

Answer-key & Solution

SSC JE (PRODUCTION)

Date 03.9.2017

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

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

6.(C) $D^2 = d^2 + 4dh$

$D = \sqrt{d^2 + 4dh}$

$= \sqrt{(25)^2 + 4 \times 25 \times 15}$

$= \sqrt{2125} \text{ mm}$

$= 46.09 \text{ mm}$

$D \simeq 46 \text{ mm}$

63.(C) Stroke length (L) = 250 mm

Double stroke per minute = 30

Average velocity = $(260 \text{ mm}) \times 30 \frac{\text{Stroke}}{\text{min}}$

$= 7500 \frac{\text{mm}}{\text{min}}$

$= 7.5 \frac{\text{m}}{\text{min}}$

79.(C) Casting size = $200 \times 200 \times 70 \text{ mm}^3$

$t_{s_1} = 10 \text{ min}$

for casting size = $200 \times 100 \times 10 \text{ mm}^3$

$t_{s_2} = ?$

$t_s = K \left[\frac{V}{SA} \right]^2$

$\frac{t_{s_2}}{t_{s_1}} = \frac{K}{K} \left[\frac{V}{SA} \right]_2^2 \left[\frac{SA}{V} \right]_1^2$

$V_1 = 200 \times 200 \times 70 = 28 \times 10^5 \text{ mm}^3$

$(S.A)_1 = 2[(200 \times 200) + (200 \times 70) + (70 \times 200)] = 136 \times 10^3 \text{ mm}^2$

$V_2 = 200 \times 100 \times 10 = 2 \times 10^5$

$(S.A)_2 = 46 \times 10^3 \text{ mm}^2$

$\frac{t_{s_2}}{t_{s_1}} = \left[\left(\frac{2 \times 10^5}{46 \times 10^3} \right) \left(\frac{136 \times 10^3}{28 \times 10^5} \right) \right]^2$

$= (0.211)^2$

$t_{s_2} = 10 \times 0.0446 \text{ min}$

$t_{s_2} = 0.446 \text{ min}$