

# MAH-CET - 2017

## Solved Paper

### Section : Analytical & Logical Reasoning

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**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

#### Question No. : 1

Which of the following should be placed in the blank spaces respectively (in the same order from left to right) in order to complete the given expression in such a manner that both ' $S > P$ ' as well as ' $A \leq E$ ' definitely hold true?

S \_ H \_ A \_ P \_ E

- ☒ A)  $\geq, >, =, \leq$     B)  $\geq, \geq, =, \leq$     C)  $>, \geq, <, \leq$     D)  $>, >, \geq, =$     E)  $\geq, \geq, \leq, \leq$

**Explanation:-** If we put  $\geq, >, =, \leq$  in the blank spaces, then we get  $S \geq H > A = P \leq E$ . So here  $S > P$  &  $A \leq E$ .

**DIRECTIONS for the question:** In the following questions, two statements numbered I and II are given. There may be cause and effect relationship between the two statements. These two statements may be the effect of the same cause or independent causes. These statements may be independent causes without having any relationship. Read both the statements in each question and mark your answer.

#### Question No. : 2

**Statement I:** The government has made the rules for the disposal of waste and other chemicals from the industries more stringent to keep a check on pollution level in the atmosphere.

**Statement II:** Complex reactions of chemicals such as sulphur dioxide and nitrogen oxide emitted from power plants, industries and automobiles escalate the level of particulate matter in the atmosphere.

- A) Both statements I and II are effects of independent causes    B) Statement I is the cause and statement II is its effect  
C) Both statements I and II are independent causes.    D) Both statements I and II are effects of their common cause.  
☒ E) Statement II is the cause and statement I is its effect.

**Explanation:-** Statement II is the effect of statement I as the government must have been forced to make the rules because of the escalation of particulate matter.

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**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

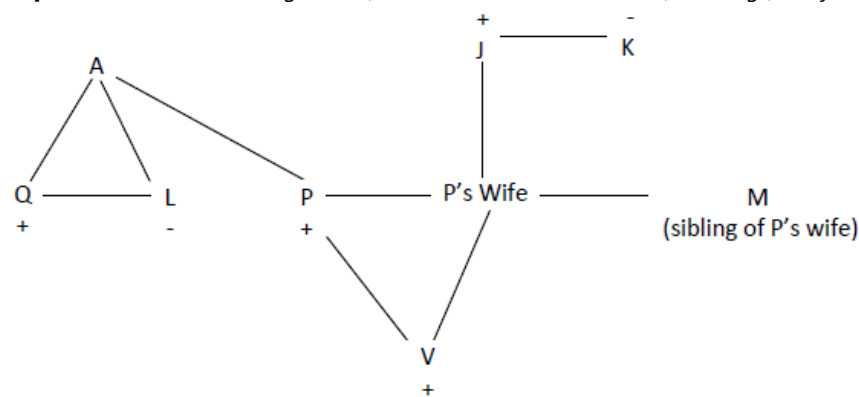
**Question No. : 3**

L's sibling is married to J's daughter. K is the wife of J. Q is the brother of J's only son-in-law. P is the only brother of Q. A is the mother of L. M is the only sibling of A's daughter-in-law. Both Q and M are unmarried. V is the nephew of M. A has only three children. L's spouse has no siblings.

If R is the sister-in-law of L, then how is R related to P?

- A) Aunt   B) Daughter   ☒ C) Wife   D) Cousin   E) Sister-in-law

**Explanation:-** From the given information we can make the following family tree



If R is the sister-in-law of L, then she will be the wife of P.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

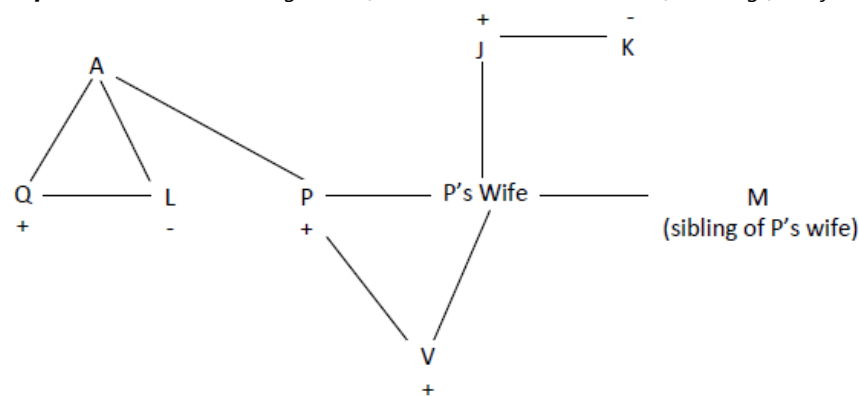
**Question No. : 4**

L's sibling is married to J's daughter. K is the wife of J. Q is the brother of J's only son-in-law. P is the only brother of Q. A is the mother of L. M is the only sibling of A's daughter-in-law. Both Q and M are unmarried. V is the nephew of M. A has only three children. L's spouse has no siblings.

How is V related to A?

- ☒ A) Grandson   B) Husband   C) Cannot be determined   D) Son-in-law   E) Brother-in-law

**Explanation:-** From the given information we can make the following family tree



V is grandson of A.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

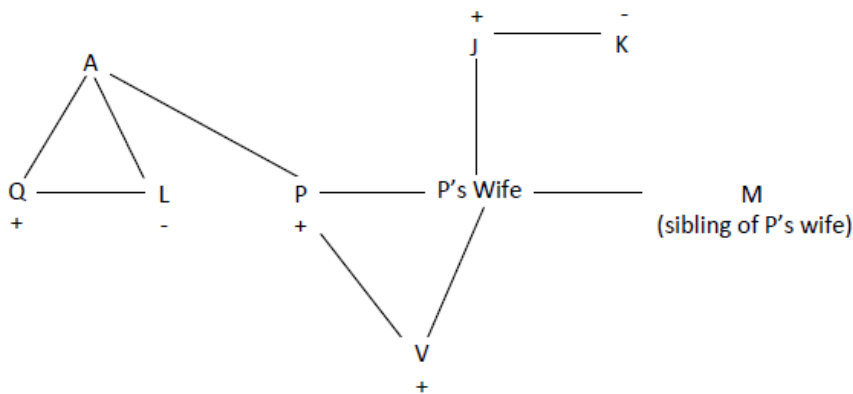
**Question No. : 5**

L's sibling is married to J's daughter. K is the wife of J. Q is the brother of J's only son-in-law. P is the only brother of Q. A is the mother of L. M is the only sibling of A's daughter-in-law. Both Q and M are unmarried. V is the nephew of M. A has only three children. L's spouse has no siblings.

If S is the son of L, then how is S related to Q?

