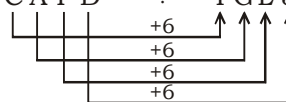


**SSC MOCK TEST - 43 (SOLUTION)**

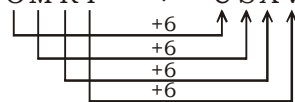
1. (A) WOUND  
Pesticides safeguard crop, in the same way, Antiseptics safeguard wound.

2. (B) As, C A F D : I G L J



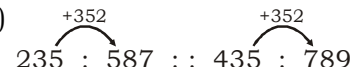
Similarly,

OMRP : USXV

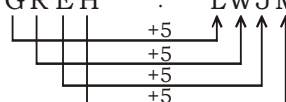


3. (C) Extol  
Second is the antonym of first.  
4. (C) Both are opposite to each other.

5. (B)  $235 : 587 :: 435 : 789$

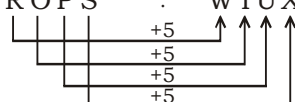


6. (C) As, GREH : LWJM

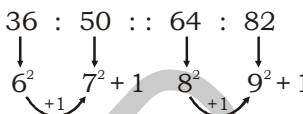


Similarly,

ROPS : WTUX

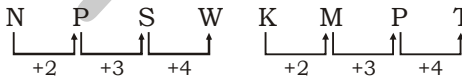


7. (D)  
8. (C)  $36 : 50 :: 64 : 82$

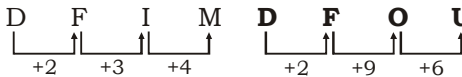


9. (B) Except (B), all are input devices.  
10. (D) All others are divisible by 3.  
11. (B) Except (B), in all second part is used in first.  
12. (C) Except (C), all have a prime number.

13. (D) N P S W : K M P T



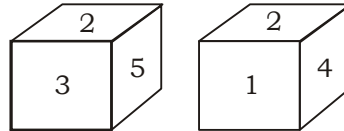
D F I M : D F O U



14. (B) Except (B), in all options middle term is sum of remaining.  
15. (A) Except (A), all are used for temporary stay.

16. (D) Except (D), all have atleast one vowel.  
17. (C) 5

By III & IV




|                        |   |          |   |
|------------------------|---|----------|---|
| Digits (Front face)    | 2 | <b>5</b> | 3 |
| Digits (Opposite face) | 6 | 4        | 1 |

18. (D)  $20 + 10 \times 45 \div 5 - 12 = ?$   
 $\Rightarrow 20 + 10 \times 9 - 12$   
 $\Rightarrow 20 + 90 - 12 = 98$

19. (D)  
20. (C) Because 'N' is not present in the given word.

21. (D) O M K I



22. (D)  $11 \times 2 + \frac{6}{2} = 25$

$$6 \times 2 + \frac{8}{2} = 16$$

$$5 \times 2 + \frac{12}{2} = 16$$

23. (B) Sum of all numbers present in each triangle is divided by 3.

24. (B)  $8 + 7 = 15 \Rightarrow 15 \times \frac{2}{3} = 10$

$$12 + 12 = 24 \Rightarrow 24 \times \frac{2}{3} = 16$$

$$10 + 8 = 18 \Rightarrow 18 \times \frac{2}{3} = 12$$

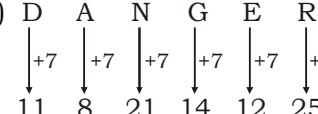
25. (C)  $4^3 + 4 = 68$   
 $3^3 + 3 = 30$   
 $5^3 + 5 = 130$

26. (B)  $13 \xrightarrow{+12} 25 = 12^2 \rightarrow 144$

$$15 \xrightarrow{+14} 29 = 14^2 \rightarrow 196$$

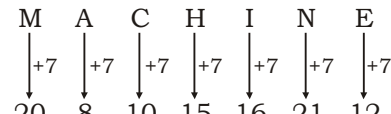
$$19 \xrightarrow{+18} 37 = 18^2 \rightarrow 324$$

27. (B) D A N G E R



Same,

M A C H I N E



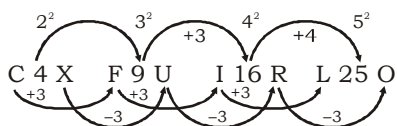
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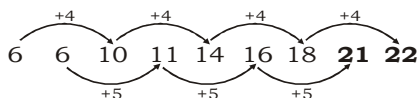
28. (C) concept → estimate → contract → plan → Execute

29. (B)

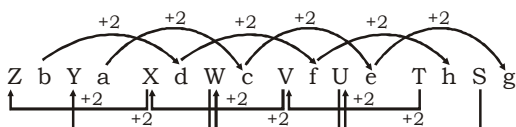
30. (\*)



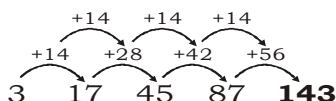
31. (A)



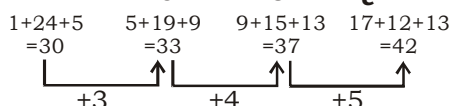
32. (B)



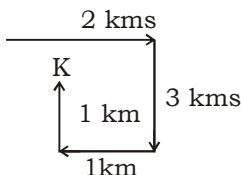
33. (B)



34. (C) A X E E S I I O M Q L M

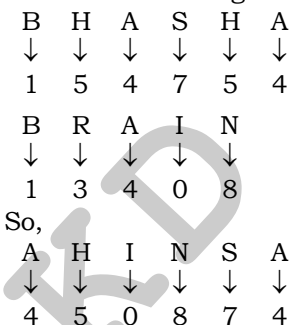


35. (D) NORTH

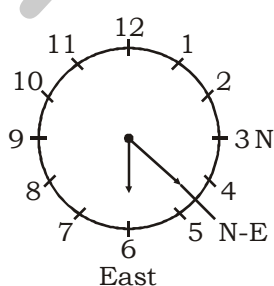


36. (D) D, represents, who are married & living in joint families but not teachers.

