SSC TIER II (MATHS) MOCK TEST - 44 (SOLUTION)

1. (A) Difference between C.I. and S.I. for 3 years

$= P\left(\frac{r}{100}\right)^2\left(\frac{r}{100}+3\right)$

Difference between C.I. and S.I. for 2 years

$= P\left(\frac{r}{100}\right)^2$

ATQ,

$$\frac{P\left(\frac{r}{100}\right)^2\left(\frac{r}{100}+3\right)}{P\left(\frac{r}{100}\right)^2} = \frac{23}{7}$$

$$\Rightarrow \left(\frac{r}{100}+3\right) = \frac{23}{7}$$

$$\Rightarrow \frac{r+300}{100} = \frac{23}{7}$$

$\Rightarrow 7r + 2100 = 2300$

$\Rightarrow r = \frac{200}{7}\%$

2. (C) Let the distance D.

$t_1 = \frac{D}{40}$

$t_2 = \frac{D}{35}$

ATQ,

$t_2 - t_1 = \frac{15}{60}$

$\Rightarrow \frac{D}{35} - \frac{D}{40} = \frac{1}{4}$

$\Rightarrow 40D - 35D = \frac{35 \times 40}{4}$

$\Rightarrow 5D = \frac{35 \times 40}{4}$

$\Rightarrow D = \frac{35 \times 10}{5} = 70$ km

3. (B) Required area $= \frac{4}{3}\sqrt{s(s-m_1)(s-m_2)(s-m_3)}$

Where $S = \frac{m_1+m_2+m_3}{3}$

$\Rightarrow S = \frac{9+12+15}{2} = 18$ cm

$\therefore$ Required area $= \frac{4}{3}\sqrt{18(18-9)(18-12)(18-15)}$

$= \frac{4}{3}\sqrt{18\times 9\times 6\times 3}$

$= \frac{4}{3}\times \sqrt{9\times 2\times 9\times 3\times 2\times 3}$

$= \frac{4}{3}\times 3\times 2\times 9 = 72$ cm^2

4. (C) $\frac{A}{3} = \frac{B}{2} = \frac{C}{5} = K$

Now,
$A = 3k$, $B = 2k$, $C = 5k$
$(C + A)^2 : (A + B)^2 : (B + C)^2$
$= (5 + 3)^2 : (3 + 2)^2 : (2 + 5)^2$
$= 8^2 : 5^2 : 7^2$
$= 64 : 25 : 49$

5. (C) $\sqrt{8-2\sqrt{15}}$

$= \sqrt{8-2\sqrt{3}\times\sqrt{5}}$

$= \sqrt{5+3-2\sqrt{3}\times\sqrt{5}}$

$= \sqrt{\left(\sqrt{5}\right)^2+\left(\sqrt{3}\right)^2-2\sqrt{3}\times\sqrt{5}}$

$= \sqrt{\left(\sqrt{5}-\sqrt{3}\right)^2}$

$= \left(\sqrt{5}-\sqrt{3}\right)$

6. (D) $\frac{1}{\sqrt{100}-\sqrt{99}} = \frac{\sqrt{100}+\sqrt{99}}{\left(\sqrt{100}-\sqrt{99}\right)\left(\sqrt{100}-\sqrt{99}\right)}$

$= \frac{\sqrt{100}+\sqrt{99}}{100-99}$

$= \sqrt{100} + \sqrt{99}$

$= \frac{1}{\sqrt{100}-\sqrt{99}} - \frac{1}{\sqrt{99}-\sqrt{98}} + \frac{1}{\sqrt{98}-\sqrt{97}} - \frac{1}{\sqrt{97}-\sqrt{96}} + \ldots\ldots + \frac{1}{\sqrt{2}-\sqrt{1}}$

$= \left(\sqrt{100}+\sqrt{99}\right) - \left(\sqrt{99}+\sqrt{98}\right) + \left(\sqrt{98}+\sqrt{97}\right) - \left(\sqrt{97}+\sqrt{96}\right) + \ldots\ldots + \left(\sqrt{2}+\sqrt{1}\right)$

$= \sqrt{100}+1 = 10 + 1 = 11$

7. (D) ATQ,
200 m × 150 m × 8 m = 0.3 m × 0.2 m $\times \frac{20{,}000\,m}{hr} \times t$

$\Rightarrow$ 240000 = 1200 t

$\Rightarrow$ t = 200 hrs

8. (D) Let percent age of father mother and son be f, m, s

5 years ago,

$$\frac{f-5+m-5-s-5}{3} = 35$$

$\Rightarrow f + m + s = 105 + 15 = 120$

3 years ago,

$$\frac{f-3+m-3}{2} = 46$$

$\Rightarrow f + m = 92 + 6 = 98$

$\Rightarrow s = 120 - 98 = 22$

$\therefore$ Percent age of son = 22 years

9. (C) ATQ,

$$\frac{CP}{SP} = \frac{x}{60}$$

Profit% = 20

$$\Rightarrow \frac{20}{100} = \left(\frac{SP}{CP} - 1\right)$$

$$\Rightarrow \frac{1}{5} = \frac{60-x}{x}$$

$\Rightarrow x = 300 - 5x$

$\Rightarrow 6x = 300$

$\Rightarrow x = 50$

10. (A) Let initial CP of Ajay = ₹100

40% profit $\Rightarrow$ SP of Ajay = CP of Rakesh = ₹140

20% loss $\Rightarrow$ SP of Rakesh = CP of Ajay = ₹112

30% profit $\Rightarrow$ SP of Ajay = CP Varun = ₹145.6

So, overall earning of Ajay

= ₹(140 – 112 + 145.6) = ₹173.6

So, profit = ₹173.6 – ₹100 = ₹73.6

$$\text{Profit\%} = 100 \times \left(\frac{\text{Pofit}}{CP}\right) = 100 \times \frac{73.6}{100} = 73.6\%$$

11. (D) $x + 1 = x^2$

$$\Rightarrow \frac{x+1}{x} = \frac{x^2}{x}$$

$$\Rightarrow 1 + \frac{1}{x} = x$$

$$\Rightarrow x - \frac{1}{x} = 1$$

Squaring both side.

$$\Rightarrow x^2 + \frac{1}{x^2} = 1^2 + 2 = 3$$

$$\Rightarrow x^4 + \frac{1}{x^4} = 3^2 - 2 = 7$$

$$\Rightarrow \left(x^4 + \frac{1}{x^4}\right)^2 - \left(x^4 - \frac{1}{x^4}\right)^2 = 4$$

$$\Rightarrow (7)^2 - \left(x^4 - \frac{1}{x^4}\right)^2 = 4$$

$$\Rightarrow 49 - \left(x^4 - \frac{1}{x^4}\right)^2 = 4$$

$$\Rightarrow \left(x^4 - \frac{1}{x^4}\right)^2 = 45$$

$$\Rightarrow x^4 - \frac{1}{x^4} = +3\sqrt{5}$$

$$\Rightarrow x^4 + \frac{1}{x^4} + x^4 - \frac{1}{x^4} = 7 + 3\sqrt{5}$$

$\Rightarrow 2x^4 = 7 + 3\sqrt{5}$

12. (D) Let the number be. x, x+1, x+2

$x^2 + (x+1)^2 + (x+2)^2 = x^2 + x^2 + 1 + 2x + x^2 + 4 + 4x$

$= 3x^2 + 6x + 5$

On division by 3, we get remainder 2

Only option (D) 1877 give 2 as remainder when divided by 3.

