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2007, OUTRAM LINES, 1ST FLOOR, NEAR GTB NAGAR METRO STATION, GATE NO. - 2, DELHI-110009

**Answer-key & Solution**

*SSC JE (Mechanical)*  
*MOCK -(53)*  
*Date 25 / 06 / 2016*

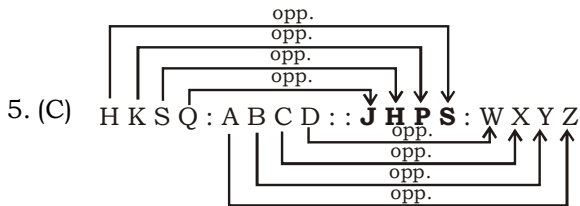
1. C	26. D	51. A	76. D	101. B	126. A	151. A	176. B
2. B	27. D	52. C	77. C	102. C	127. B	152. C	177. B
3. B	28. A	53. A	78. A	103. D	128. D	153. C	178. D
4. C	29. C	54. D	79. C	104. C	129. C	154. C	179. C
5. C	30. A	55. D	80. B	105. D	130. D	155. C	180. D
6. A	31. B	56. C	81. C	106. B	131. C	156. B	181.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

**Note :** *If your opinion differ regarding any answer, please message the mock test and Question number to 8375805483*

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

**SOLUTION SSC JE (Mechanical) MOCK TEST no. 53**

1. (C) As for sewing with the 'Needle', 'Thread' is used. Similarly, to write with 'Pen', 'Ink' is used.
2. (B) As 'Money' is transacted through 'Bank'. Similarly, 'Goods' are transported through 'Transport'.
3. (B) As 'Justice' is done in 'Court'. Similarly, 'Education' is imparted in 'School'.
4. (C) As 'January' and 'December' are the first and last months of the year. Similarly, 'A' and 'Z' are the first and the last letters of English Alphabet.



6. (A) As Beautiful and Awful are opposite. Similarly, Peace and War are opposite.
7. (A)  $0814 : 1526 :: 1623 : 2335$   
 $\quad \quad \quad \uparrow \quad \quad \quad \uparrow$   
 $\quad \quad \quad +712 \quad \quad \quad +712$
8. (D) As Island is a piece of land surrounded by water on all side. Similarly, Oasis is a pond of water in a Desert.
9. (C)  $248 : 3 :: 328 : 4$   
 $\quad \quad \quad \uparrow \quad \quad \quad \uparrow$   
 $\quad \quad \quad +24+8 \quad \quad \quad +32+8$
10. (B) As, 'Scissors' cuts 'Cloth'. Similarly, 'Razor' cuts "Beard'.
11. (C) All others come under the category of Jewellery.
12. (A) All others are metals.
13. (A) All others are some relevant activities.
14. (D) Except moon, all others are planets. Moon is a Satellite.
15. (D) Except option D, all others are work and their related work fields.

16. (D) (A)  $\begin{matrix} 32 & - & 41 \\ \downarrow & & \downarrow \\ 3+2=5 & & 4+1=5 \end{matrix}$  (B)  $\begin{matrix} 62 & - & 44 \\ \downarrow & & \downarrow \\ 6+2=8 & & 4+4=8 \end{matrix}$

(C)  $\begin{matrix} 46 & - & 28 \\ \downarrow & & \downarrow \\ 4+6=10 & & 2+8=10 \end{matrix}$  (D)  $\begin{matrix} 33 & - & 56 \\ \downarrow & & \downarrow \\ 3+3=6 & & 5+6=11 \end{matrix}$

17. (C) 'UVWX' are four consecutive alphabet. The same relationship is not found in others.

20. (A) (A)  $\begin{matrix} I & J & N & R \\ \boxed{+1} & \boxed{+4} & \boxed{+4} & \end{matrix}$  (B)  $\begin{matrix} Z & C & F & I \\ \boxed{+3} & \boxed{+3} & \boxed{+3} & \end{matrix}$

(C)  $\begin{matrix} Q & T & W & Z \\ \boxed{+3} & \boxed{+3} & \boxed{+3} & \end{matrix}$  (D)  $\begin{matrix} G & J & M & P \\ \boxed{+3} & \boxed{+3} & \boxed{+3} & \end{matrix}$

21. (B) It takes 22 seconds to ring 12 dongs

$$\text{Time taken to ring 1 dong} = \frac{22}{12-1} = \frac{22}{11} = 2 \text{ seconds}$$

$$\text{Time taken to ring 6 dongs} = (6-1) \times 2 = 10$$

22. (D) Order of bags with respect to weight-  $S > T > W > V$

23. (A) Arrangements as per question:

$8 \rightarrow 7 \rightarrow$  any other digit except 8

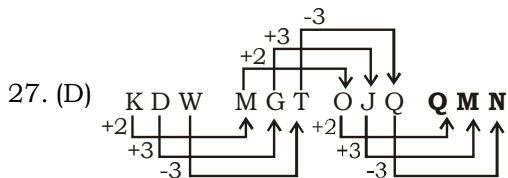
8, **8, 7, 7**, 8, 8, 7, **8, 7, 7, 8, 7, 7**, 8, 8, 7, 8

24. (D)  $B \quad D \quad A \quad \boxed{F} \quad C \quad G \quad E$

25. (A) Rahul Ravi Abhishek Ranjan Kaushik Saket Gautam  
 Left  $\longleftarrow$   $\longrightarrow$  Right

Ravi is between Rahul and Abhishek.

