



KD Campus Pvt. Ltd

2007, OUTRAM LINES, 1ST FLOOR, OPPOSITE MUKHERJEE NAGAR POLICE STATION, DELHI-110009

Answer-key & Solution

SSC JE (Mechanical)
MOCK -(95)
Date 29.4.2017

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

Note : If your opinion differ regarding any answer, please message the mock test and Question number to 9560620353

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

SOLUTION SSC JE (Mechanical) MOCK TEST no. 95

1. (C) 'When' is used for 'time'. In the same way 'where' is used for 'place'.
2. (B) A collection of book is called library. In the same way a collection of ship is called fleet
3. (C) U T S : E D C :: W V U : G F E
4. (C) T M X K : U L Y J :: W Q F Z : X P G Y
5. (B) 6 : 2 :: 8 : 3
 $(6 \div 2) - 1 = 2$ $(8 \div 2) - 1 = 3$
6. (B) Donkey is considered fool. In the same way Fox is considered cunning.
7. (A) M K Q O : L N P R :: Y S U W : X V T Z
8. (A) 365 : 90 :: 623 : 36
 $3 \times 6 \times 5 = 90$ $6 \times 2 \times 3 = 36$
9. (C) 212 : 436 :: 560 : 784
 $+224$
10. (B) 'Scissors' are used to cut 'Cloth'. In the same way 'Razor' is used to cut 'Beard'.
11. (C) All are the names of a particular group of people except 'C'.
12. (B) All have even letter except in 'B'
13. (B) (A) G E C A (B) V U S O
14. (C) (A) U Z D G I (B) J O S V X
15. (D) (A) B A D C (B) J I L K
16. (A) (A) 66 - 56 = 10
 (B) 101 - 90 = 11
 (C) 41 - 30 = 11
 (D) 43 - 32 = 11
17. (D) (A) J L N K (B) T V W U

- (C) A C E B (D) G J K H
18. (D)
19. (D) E = \$
 R = 7
 W & K = 4 & β
 A = 9
 KEWRA = \$β794
20. (C) Look (many) Books → sa (da) na
 (Many) more days → ka pa (da)
 many → da
 Books → either sa or na.
21. (A) The minute hand takes $65 \frac{5}{11}$ minutes to cross the hour hand.
 According to question, the minute hand takes 65 minutes to cross the hour hand. So, it gains $\frac{5}{11}$ minutes in every 65 minutes.
 So, it gains in 65 minutes = $\frac{5}{11}$ minutes
 It gains in 60 minutes

$$= \frac{60 \times 5}{11 \times 65} = \frac{60}{11 \times 13}$$
 In 24 hours it will gains

$$= \frac{60 \times 24}{143}$$

$$= \frac{1440}{143} = 10 \frac{10}{143} \text{ minutes}$$
22. (C) 1, 3, (8, 5, 7), 2, 9, (8, 5, 7), 6, 3, (4, 7, 9), 4, 7, 6, 5, (8, 5, 3)
23. (B)

 Now, total number of boys in the row
 = position of Kamal from left + position of Kamal from right - 1
 = 20 + 9 - 1 = 28 boys
24. (B) 2 5 9 19 37 75

25. (A) $8 \xrightarrow{\times 3} 24 \xrightarrow{+2} 12 \xrightarrow{\times 3} 36 \xrightarrow{+2} 18 \xrightarrow{\times 3} 54 \xrightarrow{+2} 27$

26. (A) $113 \xrightarrow{\times 2-1} 225 \xrightarrow{\times 2-1} 449 \xrightarrow{\times 2-1} 897 \xrightarrow{\times 2-1} 1793$

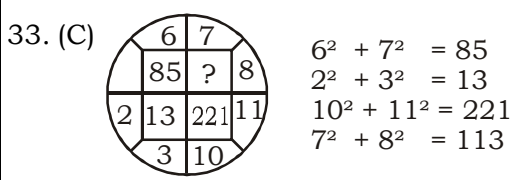
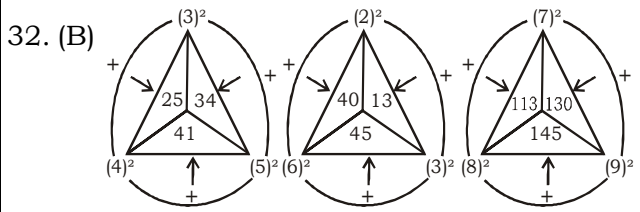
27. (D) $230 \xrightarrow{+(4)^2} 246 \xrightarrow{+(5)^2} 271 \xrightarrow{+(6)^2} 307 \xrightarrow{+(7)^2} 356$

