

WBCS (Main) Exam Paper – VI Practice Set

Answers with Explanation

1. (b) Required remainder = remainder got when 63 is divided by 29 = 5

2. (d) A number will be exactly divisible by 18 if it is divisible by 2 and 9 both. Clearly 65043 is not divisible by 2.

∴ Required number = 65043 শ্রুতিভঙ্গি

3. (b) Given

$$\frac{a}{b} \times \frac{c}{d} = \frac{14}{15} \quad \dots(i)$$

$$\frac{a}{b} \times \frac{d}{c} = \frac{35}{24} \quad \dots(ii)$$

Now multiplying both the equations

$$\frac{ac}{bd} \times \frac{ad}{bc} = \frac{14}{15} \times \frac{35}{24}$$

$$\Rightarrow \frac{a^2}{b^2} = \frac{49}{36} \Rightarrow \frac{a}{b} = \frac{7}{6}$$

$$\therefore \frac{c}{d} = \frac{15}{7} \times \frac{4}{5} = \frac{12}{7}$$

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But the greater fraction is $\frac{7}{6}$

4. (c) Given that

L.C.M. of two numbers = 1820

H.C.F. of those numbers = 26

One of the number is 130

∴ Another number

$$= \frac{1820 \times 26}{130} = 364$$

5. (d) First number × Second number

= HCF × LCM

⇒ 864 × Second number

= 96 × 1296 ⇒ Second number

$$= \frac{96 \times 1296}{864} = 144$$

6. (a) L.C.M. of 28 and 42 শ্রুতিভঙ্গি

$$\begin{array}{r|rr} 2 & 28 & 42 \\ \hline 2 & 14 & 21 \\ 7 & 7 & 21 \\ \hline & 1 & 3 \end{array}$$

$$= 2 \times 2 \times 7 \times 3 = 84$$

H.C.F. of 28 and 42

$$28) 42 \quad (1$$

$$\frac{28}{14) 28 \quad (2$$

$$\frac{28}{00}$$

∴ H.C. F = 14 শ্রুতিভঙ্গি

$$\text{Required ratio} = \frac{84}{14} = 6 : 1$$

$$7. (c) 1 + \frac{1}{1 + \frac{2}{15 + 4}} = 1 + \frac{1}{1 + \frac{2}{19}}$$

$$= 1 + \frac{1}{1 + \frac{2 \times 5}{19 \times 5}} = 1 + \frac{1}{1 + \frac{10}{19}}$$

$$= 1 + \frac{19}{29} = \frac{29 + 19}{29} = \frac{48}{29}$$

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$$8. (a) \frac{1}{9} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56} + \frac{1}{72}$$

$$= \frac{1}{9} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \frac{1}{4 \times 5} + \frac{1}{5 \times 6} + \dots + \frac{1}{8 \times 9}$$

$$= \frac{1}{9} + \frac{1}{2} - \frac{1}{3} + \frac{1}{3} - \frac{1}{4} + \dots + \frac{1}{8} - \frac{1}{9} = \frac{1}{2}$$

$$9. (b) \sqrt{\frac{(0.1)^2 + (0.01)^2 + (0.009)^2}{(0.01)^2 + (0.001)^2 + (0.0009)^2}}$$

$$= \sqrt{\frac{0.01 + 0.0001 + 0.000081}{0.0001 + 0.000001 + 0.00000081}}$$

$$= \sqrt{\frac{0.010181}{0.00010181}} = \sqrt{100} = 10$$

10. (b) Sum of x numbers = xy শ্রুতিভঙ্গি

Sum of y numbers = xy

∴ Required average

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

11. (a) Required average

$$= \frac{1.11 + 0.01 + 0.101 + 0.001 + 0.11}{5}$$

$$= \frac{1.332}{5} = 0.2664$$

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12. (c) The middle number

$$= 8 \times 6.5 + 8 \times 9.5 - 15 \times 7$$

$$= 52 + 76 - 105$$

$$= 128 - 105 = 23$$

13. (c) $\frac{x}{y} = \frac{5}{6}$

$$\therefore \frac{3x^2 - 2y^2}{y^2 - x^2} = \frac{3 \cdot \frac{x^2}{y^2} - 2}{1 - \frac{x^2}{y^2}}$$