- A) Father   B) Brother-in-law   C) Uncle   D) Cousin   ☒ E) Nephew

**Explanation:-** From the given information we can make the following family tree



If S is the son of L, then S will be the nephew of Q

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

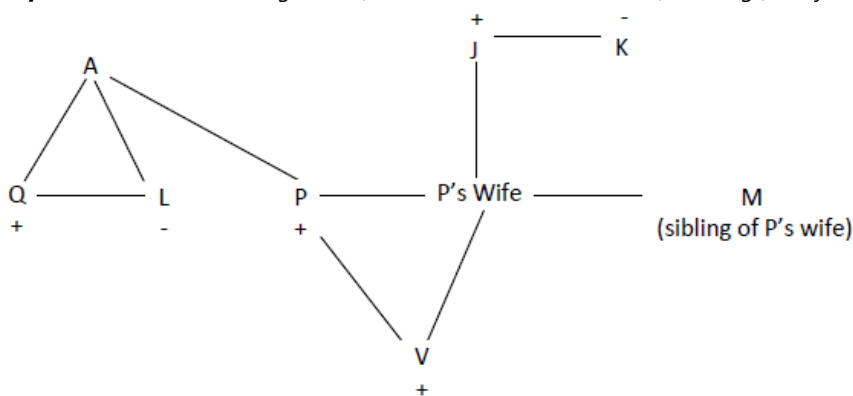
**Question No. : 6**

L's sibling is married to J's daughter. K is the wife of J. Q is the brother of J's only son-in-law. P is the only brother of Q. A is the mother of L. M is the only sibling of A's daughter-in-law. Both Q and M are unmarried. V is the nephew of M. A has only three children. L's spouse has no siblings.

How is K related to M?

- A) Sister   B) Mother-in-law   C) Daughter   ☒ D) Mother   E) Aunt

**Explanation:-** From the given information we can make the following family tree



K is the mother of M.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 7**

Eight boxes namely, A, B, C, D, E, F, G and H are placed from top to bottom not in the same order. They contain different chocolates, such as silk, temptation, fruit and nut, dairy milk, bubbly, milky bar, kit-kat and 5 star-boxes are packed with different colour paper, such as Yellow, Pink, Blue and Green. Exactly two boxes are packed with same colour paper. Consider the top position as 1st position.

1. There is one box between box B and box D and box D is packed with pink paper and both are in the top 4 positions when boxes are arranged from top to bottom.
2. The box containing dairy milk is kept immediately below blue paper packed box and is packed with same colour paper as E.
3. Box C is kept somewhere between G and H, and H being below C.
4. The two green paper packed boxes are kept vertically adjacent to each other and one of the green paper packed box is immediately under the pink paper packed box.
5. Fruit and nut chocolate is kept exactly between F and the box containing milky bar.
6. H doesn't contain silk chocolate.
7. There is one box between box E and box G, and box G is kept immediately below the box containing dairy milk.
8. The box containing 5-star chocolate is placed at even numbered place but is not placed at the bottom.
9. The yellow paper packed box which is kept at top either contains silk or kit-kat.
10. Box E is not packed with green paper.
11. F which contains Bubbly is packed with blue paper and among top five.
12. The box containing temptation is packed with blue paper.
13. C doesn't contain any of silk or 5-star chocolate.

Which of the following boxes is kept immediately above the box containing dairy milk?

- A) Box containing bubbly    B) Box containing milky bar    C) Box containing silk    ☒ D) Box containing temptation  
E) None of the above

**Explanation:-** From the given information the arrangement is as follows

1	B	Silk	Yellow
2	A	Temptation	Blue
3	D	Dairy Milk	Pink
4	G	5-Star	Yellow
5	F	Bubbly	Blue
6	E	Fruit and nut	Pink
7	C	Milky bar	Green
8	H	Kit-Kat	Green

Box containing temptation is kept immediately above the box containing dairy milk.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 8**

Eight boxes namely, A, B, C, D, E, F, G and H are placed from top to bottom not in the same order. They contain different chocolates, such as silk, temptation, fruit and nut, dairy milk, bubbly, milky bar, kit-kat and 5 star-boxes are packed with different colour paper, such as Yellow, Pink, Blue and Green. Exactly two boxes are packed with same colour paper. Consider the top position as 1st position.

1. There is one box between box B and box D and box D is packed with pink paper and both are in the top 4 positions when boxes are arranged from top to bottom.
2. The box containing dairy milk is kept immediately below blue paper packed box and is packed with same colour paper as E.
3. Box C is kept somewhere between G and H, and H being below C.
4. The two green paper packed boxes are kept vertically adjacent to each other and one of the green paper packed box is immediately under the pink paper packed box.
5. Fruit and nut chocolate is kept exactly between F and the box containing milky bar.
6. H doesn't contain silk chocolate.
7. There is one box between box E and box G, and box G is kept immediately below the box containing dairy milk.
8. The box containing 5-star chocolate is placed at even numbered place but is not placed at the bottom.
9. The yellow paper packed box which is kept at top either contains silk or kit-kat.
10. Box E is not packed with green paper.
11. F which contains Bubbly is packed with blue paper and among top five.
12. The box containing temptation is packed with blue paper.
13. C doesn't contain any of silk or 5-star chocolate.

Four of the following five are alike in a certain way based on the given arrangement and hence form a group. Which of the following does not belong to the group?

- A) A-Dairy milk    B) G-Bubbly    ☒ C) H-Kit-kat    D) B-Temptation    E) D-5-Star

**Explanation:-** From the given information the arrangement is as follows

1	B	Silk	Yellow
2	A	Temptation	Blue
3	D	Dairy Milk	Pink
4	G	5-Star	Yellow
5	F	Bubbly	Blue
6	E	Fruit and nut	Pink
7	C	Milky bar	Green
8	H	Kit-Kat	Green

H – Kit-Kat is the correct combination and all other are incorrect.

**Question No. : 9**

Which of the following boxes contains fruit and nut?

- ✓A) E   B) A   C) D   D) H   E) G

**Explanation:-** From the given information the arrangement is as follows

1	B	Silk	Yellow
2	A	Temptation	Blue
3	D	Dairy Milk	Pink
4	G	5-Star	Yellow
5	F	Bubbly	Blue
6	E	Fruit and nut	Pink
7	C	Milky bar	Green
8	H	Kit-Kat	Green

*E contains fruit and nut.*

**Question No. : 10**

What is the position of B in the given stack of boxes?

- A) First from the top   B) Third from the bottom   C) Fifth from the top   D) second from the bottom  
✓E) second form the top

**Explanation:-** From the given information the arrangement is as follows

1	B	Silk	Yellow
2	A	Temptation	Blue
3	D	Dairy Milk	Pink
4	G	5-Star	Yellow
5	F	Bubbly	Blue
6	E	Fruit and nut	Pink
7	C	Milky bar	Green
8	H	Kit-Kat	Green

*B is first from the top.*

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**Question No. : 11**

Which of the following represents the contents of box G?

- ✓A) Temsptation B) 5-Star C) Kit-kat D) Silk E) Bubbly

**Explanation:-** From the given information the arrangement is as follows

1	B	Silk	Yellow
2	A	Temptation	Blue
3	D	Dairy Milk	Pink
4	G	5-Star	Yellow
5	F	Bubbly	Blue
6	E	Fruit and nut	Pink
7	C	Milky bar	Green
8	H	Kit-Kat	Green

Box G contains 5-Star.

**Question No. : 12**

Which two boxes are packed with pink paper?

- A) D and F B) C and H C) B and G ✓D) D and E E) G and C

**Explanation:-** From the given information the arrangement is as follows

1	B	Silk	Yellow
2	A	Temptation	Blue
3	D	Dairy Milk	Pink
4	G	5-Star	Yellow
5	F	Bubbly	Blue
6	E	Fruit and nut	Pink
7	C	Milky bar	Green
8	H	Kit-Kat	Green

D and E are packed with pink paper.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 13**

If two objects (or events) are correlated by cause and effect in such a manner that A causes B, it is argued that B also causes A. For example, high debts in a country causes slow growth, therefore slow growth in a country will definitely lead to increase in debts. Which of the following examples DOES NOT fall in line with the condition presented above?

