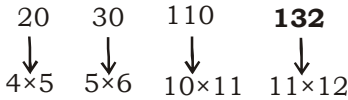


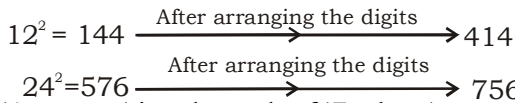
**SSC MOCK TEST - 13 (SOLUTION)**

1. (B) First is the result of second.

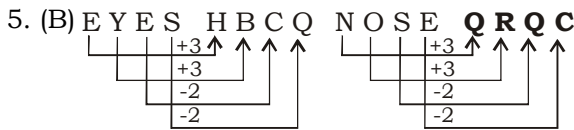
2. (D)



3. (A)



4. (B) 'Anatomy' is a branch of 'Zoology'. Similarly 'Paediatrics' is a branch of 'Medicine'.

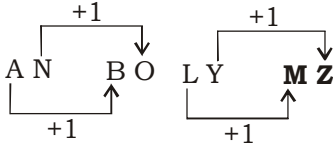


6. (A) Letters      Positions as per english alphabet      Sum of digits

T	20	2 + 0 = 2
Z	26	2 + 6 = 8
W	23	2 + 3 = 5
		2 × 8 × 5 = 80
Q	17	1 + 7 = 8
Y	25	2 + 5 = 7
S	19	1 + 9 = 10
		8 × 7 × 10 = 560

7. (B) Words are synonyms of each other.

8. (C)



9. (A)  $\sqrt{400} = 20$  then,  $20 + \frac{20}{2} = 30$

$\sqrt{484} = 22$  then,  $22 + \frac{22}{2} = 33$

10. (B) 'Amber' is 'Yellow' in color where as 'Caramine' is 'Red' in color.

11. (C) Except 'GS', others position from first to last and vice-versa are same.

12. (D) After arranging the letters, 'Ginger' is different from Grapes, Apple and Orange.

13. (C) Except (C), In the remaining options, the sum of first two digits is equal to the third digit.

14. (C) Except 'Monastery', all others are places of worship.

15. (D) Except (D), Rest are Juicy fruits.

16. (D) 15 105 16 112 18 126 17 102  
 $\times 7$        $\times 7$        $\times 7$        $\times 6$

17. (A) After arranging the letters, 'Friday' is one of the days in a week whereas 'January', 'March' and September are months.

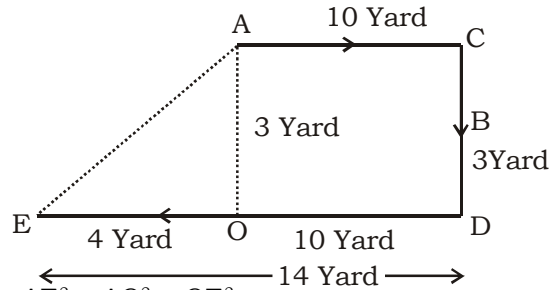
18. (D) Except 'Zebra', rest are pet animals.

19. (C) 'ARE', ATE and 'ART' are three meaningful words.

20. (B)  $40 \div 260 \times 24 - 4 + 18$

After changing the signs, we have  
 $40 + 360 \div 24 \times 4 - 18$   
 $= 40 + 15 \times 4 - 18$   
 $= 40 + 60 - 18$   
 $= 100 - 18$   
 $= 82$

21. (B)



$AE^2 = AO^2 + OE^2$

$\Rightarrow AE = \sqrt{AO^2 + OE^2}$   
 $= \sqrt{3^2 + 4^2}$   
 $= \sqrt{25} = 5 \text{ Yard.}$

22. (B) Let the number of women be  $x$  then, the number of men =  $x - 15$

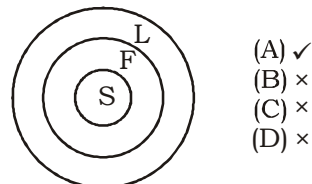
ATQ,  
 $x + x - 15 = 55$

$\Rightarrow 2x = 70$

$\Rightarrow x = 35$

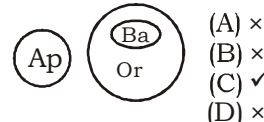
then, number of men =  $35 - 15 = 20$

23. (A)



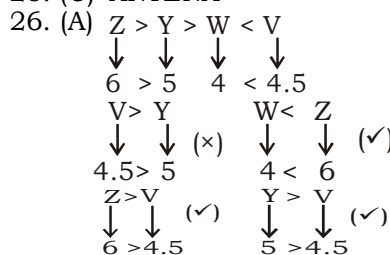
- (A) ✓
- (B) ×
- (C) ×
- (D) ×

24. (C)

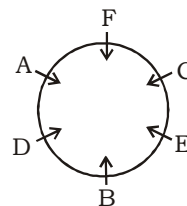


- (A) ×
- (B) ×
- (C) ✓
- (D) ×

25. (C) 'ANTENA'



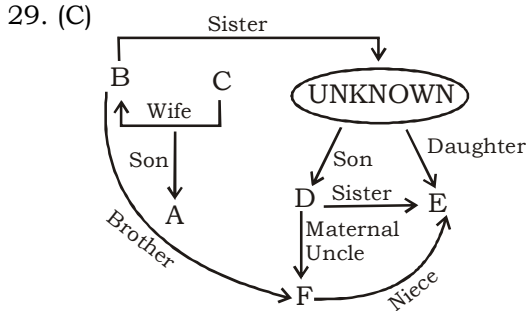
27. (B)



So, C is sitting between F & E.