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$$= \frac{3 \times \frac{25}{36} - 2}{1 - \frac{25}{36}} = \frac{75 - 72}{36 - 25} = \frac{3}{11} = 3 : 11$$

14. (d) A : B = 3 : 5 = 12 : 20

$$B : C = 4 : 7 = 20 : 35$$

$$\therefore A : B : C = 12 : 20 : 35$$

15. (a) $\frac{x}{y} = \frac{3}{4}$

$$\therefore \frac{4x - y}{2x + 3y} = \frac{4 \cdot \frac{x}{y} - 1}{2 \cdot \frac{x}{y} + 3}$$

$$= \frac{4 \times \frac{3}{4} - 1}{2 \times \frac{3}{4} + 3}$$

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$$= \frac{2}{\frac{3}{2} + 3} = \frac{2 \times 2}{9} = 4 : 9$$

16. (b) 20% of A = 50% of B

$$\Rightarrow 2A = 5B \Rightarrow A = \frac{5B}{2}$$

Let B is x % of A.

$$\therefore \frac{5B}{2} \times \frac{x}{100} = B$$

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$$\Rightarrow x = \frac{200}{5} = 40\%$$

17. (c) Required percentage

$$= \frac{24}{40} \times 100 = 60\%$$

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18. (b) Required number

$$= 60\% \text{ of } 90 = \frac{90 \times 60}{100} = 54$$

19. (a) Let the C.P. of each book be Re. 1.

$$\therefore \text{Total C.P. of 25 books} = \text{Rs. } 25$$

$$\text{Their S.P.} = ₹ 20$$

$$\therefore \text{Loss per cent}$$

$$= \left(\frac{25 - 20}{25} \right) \times 100$$

$$= \frac{5}{25} \times 100 = 20\%$$

20. (c) Loss per cent

$$= \frac{400 - 320}{400} \times 100$$

$$= \frac{80}{400} \times 100 = 20\%$$

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21. (b) C.P. = 12

$$\text{S.P.} = 12 \times 1.25 = 15$$

$$\text{Total Profit} = 15 - 12 = 3$$

$$\% \text{ gain} = \frac{3}{12} \times 100 = 25\%$$

22. (c) Successive discounts of x% and y%

$$= \left(x + y - \frac{x \times y}{100} \right) \%$$

$$\therefore \text{Required discount}$$

$$= \left(20 + 10 - \frac{20 \times 10}{100} \right) \%$$

$$= 30 - 2 = 28\%$$

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23. (c) Let the cost price be x

$$\text{Mark Price} = \left(1 + \frac{20}{100} \right) x = 1.2x$$

$$\text{Cash price} = \left(1 - \frac{30}{100} \right) 1.2x$$

$$= 0.7 \times 1.2x = 0.84x$$

$$\text{Net Loss} = x - 0.84x = 0.16x$$

$$\therefore \text{Net loss\%}$$

$$= \frac{0.16x}{x} \times 100 = 16\%$$

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24. (b) C.P. of article = ₹100
Marked price = ₹150

$$\text{S.P.} = \frac{150 \times 60}{100} = ₹90$$

$$\text{Loss} = 100 - 90 = ₹10 \text{ i.e. } 10\%$$

25. (a) Simple interest for 2 years
= (568 - 520) = 48
∴ Interest for 5 years

$$= ₹ \frac{48}{2} \times 5 = ₹120$$

$$\text{Principal} = (520 - 120) = ₹400$$

26. (a) $4200 = \frac{29400 \times 6 \times R}{100}$

$$\Rightarrow R = \frac{4200}{294 \times 6} = \frac{50}{21} = 2\frac{8}{21}\%$$

27. (c) If the principal be 100 then
S.I. = ₹100.