- A) Better health leads to higher incomes therefore people with higher incomes definitely have better health.  
 B) We never vote because politicians never what our group wants therefore politicians are paying more heed to us in order to make us vote.  
 ✓C) Higher the intake of high calorie diet, higher is the risk of coronary heart diseases, therefore people who have coronary heart diseases definitely consume high calorie diets.  
 D) Company A generates higher profits in the year in which its client Beets generates higher profits, therefore the company A generates higher profits. Beets will definitely make higher profits as well.  
 E) A windmill rotates faster when more wind is observed, therefore more winds will be caused if the windmill is rotating faster.

**Explanation:-** People who have coronary heart diseases are likely to consume lesser calories as a measure to reduce the risk to their health. Hence statement 3 does not fall in line with the condition.

**DIRECTIONS for the question:** Study the following information carefully and answer the given question.

**Question No. : 14**

Eight people - P, Q, R, S, T, U, V and W were born in different years, viz.

1954, 1961, 1968, 1971, 1978, 1985, 1989 and 1995 but not necessarily in the same order.

**NOTE:** (A) All calculations are done with respect to the present year, 2017 assuming the month and date to be same as that of the years of birth as mentioned above.

(B) Each person is assumed to be born on the same date and same month of the respective years.

V was born in a year after 1970. R is younger than V. The difference between the present ages of R and T is 24 years. The difference between the present ages of T and W is more than 15 years. W was not born in the year 1989. The year of birth of S is an odd number. P is younger than S. The sum of present ages of P and U is 67 years. P is older than U.

If K is 12 years older than U, what is the present age of K (in years)?

- A) 44   B) 28   C) 58   D) 34   ☒ E) 40

**Explanation:-** From the given information, we can make the following arrangement.

Person	W	S	Q	T	P	V	U	R
Year	1954	1961	1968	1971	1978	1985	1989	1995

If K is 12 years older than U, then age of K is 40 years.

**DIRECTIONS for the question:** Study the following information carefully and answer the given question.

**Question No. : 15**

Eight people - P, Q, R, S, T, U, V and W were born in different years, viz.

1954, 1961, 1968, 1971, 1978, 1985, 1989 and 1995 but not necessarily in the same order.

**NOTE:** (A) All calculations are done with respect to the present year, 2017 assuming the month and date to be same as that of the years of birth as mentioned above.

(B) Each person is assumed to be born on the same date and same month of the respective years.

V was born in a year after 1970. R is younger than V. The difference between the present ages of R and T is 24 years. The difference between the present ages of T and W is more than 15 years. W was not born in the year 1989. The year of birth of S is an odd number. P is younger than S. The sum of present ages of P and U is 67 years. P is older than U.

Who amongst the following was born in the year 1968?

- ☒ A) Q   B) U   C) P   D) T   E) S

**Explanation:-** From the given information, we can make the following arrangement.

Person	W	S	Q	T	P	V	U	R
Year	1954	1961	1968	1971	1978	1985	1989	1995

Q was born in the year 1968



**DIRECTIONS for the question:** Study the following information carefully and answer the given question.

**Question No. : 16**

Eight people - P, Q, R, S, T, U, V and W were born in different years, viz.

1954, 1961, 1968, 1971, 1978, 1985, 1989 and 1995 but not necessarily in the same order.

**NOTE:** (A) All calculations are done with respect to the present year, 2017 assuming the month and date to be same as that of the years of birth as mentioned above.

(B) Each person is assumed to be born on the same date and same month of the respective years.

V was born in a year after 1970. R is younger than V. The difference between the present ages of R and T is 24 years. The difference between the present ages of T and W is more than 15 years. W was not born in the year 1989. The year of birth of S is an odd number. P is younger than S. The sum of present ages of P and U is 67 years. P is older than U.

Who amongst the following was born in an even numbered year?

- A) R   B) S   C) V   D) T   ☒ E) P

**Explanation:-** From the given information, we can make the following arrangement.

Person	W	S	Q	T	P	V	U	R
Year	1954	1961	1968	1971	1978	1985	1989	1995

P was born in an even numbered year.

**DIRECTIONS for the question:** Study the following information carefully and answer the given question.

**Question No. : 17**

Eight people - P, Q, R, S, T, U, V and W were born in different years, viz.

1954, 1961, 1968, 1971, 1978, 1985, 1989 and 1995 but not necessarily in the same order.

**NOTE:** (A) All calculations are done with respect to the present year, 2017 assuming the month and date to be same as that of the years of birth as mentioned above.

(B) Each person is assumed to be born on the same date and same month of the respective years.

V was born in a year after 1970. R is younger than V. The difference between the present ages of R and T is 24 years. The difference between the present ages of T and W is more than 15 years. W was not born in the year 1989. The year of birth of S is an odd number. P is younger than S. The sum of present ages of P and U is 67 years. P is older than U.

Who amongst the following is older than W?

- A) R   B) T   C) S   D) Q   ☒ E) No one as W is the oldest

**Explanation:-** From the given information, we can make the following arrangement.

Person	W	S	Q	T	P	V	U	R
Year	1954	1961	1968	1971	1978	1985	1989	1995

No one is older than W.

**DIRECTIONS for the question:** Study the following information carefully and answer the given question.

**Question No. : 18**

Eight people - P, Q, R, S, T, U, V and W were born in different years, viz.

1954, 1961, 1968, 1971, 1978, 1985, 1989 and 1995 but not necessarily in the same order.

**NOTE:** (A) All calculations are done with respect to the present year, 2017 assuming the month and date to be same as that of the years of birth as mentioned above.

(B) Each person is assumed to be born on the same date and same month of the respective years.

V was born in a year after 1970. R is younger than V. The difference between the present ages of R and T is 24 years. The difference between the present ages of T and W is more than 15 years. W was not born in the year 1989. The year of birth of S is an odd number. P is younger than S. The sum of present ages of P and U is 67 years. P is older than U.

What is the sum of present ages of T and W (in years)?

- A) 113   B) 78   C) 95   D) 71   ☒ E) 109

**Explanation:-** From the given information, we can make the following arrangement.

Person	W	S	Q	T	P	V	U	R
Year	1954	1961	1968	1971	1978	1985	1989	1995

The sum of ages of T and W =  $46 + 63 = 109$  years

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**DIRECTIONS for the question:** After a few statements, conclusion/conclusions is/are given. Mark your answer as

**Question No. : 19**

Decision: Company X decided to issue 1,00,000 additional equity shares three months after it had issued equity shares in the market

- I. Company X lacks money to fund the new project it had started three months ago in collaboration with company Y.  
II. The equity market in which Company X has issued its additional shares is going down due to recession in the economy.

- A) Both statement I and statement II weaken the decision.  
☒ B) Statement I strengthens the decision while statement II weakens the decision.  
C) Both statement I and statement II strengthen the decision.   D) Both statement I and statement II are neutral statements.  
E) Statement I weakens the decision while statement II strengthens the decision.

**Explanation:-** Statement I strengthens the main statement as this could be one of the reasons that company has decided to issue equity. Statement II weakens the main statement as the company will not be able to get the expected gains from the market.

**DIRECTIONS for the question:** Study the following information carefully and answer the given question.

**Question No. : 20**

L, M, N, O, P, Q and R have to attend a meeting in January, June, October and November months of the same year. In each month, except in January, the meeting will be conducted on only the 15th and 24th of the month. In January, the meeting will be conducted only on the 24th. Not more than two of the given people have a meeting in the same month. Each one of them also likes a different colour- Red, Violet, Pink, Green, Black, Silver and Yellow, but not necessarily in the same order.