28. (A)

<u>Letters</u>	<u>Positions as per english alphet</u>	
F	6	} After arranging the digits from smallest to greatest → 1456
A	1	
D	4	
E	5	
H	8	} After arranging the digits from smallest to greatest → 2478
D	4	
B	2	
G	7	



30. (D) 2, 8, 26, 80, 242

$+6$     $+18$     $+54$     $+162$   
 $\times 3$     $\times 3$     $\times 3$

31. (A)

$26+1=27$     $4+23=27$   
 Y   Z   B   A   X   D   C   W  
 $2+25=27$     $24+3=27$

<u>Letters</u>	<u>Position in english Alphabet</u>
Y	25
Z	26
B	2
A	1
X	24
D	4
C	3
W	23

32. (A)

9   31   73   141  
 $\downarrow$     $\downarrow$     $\downarrow$     $\downarrow$   
 $1^2 \times 2^3 = 9$     $2^2 + 3^3 = 4 + 27 = 31$     $3^2 \times 4^3 = 9 + 64 = 73$     $4^2 \times 5^3 = 16 + 125 = 141$

33. (C) 6, 19, 40, 9, 28, 58

$\times 3 + 1$     $\times 2 + 2$     $\times 3 + 1$     $\times 2 + 2$

34. (C)  $13 \times 75 = 5731$     $27 \times 34 = 4372$

reverse   reverse

$15 \times 42 = 2451$     $16 \times 36 = 6361$   
 reverse   reverse

35. (A) Efflorescent → Ensure → Entreat → Entry → Every

$\downarrow$   
 (Word in the middle)

36. (B) 6 9 3 7 6 9 6 3 9 6 4 6 9 4 7 6 6 6 9 3 6 7 6 9 2 9 6

①   ②   ③

37. (B)

13<sup>th</sup> from left letter →  
 ABCDEFGHIJKLMNOPQRSTUVWXYZ  
 7<sup>th</sup> letter to right →

38. (C) As the monkey slips 20 feet. Then, actual distance travelled in 1 hr = 30 - 20 = 10 ft. So, distance travelled in 9 hr = 9 × 10 = 90ft

In 10 hr distance travelled by monkey = 90 + 30 = 120  
 ∴ 120 is actual height and after reaching on the top he won't slip.  
 then actual time = 8 am + 10 hrs.  
 = 6 PM

39. (C)  
 40. (D) **Hapl** means 'cloud', 'lesh' means 'burst', 'strench' means 'pin', 'och' means 'ball' and **resbo** means 'nine' Lesnrench (Choice) doesn't contain any of the word needed for 'cloudnine'. We know that 'och' means 'ball'. So choices (B) and (C) can be ruled out and (D) is the correct option.

41. (A)  
 42. (C) Given: 2742 = 9, (Read '9' as '6')

2 3 4 5	1 4 5 3 2	7 4 2 9	2 1 8
$\downarrow$ $\downarrow$ $\downarrow$ $\downarrow$	$\downarrow$ $\downarrow$ $\downarrow$ $\downarrow$	$\downarrow$ $\downarrow$ $\downarrow$ $\downarrow$	$\downarrow$ $\downarrow$ $\downarrow$ $\downarrow$
2 × 4   3 × 5	1 × 5   4 × 3	2 × 4   7 × 2	9 × 1   2 × 8
8   15	5   12	8   14	9   16
$15 - 8 = 7$	$12 - 5 = 7$	$14 - 8 = 6$	$16 - 9 = 7$

43. (B)   44. (B)   45. (C)  
 46. (B) b d e a c/d b e a c/b d e a **c/d b e**

47. (A)  $6 = \frac{3 \times 8}{4}$ ,  $3 = \frac{4 \times 9}{12}$ ,  $16 = \frac{8 \times 12}{6}$

then ? =  $\frac{24 \times 7}{4} = \frac{168}{8} = 21$

48. (A) 3, 6, 18, 90, 630, 6930

$\times 2$     $\times 3$     $\times 5$     $\times 7$     $\times 11$

Continuous prime numbers.

