KD Campus
K.D Campus Pvt. Ltd
2007, OUTRAM LINES, 1ST FLOOR, NEAR GTB NAGAR METRO STATION, GATE NO. - 2, DELHI-110009

SSC MOCK TEST - 4 (SOLUTION)

1. (B) Dam is used to stop the stream of the river. In the same way **Signal** is used to stop the traffic.
2. (B) Snake eats frog, frog eats **Insects**.
3. (B) Hitler was the ruler of Germany and Mussolini was the ruler of **Italy**.
4. (C) Threat causes fear. In the same way **incite** causes anger.
5. (B) Nurse assists a doctor. In the same way follower is under a **politician**.
6. (C) Position of B is 2 $\Rightarrow$ $2^4 = 16$ then position of D = 4 $\Rightarrow 4^4 =$ **256**
7. (B) 16 9 14 11 9 3 9 7 5 1 19 20 24 21 14 16
   P I N K I C I G E A S T **X U N P**
   -7 -6 -5 -4 -7 -6 -5 -4
8. (A) 4 5 8 = 4 + 8 – 5 = 7 then
   6 4 5 = 6 + 5 – 4 = **7**
9. (C) Except **Narmada**, all three rivers fall in the Bay of Bengal.
10. (D) Water is available in both pond and lake, Bullets. Both available in both pistol and Gun. Both car and bus are used for journey. **Church** is used for praying but **Monument** is not used for the same.
11. (D) Except point, all are geometrical figure.
12. (A) Water flows in river, sea and canal where as in **Pond** does not flow.
13. (C) Except banana, all are citrus fruits.
14. (C) Rest are Metal. But **Bronze** is an alloy.
15. (C) **Minar of Pisa** is in Italy whereas others are in India.
16. (C) Except **246** rest are square of natural numbers. $729 = 27^2$, $225 = 15^2$, $625 = 25^2$
17. (C) 25 is not a prime number in given option (19-25). Rest are pairs of prime number.
18. (B) 1, 2, 4, 7, 13, 24, 44, **81**
    4+2+1, 7+4+2, 13+7+4, 24+13+7, 44+24+13
19. (C)

4 × 2 = 8	5 × 2 = 10	**2.5** × 2 = 5
4 × 4 = 16	5 × 4 = 20	**2.5** × 4 = 10
4 × 8 = 32	5 × 8 = 40	**2.5** × 8 = 20
4 × 16 = 64	5 × 16 = 80	**2.5** × 16 = 40

20. (A) Y $\xrightarrow{-8}$ Q $\xrightarrow{-8}$ **I**
    V $\xrightarrow{-8}$ N $\xrightarrow{-8}$ F
    S $\xrightarrow{-8}$ **K** $\xrightarrow{-8}$ C
    $\therefore$? = **IVK**
21. (D) $4^2 + \frac{6^2}{2} = 16 + 18 = 34$

    $9^2 + \frac{8^2}{2} = 81 + 32 = 113$

    $1^2 + \frac{3^2}{2} = 1 + 4.5 =$ **5.5**
22. (D) Golden anniversary is celebrated in 50 years
    Number of leap years in 50 years= 12
    Number of odd days = 12×2 = 24
    Normal years = 38
    Number of days = 38
    Total number of odd days = 38 + 24 = 62

    $\therefore \frac{62}{7} = 7 \times 8 + 6 = 6$ is remainder

    So, the day on which he was born
    = Friday - 6 = saturday
23. (C) D EF G HI J KL M NO P QR S TU V WX **Y**
    3 4 5 6 7 8 9 10
24. (C) Grease is used to prepare wax, the same way milk is used to prepare **Curd**.
25. (D) Two conditions are possible here.
    1st condition
    from one end → Ravi ← 19 → Seema ← from other end
    (26th) (22nd)
    Total number of students
    = 26 + 19 + 22 = 67 > 50
    It means this condition is not acceptable.
    2nd condition
    from one end → Ravi ← 19 → Seema ← from other end
    (26th) (22nd)
    From one end, number of students before seema = 26-20 = 6
    From other end number of students after Ravi = 22 - 20 = 2
    $\therefore$ **Total number of students = 6 + 2 + 19 = 27**
26. (A) 2(1 + 2 + 3 + ... + 11 + 12)

    $= 2 \times \left(\frac{12 \times 13}{2}\right) =$ The clock rings 156 times .
27. (B) After changing the sign, we have,
    $8 \div 6 - 4 \times 7 + 3$

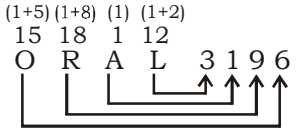
    $= \frac{8}{6} - 28 + 3 = \frac{26}{6} - 28 = \frac{13}{3} - 28$

    $= \frac{13 - 84}{3} = \frac{-71}{3}$

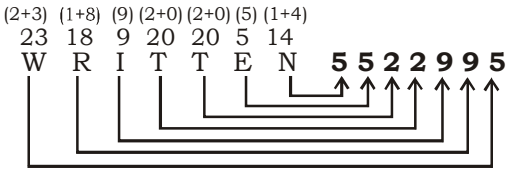
28. (A)