N has a meeting on the 24th of a month which has 30 days. Only one person has a meeting between N and the one who likes Pink. The one who likes Pink has a meeting before N. Only two people have a meeting between the one who likes Pink and the one who likes Silver. Both L and the one who likes Silver have a meeting in the same month but not on the same date. M has a meeting after L but not in October. M and L have meetings on different dates. The number of people having a meeting between M and the one who likes Pink is same as that between R and the one who likes Silver. Only one person has a meeting between R and the one who likes violet. No one has a meeting after the one who likes Red. O and the one who likes Red have a meeting on the same date. P has a meeting on one of the days after Q. Neither P nor R likes Yellow. The one who likes Green does not have a meeting in October.

How many people have a meeting after O?

- A) One   B) Five   C) Four   D) None   ☒ E) Two

**Explanation:-** From the given information we can make the following arrangement.

Date	Person	Colour
24 January	R	Green
15 June	Q	Silver
24 June	L	Violet
15 October	P	Black
24 October	O	Pink
15 November	M	Yellow
24 November	N	Red.

Two people have a meeting after O.

**Question No. : 21**

As per the given schedule, four of the following five are alike in a certain way and so form a group. Which of the following does not belong to the group?

- A) Q-June   B) L-Silver   C) Yellow-November   ☒ D) M-Violet   E) O-P

**Explanation:-** From the given information we can make the following arrangement.

Date	Person	Colour
24 January	R	Green
15 June	Q	Silver
24 June	L	Violet
15 October	P	Black
24 October	O	Pink
15 November	M	Yellow
24 November	N	Red.

M and The one who likes violet have meetings in different month. All others have meetings in the same month.

**Question No. : 22**

How many people have a meeting between P and the one who likes Yellow?

- A) Two    ☒ B) One    C) Three    D) More than three    E) None

**Explanation:-** From the given information we can make the following arrangement.

Date	Person	Colour
24 January	R	Green
15 June	Q	Silver
24 June	L	Violet
15 October	P	Black
24 October	O	Pink
15 November	M	Yellow
24 November	N	Red.

Only one person have a meeting between P and the one who likes yellow

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**Question No. : 23**

Which colour does P like?

- A) Red    ☒ B) Black    C) Pink    D) Silver    E) Green

**Explanation:-** From the given information we can make the following arrangement.

Date	Person	Colour
24 January	R	Green
15 June	Q	Silver
24 June	L	Violet
15 October	P	Black
24 October	O	Pink
15 November	M	Yellow
24 November	N	Red.

P likes black colour

**Question No. : 24**

Which of the following statements is true as per the given schedule?

- A) M has a meeting on 24th November    B) R likes Pink    C) None of the given statements is true    D) P has a meeting after M  
☒ E) The one who likes Pink has a meeting in October

**Explanation:-** From the given information we can make the following arrangement.

Date	Person	Colour
24 January	R	Green
15 June	Q	Silver
24 June	L	Violet
15 October	P	Black
24 October	O	Pink
15 November	M	Yellow
24 November	N	Red.

*O likes pink and he has a meeting in October*

**Question No. : 25**

When does R have a meeting?

- A) 11<sup>th</sup>October    B) 15<sup>th</sup> June    C) 24<sup>th</sup> October    D) 15<sup>th</sup>November    ☒ E) 24<sup>th</sup> January

**Explanation:-** From the given information we can make the following arrangement.

Date	Person	Colour
24 January	R	Green
15 June	Q	Silver
24 June	L	Violet
15 October	P	Black
24 October	O	Pink
15 November	M	Yellow
24 November	N	Red.

*R has a meeting on 24th January*

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

**Question No. : 26**

Six ropes viz. A, B, C, D, E and F each of different length are kept on a table but not necessarily in the same order. B is shorter than A but longer than F. D is longer than A. C is shorter than A but longer than B. F is not the shortest. Which is the shortest rope?

- A) A    ☒ B) E    C) C    D) B    E) D

**Explanation:-**

*The arrangement of ropes in  $D > A > C > B > F > E$ .  
 So E is the shortest rope.*

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 27**

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

**Input:** gap 81 39 rat 25 tan 72 nap 14 mat

Step I: tn gap 39 rat 25 72 nap 14 mat 80

Step II: 71 tn gap 39 25 nap 14 mat 80 rt

Step III: np 71 tn gap 25 14 mat 80 rt 38

Step IV: 24 np 71 tn gap 14 80 rt 38 mt

Step V: gp 24 np 71 tn 80 rt 38 mt 13

And step V is the last step of the rearrangement as the intended output is obtained. As per the rules followed in the given steps, find the appropriate steps for the given input.

Input: pat 32 48 yak bed 63 78 fan lay 27

How many elements are there between '62' and 'fan' in step III of the given input?

- A) Two    B) More than three    C) One    ☒ D) Three    E) Four

**Explanation:-** In the first step, the word starting with the highest alphabets is written in the start and the highest number is place in the end. The vowel from the word is deleted and one is subtracted from the number. In the second step, the second highest number is written in the start and the worked starting with second highest letter is written in the end. Again one is subtracted from the number and the vowel is deleted from the word. The pattern's is repeated in the subsequent steps.

We have

Input: pat 32 48 yak bed 63 78 fan lay 27

Step I: yk pat 32 48 bed 63 fan lay 27 77

Step II: 62 yk 32 48 bed fan lay 27 77 pt

Step III: ly 62 yk 32 bed fan 27 77 pt 47

Step IV: 32 ly 62 yk bed 27 77 pt 47 fn

Step V: bed 32 ly 62 yk 77 pt 47 fn 26

Three elements are there between '62' and 'fan' in step III.

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 28**

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

**Input:** gap 81 39 rat 25 tan 72 nap 14 mat

Step I: tn gap 39 rat 25 72 nap 14 mat 80

Step II: 71 tn gap 39 25 nap 14 mat 80 rt

Step III: np 71 tn gap 25 14 mat 80 rt 38

Step IV: 24 np 71 tn gap 14 80 rt 38 mt

Step V: gp 24 np 71 tn 80 rt 38 mt 13

And step V is the last step of the rearrangement as the intended output is obtained. As per the rules followed in the given steps, find the appropriate steps for the given input.

Input: pat 32 48 yak bed 63 78 fan lay 27

In which of the following step's is 'ly 62 yk bd' found consecutively in the same order?

- A) Both step IV and V   B) Both step III and IV   C) Only Step III   ☒ D) There is no such step   E) Only step IV

**Explanation:-** In the first step, the word starting with the highest alphabets is written in the start and the highest number is place in the end. The vowel from the word is deleted and one is subtracted from the number. In the second step, the second highest number is written in the start and the worked starting with second highest letter is written in the end. Again one is subtracted from the number and the vowel is deleted from the word. The pattern's is repeated in the subsequent steps.

We have

Input:	pat	32	48	yak	bed	63	78	fan	lay	27
Step I:	yk	pat	32	48	bed	63	fan	lay	27	77
Step II:	62	yk	32	48	bed	fan	lay	27	77	pt
Step III:	ly	62	yk	32	bed	fan	27	77	pt	47
Step IV:	32	ly	62	yk	bed	27	77	pt	47	fn
Step V:	bed	32	ly	62	yk	77	pt	47	fn	26

There is no such step in which 'ly 62 yk bed' is found consecutively in the same order.

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 29**

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

**Input:** gap 81 39 rat 25 tan 72 nap 14 mat

Step I: tn gap 39 rat 25 72 nap 14 mat 80

Step II: 71 tn gap 39 25 nap 14 mat 80 rt

Step III: np 71 tn gap 25 14 mat 80 rt 38

Step IV: 24 np 71 tn gap 14 80 rt 38 mt

Step V: gp 24 np 71 tn 80 rt 38 mt 13

And step V is the last step of the rearrangement as the intended output is obtained. As per the rules followed in the given steps, find the appropriate steps for the given input.