13. (C) ATQ,

8A5146B is divisible by 88

$\Rightarrow$ 8A5146B is divisible by 8, 11

8A5146B is divisible by 8

$\Rightarrow$ 46B is divisible by 8

$\Rightarrow$ B = 4

8A51464 is divisible by 11

$\Rightarrow$ + 4 – 6 + 4 – 1 + 5 – A + 8 is divisible by 11

$\Rightarrow$ 21 – 7 – A divisible by 11

$\Rightarrow$ 14 – A divisible by 11

$\Rightarrow$ A = 3

$\Rightarrow$ A × B = 4 × 3 = 12

14. (D) $a^n + b^n$ is always divisible by $a + b$, when n is odd.

Therefore $15^{23} + 23^{23}$ is always divisible by 15 + 23 = 38

As 38 is a multiple of 19, $15^{23} + 23^{23}$ is divisible by 19.

Therefore, then required remainder = 0

15. (C) Let CP_1 = ₹x

SP_1 = ₹1.1x

CP_2 = ₹0.9x

SP_2 = ₹1.1 x + 3

ATQ,

$$P = 25\% = \frac{1}{4}$$

$$\Rightarrow \frac{SP_2}{CP_2} = \frac{5}{4} \Rightarrow \frac{1.1x+3}{0.9x} = \frac{5}{4}$$

$\Rightarrow 4.4x + 12 = 4.5x$

$$\Rightarrow x = \frac{12}{0.1} = ₹120$$

16. (D) Let CP, = ₹100
Profit = 170%
⇒ CP is increased by 20%
CP_2 = ₹120

$$\text{Profit\%} = \frac{270-120}{120}\times 100$$
$$= 125\%$$

17. (D) $(2\cos^2\theta - 1)\left(\frac{1+\frac{\sin\theta}{\cos\theta}}{1-\frac{\sin\theta}{\cos\theta}} + \frac{1-\frac{\sin\theta}{\cos\theta}}{1+\frac{\sin\theta}{\cos\theta}}\right)$

$$= 2\cos^2\theta - 1\left(\frac{\cos\theta+\sin\theta}{\cos\theta-\sin\theta} + \frac{\cos\theta-\sin\theta}{\cos\theta+\sin\theta}\right)$$
$$= (2\cos^2\theta - (\sin^2\theta+\cos^2\theta)$$
$$\times \frac{(\cos\theta+\sin\theta)^2+(\cos\theta-\sin\theta)^2}{(\cos^2\theta-\sin^2\theta)}$$

$$= (\cos^2\theta - \sin^2\theta) \times \frac{2(\cos^2\theta+\sin^2\theta)}{(\cos^2\theta-\sin^2\theta)}$$
$$= 2 \times 1$$
$$= 2$$

18. (B)

	A	:	B
Efficiency	3	:	1
Day	1	:	3

ATQ,
(3–1) units = 2 units = 40 days
⇒ 1 unit = 20 days
A ⇒ 20 days
B ⇒ 60 days
Let work be 60 units
A's one day work = 3 units
B's one day work = 1 unit
(A + B)'s one day work = 4 units

$$\therefore \text{Required number of days} = \frac{30\,\text{units}}{4}$$
$$= 7.5 \text{ days}$$

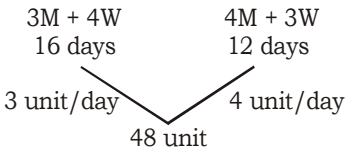
19. (B) Let the height of the pole = h
ATQ,

$$\frac{h}{50} = \frac{6}{4}$$

$$h = \frac{3}{2}\times 50 = 75 \text{ ft}$$

20. (C) Let R be the required radius
ATQ,
$\pi R^2 = \pi r_1^2 + \pi r_2^2$
$\Rightarrow \pi R^2 = \pi (r_1^2 + r_2^2)$
$\Rightarrow R^2 = r_1^2 + r_2^2$
$\Rightarrow R^2 = (20)^2 + (21)^2$
$\Rightarrow R^2 = 400 + 441$
$\Rightarrow R^2 = 841$
$\Rightarrow R = 29$ cm

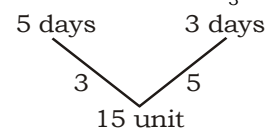
21. (B)



3M + 4W = 3 ..... (i)
4M + 3W = 4 ..... (ii)
7M + 7W = 7
⇒ M + W = 1
⇒ 8M + 8W = 8

$\therefore$ Required days = $\frac{48}{8}$ = 6 days

22. (D)



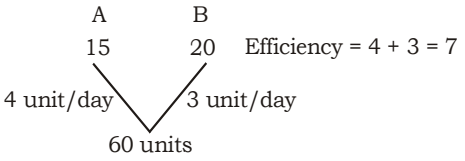
A + B = 3

$$2A + \frac{1}{3}B = 5$$

$$\Rightarrow A = \frac{12}{5},\ B = \frac{3}{5}$$

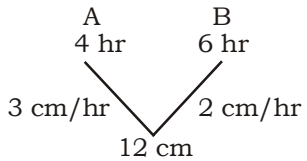
$$\therefore \text{Required number of days} = \frac{15}{12/5}$$
$$= \frac{25}{4} = 6\frac{1}{4} \text{ days.}$$

23. (C)



A + B → 12 hours $\Rightarrow \frac{60}{12} = 5$ (Efficiency)
(7 – 5) = 2 units = 280 bricks
⇒ 1 unit = 140 bricks
Total bricks = 60 units = 140 × 60 = 8400

24. (B)



Let the required time be t

ATQ,

$$\frac{12-3t}{12-2t}=\frac{2}{3}$$

$t = \frac{12}{5}$ hr = 2 $\frac{2}{5}$ hr = 2 hr 24 minutes

25. (C) 5 × 10 × 15 × 20 × 25 × 30 × 35 ..... × 240 × 245 × 250

= 5^{50} (1× 2 × 3 × 4 × ..... × 49 × 50)

= 5^{50} (50!)