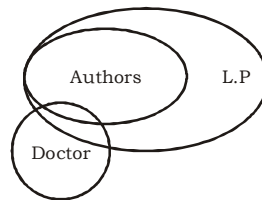
37. (B) Direct letter coding-decoding.



38. (A) N-E

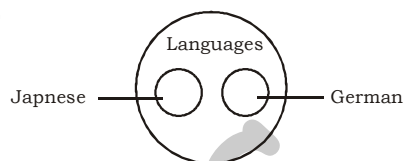


39. (C) Both follows



40. (C) Both follows

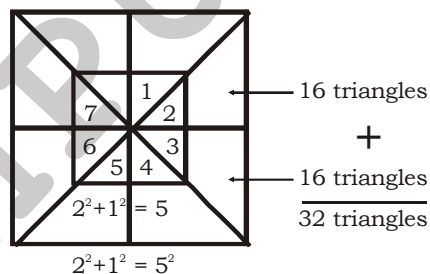
41. (B)



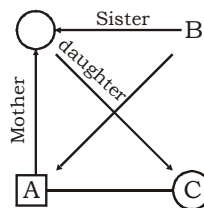
42. (D) baac / accb / cbba / baac

43. (A) a b / b a a / ba b / b a a / ba b / b a a / b

44. (C) 32 triangles and 10 squares.



45. (A) Niece



Here, A is the nephew of B.

46. (A)

47. (B)

48. (C)

49. (B)

50. (A)

51. (A) **Neelam Sanjiva Reddy**

India's 6th President

Term at Office: July 1977 to July 1982

**Zail Singh**

India's 7th President

Term at Office: July 1982 to July 1987

**R Venkataraman**

India's 8th President

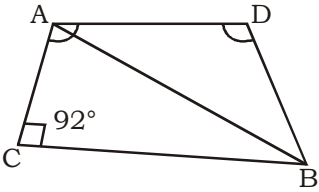
Term at Office: July 1987 to July 1992

**Dr Shankar Dayal Sharma**

India's 9th President

Term at office: July 1992 to July 1997

- |  |  |
|--|--|
| <p>52. (A) Lieutenant - General Sir Eyre Coote, KB (1726 - 28 April 1783) was a British soldier. His victory at the Battle of Wandiwash is considered a decisive turning point in the struggle for control over India between Britain and France. He was known by his sepoy troops as Coote Bahadur (Coote the Brave)</p> <p>54. (A) The 40th parallel north is a circle of latitude that is 40 degrees north of the Earth's equatorial plane. It crosses Europe, the Mediterranean Sea, Asia, the Pacific Ocean, North America, and the Atlantic Ocean.</p> <p>55. (A) A disease caused by infection with leishmania parasites. Visceral leishmaniasis is spread by sandfly bites. This type of leishmaniasis affects the internal organs, usually the spleen, liver, and bone marrow. Some people have no symptoms. For others, symptoms may include fever, weight loss and swelling of the spleen or liver.</p> <p>57. (B) In fluid dynamics, Bernoulli's principle states that an increase in the speed of a fluid occurs simultaneously with a decrease in pressure or a decrease in the fluid's potential energy. The principle is named after Daniel Bernoulli who published it in his book hydro dynamic in 1738. Bernoulli's principle can be derived from the principle of conservation of energy. This states that, in a steady flow, the sum of all forms of energy in a fluid along a streamline is the same at all points on that streamline. This requires that the sum of kinetic energy, potential energy and internal energy remains constant.</p> <p>59. (A) The first person to reach the South Pole was Norwegian explorer Roald Amundsen. He alongwith four other Norwegian explorers became the first man to reach the south pole on 14 dec, 1911, by beating the ill fated team of British Capt. Robert F.Scott.</p> <p>63. (C) An antigen-presenting cell (APC) or accessory cell is a cell that displays antigen complex with major his to compatibility complexes (MHCs) on their surfaces; this process is known as antigen presentation. T cells may recognize these complexes using their T-cell receptors (TCRs). These cells process antigens and present them to T-cells.</p> | <p>67. (A) Cochin International airport , the country's first airport built under PPP model has scripted another chapter in aviation history by becoming the first airport in the world that completely operates on solar power. Chief Minister Mr. Oommen Chandy inaugurated the 12 MWp solar power plant, on 18<sup>th</sup> August 2015, comprising of 46,150 solar panels laid across 45 acres near cargo complex. Now, Cochin airport's solar power plant is producing 50,000 to 60,000 units of electricity per day to be consumed for all its operational functions, which technically make the airport absolutely power neutral.</p> <p>69. (B) A new molecule Heat Shock Protein 90 (HSP90) with potential to kill malaria parasite was discovered in the second week of March 2014. The new discovery could help in effective treatment of malaria. The discovery was made by the researchers from the University of Geneva led by Didier Picard.</p> <p>71. (A) Dry ice, sometimes referred to as "cardice" (chiefly by British chemists), is the solid form of carbon dioxide. It is used primarily as a cooling agent. Its advantages include lower temperature than that of water ice and not leaving any residue (other than incidental frost from moisture in the atmosphere). It is useful for preserving frozen foods where mechanical cooling is unavailable.</p> <p>72. (D) WWF Australia presented their concept to Fairfax Media who, along with Sydney Lord Mayor Clover Moore, agreed to back the event. The 2007 Earth Hour was held on March 31 in Sydney, Australia at 7:30 pm, local time.</p> <p>74. (B) A cloudburst is an extreme amount of precipitation, sometimes accompanied by hail and thunder, that normally lasts no longer than a few minutes but is capable of creating flood conditions. A cloudburst can suddenly dump large amounts of water e.g. 25 mm of precipitation corresponds to 25000 metric tons/km<sup>2</sup> (1 inch corresponds to 72,300 short tons over one square mile). However, cloudbursts are infrequent as they occur only via orographic lift or occasionally when a warm air parcel mixes with cooler air, resulting in sudden condensation. At times, a large amount of runoff from higher elevations is mistakenly conflated with a cloudburst.</p> |
|--|--|

