



# All India Civil Services Coaching Centre

(Under the aegis of Government of Tamil Nadu)

## Answer Key Explanation

### Test 2 – CSAT Test

Maximum Questions: 80

Maximum Marks: 200

**1. Correct Answer : (a)**

**Exp:** Average = total runs / no. of innings = 32

So, total = Average x no. of innings  
= 32 x 10 = 320.

Now increase in avg = 4runs. So, new avg.  
= 32 + 4 = 36runs

Total runs = new avg. x new no. of innings  
= 36 x 11 = 396

Runs made in the 11th inning  
= 396 - 320 = 76

**2. Correct Answer : (d)**

**Exp:** Let the number of students be x.

Then, Number of students above 8 years of age.

= (100 - 20)% of x

= 80% of x.

80% of x

= 48 + 2/3 of 48

80/100x = 80

x = 100.

**3. Correct Answer : (a)**

**Exp:** Let the daughter's age be x years.

Then, father's age = 4x.

Mother's age = 4x - 10; Son's age = x + 6.

So, x + 6 = (4x-10)/2

Therefore, x=11.

Therefore Mother's age = 4X - 10

= 44 - 10

= 34 years.

**4. Correct Answer : (b)**

**Exp:** A+B+C+D = 58\*4

B+C+D+E = 60\*4

Subtract both, E - A = 8

So 8x - 7x = 8, x = 8

So temperature of A(1st day)

= 7x = 7\*8

=56 deg.

**5. Correct Answer : (a)**

**Exp:** As we can see from the alphabet series, numeric values for the alphabets M is 13, I is 9, R is

18 and O is 15.

Similarly, for the word APPLE, A = 1, P = 16, P = 16, L = 12 & E = 5.

So, the code is 11616125.

Therefore, option (a) is the correct answer.

**6. Correct Answer : (b)**

**Exp:** The number is divisible by 18 i.e., it has to be divisible by 2 and 9.

Therefore, B may be 0, 2, 4, 6, 8.

$$A + 4 + 5 + 7 + 1 + 2 + 0 + 3 + B$$

$$= A + B + 22.$$

A + B could be 5, 14 (as the sum can't exceed 18, since A and B are each less than 10).

So, A and B can take the values of 6, 8.

**7. Correct Answer : (c)**

**Exp:** Real distance =  $[(10 \times 15) / 5] \times 2$

$$= 60 \text{ km}$$

He started the journey at 7 AM.

To get there at noon, he must cycle at  $(60 / 5)$   
 $= 12 \text{ km/hr}$ .

**8. Correct Answer : (c)**

**9. Correct Answer : (b)**

**10. Correct Answer : (d)**

**11. Correct Answer : (a)**

**Exp:**

Person	State	Occupation
P	Goa	Teacher
Q	Bihar	Accountant / Salesman
R	Manipur	Officer
S	Nagaland	Clerk
T	Sikkim	Accountant / Salesman
U	Haryana	Doctor

**12. Correct Answer : (d)**

**Exp:**  $51 - 33 = 18$

So, the number which was to be multiplied was  $[360 / (51 - 33)]$

$$= 360 / 18 = 20$$

So, the result would be  $20 \times 51 = 1020$ .

**13. Correct Answer : (c)**

**Exp:**  $[2\pi rQ / 360]$

$$[= 198 [\because \text{Length of arc} = 2\pi rQ / 360^\circ]$$

$$= 2 \times (22 / 7) \times [(r \times 108) / 360] = 198$$

$$= r = 105 \text{ m}$$

**14. Correct Answer : (c)**

**Exp:**

$$\begin{aligned} \text{Average speed} &= \frac{x}{\frac{x}{3 \times 60} + \frac{x}{3 \times 30} + \frac{x}{3 \times 20}} \\ &= \frac{x}{\frac{x+2x+3x}{180}} \\ &= \frac{x \times 180}{6x} = 30 \text{ km/hr} \end{aligned}$$

**15. Correct Answer : (c)**

**Exp:** Total savings =  $1 + 2 + 3 + \dots$  up to 29 days

$$\Rightarrow (29 \times 30) / 2$$

$$= 435$$

**16. Correct Answer : (b)**

**Exp:** There were 30 Names knives in 16' which will also work in 17' thus we have 50 new knives in 17'. Now in 18' 20% of 30 i.e. 6 are thrown in the junk.