Maximum power of 2 in 50!

$$\left[\frac{50}{2}\right]+\left[\frac{50}{4}\right]+\left[\frac{50}{8}\right]+\left[\frac{50}{16}\right]+\left[\frac{50}{32}\right]$$

= 25 + 12 + 6 + 3 + 1 = 47

Maximum power of 5 in 50!

$$\left[\frac{50}{5}\right]+\left[\frac{50}{25}\right]+\ldots\ldots\ldots$$

= 10 + 2 = 12

Maximum power of 2 is 47 and maximum power of 5 is (12 + 50) = 62

∴ Required number of zeros = 47

26. (D) $\frac{7}{6}$ in improper fraction

Comparing $\frac{N}{D-N}$ for other number

$\frac{7}{9}$, $\frac{4}{5}$, $\frac{5}{7}$

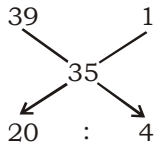
$\frac{7}{9-7}$, $\frac{4}{5-4}$, $\frac{5}{7-5}$

$\frac{7}{2}$, $\frac{4}{1}$, $\frac{5}{2}$

3.5, 4, 2.5

∴ $\frac{5}{7}$ is smallest fraction

27. (A)



ATQ,

5 + 1 = 6 units = 120

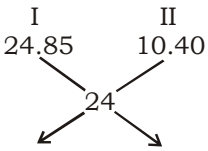
1 unit = 20

∴ Required number of successful candidates = 5 units

= 5 × 20

= 100

28. (C)



∴ Total wickets = 80 + 5 = 85

29. (C) ATQ,

15% of (A + B) = 25% of (A + B)

$$\frac{A+B}{A-B}=\frac{25\%}{15\%}=\frac{5}{3}$$

$$\frac{(A+B)+(A-B)}{(A+B)-(A-B)}=\frac{A}{B}=\frac{5+3}{5-3}=\frac{8}{2}=\frac{4}{1}$$

$$\frac{A}{B}=\frac{4}{1}$$

∴ Required percentage = $\frac{4-1}{4}\times 100$

= $\frac{3}{4}\times 100$ = 75

30. (B) D's marks = 320

C's marks = 320 × $\frac{125}{100}$ = 400

B's marks = 400 × $\frac{90}{100}$ = 360

A's marks = 360 × $\frac{125}{100}$ = 450

∴ Required marks = 450

31. (D) $9.4\bar{1}$ = 9.4 + $0.0\bar{1}$ = 9.4 + $\frac{0.0\bar{1}}{10}$ = 9.4 +

$\frac{1}{90}$ $0.\bar{7}=\frac{7}{9}$

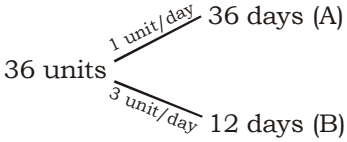
$0.00\bar{1}=\frac{0.\bar{1}}{100}=\frac{1}{900}$

∴ Required sum = $9.4+\frac{1}{90}+\frac{7}{9}+\frac{1}{900}$

$$=9.4+\frac{10}{900}+\frac{700}{900}+\frac{1}{900}$$

$$=9.4+\frac{711}{900}=10.19$$

32. (C)



A & B daily work = 1 unit + 3 units = 4 units
∴A, B together finish the work in

$= \frac{36}{4}$ days = 9 days

∴ Remaining work = $1 - \frac{7}{9} = \frac{2}{9}$

33. (A) External volume of iron pipe = $\pi(4)^2.\times 21$

$= \frac{22}{7} \times 4 \times 4 \times 21 = 1056\ cm^3$

Internal volume of iron pipe = $\pi.(3)^2 \times 21$

$= \frac{22}{7} \times 3 \times 3 \times 21 = 594\ cm^2$

⇒Volume of iron in pipe = $(1056 - 594)cm^3$
$= 462\ cm^3$

∴ Weight of pipe = $462cm^3 \times \frac{8\,gm}{cm^3} = 3696$ gm
= 3.696 kg

34. (A) $\frac{\text{Volume of cylinder A}}{\text{Volume of cyliner B}} = \frac{\pi R_A^{\ 2} H_A}{\pi R_B^{\ 2} H_B}$

$= \left(\frac{R_A}{R_B}\right)^2 \cdot \left(\frac{H_A}{H_B}\right)$

$\Rightarrow \frac{3}{1} = \left(\frac{3}{2}\right)^2 \cdot \frac{n}{1} \Rightarrow \frac{3}{1} = \frac{9}{4}n \Rightarrow n = \frac{4}{3}$

35. (A) LCM (5, 6, 8, 9) = 5 × 6 × 4 × 3 = 360 seconds

$= \frac{360}{60}$ = 6 minutes

∴ Bells will ring simultaneous after 6 minutes

36. (C) LCM of (4, 6, 8, 12, 16) = 48
∴ Required number = 48 + 2 = 50

37. (D) Area of ceiling = $\frac{\text{Total cost}}{\text{Cost of 1sq unit}}$

$= \frac{270}{0.5}$ = 540 sq. m

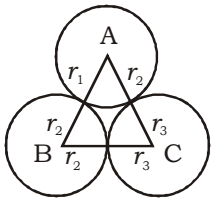
$l : b = 5x : 3x$
$\Rightarrow l \times b = 15x^2 = 540\ m^2$
$\Rightarrow l = 30$ and $b = 18$m

Area of the 4 walls = $\frac{\text{Total cost}}{\text{cost of 1sq. unit}}$

$= \frac{48}{0.1} = 48\ cm^2$

∴ Height = $\frac{480}{2(30+18)}$ = 5 m

38. (A)



$r_1 + r_2 = 4$ ..... (i)
$r_2 + r_3 = 6$ ..... (ii)
$r_3 + r_1 = 8$ ..... (iii)
Adding (i), (ii), (iii)
$2(r_1 + r_2 + r_3) = 4 + 6 + 8 = 18$
$\Rightarrow (r_1 + r_2 + r_3) = 9$ cm

39. (B) $\sqrt{5\sqrt{5\sqrt{5\sqrt{5.....}}}} = 5^{\frac{1}{2}}\ 5^{\frac{1}{4}}\ 5^{\frac{1}{8}}\ 5^{\frac{1}{16}}$ .....$= (125)^{x-1}$