- The term "cloudburst" arose from the notion that clouds were akin to water-balloons and could burst, resulting in rapid precipitation; though this idea has since been disproven, the term remains in use .
76. (B) Red Data Book of the Russian Federation (RDBRF), also known as Red Book or Russian Red Data Book is a state document established for documenting rare and endangered species of animals, plants and fungi, as well as some local subspecies (such as the Ladoga seal) that exist within the territory of the Russian Federation and its continental shelf and marine economic zone. The first Russian Red Data Book was based upon research conducted between 1961 and 1964 by a number of Soviet biologists.
77. (D)
78. (B) The non-cooperation movement was withdrawn because of the Chauri Chaura incident. Although Gandhi had stopped the national revolt single-handedly, on March 10, 1922, he was arrested. On March 18, 1922, he was imprisoned for six years for publishing seditious materials. This led to suppression of movements and was followed by arrest of other leaders.
79. (C) Aeroponics and hydroponics are both soilless agriculture techniques. Hydroponics is a science that deals with growing plants in water or in any inert growing medium that is void of any nutrients. All the required nutrients are provided via the nutrient solution used to water the plants.
81. (C) The Supreme Court has special advisory jurisdiction in matters which may specifically be referred to it by the President of India under Article 143 of the Constitution
82. (C) Explore human development data from around the world using the interactive tools below. Data presented here were used in the preparation of the 2015 Human Development Report, released on 14 December 2015. The Human Development Report Office releases five indices each year: the Human Development Index (HDI), the Inequality-Adjusted Human Development Index (IHDI), the Gender Development Index (GDI), the Gender Inequality Index (GII), and the Multidimensional Poverty Index (MPI). Data used in these indices and
- other human development indicators included here are provided by a variety of public international sources and represent the best statistics available for those indicators at the time of the preparation of the annual report.
88. (D) Phloem is the vascular tissue responsible for the transport of sugars from source tissues (ex. photosynthetic leaf cells) to sink tissues (ex. non-photosynthetic root cells or developing flowers). Other molecules such as proteins and mRNAs are also transported throughout the plant via phloem
90. (A) "As per a survey conducted by Vallabhahi Patel Chest Institute Delhi in 2006, which covered 5,900 adults belonging to urban, rural and slum population in Delhi, 11.69% were found to be suffering from rhinitis and 11.03% from asthma.
91. (C) Effective value of gravitational acceleration becomes zero. That's why weight becomes equal to zero.  
 $W = mg$   
 $\Rightarrow g = 0$   
 $\therefore W = 0$
92. (B) On mixing detergent, inter molecular attraction force decreases, leading to decrease in surface tension of water.
100. (B) Preamble - America  
 Republic - France
101. (B) Single equivalent discount given by first shopkeeper =  $\left(15 + 10 - \frac{15 \times 10}{100}\right)\%$   
 $= 23.50\%$   
 Single equivalent discount given by second shopkeeper =  $\left(9 + 16 - \frac{9 \times 16}{100}\right)\%$   
 $= 23.56\%$   
 Hence 2nd will be more beneficial.
102. (D)
- 
- In  $\triangle ABC$  and  $\triangle ABD$   
 $AC = AD$   
 $AB = AB$   
 $\angle CAB = \angle DAB$   
 $\therefore \triangle ABC$  and  $\triangle ABD$  are congruent  
 $\therefore \angle D = \angle C = 92^\circ$

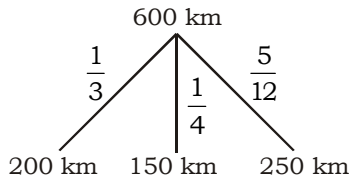
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103. (B) Remaining distance

$$= \left[ 1 - \left( \frac{1}{3} + \frac{1}{4} \right) \right] = \frac{5}{12}$$

Let the total distance = suitable multiple of (12, 5)



$$\therefore \text{Total time} = \frac{200}{25} + \frac{150}{30} + \frac{250}{50} = 18 \text{ hrs}$$

$$\therefore \text{Average speed} = \frac{600}{18} = 33\frac{1}{3} \text{ km/hr}$$

104. (C)  $\frac{m_1 \times d_1}{w_1} = \frac{m_2 \times d_2}{w_2}$

$$\frac{20 \times 15}{9000} = \frac{x \times 30}{13500} \times \frac{3}{2}$$

$x = 10$  men

105. (B) A : W  
8 : 6  $\xrightarrow{2}$  14  
8 : 10  $\xrightarrow{\times 5}$  50

$\therefore$  Required quantity = A : W  
4 : 3  
 $\downarrow \times 5$   
20 litres

106. (B)  $16\% = \frac{4}{25}$

| Principal  | Instalment             |
|--|------------------------|
| $25 \times 29$   | $29 \times 29$         |
| 625  | 841                    |
| $\frac{725}{625} \left[ \begin{array}{l} 725 \\ -625 \\ \hline 1350 \end{array} \right]$ | 841                    |
| $\downarrow \times 10$   | $\downarrow \times 10$ |
| <b>13500</b>   | 8410                   |