29. (C) $1 \to 4 \to 2 \to 3 \to 5$

30. (B)



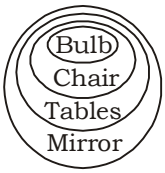
then,



31. (A) ROSE → 6821 .....(i)
CHAIR → 73456 .....(ii)
PREACH → 961473 .....(iii)
From equation (i) & (ii) R = 6
From equation (ii) & (iii) C=7, R=6, H=3, A=4
From equation (i) S = 2, E = 1
then, **SEARCH = 214673**

32. (C) AT = A × T = 1 × 20 = 20
BAT = B × A × T = 2 × 1 × 20 = 40
then,
CAT = C × A × T = 3 × 1 × 20 = **60**

33. (D)

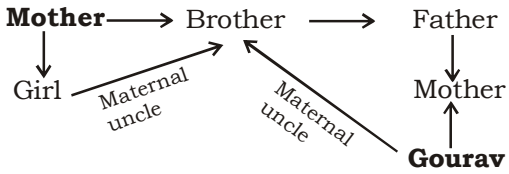


1 ✓
2 ✓
3 ✓

All conclusions are true.

34. (A) Information is given about reading. Only literate person can read the information. So only conclusion I follows.

35. (B)



36. (D) Here $n = \sqrt[3]{1728} = 12$

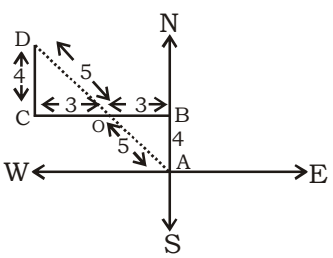
$$n = \frac{\text{Length of bigger cube}}{\text{Length of smaller cube}}$$

$$\Rightarrow 12 = \frac{30}{\text{Length of smaller cube}}$$

$\therefore$ length of smaller cube = 2.5 cm

37. (D) There are 28 triangles.

38. (C)



AD = AO + OD
AD = AO + DO

$$\Rightarrow \sqrt{AB^2 + BO^2} + \sqrt{OC^2 + CD^2}$$

$$\Rightarrow \sqrt{3^2 + 4^2} + \sqrt{3^2 + 4^2}$$

$\Rightarrow$ 5 + 5 = 10 miles

39. (B)

40. (C)

41. (C)

42. (D)

43. (D) Age of Nimo = 23 years 1 month
Age of Shyam = 18 years 7 months
Difference between their ages = 4 years 6 months. It means Bano is 2 years 3 months younger than Nimo or 2 years 3 months elder than Shyam.
So, age of Bano = 18 years 7 months
+ 2 years 3 months
= 20 years 10 months

44. (C)

45. (D)

46. (A) From dice 1 and dice 4 we have $\begin{matrix}1&2&3\\\downarrow&\downarrow&\downarrow\\1&5&6\end{matrix}$.
It clearly means digit **1** is opposite to digit 4.

47. (C)

48. (B) ab**c**cb/b**c**a**a**c/ca**b**ba

49. (A) a**b**ab**c**/bcbc**a**/caca**b**

50. (D)

51. (B) Even numbers between 21 to 51

$$\Rightarrow \quad 50 = 22 + (n-1) \times 2$$

$$n - 1 = \frac{50 - 22}{2} = 14$$

$$n = 15$$

$$\therefore \quad \text{Sum} = \frac{22 + 50}{2} \times 15$$

$$= 540$$

52. (C) $3 + \frac{36}{99} + 1 + \frac{33}{99} - 2 - \frac{5}{99}$

$$\Rightarrow 2 + \frac{36 + 33 - 5}{99} \Rightarrow 2 + \frac{64}{99} \Rightarrow 2.\overline{64}$$

53. (A) $999\frac{1}{7} + 999\frac{2}{7} + 999\frac{3}{7} + 999\frac{4}{7} + 999\frac{5}{7} + 999\frac{6}{7}$

$$\Rightarrow 999 \times 6 + \left(\frac{1+2+3+4+5+6}{7}\right)$$

$$\Rightarrow 5994 + \frac{21}{7} = 5997$$

54. (A) L.C.M. of 2, 3 and 5 = 30
$\therefore$ Required Number = 30 + 1 = 31

55. (B) Number of people who have saving habit

$= 2500 \times \frac{60}{100} = 1500$

% of share holders = (100 – 30% – 32)%
= 38%

∴ Required number $= 1500 \times \frac{38}{100}$
$= 570$

56. (D)

	₹ 1		50-P		25–P
Number	5	:	6	:	8
Value	5	:	3	:	2 = 10
					↓×24
					240

Number of 25-P coins= 8 × 24 = 192

57. (B) Sum of the squares of the first n natural number is $= \frac{n(n+1)(2n+1)}{6}$