Input: pat 32 48 yak bed 63 78 fan lay 27

Which is the fifth element to the right of 'yk' in step V?

- A) fn   B) 27   ☒ C) 26   D) bd   E) pt

**Explanation:-** In the first step, the word starting with the highest alphabets is written in the start and the highest number is place in the end. The vowel from the word is deleted and one is subtracted from the number. In the second step, the second highest number is written in the start and the worked starting with second highest letter is written in the end. Again one is subtracted from the number and the vowel is deleted from the word. The pattern's is repeated in the subsequent steps.

We have

Input: pat 32 48 yak bed 63 78 fan lay 27

Step I: yk pat 32 48 bed 63 fan lay 27 77

Step II: 62 yk 32 48 bed fan lay 27 77 pt

Step III: ly 62 yk 32 bed fan 27 77 pt 47

Step IV: 32 ly 62 yk bed 27 77 pt 47 fn

Step V: bed 32 ly 62 yk 77 pt 47 fn 26

26 is the fifth element to the right of 'yk' in step V.



**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 30**

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

**Input:** gap 81 39 rat 25 tan 72 nap 14 mat

Step I: tn gap 39 rat 25 72 nap 14 mat 80

Step II: 71 tn gap 39 25 nap 14 mat 80 rt

Step III: np 71 tn gap 25 14 mat 80 rt 38

Step IV: 24 np 71 tn gap 14 80 rt 38 mt

Step V: gp 24 np 71 tn 80 rt 38 mt 13

And step V is the last step of the rearrangement as the intended output is obtained. As per the rules followed in the given steps, find the appropriate steps for the given input.

Input: pat 32 48 yak bed 63 78 fan lay 27

In Step IV, which element appears exactly between '77' and 'fn'?

- A) Both 'bed' and 'pat'    B) only 'pt'    ☒ C) Both 'pt' and '47'    D) Only '27'    E) Both '47' and '27'

**Explanation:-** In the first step, the word starting with the highest alphabets is written in the start and the highest number is placed in the end. The vowel from the word is deleted and one is subtracted from the number. In the second step, the second highest number is written in the start and the word starting with second highest letter is written in the end. Again one is subtracted from the number and the vowel is deleted from the word. The pattern's is repeated in the subsequent steps.

We have

Input:	pat	32	48	yak	bed	63	78	fan	lay	27
Step I:	yk	pat	32	48	bed	63	fan	lay	27	77
Step II:	62	yk	32	48	bed	fan	lay	27	77	pt
Step III:	ly	62	yk	32	bed	fan	27	77	pt	47
Step IV:	32	ly	62	yk	bed	27	77	pt	47	fn
Step V:	bed	32	ly	62	yk	77	pt	47	fn	26

Both 'pt' and '47' are between '77' and 'fn' in step IV.

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 31**

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

**Input:** gap 81 39 rat 25 tan 72 nap 14 mat

Step I: tn gap 39 rat 25 72 nap 14 mat 80

Step II: 71 tn gap 39 25 nap 14 mat 80 rt

Step III: np 71 tn gap 25 14 mat 80 rt 38

Step IV: 24 np 71 tn gap 14 80 rt 38 mt

Step V: gp 24 np 71 tn 80 rt 38 mt 13

And step V is the last step of the rearrangement as the intended output is obtained. As per the rules followed in the given steps, find the appropriate steps for the given input.

Input: pat 32 48 yak bed 63 78 fan lay 27

In step I, '32' is related to 'yk' following a certain pattern. Similarly, '77' is related to 'lay' in step II, To which of the following is 'bed' related to following the same pattern in step IV?

A) yk   B) pt   C) 77   ☒ D) 62   E) ly

**Explanation:-** In the first step, the word starting with the highest alphabets is written in the start and the highest number is place in the end. The vowel from the word is deleted and one is subtracted from the number. In the second step, the second highest number is written in the start and the worked starting with second highest letter is written in the end. Again one is subtracted from the number and the vowel is deleted from the word. The pattern's is repeated in the subsequent steps.

We have

Input: pat 32 48 yak bed 63 78 fan lay 27

Step I: yk pat 32 48 bed 63 fan lay 27 77

Step II: 62 yk 32 48 bed fan lay 27 77 pt

Step III: ly 62 yk 32 bed fan 27 77 pt 47

Step IV: 32 ly 62 yk bed 27 77 pt 47 fn

Step V: bed 32 ly 62 yk 77 pt 47 fn 26

32 is second to the right of 'yk' in step I. Similarly '77' is second to the right of 'lay' in step II. So 'bed' is second to the right of 62 in step IV

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 32**

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

**Input:** gap 81 39 rat 25 tan 72 nap 14 mat

Step I: tn gap 39 rat 25 72 nap 14 mat 80

Step II: 71 tn gap 39 25 nap 14 mat 80 rt

Step III: np 71 tn gap 25 14 mat 80 rt 38

Step IV: 24 np 71 tn gap 14 80 rt 38 mt

Step V: gp 24 np 71 tn 80 rt 38 mt 13

And step V is the last step of the rearrangement as the intended output is obtained. As per the rules followed in the given steps, find the appropriate steps for the given input.

Input: pat 32 48 yak bed 63 78 fan lay 27

Which is the seventh element to the right of the ninth element from the right end in step I?

- A) lay   B) 77   C) 32   ☒ D) 27   E) fan

**Explanation:-** In the first step, the word starting with the highest alphabets is written in the start and the highest number is place in the end. The vowel from the word is deleted and one is subtracted from the number. In the second step, the second highest number is written in the start and the worked starting with second highest letter is written in the end. Again one is subtracted from the number and the vowel is deleted from the word. The pattern's is repeated in the subsequent steps.

We have

Input:	pat	32	48	yak	bed	63	78	fan	lay	27
Step I:	yk	pat	32	48	bed	63	fan	lay	27	77
Step II:	62	yk	32	48	bed	fan	lay	27	77	pt
Step III:	ly	62	yk	32	bed	fan	27	77	pt	47
Step IV:	32	ly	62	yk	bed	27	77	pt	47	fn
Step V:	bed	32	ly	62	yk	77	pt	47	fn	26

27 is the required elements.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 33**

A medicine 'Sudomol' manufactured by company X is available in market at the price of Rs. 15 per tablet. Company Z recently launches 'Dokilline', a substitute of Sudomol. However, Company Z decided to keep the price of Dokline at Rs. 50 per tablet. Which of the following statements does not strengthen the decision of Company Z of keeping the price of Dokilline higher than its substitute Sudomol?

- A) Company Z uses a special film in the packaging of Dokline which makes the Shelf line of Dokilline three years longer than that of Sudomol.
- ✓ B) Few components of Sudomol were replaced in Dokilline the cost of which is higher.
- C) Unlike Dokilline, Sudomol contains few components the frequent consumption of which may cause skin allergies in some people.
- D) Company Z was issued a patent for Dokilline for ten years whereas the patent issued for Sudomol was only for five years.
- E) Unlike Sudomol, Dokilline contains high level of component 'adroxen' which relieves the pain of a person faster.

**Explanation:-**

For the decision of Company Z to be justified (strengthened), the higher price of Dokilline needs to be offset by some benefits that Dokilline offers and Sudomol does not. Options 1, 3 & 5 mention such benefits and hence strengthen. Option 4 gives an alternate explanation which justifies the decision of Company Z as their competitor (Company Y) will not be able to manufacture Sudomol after a certain period of time.

