SSC PRE MOCK TEST – 9 (SOLUTION)

1. (B)
Index shows Content. Similarly,
Calendar shows date

2. (D)

R E N O U N C E
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
18 + 5 + 14 + 15 + 21 + 14 + 3 + 5 = 95

Similarly,

C A L E N D E R
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
3 + 1 + 12 + 5 + 14 + 4 + 5 + 18 = **62**

3. (A)
$(2 \times 4 \times 3)^2 + 243 = 819$
$(1 \times 6 \times 3)^2 + 163 =$ **487**

4. (C)
Except **Race**, in all other games, ball is used to play.

5. (C)

B D G K Q S V Z
+2 +3 +4 +2 +3 +4

O Q T W I K N R
+2 +3 +3 +2 +3 +4

6. (C)
$(10)^2 = 100 \Rightarrow 100 \times \frac{5}{2} = 250$

$(14)^2 = 196 \Rightarrow 196 \times \frac{5}{2} = 490$

$(6)^2 = 36 \Rightarrow 36 \times 3 = 108$

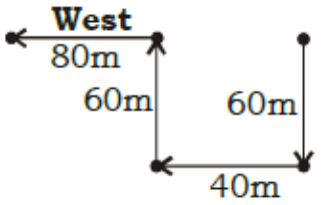
$(2)^2 = 4 \Rightarrow 4 \times \frac{5}{2} = 10$

7. (A)
Decollete → Decorous → Desecrate → Desipicable → Destitute

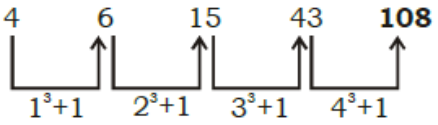
8. (D)
*a**a**b**c**d**a**b**b**c**d**a** **b**c**c**d**a**b**c**d**d*

9. (C)
ATQ,
$$\frac{x+6}{x+2+6} = \frac{7}{8}$$
$$\Rightarrow x = 8$$
Hence, the ages of A and B = 8 years and 10 years respectively.

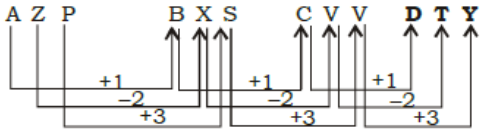
10. (C)



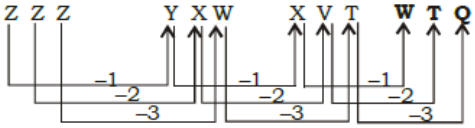
11. (B)



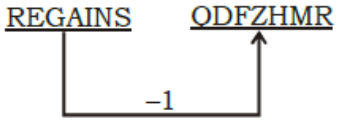
12. (B)



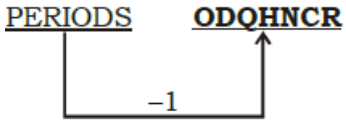
13. (C)



14. (C)



Similarly,

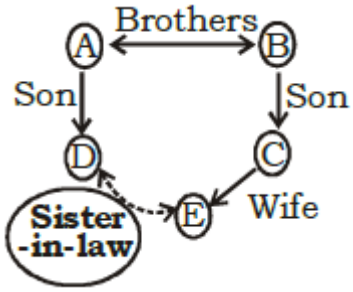


15. (B)
$45 \times 5 + 2 - 20$
Change the symbol, as per given details
$45 \div 5 \times 2 + 20 =$ **38**

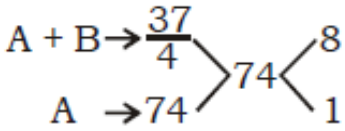
16. (A)
$(5 + 6)^2 = 121$
$(10 + 8)^2 = 324$
$(23 + 14)^2 =$ **1369**

17. (B)

18. (B)
105 – 48 = **57**
87 – 11 = 76
113 – 78 = 35
19. (B)



20. (D)
21. (C)
22. (A)
23. (C)
24. (A)
25. (C)
51. (C)
ATQ,
640 = 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 5
560 = 2 × 2 × 2 × 2 × 2 × 7 × 5
Hence, LCM of 640 and 560
= 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 7 × 5 = **4480**
52. (A)
ATQ,



Hence, Required days = $\frac{74}{(8-1)} = \mathbf{10\frac{4}{7}}$ **days**
53. (B)
ATQ,

$$4\pi r^2 = 616$$
$$\Rightarrow r^2 = \frac{616\times 7}{4\times 22} = 49$$
$$\Rightarrow r = 7$$

Hence, Required diameter = 7 × 2 = **14 cm**
54. (A)
ATQ,
Total C.P = 150 × 2 + 500 × 4 = 2300
Total S.P = $2\times\frac{150\times 80}{100} + 4\times\frac{500\times 75}{100}$
= 240 + 1500 = 1740
Then, Effective discount
$\frac{(2300-1740)}{2300}\times 100$ = **24.35%**
55. (C)
ATQ,
A : B : C
9 : 16
8 : 13
9 : 16 : 26
Hence, C : A = **26 : 9**
56. (B)
ATQ,
$x + (x-2) + (x-4) + (x-6) + (x-8) + (x-10)$
$= 84 \times 6$
$\Rightarrow 6x = 504 + 30 = 534$
$\Rightarrow x = 89$
Hence, largest number = **89**
57. (B)
ATQ,
C.P of box = $\frac{1690\times 100}{130}$ = 1300
Required profit = $\frac{(2210-1300)}{1300}\times 100$
= **70%**
58. (A)
ATQ,
Required percent = $\frac{(100-35)}{35}\times 100$
= **185.7%**
59. (C)
ATQ,
Let the Required time = x
then, $30x - 18x = 3.6$
$\Rightarrow x = 0.3$ hour
Hence, Required distance = 0.3 × 18
= **5.4kms**
60. (A)
ATQ,
Amount in 1st year = $\frac{x\times 8\times 1}{100} + x = 1.08x$