Therefore, in 18' we have  $24 + 50 = 74$  Names knives of previous years.

Therefore, Names knives purchased in 18' is  $124 - 74 = 50$ .

**17. Correct Answer : (b)**

**Exp:** The number of Names knives that were disposed of by the end of 2018 is 6 and at the end of 2019 are 10.

So in total 16 Names knives are disposed of.

**18. Correct Answer : (d)**

**Exp:** Since 10 Berma were disposed of in 2014, it means 50 new have been bought in 2014, which implies that 70 were already in use.

The breakup of 70 knives Berma cannot be determined.

So the number of Berma disposed of in 2019 cannot be calculated.

**19. Correct Answer : (a)**

**Exp:** Berma knives were purchased in 2018 =  $236 - 222 + \text{Disposed of in 2018}$

=  $236 - 222 + 20\%$  (Berma knives were purchased in 2016)

=  $236 - 222 + 20\% (182 - 162 + 10)$

=  $236 - 222 + 6$

= 20

**20. Correct Answer : (c)**

**Exp :**

$2 \times 21 \times 26 = 1092$

$1 \times 22 \times 46 = 1012$

Similarly,  $2 \times ? \times 20 = 1000$

$? = 1000 / 40$

= 25

**21. Correct Answer : (c)**

**Exp:** Younger of the two brothers of the daughter of my father's wife (as my father's wife = my mother)

So, younger of the two brothers of the daughter of my mother (as daughter of my mother = my sister).

So, younger of the two brothers of my sister means 'my younger brother'.

Hence, that boy is the younger brother of Babu.

**22. Correct Answer : (a)**

**Exp :** Initially  $I - E = S$  (I = Income, E = expenditure, S = saving)

$10000 - 6000 = 4000$  (saving)

Now,  $I = 11000$  and  $E = 7200$ .

So saving =  $I - E = 3800$ .

$[ (4000 - 3800) / 4000 ] \times 100$

= 5%

**23. Correct Answer : (a)**

**Exp :**

Let the age of new students is a, and b years.

Then,

$\Rightarrow 240 - 10 + a + b = (20 - 1 + 2) \times 12$

$\Rightarrow 230 + a + b = 252$

$a + b = 22$ .....(1)

Given,

$a - b = 4$ .....(2)

Solve (1) and (2),

$b = 9$  years

**24. Correct Answer : (b)**

**Exp :** He is getting Rs. 1200 for sure.

The rest Rs. 600 is received in proportion of 12:4 (Commission : bonus).

Hence he receives Rs 150 as bonus.

**25. Correct Answer : (b)**

**Exp :** Time lost in 48 hrs.  $48 \times 1.5 = 72$  minutes

As the watch owner adjusts 36 minutes, effective time lost in 48 hours = 36 minutes

For the watch to show the right time, it should lose 12 hrs.

$\Rightarrow [(12 \times 60) / 36] \times 2 = 40$  days

**26. Correct Answer : (c)**

**Exp:** Sanjeev beats Motiani by 10 seconds

Motiani covers a distance of 1000 m in 200 seconds.

$\therefore$  He covers a distance of 5 m in 1 second

$\therefore$  The distance Motiani could have covered in 10 seconds = 50 m

$\therefore$  Sanjeev can beat Motiani by 50 m.

**27. Correct Answer : (d)**

**Exp :** Speed of the first train =  $[300 / 10]$  m/sec

= 30 m/sec.

Speed of the second train =  $[300 / 15]$  m/sec

= 20 m/sec.

Speed =  $(30 + 20)$  m/sec = 50m/sec.