$= \frac{10(10+1)(2\times10+1)}{6}$

$= \frac{10\times11\times21}{6} = 385$

Average $= \frac{385}{10} = 38.5$

58. (B) Let, total capital is ₹ 60
So,
He invests half (₹ 30) → 10%

$= 30 \times \frac{10}{100} = 3$

One-third (₹ 20) at → 9%

$= 20 \times \frac{9}{100} = 1.8$

Remaining (₹ 10) at → 12%

$= 10 \times \frac{12}{100} = 1.2$

∴ Average rate $= \frac{3+1.8+1.2}{60} \times 100$
$= 10\%$

59. (C) Rate (%) $= \frac{\text{Difference in amounts}}{1^{st}\text{ amount}} \times 100$

$= \frac{540-500}{500} \times 100 = 8\%$

60. (D) Let the cost of low priced chair is = ₹ x
Then, the cost of high priced chair = 900 – x

$\therefore \quad \frac{4x}{5} + \frac{5}{4}(900-x) = 900 + 90$

$\because \quad 9x = 22500 - 19800$
$= 2700$
$x = 300$

61. (C) Maximum retail price = ₹ 60

Selling price of article $= 60 \times \frac{85}{100} =$ ₹ 51

∴ Actual selling price after giving gift
= 51 – 3 = ₹ 48

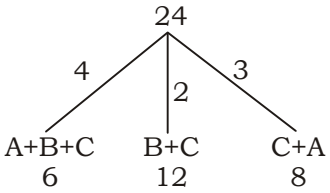
∴ Cost price $= 48 \times \frac{100}{120} =$ ₹ 40

62. (B) Required Time =

$\frac{\text{Distance between them}}{\text{Relative speeds}}$

$= \frac{5}{90-75} = \frac{5}{15} = \frac{1}{3}$ hr
= 20 minutes

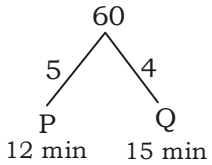
63. (C)



Efficiency of A = 4 – 2 = 2
Efficiency of B = 4 – 3 = 1

∴ (A + B) will do $= \frac{24}{2+1} = 8$ days

64. (D)



∴ Part filled in 3 min = (5 + 4) × 3 = 27
Remaining part = 60 – 27 = 33

∴ Q will take $= \frac{33}{4} = 8\frac{1}{4}$ min

65. (A) Speed of second train $= \frac{360}{4} = 90$ km/hr
Ratio of speeds of 1st and 2nd train

=	8	:	9
	↓×10	:	↓×10
	80 km/hr		90km/hr

∴ Distance travelled in 3 hr by 1st train
= 80 × 3 = 240 km/hr

66. (C) Downstream speed of boy = 10 + 5
= 15 km/hr
Upstream speed of boy = 10 – 5
= 5 km/hr

∴ Boy can go downstream $= \frac{60}{15} = 4$ hr

Boy can go upstream $= \frac{60}{5} = 12$ hr

67. (B) By option $= \sqrt[3]{9261} = \sqrt[3]{21\times21\times21} = 21$

68. (B) $a^{2x+2} = 1 \Rightarrow a^{2x+2} = a^0$

$\therefore\ 2x + 2 = 0 \Rightarrow 2x = -2 \Rightarrow x = -1$

69. (D) $\sqrt{5 \div 5 \div 5 \div 5} = \sqrt{5 \times \frac{1}{5} \times \frac{1}{5} \times \frac{1}{5}} = \sqrt{0.04}$
$= 0.2$

70. (C) $l = b \times 3 \Rightarrow b = \frac{l}{3}$

$l = h \times 5 \Rightarrow h = \frac{l}{5}$

$\therefore$ V = lbh

$14400 = l \times \frac{l}{3} \times \frac{l}{5}$

$l^3 = 144 \times 1500$

$l = \sqrt[3]{216000} \Rightarrow l = 60$

$b = \frac{60}{3} = 20, \quad h = \frac{60}{5} = 12$

$\therefore$ Total surface area = $2(lb + bh + lh)$
$= 2(60 \times 20 + 20 \times 12 + 12 \times 60)$
$= 2(1200 + 240 + 720)$
$= 4320\ \text{cm}^2$

71. (D) $\frac{x}{2} - \frac{1}{2} = x \times \frac{1}{\sqrt{3}} \times \frac{1}{\sqrt{3}} = \frac{x}{3}$

$\frac{x}{2} - \frac{x}{3} = \frac{1}{2} \Rightarrow \frac{x}{6} = \frac{1}{2}$

$\therefore x = 3$

72. (B) $x^y = y^x$ $\quad \therefore y = x$

$\therefore \left(\frac{x}{y}\right)^{\frac{x}{y}} = \left(\frac{x}{\frac{y}{x^x}}\right)^{\frac{x}{y}} = x^{\frac{x}{y} - \frac{x}{y} \times \frac{y}{x}} = x^{\frac{x}{y} - 1}$