$$\therefore \text{Time} = \frac{\text{S.I.} \times 100}{\text{Principal} \times \text{Rate}}$$

$$= \frac{100 \times 100}{100 \times 12} = \frac{25}{3} \text{ years}$$

$$= 8 \text{ years } 4 \text{ months}$$

28. (a) $5832 = P \left(1 + \frac{8}{100}\right)^2$

$$\Rightarrow 5832 = P \left(1 + \frac{2}{25}\right)^2$$

$$\Rightarrow 5832 = P \times \frac{27}{25} \times \frac{27}{25}$$

$$\Rightarrow P = \frac{5832 \times 25 \times 25}{27 \times 27} = ₹5000$$

29. (b) $A = P \left(1 + \frac{R}{100}\right)^T$

$$\Rightarrow 882 = 800 \left(1 + \frac{5}{100}\right)^T$$

$$\Rightarrow \frac{882}{800} = \left(\frac{21}{20}\right)^T$$

$$\Rightarrow \frac{441}{400} = \left(\frac{21}{20}\right)^2 = \left(\frac{21}{20}\right)^T$$

$$\therefore T = 2 \text{ years}$$

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30. (d) $\text{Principal} = \frac{\text{S.I.} \times 100}{\text{Time} \times \text{Rate}}$

$$= \frac{80 \times 100}{2 \times 4} = ₹1000$$

$$\therefore \text{C.I.} = P \left[\left(1 + \frac{R}{100}\right)^T - 1 \right]$$

$$= 1000 \left[\left(1 + \frac{4}{100}\right)^2 - 1 \right]$$

$$= 1000 \left[\left(\frac{26}{25}\right)^2 - 1 \right]$$

$$= 1000 \left(\frac{676}{625} - 1 \right)$$

$$= 1000 \left(\frac{676 - 625}{625} \right)$$

$$= \frac{1000 \times 51}{625} = ₹81.60$$

31. (d) A's 1 day's work = $\frac{1}{4}$

$$\text{B's 1 day's work} = \frac{1}{12}$$

$$\text{(A + B)'s 1 day's work}$$

$$= \frac{1}{4} + \frac{1}{12} = \frac{3+1}{12} = \frac{4}{12} = \frac{1}{3}$$

$$\therefore \text{Required time} = 3 \text{ days}$$

32. (b) A's 2 days' work = B's 3 days' work

$$\therefore \text{Time taken by A} = 8 \text{ days}$$

$$\therefore \text{Time taken by B} = \frac{8}{2} \times 3 = 12 \text{ days}$$

33. (d) Work done by (A + C) in 2 days

$$= 2 \left(\frac{1}{10} + \frac{1}{20} \right) = 2 \left(\frac{2+1}{20} \right) = \frac{6}{20} = \frac{3}{10}$$

$$\text{Remaining work} = 1 - \frac{3}{10} = \frac{7}{10}$$

$$\text{(B + C)'s 1 day's work}$$

$$= \frac{1}{15} + \frac{1}{20} = \frac{4+3}{60} = \frac{7}{60}$$

$$\therefore \text{Time taken by (B + C) to finish } \frac{7}{10} \text{ part of}$$

$$\text{the work} = \frac{60}{7} \times \frac{7}{10} = 6 \text{ days}$$

$$\therefore \text{Total time} = 2 + 6 = 8 \text{ days}$$

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34. (a) Part of the cistern filled by both pipes in 1 hour

$$= \frac{1}{10} + \frac{1}{15} = \frac{3+2}{30} = \frac{1}{6}$$

∴ The cistern will be filled in 6 hours.

35. (d) Work done in 1 hour by the filling pump =
- $\frac{1}{2}$

Work done in 1 hour by the leak and the filling pump = $\frac{3}{7}$

∴ Work done by the leak in 1 hour

$$= \frac{1}{2} - \frac{3}{7} = \frac{7-6}{14} = \frac{1}{14}$$

Hence, the leak can empty the tank in 14 hours.

36. (d) 300 days = (300 × 24) hours
-
- = (300 × 24 × 60 × 60) seconds

∴ Number of drops

$$= 300 \times 24 \times 60 \times 60$$

∴ 600 drops = 100 ml.