107. (A)  $\sqrt{15} = 3.88$  (Given)

$$\text{Now, } \sqrt{\frac{5}{3}} = \sqrt{\frac{5 \times 3}{3 \times 3}} = \frac{\sqrt{15}}{3}$$

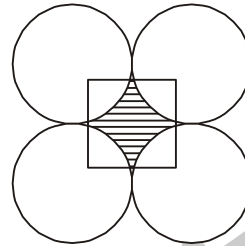
$$= \frac{3.88}{3} = 1.29\bar{3}$$

108. (B) In 1 sec rotations =  $7 \times 2\pi$  radian

$$\text{Now, required time} = \frac{1}{14\pi} \times 55$$

$$= \frac{1}{14 \times \frac{22}{7}} \times 55 = 1.25 \text{ sec.}$$

109. (A)



The shaded area gives the required region.  
Area of the shaded region = Area of the square - Area of four quadrants of the circles

$$= (14)^2 - 4 \times \frac{1}{4} \pi (7)^2$$

$$= 196 - \frac{22}{7} \times 49 = 196 - 154 = 42 \text{ cm}^2$$

110. (A)

|  | obtained marks        | Failed by/ pass by |
|--|-----------------------|--------------------|
| Diff. $\left[ \begin{array}{l} 25\% \\ 55\% \\ 30\% \end{array} \right]$ | 25%                   | 210                |
|  | 55%                   | 240                |
|  | 30%                   | 450                |
|  | $\xrightarrow{100\%}$ | <b>1500</b>        |

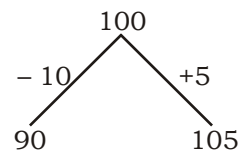
$$\therefore \text{Required \%} = \frac{210}{15} + 25 = 39\%$$

111. (C) Relative speed =  $(58 - 30)$  km/hr

$$= \left( 28 \times \frac{5}{18} \right) = \frac{70}{9} \text{ m/sec}$$

$$\therefore \text{Length of faster train} = \frac{70}{9} \times 18 = 140 \text{ m}$$

112. (C) Let the C.P. of watch be 100



Loss = ₹ 10

Profit = ₹ 5

$$\therefore \text{Required percentage} = \frac{10}{5} \times 100 = 200\%$$

113. (D)  $A = P + S.I.$

$$= P + \frac{P \times 5 \times 6}{100} = \frac{130}{100} P = 2613$$

$$\Rightarrow P = \frac{\text{₹ } 2613 \times 100}{130} = \text{₹ } 2010$$

$$\text{Now, S.I.} = A - P = \text{₹ } (3015 - 2010) = \text{₹ } 1005$$

$$= 1005 = \frac{2010 \times 5 \times T}{100}$$

$$T = 10 \text{ years}$$

114. (A) Income of A =  $3x$

Expenditure of A =  $5x$

Similarly income of B =  $2x$

Expenditure of B =  $3y$

$$\therefore 3x - 5y = 2x - 3y$$

$$\Rightarrow x = 2y$$

$$\therefore 3x - 5y = 1000$$

$$\Rightarrow 6y - 5y = 1000$$

$$\Rightarrow y = 1000$$

$$\therefore x = 2000$$

$$\text{Income of A} = 3 \times 2000 = \text{₹ } 6000$$

115. (C)  $\frac{A}{B} \times \frac{B}{C} = \frac{3}{4} \times \frac{6}{5}$

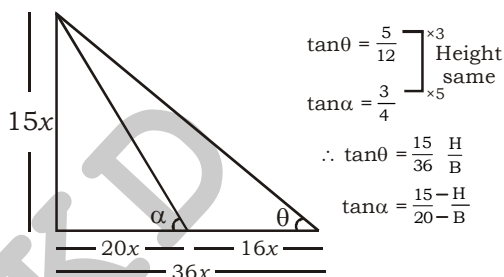
$$\Rightarrow \frac{A}{C} = \frac{9}{10} \Rightarrow \frac{C}{A} = \frac{10}{9}$$

$$\Rightarrow \frac{C}{A} + 1 = \frac{10}{9} + 1$$

$$= \frac{C+A}{A} = \frac{10+9}{9} = \frac{19}{9}$$

$$\Rightarrow A : (A + C) = 9 : 19$$

116. (B)

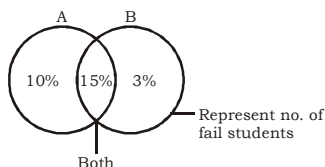


$$\therefore 16x = 240$$

$$\Rightarrow x = 15$$

$$\therefore \text{Height of tower} = 15 \times 15 = 225 \text{ m}$$

117. (C)



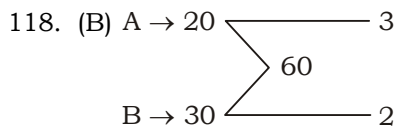
$$\text{Total percentage of students who failed} = 10 + 15 + 3 = 28\%$$

Total percentage of students who passed =  $100 - 28 = 72\%$

ATQ,

$$72\% \rightarrow 1620$$

$$100\% \rightarrow 2250$$



Now,  $A + B = \text{Leak}$

$$= 3 + 2 - \frac{5}{3} = \frac{10}{3}$$

$\therefore$  Required time to fill remaining tank

$$= \frac{40}{\frac{10}{3}} \Rightarrow 12 \text{ hrs}$$

$$\text{Total time} = 12 + 4 = 16 \text{ hrs}$$

119. (B) Cost price : Marked price

$$\frac{96}{16} \rightarrow \text{Article given} \quad \frac{135}{15} \rightarrow \text{Profit}$$

$$\therefore \text{Req. ratio} = 6 : 9 = 2 : 3$$

120. (A)  $\frac{6}{7} = 0.857$

$$\frac{5}{6} = 0.833$$

$$\frac{7}{8} = 0.875$$

$$\frac{4}{5} = 0.8$$

$\therefore \frac{7}{8}$  is the largest fraction.