49. (A)

$12 \times 8 = 96 \Rightarrow 96 + 24 = 120 \Rightarrow 120 - 72 = 48$   
 $6 \times 4 = 24 \Rightarrow 96 - 24 = 72 \Rightarrow 120 - 72 = 48$   
 $8 \times 6 = 48 \Rightarrow 48 + 20 = 68 \Rightarrow 68 - 28 = 40$   
 $5 \times 4 = 20 \Rightarrow 48 - 20 = 28 \Rightarrow 68 - 28 = 40$   
 $12 \times 5 = 60 \Rightarrow 60 + 54 = 114$   
 $9 \times 6 = 54 \Rightarrow 60 - 54 = 6 \Rightarrow 114 - 6 = 108$

50. (B)

$$51.(D) \quad \frac{3}{4} \Rightarrow \frac{3 \times 4}{4 \times 4} = \frac{12}{16}$$

$$\frac{3}{8} \Rightarrow \frac{3 \times 2}{8 \times 2} = \frac{6}{16}$$

$$\therefore \frac{6}{16}, \frac{7}{16}, \frac{8}{16}, \frac{9}{16}, \frac{10}{16}, \frac{11}{16}, \frac{12}{16}$$

$$\therefore \text{Required rational number} = \frac{9}{16}$$

$$52.(B) \quad \sqrt{2}, \sqrt[3]{3}, \sqrt[4]{4}$$

$$\Rightarrow 2^{\frac{1}{2}}, 3^{\frac{1}{3}}, 4^{\frac{1}{4}},$$

$$\Rightarrow 2^{\frac{6}{12}}, 3^{\frac{4}{12}}, 4^{\frac{3}{12}}$$

$$\Rightarrow 64^{\frac{1}{12}}, 81^{\frac{1}{12}}, 64^{\frac{1}{12}}$$

So, largest number =  $81^{\frac{1}{12}}$  or  $\sqrt[3]{3}$

$$53.(D) \quad \text{Required ratio} = \frac{5}{2} : \frac{3}{3} : \frac{12}{5}$$

$$= 75 : 30 : 72$$

$$= 25 : 10 : 24$$

54.(C) Let total male employees in  
K D campus be 100%, then total  
female employees = 90% of 100%  
= 90%

$$\text{Required percentage} = \frac{100}{90} \times 100$$

$$= 111\frac{1}{9}\%$$

$$55. (A) \quad 2\sqrt{54} - 6\sqrt{\frac{2}{3}} - \sqrt{96}$$

$$\Rightarrow 2\sqrt{9 \times 6} - 6\sqrt{\frac{2}{3}} - \sqrt{16 \times 6}$$

$$\Rightarrow 2 \times 3 \sqrt{6} - 6\sqrt{\frac{2}{3}} - 4\sqrt{6}$$

$$\Rightarrow 6\sqrt{6} - 4\sqrt{6} - 6\sqrt{\frac{2}{3}}$$

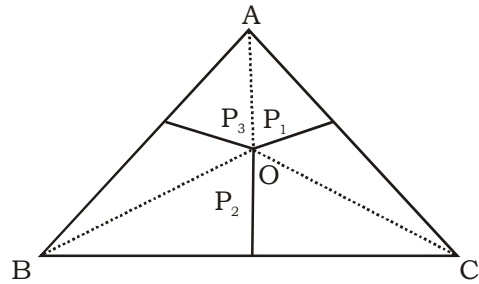
$$\Rightarrow 2\sqrt{6} - 6\sqrt{\frac{2}{3} \times \frac{3}{3}}$$

$$\Rightarrow 2\sqrt{6} - \frac{6}{3}\sqrt{6}$$

$$\Rightarrow 2\sqrt{6} - 2\sqrt{6}$$

$$\Rightarrow 0$$

56.(B) Let  $\Delta ABC$  be equilateral.



Area of  $\Delta ABC$  = Area of  
( $\Delta AOB + \Delta BOC + \Delta COA$ )

$$\Rightarrow \frac{\sqrt{3}}{4} (\text{side})^2 = \frac{1}{2}$$

$$(\text{AB} \times P_3 + \text{BC} \times P_2 + \text{AC} \times P_1)$$

$$\Rightarrow \frac{\sqrt{3}}{4} \times \text{AB}^2 = \frac{1}{2} \text{AB} (P_1 + P_2 + P_3)$$

( $\because \text{AB} = \text{BC} = \text{CA}$ )

$$\Rightarrow \frac{\sqrt{3}}{4} \times \text{AB} = \frac{1}{2} (P_1 + P_2 + P_3)$$

$$\Rightarrow \text{AB} = \frac{2}{\sqrt{3}} (P_1 + P_2 + P_3)$$

$$57. (D) \quad \frac{x}{y} = \frac{a+2}{a-2} \text{ (Given)}$$

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

$$\Rightarrow \frac{\left(\frac{a+2}{a-2}\right)^2 - 1}{\left(\frac{a+2}{a-2}\right)^2 + 1}$$

$$\Rightarrow \frac{(a+2)^2 - (a-2)^2}{(a+2)^2 + (a-2)^2}$$

$$\Rightarrow \frac{(a+2)^2 - (a-2)^2}{(a+2)^2 + (a-2)^2}$$

$$\Rightarrow \frac{2 \times (4a)}{2 \times (a^2 + 2^2)}$$

$$\Rightarrow \frac{4a}{a^2 + 4}$$

58.(B)  $999 \times 1000 - (1000 - 995)$

$\Rightarrow 999000 - 5$

$\Rightarrow 998995$

59. (A)  $x = 1 + \sqrt{2} + \sqrt{3}$  [Given]

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

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

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

$= 1 + \sqrt{2} + \sqrt{3} + \frac{\sqrt{3} - \sqrt{2}}{3 - 2}$

$= 1 + \sqrt{2} + \sqrt{3} + \sqrt{3} - \sqrt{2}$

$= 1 + 2\sqrt{3}$

60.(B)  $ax^2 + bx + c = 0$ ;

Let roots be  $\alpha$  &  $\beta$ .