∴ 300 × 24 × 60 × 60 drops

$$= \left(\frac{300 \times 24 \times 60 \times 60}{6} \right) \text{ ml.}$$

$$= (1200 \times 60 \times 60) \text{ ml.}$$

$$= \left(\frac{1200 \times 60 \times 60}{1000} \right) \text{ litre} = 4320 \text{ litre.}$$

37. (b) Time taken =
- $\frac{\text{Distance}}{\text{Time}}$

$$= \frac{4}{5} \text{ hour} = \frac{4 \times 60 \times 60}{5 \times 45} \text{ sec.} = 64 \text{ seconds}$$

38. (a) Time =
- $10 \frac{1}{2}$
- hours =
- $\frac{21}{2}$
- hours

Speed = 40 kmph

Distance = Speed × Time

$$= 40 \times \frac{21}{2} = 420 \text{ km}$$

39. (d) ∴ 1 m/sec =
- $\frac{18}{5}$
- kmph

$$\therefore \frac{10}{3} \text{ m/sec}$$

$$= \frac{18}{5} \times \frac{10}{3} = 12 \text{ kmph}$$

40. (b) Rate downstream =
- $\frac{18}{4} = \frac{9}{2}$
- kmph

$$\text{Rate upstream} = \frac{18}{12} = \frac{3}{2} \text{ kmph.}$$

Now, speed of the stream

$$= \frac{\text{Rate downstream} - \text{Rate upstream}}{2}$$

$$= \frac{\frac{9}{2} - \frac{3}{2}}{2} = \frac{6}{4} = \frac{3}{2} = 1.5 \text{ kmph.}$$

41. (b) Speed upstream =
- $\frac{40}{8} = 5$
- kmph

$$\text{Speed downstream} = \frac{36}{6} = 6 \text{ kmph}$$

∴ Speed of boat in still water

$$= \frac{1}{2}(5+6) = 5.5 \text{ kmph}$$

42. (d) Speed of current

$$= \frac{1}{2} (\text{rate downstream} - \text{rate upstream})$$

$$= \frac{1}{2}(14-8) \text{ kmph} = 3 \text{ kmph}$$

43. (d) Let the breadth of rectangular hall = x m.

∴ length = (x + 5) m.

Area of hall = Length × Breadth

$$\Rightarrow 750 = (x + 5) x$$

$$\Rightarrow x^2 + 5x - 750 = 0$$

$$\Rightarrow x^2 + 30x - 25x - 750 = 0$$

$$\Rightarrow x(x + 30) - 25(x + 30) = 0$$

$$\Rightarrow (x - 25)(x + 30) = 0$$

$$\Rightarrow x = 25, \text{ as } x \text{ cannot be negative.}$$

∴ Length of hall = x + 5

$$= 25 + 5 = 30 \text{ m.}$$

44. (a) Let the length and breadth of the rectangle be 3x and 2x cm respectively.

Then, 2(3x + 2x) = 20

$$\Rightarrow 10x = 20 \Rightarrow x = \frac{20}{10} = 2$$

∴ Length = 3x = 3 × 2 = 6 cm

Breadth = 2x = 2 × 2 = 4 cm

∴ Area = 6 × 4 = 24 cm²

45. (c) Perimeter of rhombus =
- $2\sqrt{d_1^2 + d_2^2}$

Where d₁ and d₂ are diagonals.

$$\therefore 2\sqrt{d_1^2 + d_2^2} = 100$$

$$\Rightarrow \sqrt{d_1^2 + d_2^2} = 50$$

$$\Rightarrow d_1^2 + d_2^2 = 2500$$

$$\Rightarrow (14)^2 + d_2^2 = 2500$$

$$\Rightarrow d_2^2 = 2500 - 196 = 2304$$

$$\therefore d_2 = \sqrt{2304} = 48$$

$$\therefore \text{Area of the rhombus} = \frac{1}{2}d_1 \times d_2$$

$$= \frac{1}{2} \times 14 \times 48 = 336 \text{ sq.cm.}$$

46 (c) $\frac{1}{2(1+b)} = \frac{5}{18} \Rightarrow \frac{1}{1+b} = \frac{5}{9}$

$$\Rightarrow \frac{1+b}{1} = \frac{9}{5} \Rightarrow \frac{1+b}{1} - 1 = \frac{9}{5} - 1$$