73. (B) $\frac{1}{\cos\theta} = \frac{4a^2 + 1}{4a}$

$\therefore \sin\theta = 1 - \sqrt{1 - \left(\frac{4a}{4a^2 + 1}\right)^2}$

$= \sqrt{\frac{16a^4 + 1 + 8a^2 - 16a^2}{(4a^2 + 1)^2}}$

$= \sqrt{\frac{16a^4 - 8a^2 + 1}{(4a^2 + 1)^2}}$

$= \frac{4a^2 - 1}{4a^2 + 1}$

$\therefore \tan\theta + \frac{1}{\cos\theta} = \frac{\sin\theta + 1}{\cos\theta}$

$= \frac{\frac{4a^2 - 1^2}{4a^2 + 1} + 1}{\frac{4a}{4a^2 + 1}} = \frac{8a^2}{4a} = 2a$

74. (C) Let $x = 3, y = 4$
So, $x + y = 3 + 4 = 7$
and $x^2 + y^2 = 3^2 + 4^2 = 25$

$\therefore \frac{1}{x} + \frac{1}{y} = \frac{1}{3} + \frac{1}{4} = \frac{7}{12}$

75. (C) $\sqrt{mn} = 10$, $mn = 100$
If $m = 100$ then $n = 1$ $\quad \therefore m + n = 101$
If $m = 50$, then $n = 2$ $\quad \therefore m + n = 52$
If $m = 25$, then $n = 4$ $\quad \therefore m + n = 29$
$\therefore m + n \neq 50$

76. (A) Length of hypotenuse = $\sqrt{24^2 + 7^2} = 25$

$\therefore \frac{1}{2} \times 25 \times h = \frac{1}{2} \times 7 \times 24$

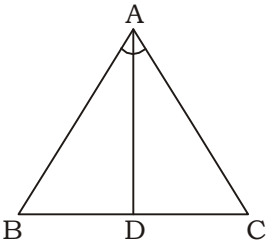
$h = \frac{7 \times 24}{25} = 6.72\ \text{cm}$

77. (A) $\because x + y - 4 = 0$
$\Rightarrow y = (-x) + 4$ ...(i)
$\because 3x - y - 4 = 0$
$\Rightarrow y = 3x - 4$ ...(ii)
$\because x + 3y - 4 = 0$
$\Rightarrow y = \frac{(-x)}{3} + \frac{4}{3}$ ...(ii)
Product of gradient of (ii) and (iii) equations are
$= 3 \times \frac{-1}{3} = -1$
$\because$ Lines are perpendicular
$\therefore$ Triangle formed is a right angled triangle.

78. (D) $\sin\theta + \cos\theta = \sqrt{3}\cos\theta$
$\sin\theta = (\sqrt{3} - 1)\cos\theta$
$\therefore \cos\theta - \sin\theta = \cos\theta - (\sqrt{3} - 1)\cos\theta$
$= \cos\theta[1 - \sqrt{3} + 1]$
$= (2 - \sqrt{3})\cos\theta$

79. (D) If length, breadth and height of the cuboid are l, b, h respectively then
$l \times b = p$
$b \times h = q$
$l \times h = r$
$\therefore (lbh)^2 = pqr$
$lbh = \sqrt{pqr}$

80. (C)



If AD is the angle bisector, then
$\frac{AB}{AC} = \frac{BD}{DC} \quad \therefore \frac{BD}{DC} = \frac{3}{4}$

81. (A) $a + \frac{1}{a} = -1$

$\Rightarrow a^2 + 1 = -a$

$a^2 + a + 1 = 0$

$\therefore a^4 - a = a(a^3 - 1)$

$= a(a-1)(a^2 + a + 1)$

$\therefore 0 \times a(a-1) = 0$

82. (B) $\frac{1-\sin\theta+1+\sin\theta}{\sqrt{1+\sin\theta}\times\sqrt{1-\sin\theta}} = \frac{2}{\cos\theta} = 2\sec\theta$

83. (C) $\sin^2A(1 - \sin^2B) - (1 - \sin^2A)\sin^2B$

$\therefore \sin^2A - \sin^2B$

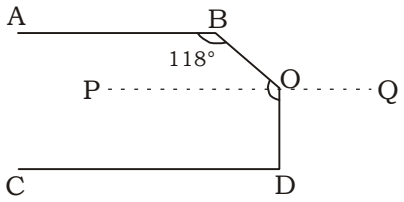
84. (B) $\angle PBA = 100°$

$\Rightarrow \angle PBE = \angle BED = 180° - 100° = 80°$

$\therefore \angle BED = \angle CDS$

$\Rightarrow y = 80°$

85. (C)



Draw a line PQ through O, parallel to AB and CD.