121. (C)  $\therefore x = \frac{1}{2 + \sqrt{3}}$

$$\therefore \frac{1}{x} = \frac{1}{2 - \sqrt{3}}, \quad \therefore y = \frac{1}{x}$$

ATQ,

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

$$\Rightarrow \frac{1}{x+1} + \frac{1}{\frac{1+x}{x}}$$

$$\Rightarrow \frac{1}{x+1} + \frac{x}{1+x}$$

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



122. (A)  $\tan \theta \cdot \cos 60^\circ = \frac{\sqrt{3}}{2}$

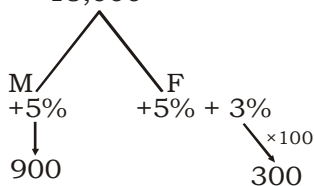
$$\tan \theta \cdot \frac{1}{2} = \frac{\sqrt{3}}{2}$$

$$\tan \theta = \sqrt{3} = \tan 60^\circ$$

$$\therefore \sin(\theta - 15^\circ) = \sin 45^\circ$$

$$= \frac{1}{\sqrt{2}}$$

123. (C) 18,000



$\therefore$  No. of females = 10,000

No. of males = 8,000

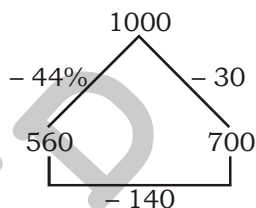
Required ratio = 4 : 5

124. (C)  $5\% = \frac{1}{20}$ ,  $10\% = \frac{1}{10}$ ,  $15\% = \frac{3}{20}$

**Original price      After profit**

|  |       |
|--|-------|
| 20   | 21    |
| 10   | 11    |
| 20   | 23    |
| -----  | ----- |
| 4000   | 5313  |
| ↓ ×2   | ↓ ×2  |
| <span style="border: 1px solid black; padding: 2px;">8000</span> | 10626 |

125. (A) Let the cost price of article be



$$\therefore \text{Required loss} = \frac{140}{700} \times 100 = 20\%$$

126. (C) ATQ,

$$x \left( 3 - \frac{2}{x} \right) = \frac{3}{x}$$

$$\Rightarrow 3x - \frac{2x}{x} = \frac{3}{x}$$

$$\Rightarrow 3x - \frac{3}{x} = 2$$

$$\Rightarrow \frac{1}{3} \times 3x - \frac{1}{3} \times \frac{3}{x} = \frac{1}{3} \times 2$$

$$\boxed{x - \frac{1}{x} = \frac{2}{3}}$$

$$\therefore x^2 + \frac{1}{x^2} = \frac{4}{9} + 2 = \frac{22}{9}$$

127. (C) Formula for minimum value

$$= 2\sqrt{ab}$$

$$= 2\sqrt{8 \times 18}$$

$$= 24$$

128. (B) L.C.M. of 4, 6, 8, 14

$$= 168 \text{ seconds}$$

$$= 2 \text{ minutes } 48 \text{ seconds}$$

$\therefore$  They ring again at 12 + 2 min 48 sec

$$= 12 \text{ hrs } 2 \text{ min } 48 \text{ sec}$$

129. (B) S.I. for 4 year = 16%

C.I. for 3 years = 15.7625%

$$\text{Diff} = 0.2375$$

ATQ,

$$0.2375 \rightarrow 57$$

$$\therefore \text{Required principal} = \frac{570000}{2375} \times 100$$

$$= ₹ 24000$$

130. (C) ATQ,

$$x = 18$$

$$\therefore x^4 - 18x^3 - x^3 + 18x^2 + x^2 - 18x - x + 9$$

$$x^4 - x^4 - x^3 + x^3 + x^2 - x^2 - x + 9$$

$$= -18 + 9$$

$$= -9$$

131. (D) ATQ,

$$A + B = 90$$

$$B = 90 - A$$

$$\sin A \cdot \sec(90 - A)$$

$$\Rightarrow \sin A \cdot \operatorname{cosec} A$$

$$\Rightarrow \sin A \times \frac{1}{\sin A} = 1$$

132. (B)  $\sec \theta = \frac{13}{12} = \frac{h}{b}$

$$\therefore h = 13k, b = 12k$$

From Pythagorus theorem we have,

$$P = \sqrt{h^2 - b^2} = \sqrt{(13k)^2 - (12k)^2}$$

$$= \sqrt{169k^2 - 144k^2} = \sqrt{25k^2}$$

$$= 5k$$

$$\therefore \cos \theta + \sin \theta = \frac{b}{h} + \frac{P}{h}$$

$$= \frac{12k}{13k} + \frac{5k}{13k}$$

$$= \frac{17k}{13k} = \frac{17}{13}$$

133. (D) Let the length and breadth of a rectangle be  $9x$  m and  $5x$  m respectively.