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

$$\Rightarrow 1 : b = 5 : 4$$

47. (d) If d_1 and d_2 are the lengths of diagonals of a rhombus. Then

$$\text{Perimeter} = 2\sqrt{d_1^2 + d_2^2}$$

$$= 2\sqrt{24^2 + 10^2}$$

$$= 2\sqrt{576 + 100} = 2\sqrt{676}$$

$$= 2 \times 26 = 52 \text{ cm}$$

48. (b) Length of the rubber band

$$= 3d + 2\pi r$$

$$= (30 + 10\pi) \text{ cm}$$

49. (b) $\sqrt{-\sqrt{3} + \sqrt{3 + 8\sqrt{7 + 4\sqrt{3}}}}$

$$= \sqrt{-\sqrt{3} + \sqrt{3 + 8\sqrt{4 + 3 + 2 \times 2\sqrt{3}}}}$$

$$= \sqrt{-\sqrt{3} + \sqrt{3 + 8\sqrt{(2)^2 + (\sqrt{3})^2 + 2 \times 2 \times \sqrt{3}}}}$$

$$= \sqrt{-\sqrt{3} + \sqrt{3 + 8\sqrt{(2 + \sqrt{3})^2}}}$$

$$= \sqrt{-\sqrt{3} + \sqrt{3 + 8\sqrt{(2 + \sqrt{3})^2}}}$$

$$= \sqrt{-\sqrt{3} + \sqrt{3 + 16 + 8\sqrt{3}}}$$

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$$= \sqrt{-\sqrt{3} + \sqrt{(\sqrt{3})^2 + (4)^2 + 2 \times 4 \times \sqrt{3}}}$$

$$= \sqrt{-\sqrt{3} + \sqrt{(4 + \sqrt{3})^2}}$$

$$= \sqrt{-\sqrt{3} + 4 + \sqrt{3}} = \sqrt{4} = 2$$

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50. (c) Expression

$$= \frac{0.3555 \times 0.5555 \times 2.025}{0.225 \times 1.7775 \times 0.2222}$$

$$= \frac{3555 \times 5555 \times 2025}{225 \times 17775 \times 2222} = 4.5$$

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51. (d) Room is a part of the house. Similarly, nation is a part of the world.

52. (c) Pen is filled with ink. Similarly, vein is filled with blood.

53. (d) Architect is responsible for the construction of building. Similarly, statues are carved out by Sculptor.

54. (c) The lack of blood is called Anaemia. Similarly, the absence of Government is called Anarchy.

55. (a) we have $210 = (14)^2 + 14$ and $380 = (19)^2 + 19$

Similarly, $182 = (13)^2 + 13$ and

$$(18)^2 + 18 = \boxed{342}$$

56. (a) $42 = (7)^2 - 7 = 49 - 7$

$$56 = (8)^2 - 8 = 64 - 8$$

Similarly, $132 = (12)^2 - 12 = 144 - 12$

Therefore, $? = (13)^2 - 13 = 169 - 13 = 156$

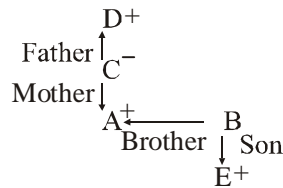
57. (a) $XXIV \times 2 \Rightarrow 24 \times 2 = 48$

Similarly,

$$XIV \times 2 = 14 \times 2 = 28$$

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58. (c)



Clearly, D is father of A's mother (C) i.e., grandfather (maternal) of A.

59. (b) B is sister of F.

Therefore, B is sister-in-law of M.

60. (b) Only sister of Kala's brother means Kala herself.

Therefore, Mala is daughter of Kala.

61. (a) $\boxed{\times \Rightarrow +} \quad \boxed{\div \Rightarrow -}$

$$? = 39 \times 23 \div 21 \times 5$$

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or, ? = 39 + 23 - 21 + 5
 or, ? = 67 - 21 = 46

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62. (b)

+	⇒	÷	÷	⇒	-
-	⇒	×	×	⇒	+

Given expression
 $12 + 6 \div 3 - 2 \times 8 = ?$
After changing the signs
 $? = 12 \div 6 - 3 \times 2 + 8$
 or, ? = 2 - 6 + 8
 or, ? = 10 - 6 = 4

63. (b)

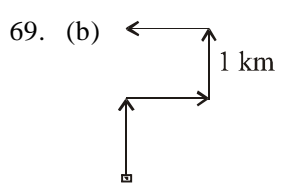
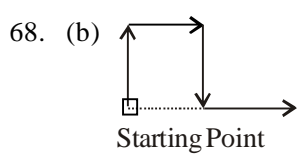
+	⇒	÷	÷	⇒	-
-	⇒	×	×	⇒	+