Required time =  $[(300 + 300) / 50]$  sec

= 12 sec

**28. Correct Answer : (d)**

**Exp :** Let he mix 3 kg, 4 kg and 5 kg of dry fruits

Therefore the cost will be =  $(3 \times 80 + 4 \times 100 + 5 \times 120) = 1240$

Now he sells at 50% profit

Therefore selling price of 12 kg

=  $1240 \times 1.5 = 1860$

So, the selling price of 1 kg =  $(1860 / 12)$

= Rs. 155

**29. Correct Answer : (b)**

**Exp:** First information given in the question that one of the two persons at the extreme ends is intelligent and the other one is fair, suggested as shown in Fig. (1) and (2).

**Fair** **Intelligent**

Information that a tall person is sitting to the left of a fair person rules out the possibility of Fig. (1) as no person in Fig. (1) can sit to the left of a fair person.

Therefore, only Fig. (2) shows the correct position of intelligent and fair persons.

**Intelligent** **Fair**

Now, rest of the information regarding the position of other persons can easily be inserted.

The final ranking of their sitting arrangement is as shown in Fig. (3).

**Intelligent** **Weak** **Fat** **Tall** **Fair**

**30. Correct Answer : (a)**

**Exp:** First information given in the question that one of the two persons at the extreme ends is intelligent and the other one is fair, suggested as shown in Fig. (1) and (2).

**Fair** **Intelligent**

Information that a tall person is sitting to the left of a fair person rules out the possibility of Fig. (1) as no person in Fig. (1) can sit to the left of a fair person.

Therefore, only Fig. (2) shows the correct position of intelligent and fair persons.

Intelligent

Fair

Now, rest of the information regarding the position of other persons can easily be inserted.

The final ranking of their sitting arrangement is as shown in Fig. (3).

Intelligent

Weak

Fat

Tall

Fair

**31. Correct Answer : (b)**

**Exp:** First information given in the question that one of the two persons at the extreme ends is intelligent and the other one is fair, suggested as shown in Fig. (1) and (2).

Fair

Intelligent

Information that a tall person is sitting to the left of a fair person rules out the possibility of Fig. (1) as no person in Fig. (1) can sit to the left of a fair person.

Therefore, only Fig. (2) shows the correct position of intelligent and fair persons.

Intelligent

Fair

Now, rest of the information regarding the position of other persons can easily be inserted.

The final ranking of their sitting arrangement is as shown in Fig. (3).

Intelligent

Weak

Fat

Tall

Fair

**32. Correct Answer : (c)**

**Exp:** If the minute hand is 3 minutes ahead of the hour hand, it means the angle between the two hands is  $18^\circ$ .

Let the required time be  $6 : x$  pm

The minute hand will travel  $6x^\circ$  while hour hand will travel  $(6 \cdot 60 + x) \cdot \frac{1}{2} = (180 + x/2)^\circ$

According to available information :

$$6x - 180 - x/2 = 18$$

$$12x - 360 - x = 36$$

$$11x = 396$$

$$x = 396/11 = 36$$

Required time is 6:36 pm

**33. Correct Answer : (d)**

**Exp:** Let the value of  $y$  be = 1

After an increase of 10%,  $y = 1.1$

$$\text{Given that } x = y^2 = x = 1$$

$$\text{If } y = 1.1$$

$$\text{Then, } x = (1.1)^2 = 1.21$$

=  $x$  is increased by 21%.

**34. Correct Answer : (c)**

**Exp:** The CP be  $(1950 + 1050)/2 = 3000/2 \implies 1500$ .

$$SP = 1500 \times (125 / 10)$$

$$= 1500 \times (5 / 4)$$

$$\implies \text{Rs } 1875$$

**35. Correct Answer : (b)**

$$\text{Exp: } [(x \times 20) / 320] = [(20 \times 8 \times 24) / x] =$$

$$\implies x = 768$$

**36. Correct Answer : (c)**

**Exp:** Clearly, the lady is the grandmother of man's sister's son i.e., the mother of the mother of man's sister's son

i.e. the mother of man's sister.

So, the lady is the man's mother.

**37. Correct Answer : (c)**

**Exp:** Suppose the vessel initially contains 11 Liter of liquid.

Let x Liter of this liquid be replaced with water.