$= 5^{\frac{1}{2}+\frac{1}{4}+\frac{1}{8}+.....} = (125)^{x-1}$

$= 5^{\left(\frac{\frac{1}{2}}{1-\frac{1}{2}}\right)} = 5^1 = (125)^{x-1}$

$= 5^1 = (125)^{x-1}$
$\Rightarrow 5^1 = (125)^{x-1}$

$\Rightarrow (125)^{\frac{1}{3}} = (125)^{x-1}$

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

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

40. (C) $\sin\theta + \cos\theta = 2$
Maximum value of $\sin\theta$ and $\text{cosec}\theta$ is + 1.
$\Rightarrow \theta = 90°$
$\sin\theta + \text{cosec}\theta = \sin 90° + \text{cosec}\,90° = 1 + 1 = 2$

$\Rightarrow \frac{\theta}{2} = 45°$

$\tan^{100}\frac{\theta}{2} + \cot^{100}\frac{\theta}{2} = \tan^{100}45° + \cot^{100}45°$
$= (1)^{100} + 1^{100} = 1 + 1 = 2$

41. (C) Let the average expenditure be ₹x
Total expenditure = $9x$
Expenditure by 8 person = 8 × 30 = ₹240
Expenditure by 9th person = $x + 20$
ATQ,
$9x = 240 + x + 20$
$\Rightarrow 8x = 260$

$\Rightarrow 9x = \frac{260}{8} \times 9$ = ₹292.50

42. (B) $x = \sqrt{132+\sqrt{132+\sqrt{132+.....}}}$

As, $132 = 11 \times 12$

$\Rightarrow \quad x = 12$

$y = \sqrt{72-\sqrt{72-\sqrt{72+.....}}}$

As, $72 = 9 \times 8$

$y = 8$

$x^2 - y^2 = (12)^2 - (8)^2 = (12 - 8)(12 + 8)$

$= 4 \times 20 = 80$

43. (A) $x = \sqrt{2 \times \sqrt[3]{4 \times 2\sqrt[3]{4.....\infty}}}$

$\Rightarrow x^2 = 2 \times \sqrt[3]{4 \times 2\sqrt[3]{4.....\infty}}$

$\Rightarrow x^2 = 2 \times \sqrt[3]{4x}$

$\Rightarrow x^6 = 8 \times 4x$

$\Rightarrow x^5 = 32$

$\Rightarrow x = 2$

44. (D) Total voter = 104000

$\Rightarrow$ Valid votes = $10\,4000 \times \frac{98}{100} = 101920$

$\therefore$ Voter polled in favour of candidates

$= 101920 \times \frac{55}{100}$

$= 56056$

45. (B) Let money = 100%

50 oranges = 100%

$\Rightarrow$ 1 orange = 2%

40 mangoes 100%

1 orange = 2.5%

Remaining amount = $[100-(10 + 20 \times 2.5)]$

$= 100 - (10 + 50) = 40\%$

$\therefore$ Required number of oranges = $\frac{40\%}{2\%} = 20$

46. (C) $x^6 - 1 = (x^2)^3 - (1)^3$

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

$= (x^2 - 1)(x^4 + x^2 + 1)$

$x^4 + 2x^3 - 2x - 1$

At $x = 1$, $x^4 + 2x^3 - 2x - 1 = 1 + 2 - 2 - 1 = 0$

At $x = 2$, $x^4 + 2x^3 - 2x - 1 = 1 - 2 + 2 - 1 = 0$

$\therefore (x - 1)(x + 1)$ Both are factor of $x^4 + 2x^3 - 2x - 1$

$\therefore$ Required HCF $= (x - 1)(x + 1) = x^2 - 1$

47. (A) ATQ,

$$\frac{8 \times 3 + 20 \times 2 + 26 \times m + 29 \times 1}{3 + 2 + m + 1} = 17$$

$\Rightarrow 24 + 40 + 26m + 29 = 6 \times 17 + 17\,m$

$\Rightarrow (24 + 40 + 29) - (6 \times 17) = 17\,m - 26\,m$

$\Rightarrow -9 = -9\,m$

$\Rightarrow m = 1$

48. (D) $x = \frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}} = \frac{(\sqrt{3}-\sqrt{2})(\sqrt{3}-\sqrt{2})}{(\sqrt{3}+\sqrt{2})(\sqrt{3}-\sqrt{2})} = \frac{(\sqrt{3}-\sqrt{2})^2}{3-2}$

$= \frac{(\sqrt{3}-\sqrt{2})^2}{1} = \frac{3+2-2\sqrt{6}}{1} = 5 - 2\sqrt{6}$

Similarly, $y = 5 + 2\sqrt{6}$

$x^3 + y^3 = (5 - 2\sqrt{6})^3 + (5 + 2\sqrt{6})^3$

$= 5^3 - (2\sqrt{6})^3 - 3 \times 5 \times 2\sqrt{6}\,(5 - 2\sqrt{6})$

$+ 5^3 + (2\sqrt{6})^3 + 3 \times 5 \times 2\sqrt{6}\,(5 + 2\sqrt{6})$

$= 2(5^3 + 3 \times 5 \times 2\sqrt{6} \times 2\sqrt{6})$

$= 2\,(125 + 3 \times 5 \times 2 \times 2 \times 6) = 970$

49. (B) $(a + b + c)^2 = a^2 + b^2 + c^2 + 2(ab + bc + ca)$

$\Rightarrow 2^2 = a^2 + b^2 + c^2 + 2(-1)$

$\Rightarrow a^2 + b^2 + c^2 = 6$

Now,

$(a + b)^2 + (b + c)^2 + (c + a)^2$

$= 2(a^2 + b^2 + c^2 + ab + ac + bc)$

$= 2(6 - 1) = 10$

50. (A) $= \sqrt{8+\sqrt{57+\sqrt{38+\sqrt{108+\sqrt{169}}}}}$

$= \sqrt{8+\sqrt{57+\sqrt{38+\sqrt{108+13}}}}$

$= \sqrt{8+\sqrt{57+\sqrt{38+\sqrt{121}}}}$

$= \sqrt{8+\sqrt{57+\sqrt{38+11}}}$

$= \sqrt{8+\sqrt{57+\sqrt{49}}}$

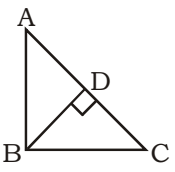
$= \sqrt{8+\sqrt{57+7}}$

$= \sqrt{8+\sqrt{64}}$

$= \sqrt{8+8}$

$= \sqrt{16} = 4$

51. (D)



Then

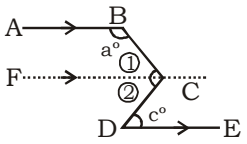
(i) $AC \times BD = AB \times BC$

(ii) $AD \times AC = AB^2$

(iii) $AC \times CD = BC^2$

(iv) $\frac{1}{BD^2} = \frac{1}{AB^2} + \frac{1}{BC^2}$

Hence (D) in incorrect.