Area of rectangle =  $l \times b$

$$\therefore 720 = 9x \times 5x$$

$$x = 4$$

$$\therefore \text{length} = 36 \text{ m}$$

$$\text{breadth} = 20 \text{ m}$$

$$\therefore \text{Perimeter of rectangle} = 2(36 + 20) = 112 \text{ m}$$

134. (D) Let the number of men be  $x$

ATQ,

$$x \times 20 = (x - 12)32$$

$$\Rightarrow 20x = 32x - 384$$

$$\Rightarrow 12x = 384$$

$$\Rightarrow x = 32$$

135. (B) Ratio of speeds of

$$A : B : C$$

$$6 : 3 : 1$$

Ratio of time

$$A : B : C$$

$$1 : 2 : 6$$

$$\downarrow \times 19 \quad \downarrow \times 19$$

$$38 \text{ min} \quad 1 \text{ hr } 54 \text{ min}$$

136. (D)  $a + b + c = 18 \times 3 = 54$

$$\text{and } b + c + d = 16 \times 3 = 48$$

$$\therefore a + b + c - b - c - d$$

$$= 54 - 48 = 6$$

$$\Rightarrow a - d = 6$$

$$\Rightarrow a - 19 = 6$$

$$\Rightarrow a = 25$$

137. (B)  $\therefore (a + b + c)^2 = a^2 + b^2 + c^2 + 2(ab + bc + ca)$

$$64 = a^2 + b^2 + c^2 + 48$$

$$\therefore \boxed{a^2 + b^2 + c^2 = 16}$$

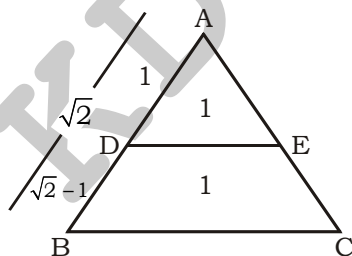
ATQ,

$$a^3 + b^3 + c^3 - 3abc = (a + b + c) [(a^2 + b^2 + c^2 - (ab + bc + ca))]$$

$$\therefore = 8(16 - 24)$$

$$= -64$$

138. (A)



Let area of  $\triangle ABC$  be 2 unit

and  $DE$  divides triangle into equal area, i.e.

area of  $\triangle ADE = 1$  unit

and Area of  $\square DEBC = 1$  unit

$$\text{Now, } \frac{\text{ar. of } \triangle ADE}{\text{ar. of } \triangle ABC} = \left(\frac{AD}{AB}\right)^2$$

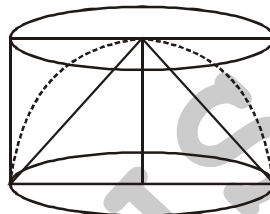
$$\Rightarrow \left(\frac{1}{2}\right)^2 = \frac{AD}{AB}$$

$$\Rightarrow \frac{AD}{AB} = \frac{1}{\sqrt{2}}$$

$$\therefore DB = \sqrt{2} - 1$$

$$\text{Now, } \frac{AD}{DB} = \frac{1}{\sqrt{2} - 1}$$

139. (B)



We have,

radius of the hemisphere = radius of the

cone = height of the cone

= height of the cylinder =  $r$

then ratio of the volumes,

$$= \pi r^3 : \frac{2}{3} \pi r^3 : \frac{1}{3} \pi r^3$$

$$= 1 : \frac{2}{3} : \frac{1}{3} = 3 : 2 : 1$$

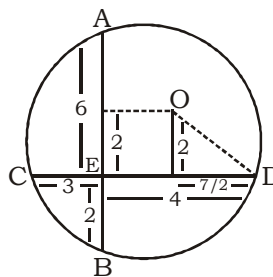
140. (B)  $B = \text{Base} = 5$

$$(B)^3 - 3(B)^2 + (B)^2 + B + 20$$

$$= 125 - 75 + 25 + 5 + 20$$

$$= 100$$

141. (B)



$$\therefore AE \times EB = CE \times ED$$

$$\therefore \text{Length of } ED = 4 \text{ cm}$$

$$\therefore \text{the length of } OD = \sqrt{\left(\frac{7}{2}\right)^2 + (2)^2}$$

$$= \sqrt{\frac{49}{4} + 4} = \sqrt{\frac{65}{4}}$$

$$r = \frac{\sqrt{65}}{2} \text{ cm}$$



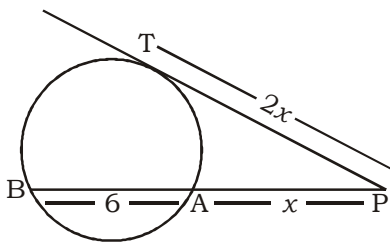
142. (C) Let the rise in water level =  $x$  m  
 $\therefore$  volume of pool =  $40 \times 90 \times x = 3600x$   
 when 150 men take a dip, the displacement  
 of water =  $8 \text{ m}^3$

$$\therefore \frac{3600x}{150} = 8$$

$$\Rightarrow \frac{900}{150} x = 8 \Rightarrow x = \frac{8}{3} \text{ m}$$

$$x = 33.33 \text{ cm}$$

143. (B)



$$\therefore PT^2 = PA \times PB$$

$$4x^2 = x \times (x + 6)$$

$$4x = x + 6$$

$$x = 2$$

$$\therefore \text{length of } PT = 2x = 4 \text{ cm}$$

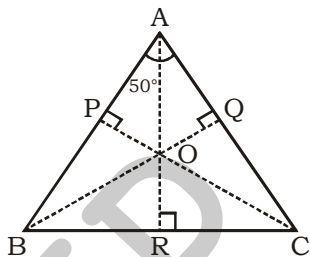
144. (A) Area of the field

$$= 42 \times 35 + 2 \times \frac{1}{2} \times \frac{22}{7} \times (21)^2 + 2 \times \frac{1}{2} \times \frac{22}{7} \times (17.5)^2$$

$$= 1470 + 1386 + 962.5$$

$$= 3818.5 \text{ m}^2$$

145. (D)



Perpendicular bisector of side AB, BC & AC  
 meets at orthocentre 'O' inside the triangle.