Quantity of water in new mixture =  $(4 - 4x / 11 + x)$  L

Quantity of syrup in new mixture =  $(7 - 7x / 11)$  L

$$4 - 4x / 11 + x = 7 - 7x / 11$$

$$14x / 11 = 3$$

$$x = 33/14$$

So, part of the mixture replaced =  $(33/14 * 1/11)$

$$= 3/14$$

**38. Correct Answer : (b)**

**Exp:** L.C.M. of 6, 5, 7, 10 and 12 is 420.

So, the bells will toll together after every 420 seconds i.e. 7 minutes.

Now,  $7 \times 8 = 56$  and  $7 \times 9 = 63$ .

Thus, in 1-hour (or 60 minutes), the bells will toll together 8 times, excluding the one at the start.

**39. Correct Answer : (c)**

**Exp:** Required answer =

$$10000 \left(1 + \frac{50}{100}\right)^4$$

$$= \text{Rs. } 50625$$

**40. Correct Answer : (b)**

**Exp:** Time taken by train to cross bridge =

$$= \frac{\text{Length of train} + \text{length of bridge}}{\text{Speed of train}}$$

$$21 = \frac{130 + \text{Length of bridge}}{90 \times \frac{5}{18}}$$

$$\Rightarrow \text{Length of the bridge} = 525 - 130$$

$$= 395 \text{ m}$$

**41. Correct Answer : (c)**

**Exp:**

Person	Dance	Cricket	Singing	Swimming	Cooking
Mohit	✓	✓	✓	✗	✗
Sourabh	✓	✓	✗	✓	✗
Aman	✗	✓	✓	✓	✓
Pawan	✓	✗	✓	✓	✗
Nitish	✗	✗	✓	✓	✓

**42. Correct Answer : (c)**

**Exp:**

Person	Dance	Cricket	Singing	Swimming	Cooking
Mohit	✓	✓	✓	✗	✗
Sourabh	✓	✓	✗	✓	✗
Aman	✗	✓	✓	✓	✓
Pawan	✓	✗	✓	✓	✗
Nitish	✗	✗	✓	✓	✓

**43. Correct Answer : (a)**

**Exp:**

Person	Dance	Cricket	Singing	Swimming	Cooking
Mohit	✓	✓	✓	✗	✗
Sourabh	✓	✓	✗	✓	✗
Aman	✗	✓	✓	✓	✓
Pawan	✓	✗	✓	✓	✗
Nitish	✗	✗	✓	✓	✓

**44. Correct Answer : (c)**

**Exp:**

Person	Dance	Cricket	Singing	Swimming	Cooking
Mohit	✓	✓	✓	✗	✗
Sourabh	✓	✓	✗	✓	✗
Aman	✗	✓	✓	✓	✓
Pawan	✓	✗	✓	✓	✗
Nitish	✗	✗	✓	✓	✓

**45. Correct Answer : (c)**

**Exp:** Number of multiples of 3 in 140 =  $140/3 = 46$

Number of multiples of 5 in 140 =  $140/5 = 28$

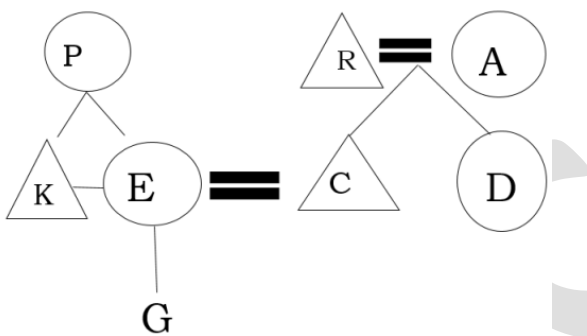
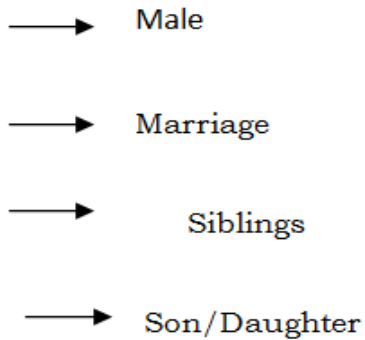
Number of multiples of  $3 \times 5 = 15$  in 140 = 9