Option 2 states that there were hardly any components which were replaced whose cost was higher and hence the high price of Dokilline is not justified. Hence, 2 is the answer

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 34**

In which of the following expressions will the expression ' $L < R$ ' be definitely false?

- ✓ A)  $D < R \leq S < C, F < S \leq$
- B)  $V \leq X > L, R > M \geq X$
- C)  $L < A \leq W \leq H, W < R$
- D)  $R > C \geq E = T > P = L$
- E)  $T < L = W < V \leq K \leq R$

**Explanation:-** In the first option, we have  $R \leq S \leq L \Rightarrow R \leq L$ .  
So  $L < R$  is false here.

---

**DIRECTIONS for the question:** Go through the graph and the information given below and answer the question that follows.

**Question No. : 35**

Seven concerts are scheduled in seven different months viz, January, February, March, June, August, September and November. These concerts are scheduled in seven different countries viz. India, China, Japan, Germany, Spain, Brazil and Bhutan on seven different days of a week in each month, but not necessarily in the same order (note- no concert is scheduled in any other month)

- The concert in Brazil is scheduled in a month which has 30 days but not in September.
- Only two concerts are scheduled between the concerts scheduled in Brazil and the one on Wednesday. Neither the concert scheduled on Wednesday nor the concert scheduled on Monday is scheduled in January.
- Only three concerts are scheduled between the concerts scheduled on Monday and Friday. Both the concerts scheduled on Monday and Friday are scheduled in months which has 31 days.
- The concert scheduled in China is scheduled immediately after the one scheduled on Friday.
- As many concerts are scheduled between the one scheduled in China and the one on Wednesday as between the one scheduled on Friday and the one in Germany.
- The concert scheduled on Tuesday is scheduled immediately before the concert scheduled on Sunday. The concert scheduled on Tuesday is not scheduled in China.
- Only three concerts are scheduled between the ones scheduled on Tuesday and the one scheduled in Bhutan.
- Only three concerts are scheduled between the ones scheduled in Spain and India. The concert scheduled in India is not scheduled in August.
- The concert scheduled on Thursday is not scheduled immediately after the one scheduled in India.

Based on the given information, which of the following is true?

- A) Only two concerts are scheduled between the concerts scheduled on Wednesday and Monday.  
✓ B) The concert in Japan is scheduled immediately after the one in China  
C) The concert scheduled in Bhutan is scheduled in a month having 31 days.  
D) The concert In Germany is scheduled on Friday. E) None of the given options is true.

**Explanation:-** From the given information, we can make the following arrangement.

Country	Month	Day
India	January	Friday
China	February	Saturday
Japan	March	Tuesday
Brazil	June	Sunday
Spain	August	Monday
Germany	September	Thursday
Bhutan	November	Wednesday

The concert in Japan is scheduled immediately after the one in China.

**Question No. : 36**

India is related to Sunday and Brazil is related to Wednesday In a certain way based on the given arrangement. To which of the following is China related, following the same way?

- ✓A) Monday   B) Friday   C) Thursday   D) The one scheduled in June   E) The one scheduled in January

**Explanation:-** From the given information, we can make the following arrangement.

Country	Month	Day
India	January	Friday
China	February	Saturday
Japan	March	Tuesday
Brazil	June	Sunday
Spain	August	Monday
Germany	September	Thursday
Bhutan	November	Wednesday

There is a gap of 2 months between India and Sunday. Similar pattern is observed between Brazil and Wednesday. So China is related to Monday.

**Question No. : 37**

Which of the following combinations is correct as per the given information?

- A) June-Brazil-Friday   B) August-Brazil-Monday   ✓C) November-Bhutan-Wednesday   D) March-Spain-Tuesday  
E) January-India-Sunday

**Explanation:-** From the given information, we can make the following arrangement.

Country	Month	Day
India	January	Friday
China	February	Saturday
Japan	March	Tuesday
Brazil	June	Sunday
Spain	August	Monday
Germany	September	Thursday
Bhutan	November	Wednesday

November – Bhutan – Wednesday is correct combination.

**Question No. : 38**

On which of the following days is the concert in Japan scheduled?

- A) Friday   B) Saturday   ☒ C) Tuesday   D) Monday   E) Thursday

**Explanation:-** From the given information, we can make the following arrangement.

Country	Month	Day
India	January	Friday
China	February	Saturday
Japan	March	Tuesday
Brazil	June	Sunday
Spain	August	Monday
Germany	September	Thursday
Bhutan	November	Wednesday

The concert in Japan is scheduled on Tuesday.

**Question No. : 39**

How many concerts are scheduled between the concerts in Germany and the concert scheduled on Saturday?

- A) None   B) One   C) More than three   D) Two   ☒ E) Three

**Explanation:-** From the given information, we can make the following arrangement.

Country	Month	Day
India	January	Friday
China	February	Saturday
Japan	March	Tuesday
Brazil	June	Sunday
Spain	August	Monday
Germany	September	Thursday
Bhutan	November	Wednesday

Three concert are scheduled between the concerts in Germany and the concert scheduled on Saturday.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 40**

If the expression ' $S > T \geq U = V \leq W$ ', ' $Y \geq T < X$ ' are true, then which of the following conclusions is definitely true?

- A)  $T \geq W$    B)  $W > Y$    C)  $X < V$    D)  $S > X$    ☒ E)  $V \leq Y$

**Explanation:-** We have  $V = U \leq T \leq Y \Rightarrow V \leq Y$ .

**DIRECTIONS for the question:** The questions below has two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

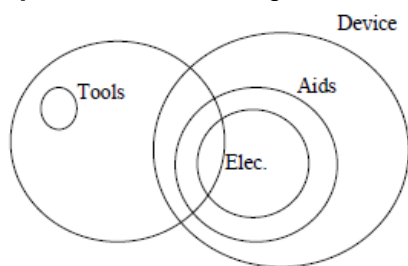
**Question No. : 41**

(**Note:** You have to take the given statements to be true even if they seem to be at variance from the commonly known facts.)

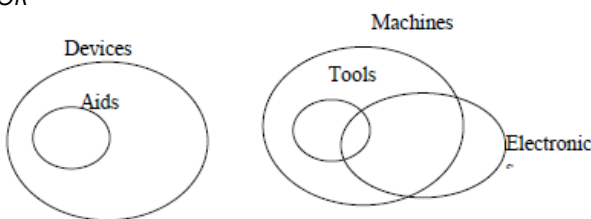
**Statements:** All aids are devices. No device is a tool. All tools are machines. Some machines are electronics.

- A) Conclusion: Some aids are definitely not electronics.    B) Conclusion: No tool is an electronic.  
 C) Conclusion: All aids are machines    D) Conclusion: All electronics can never be devices.  
 ✓E) Conclusion: All electronics being aids is a possibility.

**Explanation:-** From the given statement we can make the following venn diagram.



OR



So only conclusion E is true.



**DIRECTIONS for the question:** The questions below has two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

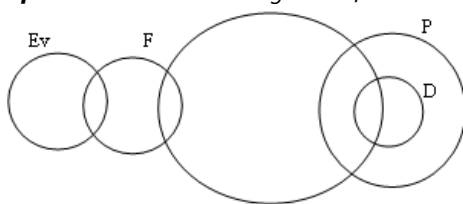
**Question No. : 42**

(**Note:** You have to take the given statements to be true even if they seem to be at variance from the commonly known facts.)