$12 - 8 \times 6 - 4 \div 6 + 3 = ?$
 $\Rightarrow ? = 12 \times 8 + 6 \times 4 - 6 \div 3$
 $\Rightarrow ? = 96 + 24 - 2$
 $\Rightarrow ? = 120 - 2 = 118$

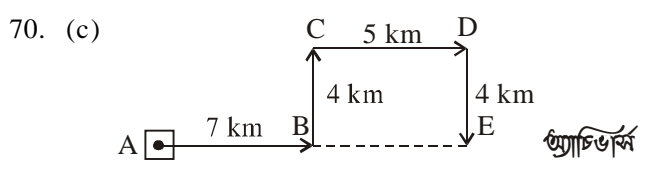
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64. (c) Salary is the remuneration one gets in lieu of service rendered by him/her. But all others are types of investment (or deposit).
65. (d) Except ear, all others are internal organs.
66. (a) Except 8, all other numbers are multiples of 7.
 $42 = 7 \times 6$
 $49 = 7 \times 7$
 $35 = 7 \times 5$
67. (c) Except 124, all other numbers are completely divisible by 3. Thus,
 $24 \div 3 = 8$
 $60 \div 3 = 20$
 $210 \div 3 = 70$
 But,
 $124 \div 3 = 41.33$

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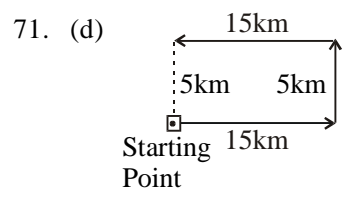
Now, she is moving towards West.



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Now Suresh is in the East direction from the starting point.

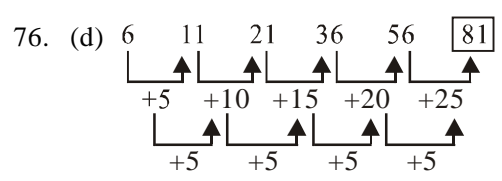
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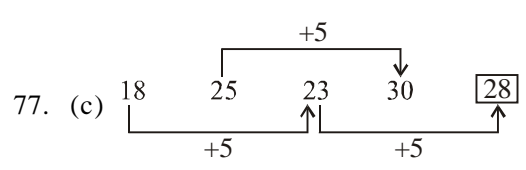
It is clear from the diagram that Amit was 5 km away from the starting point.

72. (c) The day before yesterday was Friday. Therefore, today is Sunday. The day-after-tomorrow will be Tuesday
 $\text{Tuesday} + 3 = \text{Saturday}$
73. (d) Today is Saturday -2
 = Thursday
 Yesterday → Wednesday
 $\text{Wednesday} - 3 = \text{Sunday}$
74. (b) When it appears 6 : 30 in mirror, the real time would be 5 : 30.
75. (b) The given number series is based on the following pattern :
 $2 \times 2 + 1 = 5$
 $5 \times 2 - 1 = 9$
 $9 \times 2 + 1 = 19$
 $19 \times 2 - 1 = 37$
 $37 \times 2 + 1 = \text{75}$

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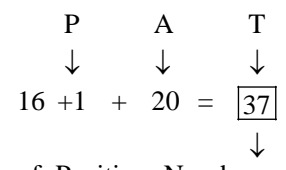


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78. (d) $1 + (2)^2 = 5$
 $5 + (4)^2 = 21$
 $21 + (6)^2 = 57$
 $57 + (8)^2 = 121$
 $121 + (10)^2 = 221$

79. (b) A = 1 → The position number in English alphabet.



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Sum of Position Numbers of the letters in English alphabet.

Similarly,

$$\begin{array}{ccccccc} 16 & +1 & + & 20 & = & \boxed{37} & \\ & T & & A & & P & \\ & \downarrow & & \downarrow & & \downarrow & \\ & 20 & + & 1 & + & 16 & = 37 \end{array}$$

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80. (b)

R	O	S	E	
↓	↓	↓	↓	
6	8	2	1	
C	H	A	I	R
↓	↓	↓	↓	↓
7	3	4	5	6

Therefore,

S	E	A	R	C	H
↓	↓	↓	↓	↓	↓
2	1	4	6	7	3
4	0	8	9	2	7
↓	↓	↓	↓	↓	↓
E	U	R	B	S	A

81. (c)

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82. (c) The letter 'R' is not present in the word PHOTOSYNTHETIC.