So required probability =  $(46 + 28 - 9)/140$

$$= 65/140 = 13/28$$

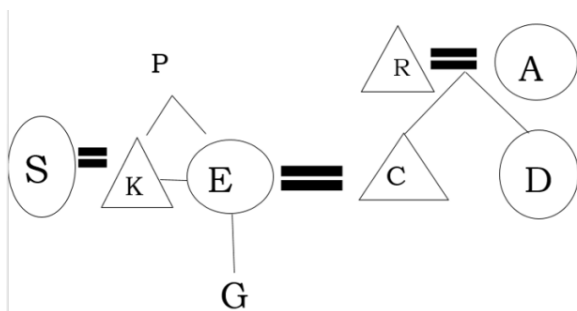
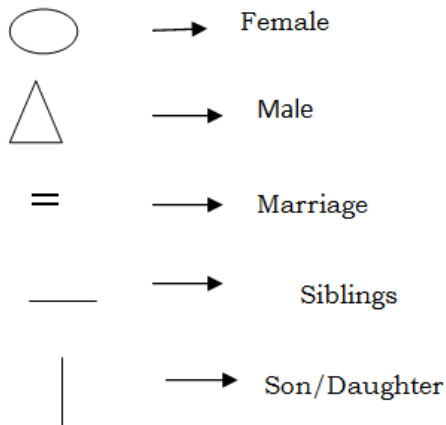
46. Correct Answer : (a)

Exp:



47. Correct Answer : (a)

Exp:



48. Correct Answer : (a)

Exp: From the Statement (1), C is in the South of B and B is in the West of A.

Hence, A is East of B.

49. Correct Answer : (d)

Exp:

$$r = 7, h = 24$$

$$\text{So, slant height, } l = \sqrt{(24)^2 + (7)^2} = 25 \text{ cm}$$

$$\text{So, curved surface area of a cap} = \pi r l$$

$$= 22/7 * 7 * 25 = 550 \text{ sq. cm}$$

$$\text{So curved surface area of 5 such caps} = 550 * 5$$

$$= 2750 \text{ sq. cm}$$

which is also equal to the area of the sheet required to make 5 such caps.

50. Correct Answer : (c)

Exp: Average expenses of Pawan

$$\begin{aligned} & \left( 10\% \text{ of } \frac{96^\circ}{360^\circ} + 30\% \text{ of } \frac{129^\circ}{360^\circ} + 10\% \text{ of } \frac{36^\circ}{360^\circ} + \right. \\ & \left. 40\% \text{ of } \frac{51^\circ}{360^\circ} + 20\% \text{ of } \frac{48^\circ}{360^\circ} \right) \times \frac{120000}{5} \\ & = \frac{960 + 3870 + 360 + 2040 + 960}{3600} \times \frac{120000}{5} \\ & = \text{Rs. } 5460 \end{aligned}$$

51. Correct Answer : (a)

Exp: Amount spent by Rahul on Entertainment

$$\frac{20}{100} \times \frac{30^\circ}{360^\circ} \times 120000 = \text{Rs. } 2400$$

Amount spent by Rakhi on Entertainment

$$\frac{15}{100} \times \frac{36^\circ}{360^\circ} \times 120000 = \text{Rs. } 1800$$