$\angle BOP = 180° - 118° = 62°$

$\therefore \angle POD = 152° - 62° = 90°$

PQ ||CD

$\therefore \angle POD + \angle ODC = 180°$

$\angle ODC = 180° - 90°$

$= 90°$

86. (A) We know that

$\frac{PA}{PQ} = \frac{AB}{QR} = \frac{PB}{PR}$

$\frac{PB}{6} = \frac{3}{9} \Rightarrow PB = 2$ cm

87. (D) $h = 10.5$ m, $r = \frac{13}{2} = 6.5$

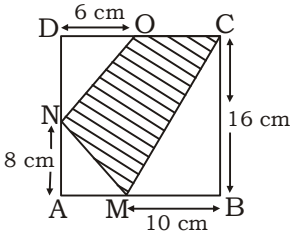
$\therefore V = \frac{1}{3}\pi r^2 h = \frac{1}{3} \times \frac{22}{7} \times \frac{13}{2} \times \frac{13}{2} \times \frac{21}{2}$

$= 464.75$

$\therefore$ Each person required $= \frac{464.75}{8}$

$= 58.09375 = 58\frac{3}{32}$ m³

88. (A)



Area of square ABCD = 16 × 16 = 256 cm²

Area of $\Delta MBC = \frac{1}{2} \times 10 \times 16 = 80$ cm²

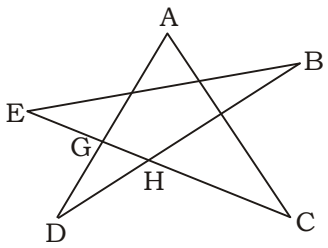
Area of $\Delta NAM = \frac{1}{2} \times 8 \times 6 = 24$ cm²

Area of $\Delta NDO = \frac{1}{2} \times 6 \times 8 = 24$ cm²

$\therefore$ Required area = 256 – 80 – 24 – 24

= 128 cm²

89. (A)



$\angle DGH = \angle A + \angle C$ (exterior angle property)

$\angle DHG = \angle E + \angle B$ (exterior angle property)

In ΔDGH,

$\angle D + \angle DGH + \angle DHG = 180°$

$\angle D + \angle A + \angle C + \angle B + \angle C = 180°$

$\angle D + \angle A + \angle C + \angle B + \angle C$

= 2 right angle

90. (B) Unit digit of $327^{123} = 3$

Unit digit of $413^{96} = 1$

Unit digit of $118^{119} = 2$

Unit digit of $226^{67} = 6$

Sum of unit digits = 1**2**

↓

Unit digit

91. (C) Middle digit of the number N = 6

Sum of 1st and the last digit

= 3 + 3 = 6

92. (C) $\because x = \frac{\sqrt{5}-1}{\sqrt{5}+1}$ and $xy = 1$

$\therefore y = \frac{1}{x} = \frac{1}{\frac{\sqrt{5}-1}{\sqrt{5}+1}} = \frac{\sqrt{5}+1}{\sqrt{5}+1}$

$\therefore x^2 + y^2 - 3xy = x^2 + y^2 - 2xy - xy$

$= (x-y)^2 - xy$

$= \left[\frac{\sqrt{5}-1}{\sqrt{5}+1} - \frac{\sqrt{5}+1}{\sqrt{5}-1}\right]^2 - 1$

$= \left[\frac{(\sqrt{5}-1)^2 - (\sqrt{5}+1)^2}{(\sqrt{5}+1)(\sqrt{5}-1)}\right]^2 - 1$

$= \left[\frac{(5+1-2\sqrt{5}) - (\sqrt{5}+1+2\sqrt{5})}{(\sqrt{5})^2 - (1)^2}\right]^2$

$$= \left[\frac{-4\sqrt{5}}{5-1}\right]^2 - 1 = \frac{(-4\sqrt{5})^2}{(4)^2} - 1$$

$$= \frac{16\times 5}{16} - 1 = 5 - 1 = 4$$

93. (D) $x^2 - 4x + 3 = x^2 - 3x - x + 3$
$= x(x-3) - 1(x-3)$
$= (x-3)(x-1)$

Again,
$x^2 - 5x + 6 = x^2 - 3x - 2x + 6$
$= x(x-3) - 2(x-3)$
$= (x-3)(x-2)$

So, L.C.M. of $x^2 - 4x + 3$ and $x^2 - 5x + 6$
$= (x-1)(x-2)(x-3)$

94. (B) $\because \quad \cos 43° = \frac{x}{\sqrt{x^2+y^2}}$

$\Rightarrow \cos(90° - 47°) = \frac{x}{\sqrt{x^2+y^2}}$

$\Rightarrow \quad \sin 47° = \frac{x}{\sqrt{x^2+y^2}}$

$\Rightarrow \quad \cos 47° = \sqrt{1 - \sin^2 47°}$

$= \sqrt{1 - \left(\frac{x}{\sqrt{x^2+y^2}}\right)^2} = \sqrt{1 - \frac{x^2}{x^2+y^2}}$

$= \sqrt{\frac{x^2+y^2-x^2}{x^2+y^2}} = \sqrt{\frac{y^2}{x^2+y^2}}$

$= \frac{y}{\sqrt{x^2+y^2}}$

$\therefore \quad \cos 47° = \frac{y}{\sqrt{x^2+y^2}}$

So, $\tan 47° = \frac{\sin 47°}{\cos 47°} = \frac{\frac{x}{\sqrt{x^2+y^2}}}{\frac{y}{\sqrt{x^2+y^2}}}$