83. (b) There is no letter 'S' in the keyword.

84. (d) There is no 'T' letter in the given word. Therefore, the word INITIAL cannot be formed.

P R O V I N C I A L I S M
 \Rightarrow S A I L O R

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P R O V I N C I A L I S M
 \Rightarrow N A I L

P R O V I N C I A L I S M
 \Rightarrow M A N

85. (a) Both the Premises are Universal Affirmative (A-type).

All carts are cars.

All cars are trains.

$A + A \Rightarrow$ A-type of Conclusion

"All carts are trains."

This is Conclusion I.

86. (c) Both the Premises are Universal Affirmative (A-type).

All men are women

All women are crazy.

$A + A \Rightarrow$ A - type of Conclusion

"All men are crazy".

This is Conclusion I.

Conclusion III is the Converse of it.

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Conclusion IV is the Converse of Statement Q.
 87. (b) First Premise is Particular Affirmative (I-type).
 Second Premise is Universal Negative (E-type).

Some skirts are benches.

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No bench is a table.

$I + E \Rightarrow$ O-type of Conclusion

"Some skirts are not tables."

Conclusion II is Converse of the first Premise.

88. (a) Uma > Suma ... (i)

Neha > Suma ... (ii)

Hema > Sudha > Uma > Neha ... (iii)

From (i), (ii) and (iii)

Hema > Sudha > Uma > Neha > Suma

Hence Hema is tallest.

89. (a) B = 2A

F = 2B

A = 2C

C = 2D

$\Rightarrow F = 2B = 4A = 8C = 16D$

$F > B > A > C > D$

Hence second oldest is B.

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90. (b) Arun's rank from the last
 $= 31 - 17 + 1$ 15th

91. (b) First figure

$\Rightarrow 15 + 12 = 27$

and, $27 \div 9 = 3$

Second figure $\Rightarrow 44 + 28 = 72$

and, $72 \div 9 = 8$

Similarly, in third figure

$64 + 53 = 117$

and, $117 \div 9 = \boxed{13}$

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92. (a) **First figure**

$15 + 16 = 22 + 9$

or, $31 = 31$

Second figure

$13 + 7 = 11 + 9$

or, $20 = 20$

Third figure

$21 + 15 = ? + 13$

or, $? = 36 - 13 = \boxed{23}$

93. (d) $(0)^2 + (3)^2 + (1)^2 + (2)^2$

$= 0 + 9 + 1 + 4 = 14$

$(3)^2 + (5)^2 + (2)^2 + (4)^2$

$= 9 + 25 + 4 + 16 = 54$

$(3)^2 + (1)^2 + (6)^2 + (5)^2$

$= 9 + 1 + 36 + 25 = \boxed{71}$

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94. (c) The sum of upper two numbers is equal to the lower number.
 $22 + 10 = 32$
 $14 + 74 = 88$
 Similarly,
 $33 + 26 = \boxed{59}$
95. (b) The sum of the four numbers located in the four arms is equal to the central number.
1st Figure
 $1 + 44 + 33 + 22 = 110$
2nd Figure
 $16 + 40 + 32 + 24 = 112$
3rd Figure
 $? + 12 + 34 + 23 = 114$
 $\Rightarrow ? = 114 - 59 = 45$
96. (c) Meaningful order :
 (c) Room
 ↓
 (a) House
 ↓
 (b) Road
 ↓
 (d) Hamlet
 ↓
 (e) District
97. (c) Meaningful order of the given words :
 (b) Seed
 ↓

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- (e) Plant
 ↓
 (a) Tree
 ↓
 (c) Flower
 ↓
 (d) Fruit
98. (b) Mine yields ore. Ore is processed which gives gold and then ornaments are made from gold.
 (d) Mine
 ↓
 (c) Ore
 ↓
 (e) Process
 ↓
 (a) Gold
 ↓
 (b) Ornaments
99. (d) The six colours are : Indigo, Violet, Orange, Red, Green and Blue.
 The colours Indigo, Blue and Red are on the faces adjacent to Green and therefore, these colours cannot be on the face opposite to Green.
 After careful observation of all the views of dice, it is clear that Orange lies opposite to Green.
100. (d) There are seven blocks in the given figure.

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