∴ Required percentage increase

$$= \frac{2400 - 1800}{1800} \times 100 \approx 33\%$$

**52. Correct Answer : (a)****Exp:** Required Difference

$$\left( (10 + 15)\% \text{ of } \frac{96^\circ}{360^\circ} - (30 + 10)\% \text{ of } \frac{36^\circ}{360^\circ} \right) \times \frac{120000}{2}$$

$$\frac{2400 - 1440}{36000} \times \frac{120000}{2} = \text{Rs. } 1600$$

Required Percentage

$$\frac{1600}{120000} \times 100 \approx 1.3\%$$

**53. Correct Answer : (b)****Exp:** Required Percentage

$$\left( \frac{20\% \text{ of } \frac{129^\circ}{360^\circ} + 25\% \text{ of } \frac{51^\circ}{360^\circ}}{10\% \text{ of } \frac{96^\circ}{360^\circ} + 10\% \text{ of } \frac{129^\circ}{360^\circ}} \right) \times 100$$

$$\frac{20 \times 129 + 25 \times 51}{960 + 1290} \times 100$$

$$\frac{2580 + 1275}{960 + 1290} \times 100$$

$$= \frac{3855}{2250} \times 100 \approx 171\%$$

**54. Correct Answer : (c)**

**Exp:** In a period of 100 years, there are 23 or 24 leap years (as for a century year it might be or might not be a leap year, as 1900 was not a leap year)

The number of odd days in a period of 100 years is  $100 + 23$  or  $100 + 24$  or  $123/124$  odd days,

The number of odd days in 100 years is when  $123/124$  divided by 7, the remainder is 4 or 5.

So, the next century should start with Monday or Tuesday.

**55. Correct Answer : (d)**

**Exp:** By observation, there are 58 triangles in the given figure.

Hence, **option d.**

**56. Correct Answer : (a)**

**Exp:** On shifting four places to the left, Komal is tenth from the left end of the row. Thus, Komal's original position was fourteenth from the left end.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 ...  
.....

K ← K S

Swati is three places to the right of Komal's original position.

Clearly, Swati is seventeenth from the left end.

Number of girls to the right of Swati =  $(40 - 17) = 23$ .

Thus, Swati is twenty-fourth from the right end of the row.

Hence, **option a.**

**57. Correct Answer : (c)**

**Exp:** Assume that Rohit earlier used to purchase 10 units of wheat for Rs. 100 per unit.

∴ Initial spending =  $100 \times 10 = \text{Rs. } 1,000$ .

New price of wheat =  $1.3 \times 100 = \text{Rs. } 130$  and new spend =  $1.17 \times 1000 = \text{Rs. } 1,170$

∴ New consumption =  $1170/130 = \text{Rs. } 9$  per unit.

∴ Percentage decrease in consumption

$$= \left[ \frac{10 - 9}{10} \right] \times 100$$

$$= 10\%$$

Hence, **option c.**

**58. Correct Answer : (b)**

**Exp:** Since J attends the lecture before Thursday, J can attend the lecture on Monday, Tuesday or Wednesday.



However, J attends the lecture after K, but not immediately after K.

Thus, **K = Monday and J = Wednesday.**

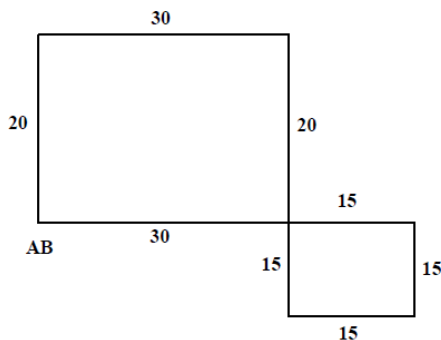
Since there are three people attending the lecturer between L and M, and M attends the lecture after J, **L = Tuesday and M = Sunday.**

This leaves only Friday and Saturday. As N attends the lecture before P, **N = Friday and P = Saturday.**

Hence, **option b.**

**59. Correct Answer : (a)**

**Exp:** The path traced by Anand and Bharat is as shown below:



Observe that Anand and Bharat are to the east of their start point.

Required distance =  $30 + 15 = 45$  m

Hence, **option a.**

**60. Correct Answer : (c)**

**Exp:** Amount of milk left after 3 operations  
 $= 40 (1 - 4/40)^3$  litres =  $40 * 9/10 * 9/10 * 9/10$   
 $= 29.16$  litres

Hence, **option c.**

**61. Correct Answer : (c)**

**Exp:** Let the original number be  $100x + 10y + z$ .

Hence, the reversed number is  $100z + 10y + x$ .

Here,  $y = 0$ .