In Quadrilateral APQQ,

$$\angle A + \angle P + \angle Q + \angle O = 360^\circ$$

$$\angle O = 130^\circ, \text{ \& } \angle BOC = 130^\circ$$

146. (D) Required no. of student in the school  
 during 2003

$$= 3000 + (350 - 250) + (300 - 450) +$$

$$(450 - 400) + (500 - 350)$$

$$= 3000 + 100 + (-150) + 50 + 150$$

$$= 3150$$

147. (A) Required % in 2001 =  $\frac{200}{250} \times 100$

$$= 80\% \text{ increase}$$

$$\text{In 2002} = \frac{50}{450} \times 100 = 17\frac{1}{9}\% \text{ decrease}$$

$$\text{In 2003} = \frac{50}{400} \times 100 = 12\frac{1}{2}\% \text{ decrease}$$

$$\text{In 2004} = \frac{100}{350} \times 100 = 28\frac{4}{7}\% \text{ increase}$$

$\therefore$  Maximum rise/fall was in year 2001.

148. (B) Strength of school in 2001 = 2950

$$\text{Strength of school in } = 2002 = 3000$$

$$\therefore \text{Required \%} = \frac{50}{2950} \times 100$$

$$= 1.69\% \approx 1.7\%$$

149. (B) Number of students studying in the  
 school in 2002

$$= 3000 + 100 + (-150) + 50 = 3000$$

$$\text{and number of studying in the school in 2005}$$

$$= 3000 + 100 + (-150) + 50 + 150 + (-50) +$$

$$100 = 3200$$

$$\therefore \text{Required \%} = \frac{3000}{3200} \times 100 = 93.75\%$$

150. (D) Least no. of student who join the school  
 in 2001 = 300

$$\text{and maximum no. of students left the school}$$

$$\text{in 2015} = 450$$

$$\therefore \text{Required ratio} = 300 : 450 = 2 : 3$$

## MEANINGS IN ALPHABETICAL ORDER

| Word          | Meaning in English   | Meaning in Hindi                                  |
|---------------|--|---|
| Pull off      | to succeed in doing something difficult  | किसी प्रयास में सफल होना                          |
| Pull out      | to move away from something or stop being involved in it   | पीछे हटना (किसी कार्य से)                         |
| Pull up       | to criticize somebody for something that they have done wrong                                      | आलोचना करना                                       |
| Distort       | give a misleading or false account or impression of  | गलत बयान करना, चीजों को तोड़-मरोड़ कर पेश करना    |
| Disfigure     | to spoil the appearance of a person, thing or place  | रूप या आकार बिगाड़ना                              |
| Gainsay       | deny or contradict a fact or statement   | खंडन करना, इंकार करना                             |
| Disdain       | consider to be unworthy of one's consideration   | तुच्छ समझना                                       |
| Uncouth       | (of a person or their appearance or behaviour) lacking good manners, refinement, or grace          | असभ्य, भद्दा                                      |
| Sagacious     | having or showing keen mental discernment and good judgment  | बुद्धिमान, मेधावी                                 |
| Banish        | send (someone) away from a country or place as an official punishment                              | देश-निकाला करना                                   |
| Capricious    | given to sudden and unaccountable changes of mood or behavior.                                     | मानमोजी, सनकी                                     |
| Repel         | to drive, push or keep something away  | विकर्षित करना, पीछे हटाना                         |
| Indented      | divided or edged with a zigzag line  | आड़ा-तिरछा, दांतेदार                              |
| Precise       | marked by exactness and accuracy of expression or detail   | सटीक, यथार्थ                                      |
| Scrupulous    | (of a person or process) diligent, thorough, and extremely attentive to details                    | कर्तव्यनिष्ठ, सच्चा                               |
| Conscientious | (of a person) wishing to do what is right, especially to do one's work or duty well and thoroughly | विवेकशील, ईमानदार                                 |
| Slashing      | cutting something with a violent sweeping movement, typically using a knife or sword               | काटने की क्रिया                                   |
| Ripping       | tearing or pulling something quickly or forcibly away from something or someone                    | खींचना या फाड़ना                                  |
| Doctrine      | a belief or set of beliefs held and taught by a church, political party, or other group            | सिद्धांत  |
| Maxim         | a short, statement expressing a general truth or rule of conduct                                   | कहावत   |
| Fictitious    | not real or true, being imaginary or having been fabricated  | काल्पनिक, बनावटी                                  |
| Concocted     | (a story, an excuse, etc) invented   | मनगढ़त  |
| Onomatopoeia  | the use of words ( hiss, cuckoo, etc.) containing sounds similar to the noises they describe       | किसी ध्वनि का उसके उच्चारण पर आधारित शब्द-निर्माण |
| Neologism     | a newly coined word or expression  | नये शब्दों का प्रयोग अथवा अभिव्यक्ति              |
| Pun           | the clever or humorous use of a word that has more than one meaning                                | अनेक अर्थों वाला                                  |
| Misogynist    | a person who dislikes, despises, or is strongly prejudiced against women                           | स्त्री जात से घृणा करनेवाला                       |
| Misanthropist | a person who hates and avoids other people   | मानवद्राही  |
| Bibliophile   | a person who collects or has a great love of books   | पुस्तक प्रेमी                                     |
| Dermatologist | a doctor who studies and treats skin diseases  | त्वचारोग विशेषज्ञ                                 |

|               |  |                             |
|---------------|--|-----------------------------|
| Gynaecologist | a doctor who studies and treats the medical conditions and diseases of women             | स्त्रीरोग विशेषज्ञ          |
| Paediatrician | a doctor who studies and treats the diseases of children                                 | बालरोग विशेषज्ञ             |
| Magniloquence | use of high-flown language   | शब्दों का आडंबरपूर्ण प्रयोग |
| Erudition     | the quality of having or showing great knowledge or learning                             | पांडित्य                    |
| Malevolence   | the state or condition of being malevolent   | द्वेष                       |
| Denigrate     | criticize unfairly; disparage  | बदनाम करना, निंदा करना      |
| Prevail       | prove more powerful than opposing forces; be victorious                                  | जीतना, प्रबल होना           |
| Tenet         | a principle or belief, especially one of the main principles of a religion or philosophy | सिद्धांत, मत                |
| Rapport       | a close relationship or affinity between two group or people                             | घनिष्ठता, सौहार्द           |