$\alpha + \beta = -\frac{b}{a}$

$\alpha \beta = \frac{c}{a}$

$x^2 - (\text{sum of roots})x + (\text{product of roots}) = 0$

I<sup>st</sup> friend  $\rightarrow \alpha + \beta = 10 + 18 = 28$

II<sup>nd</sup> friend  $\rightarrow \alpha \beta = 8 \times 24 = 192$

$\therefore$  Equation  $x^2 - 28x + 192 = 0$

$x^2 - 16x - 12x + 16 \times 12 = 0$

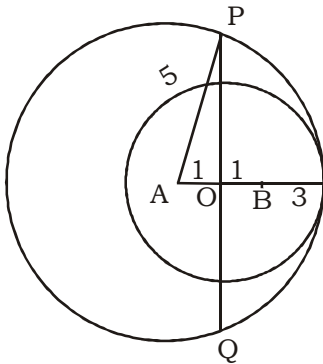
$x(x-16) - 12(x-16) = 0$

$(x-16)(x-12) = 0$

$x = 16$  or  $12$

So, roots are 16 and 12.

61.(B)



$PO = \sqrt{(5)^2 - 1} = \sqrt{25 - 1}$

$= \sqrt{24} = 2\sqrt{6}$  cm

$PQ = 2 PO$

$= 2 \times 2\sqrt{6}$

$= 4\sqrt{6}$  cm

62.(A) Let total voters be 100%

Vote cast = 100% - 10%

= 90%

Valid votes = 90%  $\times \frac{80}{100}$

= 72%

Winner = 40%

Losser = 72% - 40% = 32%

8% = 3600

100% =  $\frac{3600}{8} \times 100$

= 450  $\times 100$

= 45000

63.(B)  $\frac{a^2}{bc} + \frac{b^2}{ca} + \frac{c^2}{ab}$

$\frac{a^2 \times a}{abc} + \frac{b^2 \times b}{ca \times b} + \frac{c^2 \times c}{ab \times c}$

$\frac{a^3}{abc} + \frac{b^3}{abc} + \frac{c^3}{abc}$

$\frac{a^3 + b^3 + c^3}{abc}$

If  $a + b + c = 0$ ; then  $a^3 + b^3 + c^3 = 3abc$

So,  $\frac{3abc}{abc} = 3$

64.(A)  $(1 + \cot \theta - \operatorname{cosec} \theta)(1 + \tan \theta - \sec \theta)$

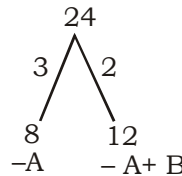
$\Rightarrow \left(1 + \frac{\cos \theta}{\sin \theta} - \frac{1}{\sin \theta}\right) \left(1 + \frac{\sin \theta}{\cos \theta} - \frac{1}{\cos \theta}\right)$

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

$\Rightarrow \frac{\cos \theta}{\sin \theta} \times \frac{\sin \theta}{\cos \theta}$

= 1

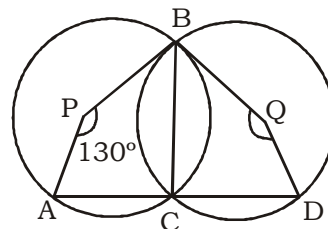
65.(C)



$B = \frac{24}{1} = 24$  hours

capacity of tank =  $24 \times 60 \times 6$   
= 8640 l

66.(B)



$$\therefore \angle BCA = \frac{130}{2} = 65^\circ [\because \angle APB = 130^\circ]$$

$$\Rightarrow \angle BCD = 180 - 65^\circ = 115^\circ$$

$$\text{External } \angle BQD = 2 \times 115^\circ = 230^\circ$$

$$\therefore \angle BQD = 360^\circ - 230^\circ = 130^\circ$$

$$67.(D) \frac{m-a^2}{b^2+c^2} + \frac{m-b^2}{c^2+a^2} + \frac{m-c^2}{a^2+b^2} = 3$$

$$\frac{m-a^2}{b^2+c^2} - 1 + \frac{m-b^2}{c^2+a^2} - 1 + \frac{m-c^2}{a^2+b^2} - 1 = 0$$

$$\frac{m-a^2-b^2-c^2}{b^2+c^2} + \frac{m-b^2-c^2-a^2}{c^2+a^2} +$$

$$\frac{m-c^2-a^2-b^2}{a^2+b^2} = 0$$

$$m-a^2-b^2-c^2 \left( \frac{1}{b^2+c^2} + \frac{1}{c^2+a^2} + \frac{1}{a^2+b^2} \right) = 0$$