Hence, the numbers become  $(100x + z)$  and  $(100z + x)$

The difference between these numbers is 396.

$$\therefore (100z + x) - (100x + z) = 3396$$

$$\therefore 99z - 99x = 396$$

$$\therefore z - x = 4$$

Hence, **option c.**

**62. Correct Answer : (d)**

**Exp:** Let the speed of the boat in still water be  $u$  kmph and that of the stream be  $v$  kmph.

The speed in still water is 62.5% (or 5/8th) of the downstream speed.

$$\therefore u = (5/8) \times (u + v)$$

$$\therefore 8u = 5u + 5v$$

$$\therefore 3u = 5v \text{ i.e. } v = 0.6u$$

$$\text{Upstream speed} = u - v$$

$$= u - 0.6u = 0.4u$$

$$\text{Actual upstream speed} = 42/7 = 6 \text{ kmph}$$

$$\therefore 0.4u = 6 \text{ i.e. } u = 15 \text{ and } v = 9$$

$$\therefore \text{Downstream speed} = 15 + 9 = 24 \text{ kmph}$$

**63. Correct Answer : (b)**

**Exp:** Total height of 30 boys =  $30 \times 165 = 4950$  cm

Since there are 30 boys in a class of 50, there have to be 20 girls.

$$\therefore \text{Total height of 20 girls} = 8190 - 4950$$

$$= 3240 \text{ cm}$$

∴ Average height of 20 girls =  $3240/20 = 162$  cm

Hence, **option b.**

**64. Correct Answer : (a)**

**Exp:** By observation, there are two alternate sequences that have been mixed together

i.e.  $lmn\_p\_rs$  and  $a\_cdefg\_$

Hence, the missing letters are  $boqh$ .

Hence, **option a.**

**65. Correct Answer : (b)**

**Exp:** Average price of both fuels in Delhi =  $(84 + 79)/2 = \text{Rs. } 81.5$  per litre.

∴ Average price in Chennai =  $81.5 + 6 = \text{Rs. } 87.5$  per litre

∴ Total cost of one litre of petrol and diesel in Chennai =  $2(87.5) = \text{Rs. } 175$

Cost of one litre petrol in Chennai =  $84 + 1 = \text{Rs. } 85$  per litre

∴ Cost of one litre diesel in Chennai =  $175 - 85$

=  $\text{Rs. } 90$

Hence, **option b.**

**66. Correct Answer : (c)**

**Exp:** Let the numerator be  $x$  and denominator be  $y$ . Hence, the original fraction is  $x/y$ .

In the first case:

$$(x + 5)/2y = 3/2$$

$$\therefore 2x + 10 = 6y$$

$$\therefore 2x - 6y = -10$$

i.e.  $x - 3y = -5 \dots$  (i)

In the second case:

$$(x + 9)/(y + 4) = 2$$

$$\therefore x + 9 = 2y + 8$$

$$\therefore x - 2y = -1 \dots$$
 (ii)

Solving (i) and (ii):  $y = 4$  and  $x = 7$

Hence, the original fraction is  $7/4$

and required value =  $(7/4) \times (3/2) = 21/8$

Hence, **option c.**

**67. Correct Answer : (a)**

**Exp:** Actual time elapsed from 9 a.m. to 12 p.m. on the same day is 3 hours i.e. 180 minutes.

Since the watch gains 6 seconds in 5 minutes, it gains  $6 \times 36 = 216$  seconds or 3 minutes and 36 seconds.

Hence, the clock will show 12:03:36 p.m.

Hence, **option a.**

**68. Correct Answer : (d)**

**Exp:** Let the speed of the train be  $s$  m/s and its length be  $l$  m.

$$\therefore s = l/12$$

$$\text{Also, } s = (l + 480)/42$$

Comparing the two equations:  $l/12$

$$= (l + 480)/42$$

$$\therefore 42l = 12l + 5760$$

$$\therefore 30l = 5760 \text{ i.e. } l = 192$$

Hence, length of the train is 192 m.