28. (D) $DF \xrightarrow{+3} GJ \xrightarrow{+4} KM \xrightarrow{+3} NQ \xrightarrow{+4} RT \xrightarrow{+3} UX$

29. (A) $WUV \xrightarrow{-3} TRS \xrightarrow{-3} OOP \xrightarrow{-3} NLM \xrightarrow{-3} KIJ$

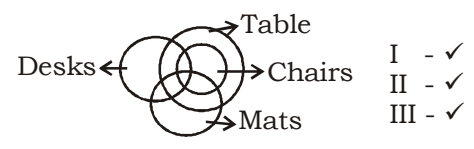
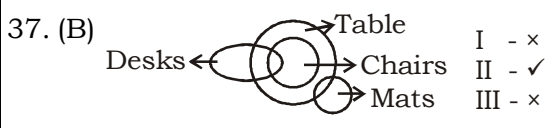
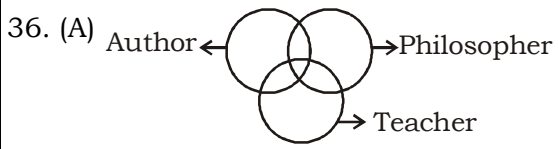
30. (B) $BDE \xrightarrow{+5} GIJ \xrightarrow{+5} LNO \xrightarrow{+5} OST \xrightarrow{+5} VXY$

31. (A) $(15 - 9) \times (22 - 16) \Rightarrow 6 \times 6 = 36$
 $(13 - 9) \times (11 - 7) \Rightarrow 4 \times 4 = 16$
 Similarly,
 $(21 - 13) \times (x - 15)$
 $= 8x - 120 = 64$
 $\Rightarrow 8x = 120 + 64 = 184$
 $\therefore x = 23$

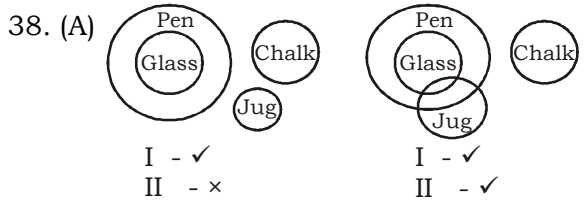


34. (A) In the first row $\Rightarrow 15 + 7 - 10 = 12$
 In the second row $\Rightarrow 36 + 9 - 20 = 25$
 In the third row $\Rightarrow 28 + 11 - 24 = 15$

35. (C) $9 \xrightarrow{+} 5 \quad 4 \xrightarrow{+} 10 \quad (9 + 5) = (4 + 10)$
 $8 \xrightarrow{+} 7 \quad 6 \xrightarrow{+} 9 \quad (8 + 7) = (6 + 9)$
 $12 \xrightarrow{+} 6 \quad 8 \xrightarrow{+} 10 \quad (12 + 6) = (8 + 10)$



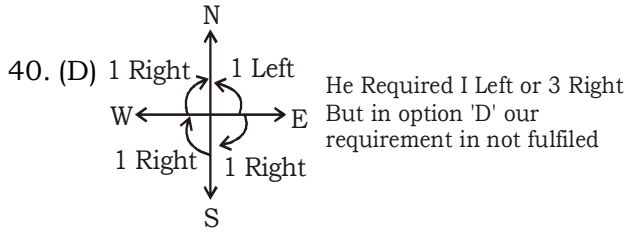
Only I and II follow



Only Ist follow.

39. (A) $0 \ 1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7 \ 8 \ 9$
 $\alpha \ \beta \ \omega \ \delta \ \theta \ \eta \ \gamma \ \mu \ \nu \ \phi$

$\frac{\omega\eta\gamma}{\theta} - \gamma\beta + \frac{\delta\alpha}{\omega} = ?$
 $\frac{256}{4} - 61 + \frac{30}{2} =$
 $64 - 61 + 15 = 79 - 61 = 18$
 $18 = \beta\nu$