$$m-a^2-b^2-c^2 = 0$$

$$m - (a^2 + b^2 + c^2) = 0$$

$$m = a^2 + b^2 + c^2$$

$$68.(C) 2 + x\sqrt{3} = \frac{1}{2+\sqrt{3}}$$

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

$$\Rightarrow 2 + x\sqrt{3} = \frac{2-\sqrt{3}}{2^2 - (\sqrt{3})^2}$$

$$\Rightarrow 2 + x\sqrt{3} = \frac{2-\sqrt{3}}{4-3}$$

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

$$\text{So, } x = -1$$

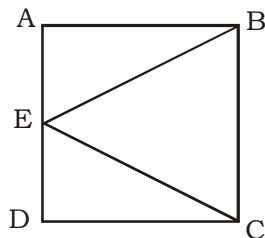
$$69. (A) \text{ Weight of new man}$$

$$= 42 + 15 \times 1.6$$

$$= 42 + 24.0$$

$$= 66 \text{ Kg}$$

$$70.(D)$$



$$\begin{aligned} \angle DEC &= 180 - \{ \angle EDC + \angle ECD \} \\ &= 180 - \{ 90^\circ + 30^\circ \} \\ &= 180^\circ - 120^\circ \\ &= 60^\circ \end{aligned}$$

$$71.(D) \text{ Speed} = \frac{6}{7}$$

$$\text{then time} = \frac{6}{7}$$

$$\text{Difference} \Rightarrow 7 - 6 = 1 \xrightarrow{\times 10} 10 \text{ min}$$

$$\text{So, usual time} = 6 \xrightarrow{\times 10} 60 \text{ min}$$

$$72.(B) \text{ Let CP be } 100\% \text{ then profit } 20\%$$

$$\text{Required ratio} = 20\% : 100\% = 1 : 5$$

$$73. (B) p, q = p + 2, r = p + 4, s = p + 6$$

$$t = p + 8$$

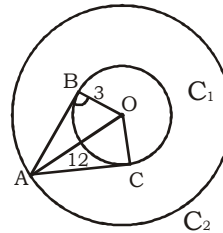
$$\text{Average} = \frac{p+q+r+s+t}{5}$$

$$= \frac{p+p+2+p+4+p+6+p+8}{5}$$

$$= \frac{5p+20}{5}$$

$$= p + 4$$

$$74. (C)$$



$$AC = AB = \sqrt{12^2 - 3^2}$$

$$= \sqrt{144 - 9} = \sqrt{135} \text{ cm}$$

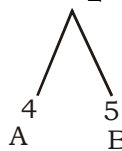
$$\text{Area of } \triangle ABOC = 2 \times \frac{1}{2} \times \sqrt{135} \times 3$$

$$= 3 \times 3 \sqrt{15}$$

$$= 9\sqrt{15} \text{ sq. cm}$$

$$75. (B) \text{ Ratio of efficiency} = 80 : 100 = 4 : 5$$

$$\frac{15}{2} \times 4$$



$$B = \frac{30}{5} = 6 \text{ hours}$$

$$76. (A) \text{ Selling price of } \frac{1}{3} \text{ part medicine}$$

$$= 12000 \times \frac{1}{3} \times \frac{70}{100} = ₹ 2800$$

$$\text{Rest medicine} = ₹ 12000 - ₹ 4000 = ₹ 8000$$

$$\text{Required percentage} = \frac{1200}{8000} \times 100 = 15\%$$

$$77.(B) \text{ Percent of boys} = 100\% - 70\% = 30\%$$

$$30\% = 510$$

$$100\% = \frac{510}{30} \times 100 = 1700$$



# K D Campus Pvt. Ltd

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

78. (B) Required profit percentage

$$= \frac{80}{920} \times 100$$

$$= \frac{200}{23} \%$$

$$= 8 \frac{16}{23} \%$$

79. (C) Total present age of P and Q

$$= 5 \times 2 + 15 \times 2$$

$$= 40 \text{ years}$$

Total present age of P, Q & R =  $20 \times 3$   
= 60 years

Present age of R =  $(60 - 40)$  years  
= 20 years

After 10 years age of R =  $20 + 10$   
= 30 years

80. (A) Time  $\Rightarrow$  42 months =  $7 \times 6$  months  
= 7 half-years

$$SI = \frac{20000 \times 13 \times 7}{100 \times 2}$$

$$= ₹ 9100$$

$$\therefore \text{Amount} = 20,000 + 9,100$$

$$= ₹ 29,100$$

81. (C)  $1 + 2 \div \{1 + 2 \div (1 + 1/3)\}$

$$\Rightarrow 1 + 2 \div \left\{1 + 2 \div \left(\frac{4}{3}\right)\right\}$$

$$\Rightarrow 1 + 2 \div \left\{1 + 2 \times \frac{3}{4}\right\}$$

$$\Rightarrow 1 + 2 \div \left\{1 + \frac{3}{2}\right\}$$

$$\Rightarrow 1 + 2 \div \left\{\frac{5}{2}\right\}$$

$$\Rightarrow 1 + 2 \times \frac{2}{5}$$

$$\Rightarrow 1 + \frac{4}{5}$$

$$\Rightarrow 1 \frac{4}{5}$$

82. (C) Let salaries of A<sub>1</sub>, B and C be 100, 300 & 400 respectively.