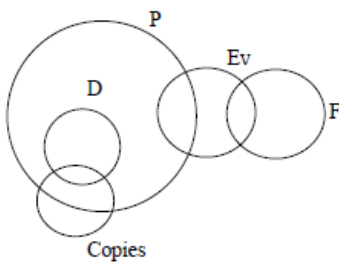
**Statements:** Some evidences are files. No file is document. All documents are papers. Some documents are copies.

- A) Conclusion: All papers being files is a possibility.    B) Conclusion: Some evidences are documents.  
 ✓C) Conclusion: Some files being copies is a possibility.    D) Conclusion: No evidence is a paper.  
 E) Conclusion: All copies are papers.

**Explanation:-** From the given information we can make the following Venn diagrams.



or



So only conclusion 3 follows.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 43**

In which of the following expressions will the expression ' $J \leq Y$ ' be definitely true?

- A)  $J = P \leq S = N \leq V, N > Y$     ✓B)  $Y \geq H \geq E = G \geq B \geq J$     C)  $N \leq Y \geq Q \leq T < S \geq J$     D)  $S \leq V = P \leq F \leq Y, J \geq S$   
 E)  $C < T \geq W \geq M \geq V = J, T \geq Y$

**Explanation:-** In option 2, we have  $Y \geq H \geq E = G \geq B \geq J \Rightarrow Y \geq J$  or  $J \leq Y$

**DIRECTIONS for the question:** Go through the graph and the information given below and answer the question that follows.

**Question No. : 44**

The Ganj Mahotsav, the biggest trade and cultural fair, being held every year in the month of October could not be held in October in the City X and was deferred to December this year. Which of the following may be a reason for not organising the Ganj Mahotsav in October this year in the City X?

- A. A new trade fair was already being held in the City X during the month of October.
- B. The number of proposals for cultural programmes, the main attraction of the Ganj Mahotsav, were relatively less as compared to previous year.
- C. The number of tradesman registered this year for the fair was less for the Ganj Mahotsav to be organized successfully.
- D. The sponsors and financiers of the Ganj Mahotsav were at risk due to projected low response this year at the fair.

A) All (A), (B), (C) and (D)    B) Only (B) & (C)    ☒ C) Only (B), (C) & (D)    D) Only (A)    E) Only(D)

**Explanation:-** All the statements are valid reasons for not organizing trade fair in the month of October except A as that could be altogether a new type of festival and has nothing to do with Ganj Mahostav.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

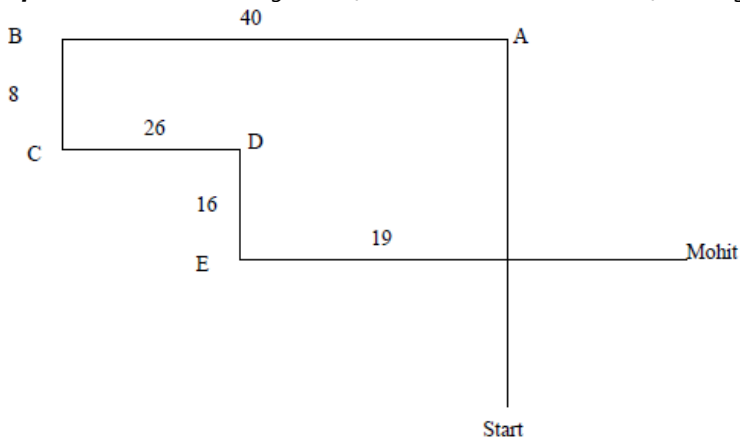
**Question No. : 45**

Sohit went in his car to meet his friend Mohit. He drove 30 km towards North and reaches point A. He then drove 40 km toward West to reach point B. He then turned to South and covered 8 km to reach point C further he turned to East and moved 26 km and reaches points D. Finally, he turned right and drove 10 km to the point E and then turned left to travel 19 km to his friend Mohit.

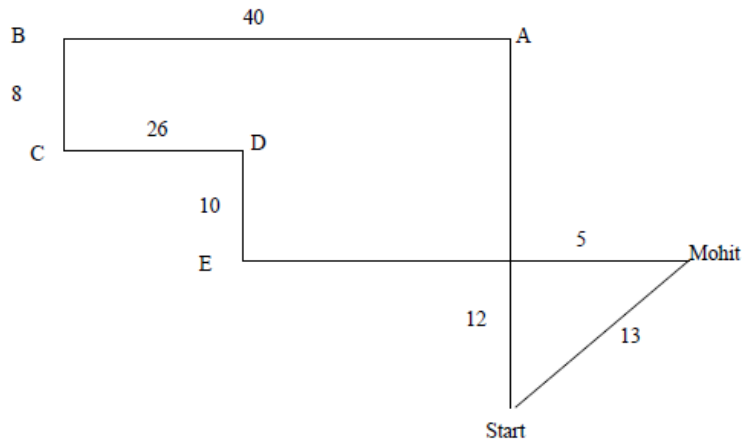
How far is he from starting point?

- A) 5 km    ☒ B) 13 km    C) 14 km    D) 6 km    E) 12 km

**Explanation:-** From the given information we can make the following diagram.



We have



So he is 13 km from the starting point.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

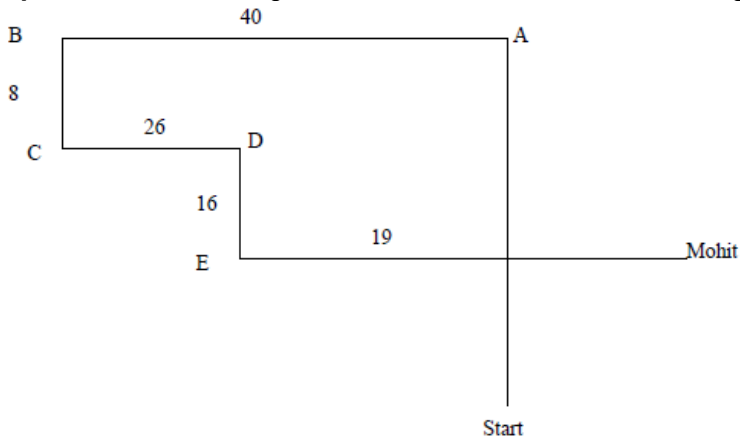
**Question No. : 46**

Sohit went in his car to meet his friend Mohit. He drove 30 km towards North and reaches point A. He then drove 40 km toward West to reach point B. He then turned to South and covered 8 km to reach point C further he turned to East and moved 26 km and reaches points D. Finally, he turned right and drove 10 km to the point E and then turned left to travel 19 km to his friend Mohit.

In which direction is he from the starting point?

- ✓A) North-East   B) North-West   C) South   D) North   E) South-West

**Explanation:-** From the given information we can make the following diagram.



He is to the north-east from the starting point.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

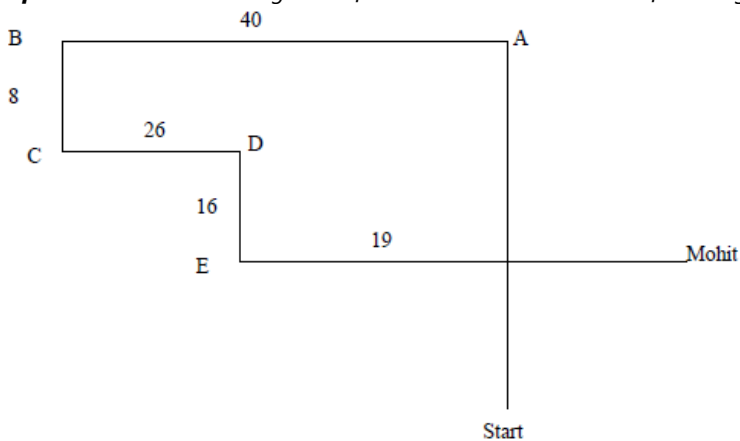
**Question No. : 47**

Sohit went in his car to meet his friend Mohit. He drove 30 km towards North and reaches point A. He then drove 40 km toward West to reach point B. He then turned to South and covered 8 km to reach point C further he turned to East and moved 26 km and reaches points D. Finally, he turned right and drove 10 km to the point E and then turned left to travel 19 km to his friend Mohit.