52. (C) 

Draw FC || AB

$\Rightarrow$ FC || DE

$a^o + \angle① = 180^o \Rightarrow a^o = 180^o - \angle①$

$② = c^o \Rightarrow c^o = \angle②$

$\angle① + \angle② = b^o \Rightarrow b^o = \angle① + \angle②$

$\Rightarrow a^o + b^o - c^o = 180^o - \angle① + \angle① + \angle② - \angle②$

$\Rightarrow a^o + b^o - c^o = 180^o$

53. (B) $9^{(2x-1)} - 81^{(x-1)} = 1944$

$\Rightarrow 3^{(2(2x-1))} - (3)^{(4(x-1))} = 1944$

$\Rightarrow 3^{(4x-2)} - (3)^{(4x-4)} = 1944$

$\Rightarrow 3^{(4x-2-2+2)} - 4^{4x-4} = 1944$

$\Rightarrow 3^{(4x-4)}\left[3^2 - 1\right] = 1944$

$\Rightarrow 3^{4x-4}\ 8 = 1944$

$\Rightarrow 3^{4x-4} = 243$

$\Rightarrow 3^{4x-4} = 3^5$

$\Rightarrow 4x - 4 = 5$

$\Rightarrow x = \frac{9}{4}$

54. (B) Value of sum of squares of number not be less than zero.

$(a-b)^2 + (a-c)^2 + (a-d)^2$ can be zero when $a = b = c = d$

But $a = b = c = d$ is not possible here as $a + b + c + d = 30$

Hence we choose value of a, b, c, d as close as possible

$\Rightarrow a = 7,\ b = 7,\ c = 8,\ d = 8$

$\Rightarrow (a-b)^2 + (a-c)^2 + (a-d)^2 = (7-7)^2 + (7-8)^2 + (7-8)^2$

$= 0^2 + 1^2 + 1^2 = 2$

$\therefore$ Required minimum value = 2

55. (D) Let the number of sides be n

Each internal angle = $\frac{(n-2)\times 180}{n}$

Each external angle = $\frac{360}{n}$

ATQ,

$\frac{(n-2)\times 180}{n} = \frac{360}{n}\times 3$

$\Rightarrow (n-2) = 6$

$\Rightarrow n = 8$

56. (C) $\angle ADC = \frac{\angle AOC}{2} = \frac{100^o}{2} = 50^o$

In cyclic quadrilateral ABCD

$\angle ADC + \angle ABC = 180^o$

$\Rightarrow 50^o + \angle ABC = 180^o$

$\Rightarrow \angle ABC = 130^o$

$\therefore \angle ADC : \angle ABC = 50 : 130$

$= 5 : 13$

57. (C) $x = 7 + 4\sqrt{3}$

$x = 4 + 3 + 2.2\sqrt{3}$

$x = (2)^2 + \left(\sqrt{3}\right)^2 + 2\left(2\times\sqrt{3}\right)$

$x = \left(2+\sqrt{3}\right)^2$

$\Rightarrow \sqrt{x} = \left(2+\sqrt{3}\right)$

$x = 7 + 4\sqrt{3}$

$\Rightarrow \frac{1}{x} = 7 - 4\sqrt{3}, \quad \left[7^2 - \left(4\sqrt{3}\right)^2 = 1\right]$

Similarly,

$\frac{1}{\sqrt{x}} = \left(2-\sqrt{3}\right)$

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

$\therefore$ Required square root = 2

58. (B) $\sin^2 21^o = \frac{x}{y}$

$\Rightarrow 1 - \sin^2 21^o = \cos^2 21^o = 1 - \frac{x^2}{y^2}$

$\Rightarrow \cos^2 21^o = \frac{y^2 - x^2}{y^2}$

$\Rightarrow \cos 21^o = \sqrt{\frac{y^2-x^2}{y^2}} = \frac{\sqrt{y^2-x^2}}{y} = \sin 69^o$

$\Rightarrow \sec 21^o = \frac{y}{\sqrt{y^2-x^2}}$

$\therefore \sec 21^o - \sin 69^o = \frac{y}{\sqrt{y^2-x^2}} - \frac{\sqrt{y^2-x^2}}{y}$

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

59. (A) Let the distance be 90 km

$$\text{Average speed} = \frac{\text{Total distance travelled}}{\text{Total time taken}}$$

$$= \frac{90\,\text{km}}{\left(\frac{30}{5}+\frac{30}{10}+\frac{30}{15}\right)\text{hours}}$$

$$= \frac{90\,\text{km}}{6+3+2\,\text{hours}} = \frac{90}{11}\,\text{km/hr}$$

$$= 8\frac{2}{11}\ \text{km/hr}$$

60. (A) Let the number be x

$$x + \frac{2}{x} = \frac{19}{3}$$

$$\Rightarrow x + \frac{2}{x} = \frac{38}{6}$$

$$\Rightarrow x + \frac{2}{x} = 6 + \frac{2}{6}$$

$\Rightarrow x = 6$

$\therefore$ Required number = 6

61. (C) Let the sum be ₹P

ATQ,

$$P + \frac{5PR}{100} = 1350$$

and, $$P + \frac{8PR}{100} = 1620$$

$$\Rightarrow \frac{5PR}{100} = 1350 - P \quad \ldots\ldots (1)$$

$$\Rightarrow \frac{8PR}{100} = 1620 - P \quad \ldots\ldots (2)$$

Dividing equation (1) by (2)

$$\frac{(1350-P)}{(1620-P)} = \frac{5}{8}$$

$\Rightarrow 8\,(1350 - P) = 5\,(1620 - P)$

$\Rightarrow 10800 - 8P = 8100 - 5P$

$\Rightarrow 10800 - 8100 = 8P - 5P$

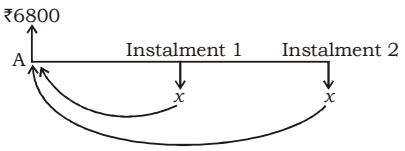
$\Rightarrow 2700 = 3P$

$\Rightarrow P = ₹\ 900$

62. (C) Let each installments be ₹x

$$R = 12\frac{1}{2}\% \leftrightarrow \frac{1}{8}$$

$$\Rightarrow 1 + R = \frac{9}{8}$$



Taking instalments back to point A and equating

$$\Rightarrow x \times \frac{8}{9} + x \times \frac{8}{9} \times \frac{8}{9} = 6800$$

$$\Rightarrow \frac{8x}{9}\left(1+\frac{8}{9}\right) = 6800$$

$$\Rightarrow \frac{8}{9} \times \frac{17}{9}\ x = 6800$$

$\Rightarrow x =$ ₹ 4050

63. (B) Let T be the time and R be the required rate

ATQ,

$$\frac{3000 \times T \times 6}{100} = 900$$

$\Rightarrow$ T = 5 years.