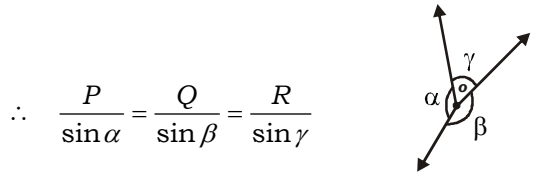


41. (B) Father's only sister = aunt
 Aunt's son = cousin

- 42. (D)
- 43. (B)
- 44. (B)
- 45. (D)
- 46. (C) $\underline{a}bcd/\underline{a}bcd/\underline{a}bcd/\underline{a}bcd$

- 47. (A)
- 48. (A)
- 49. (C)
- 50. (B) F A I T H
 31 34 23 76 79

103. (D) P, Q & R acting at point O are in equilibrium



108. (D) Strain = $\frac{\Delta L}{L}$
 ΔL - deformation

∴ According to formula of strain, deformation (ΔL) produced per unit length (L) is known as strain.

109. (B) According to Hook's law upto ELASTIC LIMIT stress is directly proportional to strain i.e. $\sigma \propto e$ → upto elastic limit

$$115. (A) \frac{M}{I} = \frac{\sigma}{y} = \frac{E}{R}$$

$$\frac{M}{I} = \frac{\sigma}{y}$$

$$M = \sigma z$$

112. (B) Given E = 125 Gpa (Young modulus)
 $\mu = 0.25$ (Poisson Ratio)

Knows that $E = 2G(1 + \mu)$

$$125 = 2 \times G(1 + 0.25)$$

$$125 = 2G(1.25)$$

$$\frac{125}{2.5} = G$$

$$G = 50 \text{ GPa}$$

Where, G = Modulus of rigidity

$$116. (B) \frac{T}{J} = \frac{G\theta}{l} = \frac{\tau}{r}$$

$$T = \left(\frac{J}{r}\right)\tau$$

$$T = \left(\frac{J}{r}\right)\tau \quad \dots(i)$$

$$121. (B) F = \frac{mv^2}{r} \quad (F = \mu R = \mu mg)$$

$$\mu R = \frac{mv^2}{r}$$

$$0.4mg = \frac{mv^2}{150}$$

$$0.4 \times 9.8 \times 150 = v^2$$

$$V = 20 \text{ m/sec}$$

126. (C)

$$\text{CO}_2 \rightarrow 1.29$$

$$\text{Air} \rightarrow 1.40$$

$$\text{He} \rightarrow 1.66$$

$$\text{CH}_4 \rightarrow 1.31$$

$$\text{H}_2 \rightarrow 1.40$$

$$\text{NH}_3 \rightarrow 1.29$$

127. (D) $C_p - c_v = R$

$$R = 0.287 \text{ KJ/kg K}$$

$$\frac{C_p}{C_v} = \gamma, \frac{C_p}{C_v} = 1.375$$

$$c_p = 1.0267 \text{ KJ/kg K}, c_v = 0.7467 \text{ KJ/kg K}$$

133. (B) $pv = c$ Hyperbolic process
for ideal gas $pv = MRT$
i.e. $T = C$

then, isothermal

$$134. (D) dU = mh dT \therefore dT = 0$$

$$dH = mc_p dT \text{ for isothermal}$$

137. (D) COP of Heat pump = 5

$$\therefore \text{COP of Refrigerator} = 5 - 1 = 4$$

$$\text{COP of Refrigerator} = \frac{\text{Refrigerator effect}}{\text{work input}}$$

$$\Rightarrow 4 = \frac{R.E}{1} \Rightarrow RE = 4KW$$

142. (D) Drilling, Milling and Turning is three dimensional and is normally termed oblique cutting.

143. (D) Shaper is the having clapper box, Ram, table, Cross Rail, and tool post etc.

146. (C) Negative Rake angle

,more horse power

,more cutting force

,High cutting speed etc.

148. (A) In an automatic lathe the motion of the tool is controlled by Cams. and its also change the motion one form to another form. Reciprocating motion is converted into circular motion.

149. (C) In planner machine workpiece is moving and tool head is fixed its only reciprocate for changing the position of work.

151. (B) Lapping is used loose abrasive Grit with mixing of slurry.

152. (B) Gas-tungsten-arc welding having non-consumable electrode that can not fuse with the workpiece.

155. (B) Hollow cavities is making by core.

160. (A) Drop forging is used to produce small component and large component is produced by Press forging.

166. (C) Because link is that part of mechanism which transmit motion.

167. (B) Because the motion can take place in more than one direction.

168. (A) Because pulley with belt make point contact at any instant of time.

169. (D) It will be the inversion of double slider crank mechanisms when slotted plate is fixed called as elliptical trammels.