	A	B	C
Salaries	100	300	400
Increase @	5 %	10%	15%

$$\text{Total} \quad \frac{105}{330} \quad \frac{460}{460}$$

$$\text{Required ratio} \Rightarrow 105 : 330 : 460$$

$$\text{or } 21 : 66 : 92$$

83. (C) Required time =  $7 \text{ am} + \frac{20}{4+6}$  hours  
= 7am + 2 hours  
= 9 am

84. (A) Rest part of Petrol =  $1 - \frac{40}{400}$   
=  $\frac{9}{10}$

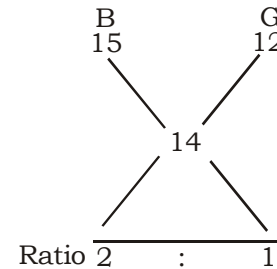
Required pure petrol =  $40 \times \left(\frac{9}{10}\right)^6$

$$= 40 \times \frac{9}{10} \times \frac{9}{10} \times \frac{9}{10} \times \frac{9}{10} \times \frac{9}{10} \times \frac{9}{10}$$

$$= 21.2576 \text{ l}$$

$$= 21.25 \text{ l}$$

85. (A)



total number of girls =  $\frac{1}{3} \times 33$   
= 11

86. (B) Required time =  $\frac{240 + 120}{(45 - 9) \frac{5}{18}}$   
=  $\frac{360}{36 \times \frac{5}{18}}$   
= 36 seconds

87. (D) Let face value of share = 100%  
So, face value of all shares  
=  $\frac{14,400}{120} \times 100$   
= ₹ 12000

dividend =  $12000 \times \frac{5}{100}$   
= ₹ 600

88. (B) Let present age of A be x and B by y.

$$x + 6 = y + 6 + 4$$

$$x - y = 4 \dots\dots\dots (i)$$

$$\frac{x + y}{2} = 70 \dots\dots\dots (ii) \text{ [Given]}$$

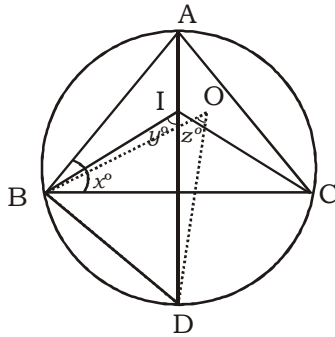
$$2y = 66$$

$$y = 33$$

89. (D) Let length of rectangular field be  $1 \times x$  & Area be  $30 \times x$  and breath be y

So, Area =  $l \times b$   
 $30x = x \times y$   
 $y = 30 \text{ unit}$   
Perimeter =  $2(l + b)$   
 $150 = 2(l + 30)$   
 $l + 30 = 75$   
 $l + 30 = 75$   
 $l(75 - 30) \text{ m} = 45 \text{ m}$

90.(B)



$$\angle BAD = \frac{z}{2} \text{ (Angle at same chord)}$$

$$\angle IBA = \frac{x}{2}$$

$$\angle BID = \angle IBA + \angle BAD$$

[External angle of triangle]

$$y = \frac{x}{2} + \frac{z}{2}$$

$$y = \frac{x+z}{z}$$

$$\text{or } \frac{x+z}{y} = 2$$

91.(C) Let the principal amount be P.

$$\frac{P \times 7.5 \times 5}{100} - \frac{P \times 7.5 \times 4}{100} = 150$$

$$7.5 P \left[ \frac{5}{100} - \frac{4}{100} \right] = 150$$

$$7.5 P \times \frac{1}{100} = 150$$

$$P = \frac{150 \times 100}{7.5}$$

$$= ₹ 2000$$

92.(B) The work completed by A and B in two days

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

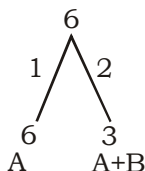
$$\text{Remaining work} = 1 - \frac{2}{3} = \frac{1}{3}$$

∴ A does  $\frac{1}{3}$  work in 2 days

∴ A will complete the whole work

$$= \frac{1}{3} \times 2$$

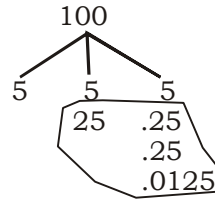
$$= 6 \text{ days}$$



So, B will complete the whole

$$\text{work in } \frac{6}{1} = 6 \text{ days}$$

93.(D) Let the principal amount be 100.



$$\text{difference} = 0.25 + 0.25 + 0.25 + 0.0125$$

$$= 0.7625$$

$$\downarrow \times 48$$

$$36.60$$

$$\text{So, principal amount} = 100 \times 48 \rightarrow ₹ 4800$$

94.(D)

95.(D) Required years = 4

96.(B) Required series = Data entry Operator, Data base controller, Manager(IT). or total 4 categories.

97.(A) Programmer : Manager = 36 : 3  
= 12 : 1

98.(C) Total number of personnel in those categories in 2010 = 18 + 15  
= 33  
and in 2014 = 25 + 31  
= 56

$$\text{Required percentage} = \frac{33}{56} \times 100$$

$$= 58.92\%$$

or 59%

99. (C) Required angle =  $\frac{31}{135} \times 360$   
= 82.67°  
or 83°

100. (B) Required angle =  $\frac{15}{80} \times 360$   
= 67  $\frac{1}{2}$ °

101. (A) Under the new proposed Environment Law Management Act (ELMA), full time expert bodies-National Environment Management Authority (SEMA) are to be constituted at the Central and State levels respectively to evaluate project clearance in a time bound manner. The committee was headed by the former cabinet secretary TSR Subramanian to review the key environment laws.