$= \frac{x}{\sqrt{x^2+y^2}} \times \frac{\sqrt{x^2+y^2}}{y} = \frac{x}{y}$

95. (C) $\cos^2\theta - \sin^2\theta = \frac{1}{3}$ (given)

$\therefore \quad \cos^4\theta - \sin^4\theta + 1 = [(\cos^2\theta)^2 - (\sin^2\theta)^2] + 1$
$= (\cos^2\theta + \sin^2\theta)(\cos^2\theta - \sin^2\theta) + 1$
$[\because a^2 - b^2 = (a+b)(a-b)]$
$= 1 \times (\cos^2\theta - \sin^2\theta) + 1$
$[\because \cos^2\theta + \sin^2\theta = 1]$

$= \frac{1}{3} + 1 = \frac{4}{3}$

96. (A) Distance between A and B = 120 km
$= 120 \times 1000$ m
Time = 10 a.m. – 6 a.m. = 4 hr
$= 4 \times 60 \times 60$ sec

$$\text{Speed (m/sec)} = \frac{120\times 1000}{4\times 60\times 60} = \frac{25}{3}$$

$$= 8\frac{1}{3} \text{ m/sec}$$

97. (C) Distance between B and A = 120 km
$= 120 \times 1000$ m
Time = 9 a.m. – 7 a.m.
$= 2$ hr $= 2 \times 60$ min

$$\text{Speed} = \frac{120\times 1000}{2\times 60}$$

$= 1000$ m/min

98. (B) Right time is 8 : 30 a.m.

99. (A) Required value of $x = 100 - 55 = 45$ km

100. (B) Distance = 120 km
Time = 10 a.m. – 6 a.m.
$= 4$ hr $= 240$ min

$$\text{Speed} = \frac{120}{240} = \frac{1}{2} = 0.5 \text{ km/min}$$

101. (C) The Salt Satyagraha also known as Dandi March, began on 12th March 1930 from Sabarmati Ashram near Ahmedabad to the Coastal Village of Dandi, located at a small town called Navsari in the state of Gujrat under the leadership of Mahatma Gandhi. After making salt at Dandi, Gandhi continued southward along the coast producing salt. The Congress Party planned to stage a Satyagaraha at the Dharsana salt works in Gujarat 25 miles south of Dandi. However Gandhiji was arrested and it was then led by Abbas Tyabji a retired judge, leading the march with Gandhi's wife Kasturba. Both of them were arrested but the march was continued by Sarojini Naidu, a women poet and freedom fighter.

102. (D) John Locke said 'Where there is no law, there is no freedom' in his Second Treatise of Civil Government Chapter 6. He emphasised that the end of law is not to abolish or restrain, but to preserve and enlarge freedom.

103. (C) During the period of John Lawrence (1864-1869) the High courts came into existence at presidential cities of Calcutta, Madras and Bombay. Bombay and Madras were established in 1857 during the period of Lord Canning (1856-1862).

104. (A)The Supreme Court of India has construed 'Right to Privacy' as a part of a Fundamental Right under Article 21 which states 'protection of life and personal liberty' i.e no person shall be deprived of his life or personal liberty except according to the procedure established by law.

105. (D)The Classical theory of Sovereignty established the legal character of sovereignty. It held it as absolute, perpetual, universal, inalienable and indivisible. Also its application in the political field give rise to many problems. It could not resolve the conflict between the State and Government and also between the individual and the state on other side. The pluralist theory of sovereignty seeks to resolve this dilemma.

The pluralist sought to redefine the nature of the state as one of the several associations of human beings operating in the society to secure the multifarious interests of individuals. Infact, the Pluralist theory seeks to curtail or limit the absolute authority of the state as against the classical theory. It is said that laws are not an expression of the commands of sovereign but also conditions of solidarity to social life of men.

106. (A)An ecosystem includes all the living things (plants, animals and organisms) in a given area, interacting with each other and also with their non-living environments (weather, earth, sun, soil, climate atmosphere).

107. (C)In 1600, English East India Company was established by a small group of English merchants. By a Charter, Queen Elizabeth granted them exclusive right to trade with the East. The East India company set up its first factory at Surat. Then Madras also became an important British trading settlement. In 1688, Bombay was transferred to the company by king Charles II, who had received it as dowry from Portuguese at an annual rent of 10 pounds. Further the Company also established trading centre at Fort William in Calcutta. So, by 1700 the East India company had established three important factories in Madras, Bombay and Calcutta.

108. (C) Tributaries of Brahmaputra from North-bank are Jiadhal, Subansari, Siang, Kameng, Dhansiri, Puthimari, Pagladiya, Manas, Champamati, Saralbhanga, Aie, Sankosh. Tributaries from South bank are Noa Dehing, Buridehing, Debang, Dikhow, Dhansiri (S), Kopili, Digaru, Dudhnai and Krishnai.