Now, $$1600 = \frac{4000 \times 5 \times R}{100}$$

$\Rightarrow$ R = 8%

64. (A) Sum after 2 years compounded annually = ₹4624

Sum after 3 years compounded annually = ₹4913

So, initial sum = $₹\left[4624 \times \left(\frac{4624}{4913}\right)^2\right]$

= ₹ 4096

65. (A) Let the speed of the two trains be $3x$ and $4x$ respectively.

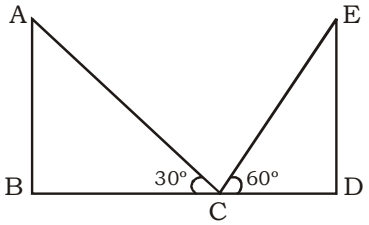
Length of 1st train = $L_1 = 3x \times 3 = 9x$

Length of 2nd trains = $L_2 = 4x \times 3 = 12x$

$\therefore$ Required time = $\frac{L_1 + L_2}{S_1 + S_2} = \frac{9x + 12x}{7x}$

$$= \frac{21}{7} = 3\ \text{sec.}$$

66. (C)



Distance travelled by the sparrow in 2

minutes = BD
BD = BC + CD
$\Rightarrow$ BD = 50 $\sqrt{3}$ cot 30° + 50 $\sqrt{3}$ cot 60°
$\Rightarrow$ BD = 150 + 50 = 200 m

$\therefore$ Speed of the sparrow = $\frac{200}{2} \times \frac{60}{1000}$
= 6 km/hr

67. (C) Distance covered in 1 litre petrol with speed 50 km/hr = 19.5 km
Hence, this distance will be covered with speed 70 km/hr in = 1.3 litre
then distance covered in 1 litre with speed,

70 km/hr = $\frac{19.5}{1.3}$ = 15 km

$\therefore$ Distance covered in 10 litre diesel with speed, 70 km/hr = 10 × 15 = 150 km.

68. (C) $\frac{4\frac{1}{7}-2\frac{1}{4}}{3\frac{1}{2}+1\frac{1}{7}} \div \frac{1}{2+\frac{1}{2+\frac{1}{5-\frac{1}{5}}}}$

$= \frac{\frac{29}{7}-\frac{9}{4}}{\frac{7}{2}+\frac{8}{7}} \div \frac{1}{2+\frac{1}{2+\frac{1\times5}{24}}}$

$= \frac{\frac{29\times4-9\times7}{28}}{\frac{7\times7+8\times2}{14}} \div \frac{1}{2+\frac{24}{48+5}}$

$= \frac{\frac{53}{28}}{\frac{65}{14}} \div \frac{1\times53}{106+24}$

$= \frac{53}{2\times65} \div \frac{53}{130}$

$= \frac{53}{130} \times \frac{130}{53} = 1$

69. (A) $\frac{(243)^{0.13}\times(243)^{0.07}}{(7)^{0.25}\times(49)^{0.075}\times(343)^{0.2}}$

$= \frac{\left(3^5\right)^{0.13}\times\left(3^5\right)^{0.07}}{(7)^{0.25}\times\left(4^2\right)^{0.075}\times\left(7^3\right)^{0.2}}$

$= \frac{3^{0.65}\times3^{0.35}}{7^{0.25}\times7^{0.150}\times7^{0.06}}$

$= \frac{3^{(0.65+0.35)}}{7^{(0.25+0.150+0.6)}} = \frac{3^1}{7^1} = \frac{3}{7}$

70. (B) Required volume = Area of base × height
= 36 × 5 = 180 cm^3

71. (D) Let L and S be the length and speed of the train respectively.
L = (S – 6) × 5 ..... (1)
and, L = (S – 7.5) × 5.5 ..... (2)
From equation (1) and (2)
(S – 6) × 5 = (S – 7.5) × 5.5
$\Rightarrow$ 5S – 30 = 5.5 S – 41.25
$\Rightarrow$ S = 22.5 kmph
From equation (1)

L = (22.5 – 6) $\frac{\text{km}}{\text{hr}}$ × 5 sec

$\Rightarrow$ L = $\frac{16.5\times100\text{m}}{60\times60\,\text{sec}}$ × 5 sec
$\Rightarrow$ L = 22.92 m

72. (A) Average speed during the entire journey.

$= \frac{\text{Total distance}}{\text{Total time}} = \frac{3584\,\text{km}}{2\,\text{day}\,8\,\text{hours}} = \frac{3584}{56}$

= 64 km/hr
Now,
Average speed during the remaining part of journey

$= \frac{3584-(1440+1608)}{8}$ km/hr

$= \frac{3584-3048}{8} = \frac{536}{8}$ = 67 km/hr

$\therefore$ Required difference
= (67 – 64) km/hr
= 3 km/hr

73. (D) $P = \sqrt{\frac{1-\sin x}{1+\sin x}}$

$\Rightarrow P = \sqrt{\frac{(1-\sin x)(1-\sin x)}{(1+\sin x)(1-\sin x)}}$

$\Rightarrow P = \sqrt{\frac{(1-\sin x)^2}{1-\sin^2 x}}$

$\Rightarrow P = \sqrt{\frac{(1-\sin x)^2}{(\cos x)^2}}$

$\Rightarrow P = \sqrt{\left(\frac{1-\sin x}{\cos x}\right)^2}$

$\Rightarrow P = \frac{1-\sin x}{\cos x}$

and $Q = \frac{1-\sin x}{\cos x}$

$R = \frac{\cos x}{1+\sin x}$

$= \frac{\cos x}{1+\sin x} \times \frac{1-\sin x}{1-\sin x}$

$= \frac{\cos x(1-\sin x)}{\cos^2 x}$

$= \frac{1-\sin x}{\cos x}$

$\therefore P = Q = R$

74. (D) $x\cos\frac{\pi}{3} - \sin\frac{\pi}{3} = x\tan\frac{\pi}{6}\cot\frac{\pi}{3}$