102. (B) Kerala's Idukki is first district to be linked with the National Optic Fibre Network (NOFN) to get high speed rural broadband connectivity under the Government's Digital India Project.

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| <p>104. (B) Natural source of Vitamin E is called d-alpha-tocopherol and it is the collective name for a group of fat soluble compounds with distinctive antioxidant activities.</p> <p>105. (C) Article 74 of the Indian Constitution provides for a Council of Ministers. It says that there shall be COM to aid and advise the President. The COM consists of all three categories of Ministers. They are Cabinet Ministers, Ministers of State and Deputy Ministers.</p> <p>106. (A) Despotism is a form of Government in which a single entity rules with an absolute power. It is a state in which a single individual (the despot) wields all the power and authority embodying the state and everyone else is a subsidiary person.</p> <p>107. (C) Judicial Review refers to the power of the judiciary to interpret the Constitution and to declare any such law or order of the legislature and executive void. Judicial Review in India is governed by the principle: 'Procedure Established by Law'. Under it, the court conducts one test, i.e. whether the law has been made in accordance with the powers granted by the Constitution to the law-making body and follows the prescribed procedure or not. It gets rejected when it is held to be violative of procedure established by law.</p> <p>108. (D) The revolution of 6th century B.C gave rise to different religions and religious sects. This period witnessed the birth of several saints who revolutionized the religious world. Lord Buddha and Lord Mahavira were the most famous and important among these saints. Both Buddha and Mahavira severely criticized Brahmins religion and opposed yajans and sacrifices. They preached people to break the bonds of caste system and sectarianism as well. They laid stress upon the self-discipline, right conduct, right action, good character etc. Therefore in 6th Century B.C when some major Upanishads were being compiled, is rightly described as an age of intellectual ferment, the atmosphere was full of doubts and the mind of the men in India was rocked by revolutionary ideas.</p> <p>109. (C) The Charter Act of 1813 ended the monopoly of the East India Company in India. However the company's monopoly in trade with China and trade in tea remained intact. This act first time explicitly defined the Constitutional position of the British territories in India.</p> | <p>This act also regulated the Company's territorial revenues, commercial profits etc.</p> <p>110. (C) The Swadeshi Movement started with the partition of Bengal by the Viceroy of India, Lord Curzon, 1905 and continued up to 1911.</p> <p style="padding-left: 20px;">⇒ Tragedy of Jallianwalah Bagh also known as the Amritsar massacre, took place on 13th April 1919.</p> <p style="padding-left: 20px;">⇒ The Dandi March, also known as the Salt Satyagraha, began on 12<sup>th</sup> March 1930 and was an important part of the Indian Independence movement.</p> <p style="padding-left: 20px;">⇒ On 8th August 1942 at the All-India Congress Committee session in Bombay, Mohandas Karamchand Gandhi launched the 'Quit India' movement.</p> <p>111. (B) Onam (10 days harvest festival) is Kerala's national festival. It is the cultural tradition for Keralites that in the 10 days leading upto Onam festival, every house will create a 'pookalam' or flower pattern in their courtyards or in front of their houses. The pookalam on the first day of the festival is called Pookalam 'Athapoo'.</p> <p>112. (A) In between the rabi and the kharif seasons, there is a short season during the summer months i.e from March to June known as zaid season. Some of the crops produced during zaid are watermelon, muskmelon, cucumber, vegetables, fodder crops and sugarcane.</p> <p>114. (B) A letter of credit is a commitment by a bank on behalf of the importer (foreign buyer) that payment will be made to the beneficiary (exporter) provided that the term of condition stated in the letter of credit have been met as evidenced by the presentation of specified documents.</p> <p>116. (A) MODVAT refers to an excise duty scheme introduced in 1986 for allowing relief to final manufacturers on the excise duty borne by their suppliers for goods manufactured by them. It has now been replaced by the CENVAT scheme. It applies to certain specific items and is meant to limit the cascading effect of duty incidence on a number of goods where the MODVAT credit can be claimed on the purchase of raw materials on which excise has been paid. This MODVAT credit can be used to set off the excise duty payable on subsequent manufacture of goods.</p> <p>119. (D) Coolgardie is a small town in Western Australia east of the State Capital, Perth.</p> <p>121. (B) Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut was established in 2000 under UP Agriculture University Act 1958 gazette.</p> |
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| <p>It is maintained by University Grant Commission (UGC), Government of India.</p> <p>123. (B) The Treaty of Purandar was signed on 11<sup>th</sup> June, 1665 between the Rajput ruler Jai Singh I, who was commander of the Mughal Empire and Maratha Chhatrapati Shivaji Maharaj.</p> <p>125. (D) Saka Samvat and Vikram Samvat are two commonly used calendars in India. Saka Samvat has been adopted as an official civil calendar by India. Saka Samvat starts from 78 AD, whereas Vikram Samvat starts from 57 BC.</p> <p>⇒ Gupta Era began in 320 AD.</p> <p>⇒ A furious second battle was fought in terrain in 1192 AD, in which the Rajputs were defeated and Prithvi Raj Chauhan was captured and put to death. The second Battle of Terrain however, proved to be a decisive battle that laid the foundation of Muslim rule in Northern India.</p> <p>127. (D) Alexander Fleming discovered Penicillin and the refrigerator was invented by J. Perkins.</p> <p>129. (B) The minimum height of a plane mirror to see the full size image of a person is equal to half the height of the person and is based on the principle of reflection, which states that the angle of incidence equals the angle of reflection. A light ray from your foot strikes the mirror like a ball off a wall. Thus, by striking the mirror half way between your foot and eye, the ray never interacts with that part of the mirror below the half way mark. Since that half way point doesn't change as you move away from the mirror, the useful area of the mirror remains the same, regardless your distance from it.</p> <p>133. (A) Human eye works on the phenomena of refraction and lenses form images. There are many similarities between eye and camera including</p> <p>⇒ diaphragm of an eye works same as a shutter in the camera</p> | <p>⇒ A lens to focus the light and create an image. The image formed is real and inverted.</p> <p>⇒ In a camera, film is used to record the image and in the eye the image is focused on the retina.</p> <p>136. (C) A Bone Mineral Density test (BMD) is the only test that can diagnose osteoporosis before a broken bone occurs. This test helps to estimate the density of your bones and your chance of breaking a bone.</p> <p>138. (B) Article 169 states that Parliament may by law provide for the abolition of the Legislative Council of a state having such a council or for the creation of such a council in a state having no such council, if the Legislative Assembly of the state passes a resolution to that effect by a majority of the total membership of the Assembly and by a majority of not less than two thirds of the members of the Assembly present and voting.</p> <p>140. (C) Black soil absorbs water and becomes sticky but has high water retentive property because it is non porous and due to this property it has a self ploughing property.</p> <p>141. (B) Mercury, Venus and Pluto do not have any satellite, the earth has one, Mars and Neptune two each, Uranus five, Saturn ten and Jupiter has twelve. These celestial bodies moving around a planet are called Natural Satellites. Thus, moon is a natural satellite of the earth.</p> <p>143. (A) According to The Trade Union (Amendment) Act, 2001 – A registered trade union of workmen shall at all times continue to have not less than 10% or 100 of the workmen, whichever is less, subject to a minimum of 7 persons engaged or employed in the establishment of industry with which it is connected, as its members.</p> <p>144. (C) Pro-tem speaker performs the duties of the office of the speaker from the commencement of the sitting of the new Lok Sabha till the election of the speaker.</p> |
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**MEANINGS IN ALPHABETICAL ORDER**

