmetic sequence:

$$t_n = a + (n - 1)d$$

Here, $d = 6$, $a = 102$

$$996 = 102 + (n - 1)6$$

$$(n - 1)6 = 996 - 102 = 894$$

$$n - 1 = \frac{894}{6} = 149$$

$$n = 149 + 1 = 150$$

71. (1) Let the first term be a and common difference be d.

ATQ,

$$a + (3 - 1) \times d = 15$$

$$a + 2d = 15 \quad \dots\dots(i)$$

$$\text{And } a + (5 - 1) \times d = 23$$

$$a + 4d = 23 \quad \dots\dots(ii)$$

By subtracting equation (i) from (ii), we get

$$a + 2d - a - 4d = 15 - 23$$

$$2d = 8$$

$$d = 4$$

Put the value of d in equation (i),

$$a + 2 \times 4 = 15$$

$$a = 15 - 8 = 7$$

$$\therefore a_{15} = a + (15 - 1) \times d$$

$$= 7 + 14 \times 4 = 7 + 56 = 63$$

72. (4) Let the total distance covered by him be x km.

$$\text{Distance covered by car} = x \times \frac{1}{3} = \frac{x}{3} \text{ km}$$

$$\text{Distance covered by train} = x - \frac{x}{3} = \frac{2x}{3} \text{ km}$$

ATQ,

$$\frac{x}{3 \times 80} + \frac{2x}{3 \times 75} = 23 \frac{1}{2}$$

$$\frac{15x + 32x}{3600} = \frac{47}{2}$$

$$\frac{47x}{3600} = \frac{47}{2}$$

$$47x \times 2 = 3600 \times 47$$

$$x = \frac{3600 \times 47}{47 \times 2} = 1800 \text{ km}$$

\therefore Distance travelled by him = 1800 km

73. (1) Percentage of students in EC = 19%

Ratio = boys and girls = 9 : 10

$$\text{Percentage of boys in EC} = \left(19 \times \frac{9}{19} \right) \% = 9\%$$

$$\text{Percentage of girls in EC} = \left(19 \times \frac{10}{19} \right) \% = 10\%$$

$$\text{Difference in percentage} = \left(\frac{10 - 9}{19} \times 100 \right) \% = 5.26\%$$

Percentage of students in CS = 18%

Ratio of boys and girls = 4 : 5

$$\text{Percentage of boys in CS} = \left(18 \times \frac{4}{9} \right) \% = 8\%$$

$$\text{Percentage of girls in CS} = \left(18 \times \frac{5}{9} \right) \% = 10\%$$

$$\text{Difference in percentage} = \left(\frac{10 - 8}{18} \times 100 \right) \% = 11.11\%$$

Percentage of students in IT = 21%

Ratio of boys and girls = 3 : 4

$$\text{Percentage of boys in IT} = \left(21 \times \frac{3}{7} \right) \% = 9\%$$

$$\text{Percentage of girls in IT} = \left(21 \times \frac{4}{7} \right) \% = 12\%$$

$$\text{Difference in percentage} = \left(\frac{12 - 9}{21} \times 100 \right) \% = 14.28\%$$

Ratio of boys and girls = 6 : 5

$$\text{Percentage of boys in ME} = \left(22 \times \frac{6}{6+5}\right)\% = 12\%$$

$$\text{Percentage of girls in ME} = \left(22 \times \frac{5}{6+5}\right)\% = 10\%$$

$$\text{Difference in percentage} = \left(\frac{12-10}{22} \times 100\right)\% = 9.09\%$$

Hence difference in the percentage of boys and girls in EC is minimum.

74. (2) Total number of males who cast their votes from Bihar and Jharkhand together

$$= 26500 \times \frac{83}{100} \times \frac{3}{5} + 9200 \times \frac{91}{100} \times \frac{1}{2} = 13197 + 4186 = 17383$$

$$\therefore \text{Required \%} = \left(\frac{17383 - 4900}{4900} \times 100\right)\% = 254.75\% \approx 255\%$$

75. (4) Required % = $\left(\frac{21-18}{18} \times 100\right)\% = 16.66\%$

MEANINGS IN ALPHABETICAL ORDER

Altruist	a person unselfishly concerned for or devoted to the welfare of others	परोपकारी
Autonomy	the right or condition of self-government	स्वयं शासन
Commemorate	recall and show respect for someone or something	पुण्यस्मरण करना
Drastic	likely to have a strong or far-reaching effect	कठोर
Fatigue	extreme tiredness	थकान
Harmonize	add notes to a melody to produce harmony	स्वर योजन करना
Hinder	create difficulties for someone or something resulting in delay or obstruction	अड़चन करना
Indifference	lack of interest, concern, or sympathy	उदासीनता
Intervention	the action of preventing or altering a result or course of events	हस्तक्षेप
Noticeable	easily seen or noticed	उल्लेखनीय
Optimum	most conducive to a favorable outcome	इष्टतम
Perspective	a point of view	दृष्टिकोण
Priest	one who performs certain rites and administer certain sacraments in church	पादरी
Selflessness	concern more with the needs and wishes of others than with one's own	निस्वार्थता
Sovereignty	supreme power or authority	संप्रभुता
Vocalist	a singer	गायक

SSC MOCK TEST - 424 (ANSWER KEY)

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

76. (1) Instead of 'What is needed is', it should be 'what is needed are', as the subject of the sentence is 'proper guidelines' which is plural and it will take 'are' instead of 'is'.
77. (2) Change 'accepts', into 'accept', it comes for 'those people', and hence should be followed by a plural verb.
78. (1) 'To steal somebody's thunder' means 'to do what someone else was going to do before they do it, especially if this takes success or praise away from them.'
90. (4) The correct spelling of 'Noticeble' is 'Noticeable', 'Perspactive' is 'Perspective' and 'Indifferance' is 'Indifference'.
91. (4) The correct spelling is 'Accelaretor' is 'Accelerator'.