110. (A)In 1936-37 provincial elections were held in British India which was mandated by the Government of India Act 1935. Elections were held in 11 provinces – Madras, Central Provinces, Bihar, Orissa, United Provinces, Bombay Presidency, Assam, NWFP, Bengal, Punjab and Sindh. The Indian National Congress emerged in power in all the provinces except Bengal, Punjab and Sindh. And the All India Muslim League failed to form the government in any province.

111. (C)The Fabian society is a British socialist organization whose purpose is to advance the principles of democratic socialism via gradualist and reformist. It is known for its initial ground- breaking work beginning late in the 19th century and continuing up to World War-I. The society laid foundations of the Labour Party and subsequently affected by the policies of states emerging from the decolonization of the British empire, especially India.

112. (A)The Japanese names for Japan are Nippon and Nihon. Both Nippon and Nihon literally mean ' The Sun's origin' i.e. where the sun originates and termed it as the Land of the Rising Sun. This nomenclature comes from Imperial correspondence with the Chinese Sui Dynasty and refers to Japan's eastern position relative to China.

113. (B)Economic rent is surplus over transfer earnings. It arise when the supply of the factor unit is less than perfectly elastic or not perfectly elastic. When supply is perfectly elastic, there is no surplus or economic rent but actual and transfer earnings are equal. In such a scenario at a given price or remuneration, the entre-preneur can engage in any number of factor units.

116. (B)Taxation is a means by which governments finance their expenditure by imposing charges on citizens and corporate entities. Government use taxation to encourage or discourage certain economic decisions. Therefore taxation is a tool of Fiscal Policy.

118. (A)Angora wool is also known as Angora hair or Angora fiber. It refers to the downy coat produced by the Angora rabbit. Angora is known for its softness, thin fibres fluffiness, silky texture. It is much warmer and lighter than wool due to hollow core of the angora fibre.

120. (C)National food for work programme was launched on 14th Nov. 2004 in 150 of the most backward districts of India with the objective of generating supplementary wage employment. This programme is open to all rural poor who are prepared to do manual, unskilled labour. It is implemented as a centrally sponsored scheme.

123. (D) Vernacular Press Act 1878, was passed under the Governor Generalship and Viceroyalty of Lord Lytton for 'better control' of Indian language newspapers. This law was repealed by Lytton's successor Lord Ripon in 1881. This act was criticized by Indian Association (founded in 1876) and is considered to be one of the precursors of the Indian National Congress (founded in 1885).

* Lord Curzon was the Governor General and Viceroy of India from 1899 to 1905.

124. (D)Vamsathapakasini was the last Buddhist text produced in India which gives information about the origin of the Mauryas.

125. (C)Commercial Nitric acid has a brown colour due to dissolved nitrogen dioxide. The procedure of bubbling dry air through warm commercial Nitric Acid, is to drive away the dissolved nitrogen dioxide, so that the acid becomes colourless.

126. (C)Ultraviolet (UV) light has shorter wavelengths than visible light. Although UV waves are invisible to the human eye, some insects can see them. The Sun is a source of the full spectrum of ultraviolet radiation, which is subdivided into UV-A, UV-B and UV-C. UV-C rays are most harmful and almost completely absorbed by our atmosphere. UV-B rays are harmful rays that cause sunburn. Exposure to UV-B rays increases the risk of DNA and other cellular damage in living organisms. Fortunately, about 95% UV-B rays are absorbed by ozone in the Earth's atmosphere.

128. (C) Hamburger effect is also known as chloride shift. It is a process which occurs in a cardiovascular system and refers to the exchange of bicarbonate (HCO_3^-) and chloride (Cl^-) across the membrane of red blood cells (RBCs).

129. (D)According to Tarikh-i-Firuzshai, Allauddin promulgated seven ordinances in order to accomplish his price control measure. They are –

(i) All food prices were to be fixed.
(ii) Large storage of grain was established in Delhi.
(iii) A high ranking official was there to ensure that no tampering was done.
(iv) Trade and transport of grains were controlled by the government.
(v) From hoarding of grains, peasants and traders were prohibited.
(vi) The collection of revenue was to be made in kind and the government for grain should be there to eliminate the private storage of grain.
(vii) A daily status report on market prices had to be submitted to the Sultan.

130. (C)X-rays is a form of electromagnetic radiation ranging from wavelength 0.01 to 10 nanometres. X-ray wavelengths are shorter than UV rays and longer than gamma rays. Due to its penetrating ability, they are widely used to image the inside objects especially in medical radiography and airport security. But direct X-ray are not able to capture clear images of intestine. For this a powder named Barium is mixed with water to make Bariumi liquid. This liquid is given to the patient before X-ray and then the X-ray is done.

132. (C)In India, all the major banks have been operating under Branch Banking System. Branch Banking implies engaging in banking activities such as accepting deposits. It is a system of banking in which a banking organization works at more than one place. The main place is known as head office and other places of business are called branches.

134. (A)Inchemia is a restriction in blood supply to tissues causing a shortage of oxygen and glucose needed for cellular metabolism. It also means local anaemia in a given part of a body sometimes result from congestion.