<b>Word</b>	<b>Meaning in English</b>	<b>Meaning in Hindi</b>
Bump	a sudden forceful blow	धक्का
Thrall	bondage/ the state of being a slave	दास
Spat	dispute	झगड़ा
Felon	a criminal who has committed a serious crime	अपराधी
Impostor	a person who deceives others by pretending to be someone else	पाखंडी
Empiric	one who relies on practical experience	अनुभवसिद्ध
Usurer	a person who lends money and requires the borrower to pay a high amount of interest	सूदखोर
Heyday	the period of greatest prosperity or productivity	यौवन
Heroic	having or showing great courage	वीरतापूर्ण
Vacuous	showing a lack of intelligence or serious thought	मूर्ख
Sparkling	to produce small flashes of light	चमकदार
Rampant	growing quickly and in a way that is difficult to control	तेजी से फैलने वाला
Lacerate	to tear or rend roughly	चीन-फाड़ करना
Mangle	to injure with deep disfiguring wounds by cutting	चीर-फाड़ करना
Heal	to become healthy or well again	स्वस्थ करना
Obsolete	no longer used by anyone	लुप्त प्रयोग
Verbatim	word for word	शब्दशः
Vertebrate	having a spinal column	कशेरुकी
Interlock	to connect or lock two or more things together	आपस में जोड़ देना
Quash	to suppress or extinguish summarily and completely	दमन करना
Baffle	to confuse someone completely	चक्कर में डाल देना
Despair	to no longer have any hope	निराशा
Sentries	a soldier who guards a door, gate, etc	संतरी
Mongrel	a dog with parents of different breeds	मिश्रित जाति का कुत्ता
Bloodhound	a large dog that has very long ears and a very good sense of smell and that is often used for finding people and for hunting	एक उच्च नस्ल का कुत्ता
Pedigree	the origin and history of something especially when it is good or impressive	नस्ल



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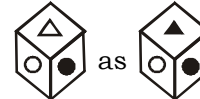
## SSC MOCK TEST - 13 (ANSWER KEY)

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

151. (C); Change 'I will see him' into 'I see him'. Double future cannot come together. The 1<sup>st</sup> action must be in simple present tense.
152. (B); Change 'has' into 'have'. The verb following the relative pronoun (that) must agree to the antecedent to the relative pronoun (batsmen). 'Batsmen' being a plural noun must take plural verb 'have'.
153. (B); Change 'he is' into 'is he'. 'Nor' being a negative word will be followed by inversion i.e 'helping verb/main verb' before the subject.
154. (B); Change 'know' into 'knows'. 'Everyone' being singular will take 'singular verb'.
155. (B); Change 'laying' into 'lying'.

### Correction of Mock test-12

33. (C); Read



as

**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**