Hence, **option d.**

**69. Correct Answer : (c)**

**Exp:** Ratio of efficiency =  $5 \times 5/6 : 6$   
 $= 25 : 36$

A man can finish the job in  $25x$  days

A woman can finish the job in  $36x$  days

$$9/36x + 10/25x = 13/40$$

Time taken by 1 girl = 72 days

$$72/6 = 12$$

**70. Correct Answer : (b)**

**Exp:** Let the distance travelled by Vishal in first case or second case =  $x$  km

$$x/20 = x/22 + 36 \text{ min}$$

$$\Rightarrow x/20 = x/22 + 3/5 \text{ hours}$$

$$\Rightarrow x = 132 \text{ km.}$$

Hence, the total distance travelled by him =  $x + x = 132 + 132 = 264 \text{ km}$

**71. Correct Answer : (d)**

**Exp:**

Shabnam	Marathi	No Driving
Anil	Tamil	No Driving
Rekha	Tamil/ Marathi	Driving
David	Marathi/ Tamil	Driving

**72. Correct Answer : (d)**

**Exp:** Let 'g' be the cost of goats.

$$4g < \text{Cow} < 5g$$

Now, Given a goat price = 600

$$2400 < \text{Cow} < 3000 \dots (i)$$

Given, a goat price = 800

$$3200 < \text{Cow} < 4000 \dots (ii)$$

Hence, it can be seen that from above equations that cow cost is between 2400 and 4000.

**73. Correct Answer : (b)**

**Exp:** White Marbles = Red Marbles - 3

Green Marbles + 5 = White Marbles

$$W = 10$$

Therefore, Red = 13

Green = 5

$$\text{Total number of Marbles} = 10 + 13 + 5 = 28$$

**74. Correct Answer : (b)**

**Exp:** Time taken by both tanks =

$$(30 * 20)/(30 + 20)$$

$$= 12 \text{ min}$$

**75. Correct Answer : (b)**

**Exp:** SI for first year = Rs.720

$$CI - SI = 72$$

Interest on Rs.720 for 1 year = Rs.72

then  $R = 10\%$

$$1440 = (P * 2 * 10)/100$$

$$P = 7200$$

$$7200 * R * R / 100 = 2592$$

$$R = 6$$

**76. Correct Answer : (c)**

**Exp:** Let the shares of A, B, C and D be Rs.  $5x$ , Rs.  $2x$ , Rs.  $4x$  and Rs.  $3x$  respectively.

$$\text{Then, } 4x - 3x = 1000$$

$$x = 1000.$$

$$B's \text{ share} = \text{Rs. } 2x$$

$$= \text{Rs. } (2 \times 1000)$$

$$= \text{Rs. } 2000.$$

**77. Correct Answer : (b)**

**Exp:** milk =  $4x$  and water =  $3x$

$$\text{milk} = 4x - 14 \cdot \frac{4}{7} \text{ and water} = 3x - 14 \cdot \frac{3}{7} + 14$$

$$4x - 8 : 3x + 8 = 3:4$$

$$X = 8, \text{ so milk} = 8 \cdot 4 = 32 \text{ litres}$$

**78. Correct Answer : (d)**

**Exp:** Value is given in the ratio 8:4:2.

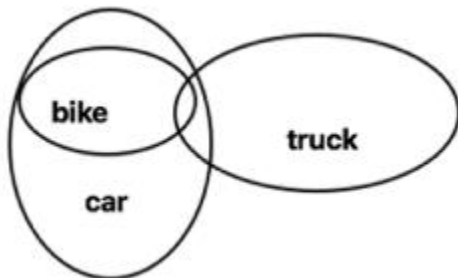
$$(8x/0.25) + (4x/0.5) + (2x/1) = 840.$$

$$X = 20.$$

$$\text{Total amount} = 14 \cdot 20 = 280$$

**79. Correct Answer : (a)**

**Exp:**



Hence only the 1st conclusion follows

**80. Correct Answer : (c)**

**Exp:** In problem figure the cross moves one step ahead to the right and a new similar element is added further. This goes on in a cyclical order from left to right.