135. (C)MIRV stands for Multiple independently re-entry vehicle. It is a ballistic missile payload containing several warheads, each capable of being aimed to hit one of a group of targets. Britain, China, France, Russia and US are known to possess MIRV missiles.

136. (D)According to Mahatma Gandhi, Trusteeship plays an important role. He

wanted to abridge the gap between the rich and the poor. He envisaged that food, cloth and shelter are the basic needs of the human beings. So, the excess wealth or property of the rich can add welfare to the society. The wealth and talent should be considered a trust of the whole society and as 'trustee' the individual should handle it for the betterment of the society

139. (B)Boron increases the absorption of water and calcium in the plants. It also helps in the metabolic activities in plants. Boron is necessary for sugar to move through protoplasmic membranes.

140. (C)Government of India Act 1935. - It was passed in August 1935 and is said to have been the longest Act of Parliament.

Features of the Act are:-

- The grant of a large measure of autonomy to the provinces of British India (ending the system of dyarchy introduced by the Government of India Act 1919).
- Provision for the establishment of a 'Federation of India', to be made up of both British India and some or all of the 'princely states'.
- The introduction of direct elections, thus increasing the franchise from seven million to thirty-five million people.
- A partial reorganisation of the provinces.

However, the degree of autonomy introduced at the provincial level was subject to an important limitations

The provincial Governors retained important reserve powers and the British authorities also retained a right to suspend responsible government.

The parts of the Act intended to establish the federation of India never came into operation, due to opposition from rulers of the princely states.

143.(C)Diminishing returns is also known as diminishing marginal returns. It is the decrease in the per-unit or marginal output of a production process as the amount of a single factor of production is increased, while the amounts of all other factors of production remains constant. This law plays a central role in the production theory.

145. (A)Yellow fever is an acute viral disease. Its symptoms include fever, chills, loss of appetite, nausea, muscle pains particularly in the back and headache. This disease is caused by yellow fever virus and spread by the bite of female mosquito Aedes Aegypti.

147. (C)Peru Current also known as Humboldt current, is a cold, low salinity ocean current that flows north-westward along the west coast of South America from the southern tip of Chile to northern Peru. It is an eastern boundary current flowing in the direction of the equator and can extend 1,000 kilometers offshore.

148. (D)The rate of respiration is dependent on temperature. The warmer it is,the more a plant will respire. Drought, extreme winter or frost and heat creates a situation where moisture is not adequate to maintain the proper water level in plant tissues. The air is also very dry as well.

149. (D)Lambert's law states that the radiant intensity or luminous intensity observed from an ideal diffusely reflecting surface or radiator is directly proportional to the cosine of the angle θ between the direction of the incident light and the surface normal. Such a surface has the same radiance when viewed from any angle.

150. (D)Epidemic dropsy is a clinical state resulting from the use of an edible oil adulterated with Argemone Mexicana seed oil.

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Adventurous	Exciting	दुस्साहस भरा
Aerodrome	A landing area that is usually smaller than airport	हवाई अड्डा
Affluent	Rich	धनी
Astute	Smart	चतुर
Attributes	Quality	गुण
Aviary	Place where many birds are kept	पक्षीशाला
Desiccation	To dry	सुखाना
Dualism	The quality or state of having two different or opposite parts of element	द्वैतवाद
Gimcrack	Not worthy	बेकार
Graceful	Polite	विनम्र
Huddle	To come close together in a group	झुंड
Insidious	Causing harm in a way that is gradual or not easily noticed	घातक
Instances	Examples	उदाहरण
Mammoth	Large	विशाल
Marshy	Muddy	दलदली
Nepotism	The unfair practice by a powerful person of giving jobs and other favours to relatives	भाई-भतीजावाद
Pluralism	The belief that people of different social classes, religion etc. should live together in a society	अनेकवाद
Rebuke	To speak in an angry and critical way	बुरा-भला कहना
Rebuke	Scold	फटकार
Relinquish	To leave	त्यागना
Reprimand	To scold	डाँटना
Salubrious	Making good health possible or likely	स्वास्थ्यवर्द्धक
Sericulture	The production of raw silk by raising silkworm	रेशम-कीट पालन
Shrewd	Clever	चालाक
Sullen	Sad	उदास
Triennial	Lasting for three years	त्रैवार्षिक
Zootomist	Person who practises in the dissection of animals	प्राणी शरीर का चीर-फाड़ करने वाला विशेषज्ञ

SSC MOCK TEST -4 (ANSWER KEY)

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

151. (B); In Indirect Speech 'that' is not used in interrogative sentences.

152. (C); Use 'his' instead of 'their'. 'Everybody' takes singular verb.

153. (B); Use 'a couple of' instead of 'the couple of'.

154. (C); Use 'to care of' for instead of 'to care'

155. (B); Don't use 'the' before 'literature'. We don't use any article with the names of subjects.

Correction of Mock Test-3

5. (A);

72. (A);

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