Amount in 2nd year

$= \frac{(1.08x)\times 12\times 1}{100} + 1.08x = 1.2096x$

then, $1.2096x = 10886.4$

$\Rightarrow x = \frac{10886.4}{1.2096}$ = **Rs. 9000**

61. (B)

$\frac{5x}{2} - \frac{\left[5\left(6x+\frac{9}{2}\right)\right]}{4} = \frac{7}{8}$

$\Rightarrow \frac{20x}{8} - \frac{60x+45}{8} = \frac{7}{8}$

$\Rightarrow -40x = 52$

$\Rightarrow x = -\mathbf{\frac{13}{8}}$

62. (B)

ATQ,

$a^3 - b^3 = (a-b)\,[(a-b)^2 + 3ab]$

$\Rightarrow 386 = 2[4 + 3ab]$

$\Rightarrow 386 = 8 + 6ab$

$\Rightarrow ab =$ **63**

63. (D)

ATQ,

$x - \frac{2}{x} = -\frac{1}{6}$

$\Rightarrow 6x^2 - 12 = -x$

$\Rightarrow 6x^2 + x - 12 = 0$

$\Rightarrow 6x^2 + 9x - 8x - 12 = 0$

$\Rightarrow 3x(2x+3) - 4(2x+3) = 0$

$\Rightarrow (3x-4)(2x+3) = 0$

$\Rightarrow x = \mathbf{\frac{4}{3}}, -\frac{3}{2}$

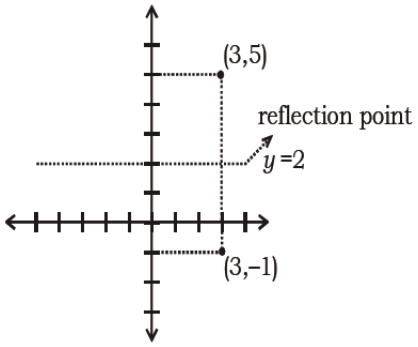
64. (B)

ATQ,

$S_{47} = \frac{47}{2}(-50 \times 98)$

$= 47 \times 24 =$ **1128**

65. (A)



Hence, reflection point = **3, 5**

66. (B)

ATQ,

$(3, 2) = \left(\frac{x+4+4}{3}, \frac{y-1+2}{3}\right)$

$\Rightarrow \quad \frac{x+8}{3} = 3, \quad \frac{y+1}{3} = 2$

$\Rightarrow \quad x = 1,\ y = 5$

Hence, Required point = **(1, 5)**

67. (C)

ATQ,

$ax - 6y = -6$

$\Rightarrow y = \frac{ax}{6} + \frac{6}{6}$

Slope of line $(ax - 6y = -6) = \frac{a}{6}$

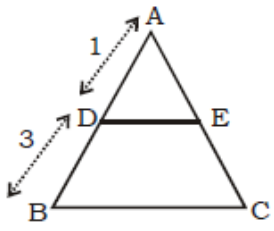
but $\frac{a}{6} = \frac{-3}{2}$

$\Rightarrow a =$ **– 9**

68. (A)

$\frac{\text{area of } \Delta ABC}{\text{area of } \Delta ADE} = \left(\frac{AD + BD}{AD}\right)^2 = \left(\frac{3+1}{1}\right)^2$

$= \frac{16}{1}$



Then, area of BDEC = 16 – 1 = 15 unit

but 16 units = 80 cm²

then, 15 units = $\frac{80}{16} \times 15 = 75$ cm²

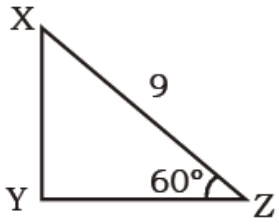
Hence, area of BDEC = **75 cm²**

69. (C)

$$\sqrt{2}\sec 45° + \frac{1}{\sqrt{3}}\tan 30°$$

$$= \sqrt{2} + \sqrt{2} + \frac{1}{\sqrt{3}} \times \frac{1}{\sqrt{3}} = \mathbf{\frac{7}{3}}$$

70. (C)



$$\cos 45° = \frac{YZ}{XZ}$$

$$\Rightarrow \frac{1}{\sqrt{2}} = \frac{YZ}{XZ}$$

$$\Rightarrow YZ = \mathbf{\frac{9}{\sqrt{2}}\,cm}$$

71. (A)

$\sec\theta = \frac{17}{15}, then$

$\cos\theta = \frac{15}{17}$ and $\sin\theta = \frac{8}{17}$

then, $\text{cosec}\,\theta = \mathbf{\frac{17}{8}}$

72. (B) **F**

73. (B)

Required increment = $\frac{(0.9-0.8)}{0.8} \times 100$

= **12.5%**

74. (A)

Petrol Vehicle = (100 –35)

$\times \frac{(0.4+0.8+0.3+0.1+0.9+0.2)}{100}$

= 1.755 millions.

75. (B)

ATQ,

total Revenue = (0.4 +0.8 + 0.3 + 0.1 +0.9 +0.2) × 1000000 × 30000

= 810000 million

Environmental revenue = $\frac{810000 \times 2.5}{100}$

= Rs. 2.03 billion

SSC PRE MOCK TEST – 9 (ANSWER KEY)

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