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

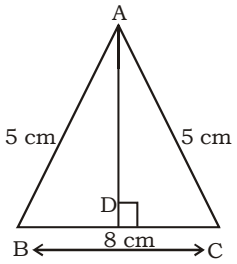
$\Rightarrow \frac{x}{2} - \frac{\sqrt{3}}{2} = \frac{x}{3}$

$\Rightarrow \frac{x}{2} - \frac{x}{3} = \frac{\sqrt{3}}{2}$

$\Rightarrow \frac{x}{6} = \frac{\sqrt{3}}{2}$

$\therefore x = 3\sqrt{3}$

75. (A)



Area of isosceles base = $\frac{1}{2}\ b \times h$

$\left[h = AD = \sqrt{AC^2 - CD^2} = \sqrt{5^2 - 4^2} = 3\right]$

$= \frac{1}{2} \times 8 \times 3 = 12\ cm^2$

$\therefore$ Required volume = Area of base × height
$= 12 \times 8 = 96\ cm^3$

76. (D) Let the radius of sphere = R
ATQ,
$4\pi (R + 2)^2 - 4\pi R^2 = 704$
$\Rightarrow 4\pi [R^2 + 4 + 4R - R^2] = 704$
$\Rightarrow 4\pi [4R + 4] = 704$

$\Rightarrow 16 \times \frac{22}{7}(1 + R) = 704$

$\Rightarrow (R + 1) = \frac{704\times 7}{16\times 22} = 14$

$\therefore R = 13$ cm

77. (A) Volume of cube = $(side)^3 = (2)^3 = 8\ cm^3$
Maximum volume of cylinder = πrh

$= \frac{22}{7}\times 1\times 2$

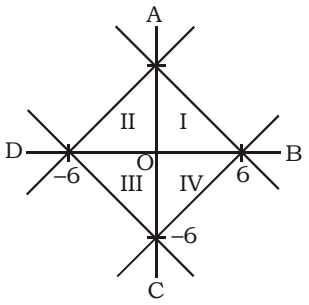
$= \frac{44}{7}\ cm^3$

$\therefore$ Volume of remaining part = $8 - \frac{44}{7}$

$= \frac{12}{7}\ cm^3$

78. (A) Area bounded by $(|x| + |y| = k) = 2k^2$
Area bounded by $(|x| + |y| = 6) = 2(6)^2$
$= 72$ sq. units

Alternate Method



Area of AOB = $\frac{1}{2}\times 6 \times 6 = 18$

$\therefore$ Area of ABCD = $4 \times 18 = 72$ sq. units

79. (B) Total mixture = 8 + 32 = 40 litre
Wine : water = 8 : 40
= 1 : 5
Let x litre mixture was replaced.
ATQ,

$\left(8 - \frac{x}{5} + x\right) : \left(32 - \frac{4x}{5}\right) = 3 : 7$

$\Rightarrow \frac{40+4x}{160-4x} = \frac{3}{7}$

$\Rightarrow 280 + 28x = 480 - 12x$
$\Rightarrow 40x = 480 - 280 = 200$
$\Rightarrow x = 5$ litre

80. (C) $\frac{\text{Population in } 2^{nd} \text{ years}}{\text{Population in } 3^{rd} \text{ years}} = \frac{10}{9} = \frac{100}{100-10}$

$= \frac{100}{100-r}$

$\Rightarrow$ r = 10%

Let the population of vultures 3 years ago be P then.

$\Rightarrow P\left(1-\frac{10}{100}\right)^3 = 29160$

$\Rightarrow P \times \frac{9}{10} \times \frac{9}{10} \times \frac{9}{10} = 29160$

$\Rightarrow P = \frac{29160 \times 10 \times 10 \times 10}{9 \times 9 \times 9}$

$\Rightarrow$ P = 40,000

81. (C) $x = 2 - 2^{1/3} + 2^{2/3}$

$\Rightarrow x - 2 = 2^{2/3} - 2^{1/3}$

$\Rightarrow x^3 - 6x^2 + 12x - 8 = 2^2 - 2^1 - 3 \times 2\,(2^{2/3} - 2^{1/3})$

$\Rightarrow x^3 - 6x^2 + 12x - 8 = 4 - 2 - 6\,(x-2)$

$\Rightarrow x^3 - 6x^2 + 12x - 8 = 14 - 6x$

$\Rightarrow x^3 - 6x^2 + 18x + 18 = 14 + 8 + 18$

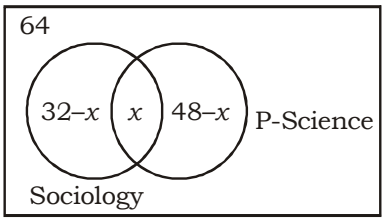
$\Rightarrow x^3 - 6x^2 + 18x + 18 = 40$

82. (A) Required ungrazed area

= Area of square – 4 (area of quadrants)

$= 42^2 - 4 \times \frac{1}{4} \times \pi\,(21)^2 = 378$

83. (D) Let x be the number of students who has taken both subjects.



Sociology students = 64 × 50% = 32

P. Science students = 64 × 75% = 48

Now,

$(32 - x) + x + (48 - x) = 64$

$\Rightarrow 32 + 48 - x = 64$

$\Rightarrow x = 80 - 64 = 16$

84. (A) $x = 997$, $y = 998$, $z = 999$

Now,

$x^2 + y^2 + z^2 - xy - yz - zx$

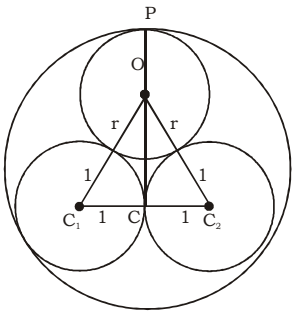
$= \frac{1}{2}\left[(x-4)^2 + (y-z)^2 + (x-x)^2\right]$