**SSC MOCK TEST - 43 (ANSWER KEY)**

|         |         |         |          |          |          |          |          |
|---------|---------|---------|----------|----------|----------|----------|----------|
| 1. (A)  | 26. (B) | 51. (A) | 76. (B)  | 101. (B) | 126. (C) | 151. (C) | 176. (C) |
| 2. (B)  | 27. (B) | 52. (A) | 77. (D)  | 102. (D) | 127. (C) | 152. (B) | 177. (A) |
| 3. (C)  | 28. (C) | 53. (A) | 78. (B)  | 103. (B) | 128. (B) | 153. (D) | 178. (B) |
| 4. (C)  | 29. (B) | 54. (A) | 79. (C)  | 104. (C) | 129. (B) | 154. (C) | 179. (C) |
| 5. (B)  | 30. (*) | 55. (A) | 80. (C)  | 105. (B) | 130. (C) | 155. (B) | 180. (D) |
| 6. (C)  | 31. (A) | 56. (B) | 81. (C)  | 106. (B) | 131. (D) | 156. (B) | 181. (D) |
| 7. (D)  | 32. (B) | 57. (B) | 82. (C)  | 107. (A) | 132. (B) | 157. (D) | 182. (D) |
| 8. (C)  | 33. (B) | 58. (B) | 83. (A)  | 108. (B) | 133. (D) | 158. (C) | 183. (C) |
| 9. (B)  | 34. (C) | 59. (A) | 84. (C)  | 109. (A) | 134. (D) | 159. (A) | 184. (C) |
| 10. (D) | 35. (D) | 60. (B) | 85. (B)  | 110. (A) | 135. (B) | 160. (C) | 185. (D) |
| 11. (B) | 36. (D) | 61. (A) | 86. (A)  | 111. (C) | 136. (D) | 161. (C) | 186. (D) |
| 12. (C) | 37. (B) | 62. (C) | 87. (C)  | 112. (C) | 137. (B) | 162. (D) | 187. (B) |
| 13. (D) | 38. (A) | 63. (C) | 88. (D)  | 113. (D) | 138. (A) | 163. (C) | 188. (B) |
| 14. (B) | 39. (C) | 64. (A) | 89. (B)  | 114. (A) | 139. (B) | 164. (B) | 189. (C) |
| 15. (A) | 40. (C) | 65. (D) | 90. (A)  | 115. (C) | 140. (B) | 165. (D) | 190. (B) |
| 16. (D) | 41. (B) | 66. (C) | 91. (C)  | 116. (B) | 141. (B) | 166. (C) | 191. (D) |
| 17. (C) | 42. (D) | 67. (A) | 92. (B)  | 117. (C) | 142. (C) | 167. (A) | 192. (C) |
| 18. (D) | 43. (A) | 68. (D) | 93. (A)  | 118. (B) | 143. (B) | 168. (D) | 193. (D) |
| 19. (D) | 44. (C) | 69. (B) | 94. (A)  | 119. (B) | 144. (A) | 169. (D) | 194. (D) |
| 20. (C) | 45. (A) | 70. (C) | 95. (C)  | 120. (A) | 145. (D) | 170. (B) | 195. (A) |
| 21. (D) | 46. (A) | 71. (A) | 96. (B)  | 121. (C) | 146. (D) | 171. (D) | 196. (D) |
| 22. (D) | 47. (B) | 72. (D) | 97. (C)  | 122. (A) | 147. (A) | 172. (A) | 197. (A) |
| 23. (B) | 48. (C) | 73. (B) | 98. (B)  | 123. (C) | 148. (B) | 173. (C) | 198. (B) |
| 24. (B) | 49. (B) | 74. (B) | 99. (D)  | 124. (C) | 149. (B) | 174. (C) | 199. (C) |
| 25. (C) | 50. (A) | 75. (B) | 100. (B) | 125. (A) | 150. (D) | 175. (C) | 200. (D) |

151. (C) Replace 'than' by 'to'. The verb 'prefer' takes preposition 'to'.
152. (B) Add 'to' after 'superior'. Adjectives 'superior' takes 'to' after it.
153. (D) No error
154. (C) Replace 'on' by 'for'.
155. (B) Replace 'from' by 'of'. The verb 'acquitted' takes preposition 'of'.
175. (C) The 1st action will be in simple present tense as the 2nd action is in simple future tense.
177. (A) If since is preceded by present tense if it is followed by simple past tense.
178. (B) 'Those' are used for the 'flowers'.
179. (C) 'Widely' (adverb) is needed to qualify verb (accepted).
181. (D) Option 'B' can also be correct, but it will change the meaning of the sentence.
182. (D) 'When' shows that both action took place at the same time.

**Correction Mock Test - 42**

39. Read 22 as 24 in question.
118. Read A's day = 10
136. Read mateform as Platform.

**Note:- If you face any problem regarding result or marks scored, please contact 9313111777**

**Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003**