26. (D) a **b** a b **c** / b c b c **a** / c a c a **b**



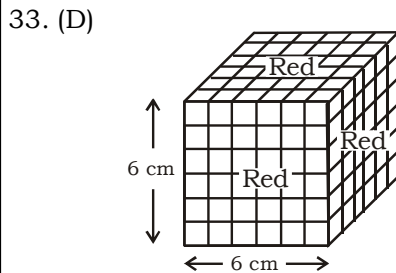
28. (A) 33, 28, 24, **21**, 19, 18  
 $\downarrow -5 \uparrow -4 \uparrow -3 \uparrow -2 \uparrow -1 \uparrow$

29. (C) 6, 10, 18, 34, **66**  
 $\times 2-2 \quad \times 2-2 \quad \times 2-2 \quad \times 2-2$

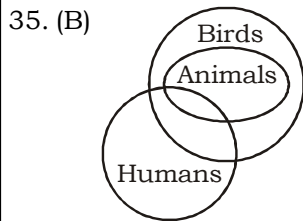
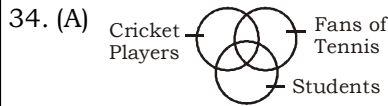
30. (A) 4, 8, 12, 24, 36, **72**  
 $\times 3 \quad \times 3$

31. (B) Day on 1 March 1997 = Friday  
 Day on 1 March 2000  
 = Friday + [(2000-1997) + leap years]  
 = Friday + [(3 + 1)]  
 = Friday + 4 = Tuesday

32. (D) In the given given formats '2' and '3' are common. Hence, as per rule number '6' will be opposite to '5'.

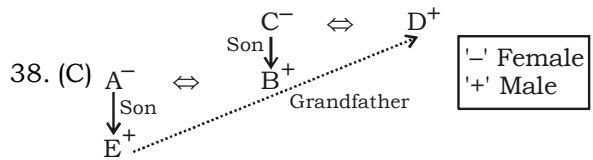
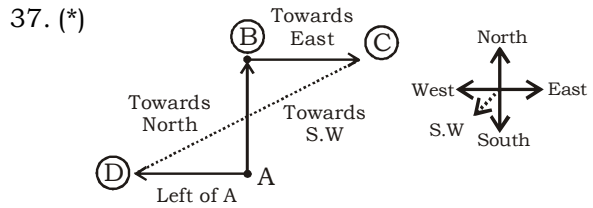


Any of the small cubes can have maximum of three sides coloured. Hence, there will be no such cube whose more than three sides will be red in colour.



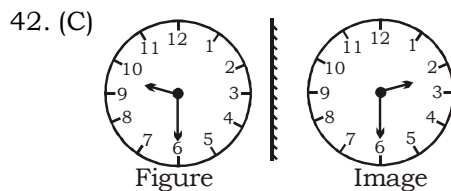
36. (D)  $30 \times 5 - 4 \div 10 + 5 = 41$   
 Changing the notations as per question  
 $30 \div 5 + 4 \times 10 - 5 = 41$   
 $\Rightarrow 6 + 40 - 5 = 41$

$\Rightarrow 46 - 5 = 41$

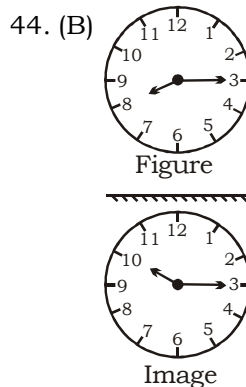


40. (C)  $R = 2S$  .....(i)  
 $R - 10 = 4(S - 10)$  .....(ii)  
 Taking R as 2S  
 $2S - 10 = 4(S - 10)$   
 $2S - 10 = 4S - 40$   
 $2S = 30$   
 $S = 15$  yrs  
 $R = 2S$   
 $R = 2 \times 15 = 30$  yrs

41. (D) Words formed with the letters SDEU  
 $\Rightarrow$  USED, DUES and SUED



Hence, in the reflection time is 2:30



$\therefore$  The time in the clock will show 10:15.

156. (B)  $Pu = \frac{P}{(H)^{3/2}}$

$$P \propto (H)^{3/2}$$

$$\frac{1000}{P} = \left(\frac{40}{20}\right)^{3/2}$$

$$P = \frac{1000}{(2)^{3/2}} = 353.55 \text{ kW}$$

157. (C) Thermal diffusivity,  $\alpha = (\text{m}^2/\text{s})$

Kinematic viscosity,  $\nu = (\text{m}^2/\text{s})$

Dynamic viscosity,  $\mu = (\text{Pa}\cdot\text{s})$

Mass diffusivity =  $(\text{m}^2/\text{s})$

159. (B) As a ship enters into a river from sea, one can expect that it sinks a little because of some Buoyancy force acts.

162. (B) Bernoulli's equation is applicable for non-viscous flow. At boundary layer viscous force acts. Due to this Bernoulli's equation can be used only inside the boundary layer.

163. (B) Euler's equation of motion is conservation of momentum and is applicable to steady, compressible as well as incompressible flow of non-viscous fluid.

164. (A)  $L = 4$

$$J = 5$$

$$\text{DOF} = 3(4 - 1) - 2 \times 5$$

$$= 9 - 10 = -1$$

169. (D)  $h = \frac{895}{N^2}$

$$h \propto \frac{1}{N^2}$$

195. (D) Initial stretch of spring is 10 cm

$$\text{Force in spring} = 1000 \times 0.1 = 100\text{N}$$

To further stretch it by 10 cm,

New force will be 200 N.

Work to stretch by 10 cm

$$= \frac{100 + 200}{2} \times 0.1\text{m} = 15\text{Nm.}$$

198. (B) Fettling: Fettling is used to trim or clean the rough edges of a metal casting.

199. (A) Bentonite: Bentonite is the type of clay.

**Correction From  
Mock Test 52  
105 (A)**