$= \frac{1}{2}\left[(997-998)^2 + (998-999)^2 + (999-997)^2\right]$

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

$= \frac{1}{2}\left[1+1+4\right] = 3$

85. (C) In $\Delta\, OC_1\, C_2$



In $\Delta OC_1\, C$

$(OC_1)^2 = (OC)^2 + (CC_1)^2$

$\Rightarrow (r+1)^2 = (PC - OP)^2 + 1$

$\Rightarrow (r+1)^2 = (2-r)^2 + 1$

$\Rightarrow r^2 + 1 + 2r = 4 + r^2 - 4r + 1$

$\Rightarrow 6r = 4$

$\Rightarrow r = \frac{2}{3}$

86. (D) $\frac{9}{\cos ec^2\theta}\ 4\cos^2\theta + \frac{5}{1+\tan^2\theta}$

$= 9\sin^2\theta + 4\cos^2\theta + \frac{5}{\sec^2\theta}$

$= 9\sin^2\theta + 9\cos^2\theta$

$= 9\,(\sin^2\theta + \cos^2\theta)$

$= 9$

87. (C) Distance traversed by the extremities of the minute hand in one hour

$= 2 \times \frac{22}{7} \times 10$

Distance traversed by the extremities of the minute hand in 3 days and 5 hours

$= 2 \times \frac{22}{7} \times 10 \times 77$

$= 22 \times 220 = 4840$ cm

Now,

Distance traversed by the hour-had in 12 hour

$= 2 \times \frac{22}{7} \times 7 = 44$ cm

Distance traversed by the hour hand in 77 hour (3 days, 5 hours)

$= \frac{44}{12} \times 7 = \frac{11 \times 77}{3} = \frac{847}{3} = 282.33$ cm

$\therefore$ Required difference = 4840 – 283.33
= 4557.67 cm

88. (B) S_n= 0.4 + 0.44 + 0.444 + ... + to n terns
= 4 [0.1 + 0.11 + 0.111 + ... + to n terms]

$= \frac{4}{9}[(0.9 + 0.99 + .999 + ... + \text{to n terms})]$

$= \frac{4}{9}\left[\left(1-\frac{1}{10}\right)+\left(1-\frac{1}{100}\right)+\left(1-\frac{1}{1000}\right)+.....\text{to } n \text{ terms}\right]$

$= \frac{4}{9}\left[(1+1+1+..... + \text{terms}) - \left(\frac{1}{10}+\frac{1}{100}+\frac{1}{1000}+.....+\frac{1}{10^n}\right)\right]$

$= \frac{4}{9}\left[n - \frac{\frac{1}{10}\left\{1-\left(\frac{1}{10}\right)^n\right\}}{1-\frac{1}{10}}\right]$

$= \frac{4}{9}\left[n - \frac{\frac{1}{10}\left(1-\frac{1}{10^n}\right)}{\frac{9}{10}}\right]$

$= \frac{4}{9}\left[n - \frac{1}{9}\left(1-\frac{1}{10^n}\right)\right]$

$= \frac{4}{81}\left[9n - 1 + \frac{1}{10^n}\right]$

$\therefore$ Required sum = $\frac{4}{81}\left[9n-1+\frac{1}{10^n}\right]$

89. (A) Let the speed of man and current be x km/hr and y km/hr respectively.
Then

$$\frac{30}{x-y} + \frac{44}{x+y} = 10 \quad \text{..... (i)}$$

$$\frac{40}{x-y} + \frac{55}{x+y} = 13 \quad \text{..... (ii)}$$

Solving eqn. (i) and (ii)
y = 3 km/hr

90. (B) Let CP = ₹ x and SP = ₹ y
$\Rightarrow$ $y \times 7\% = x \times 8\%$
and, $y \times 9\% = x \times 10\% + 1$

$\Rightarrow \frac{9}{100} y = \frac{10}{100} \times x + 1$

$\Rightarrow$ $9y = 10x + 100$
and, $7y = 8x$
$9y = 10x + 10$ ..... (i)
$7y = 8x$ ..... (ii)
Solving eq. (i) and (ii)
x = ₹ 350

91. (A) Percentage of boys in U school = 85

$\therefore$ No. of boys = $\frac{85}{100} \times 1000 = 850$

Percentage of boys in R School = 75

$\therefore$ No. of boys = $\frac{75}{100} \times 2000 = 15000$

$\therefore$ Total no. of boys in school U and R
= 1500 + 850 = 2350

$\therefore$ Total percentage of boys = $\frac{2350}{3000} \times 100$
= 78.55

92. (B) Percentage of boys = 60 [in T. School]

$\therefore$ No. of boys = $\frac{60}{100} \times 1000 = 600$

93. (D) Required percentage = $\frac{2000}{2500} \times 100 = 80$

94. (B) Percentage of boys in P school = 60
$\therefore$ No. of boys in P school
$= \frac{60}{100} \times 2500$
= 1500
Percentage of boys in Q school = 55%
$\therefore$ No. of boys in Q school
$= 3000 \times \frac{55}{100}$
= 1650
$\therefore$ Required average
$= \frac{1500+100}{2}$
= 1575

95. (C) Girls in P school = 40% of 2500 = 1000
Girls in Q school 45% of 3000 = 1350

$\therefore \frac{P}{Q} = \frac{\frac{40}{100} \times 2500}{\frac{45}{100} \times 300} = 20 : 27$

96. (B) Appeared in interview (from others) = 12%
Qualified from engineering = 16%

$\therefore$ Required ratio = $\frac{\frac{12}{100} \times 25780}{\frac{11}{100} \times 7390}$
= 3094 : 813

97. (B) Appeared candidates from others and managements = 24%

∴ No. of candidates

$= \frac{24}{100} \times 25780$ ..... (i)

Appeared candidates from Engg. =16%

∴ No of candidates = $\frac{16}{100} \times 25780$

∴ Percentage of candidates with respect to Engg. candidates

$= \frac{24}{16} \times 100 = 150$

98. (D) Engineering student = 11%

Agriculture student = 7%

Difference = 4%

∴ Required difference

$= \frac{4}{100} \times 7390$

$= 295.78$

$= 296$

99. (C) Management

$= \frac{12}{100} \times 25780 - \frac{20}{100} \times 7390$

$= 3093.60 - 1478.00$

$= 1615.6$

Engineering

$= \frac{16}{100} \times 25780 - \frac{11}{100} \times 7390$

$= 4124.80 - 812.90 = 3311.9$

Science

$= \frac{28}{100} \times 25780 - \frac{32}{100} \times 7390$

$= 4853.6$

Agriculture

$= \frac{14}{100} \times 25780 - \frac{7}{100} \times 7390$

$= 3609.20 - 517.30$

$= 3091.9$

100. (A) Percentage selected candidates from commerce and agriculture discipline together

$= (16 + 7)$

$= 23\%$

∴ Total no. of candidates

$= \frac{23}{100} \times 7390$

$= 1701.08$

SSC TIER II (MATHS) MOCK TEST - 44 (ANSWER KEY)

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

Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

Note:- Whatsapp with Mock Test No. and Question No. at 7053606571 for any of the doubts. Join the group and you may also share your suggestions and experience of Sunday Mock

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