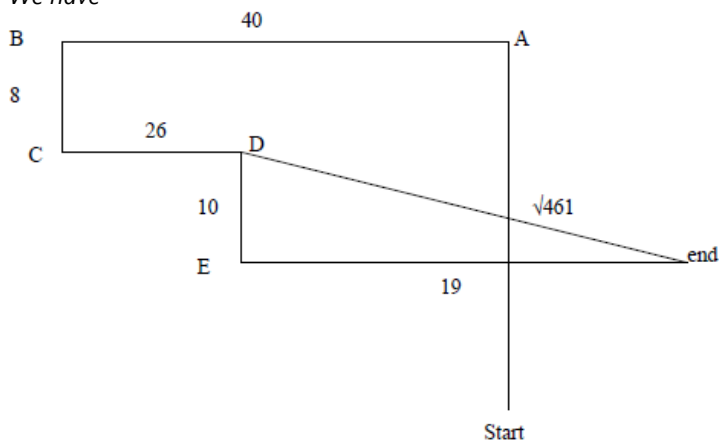
What is the shortest distance between his final place and point D?

- A)  $\sqrt{461}$  km   B)  $\sqrt{377}$  km   ☒ C) 20 km   D)  $\sqrt{525}$  km   E) None of these

**Explanation:-** From the given information we can make the following diagram.



We have



The distance between final place and point D is  $\sqrt{461}$  km.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

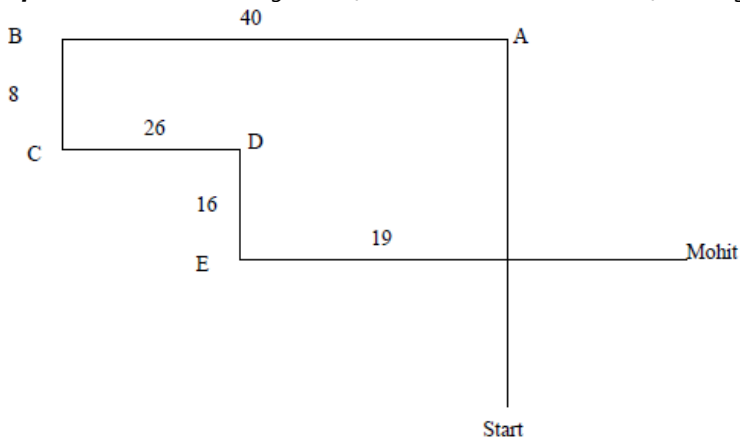
**Question No. : 48**

Sohit went in his car to meet his friend Mohit. He drove 30 km towards North and reaches point A. He then drove 40 km toward West to reach point B. He then turned to South and covered 8 km to reach point C further he turned to East and moved 26 km and reaches points D. Finally, he turned right and drove 10 km to the point E and then turned left to travel 19 km to his friend Mohit.

In which direction is point D with respect to point A?

- A) East   B) West   C) North   ☒ D) South-West   E) South-East

**Explanation:-** From the given information we can make the following diagram.



Point D is to the south west of point A.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

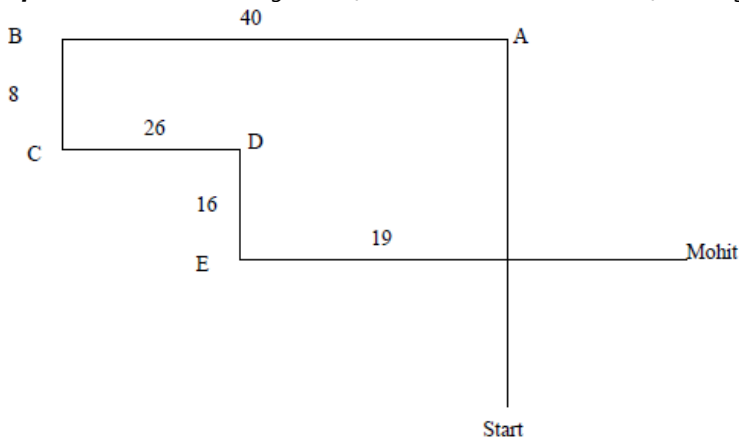
**Question No. : 49**

Sohit went in his car to meet his friend Mohit. He drove 30 km towards North and reaches point A. He then drove 40 km toward West to reach point B. He then turned to South and covered 8 km to reach point C further he turned to East and moved 26 km and reaches points D. Finally, he turned right and drove 10 km to the point E and then turned left to travel 19 km to his friend Mohit.

What is the difference between the distance of points C, D and points A, B?

- ✓ A) 14 km   B) 12 km   C) 5 km   D) 9km   E) 18 km

**Explanation:-** From the given information we can make the following diagram.



Distance between C & D is 26 km & distance between A & B is 40 km.  
So the required difference is  $40 - 26 = 14$  km.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 50**

In certain coding scheme,  
'treated Patient for money' is coded as tA7 fO3 pI7 mN5'  
'student letting false stories' is coded as 'fL5 IT7 sD7' and sR7  
'mending the display screens' is coded as 'sE7 tH3 dP7 mD7'  
'changes for doing job' is coded as 'jO3fO3 dI5 cN7'  
(All the given codes comprise of two English alphabets and a number).

Which of the following will represent the code for 'Spanish' as per the given coding scheme?

- A) sN3   ✓ B) sN7   C) nN7   D) hN5   E) Cannot be determined

**Explanation:-** Each seven letter word is coded as 1st letter → 4th letter → Number of letters.  
Each five letter word is coded as 1st letter → 3rd letter → Number of letters  
Each three letter word is coded as 1st letter → 2nd letter → Number of letters.  
∴ 'Spanish' will be coded as 'sN7'

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 51**

In certain coding scheme,  
'treated Patient for money' is coded as tA7 fO3 pI7 mN5'  
'student letting false stories' is coded as 'fL5 IT7 sD7' and sR7  
'mending the display screens' is coded as 'sE7 tH3 dP7 mD7'  
'changes for doing job' is coded as 'jO3fO3 dI5 cN7'  
(All the given codes comprise of two English alphabets and a number).

Which of the following represents the code for 'posts' in the given coding scheme?

- ☒ A) pS5    B) Cannot be coded as per the given coding scheme    C) pO7    D) So7    E) sS5

**Explanation:-** Code for 'posts' is pS5

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 52**

In certain coding scheme,  
'treated Patient for money' is coded as tA7 fO3 pI7 mN5'  
'student letting false stories' is coded as 'fL5 IT7 sD7' and sR7  
'mending the display screens' is coded as 'sE7 tH3 dP7 mD7'  
'changes for doing job' is coded as 'jO3fO3 dI5 cN7'  
(All the given codes comprise of two English alphabets and a number).

Which of the following statements is true based on the given coding scheme?

- A) For every certainty' is coded as 'cE9 fO3 yE7'    B) The code for 'shake' will definitely be 'sE5'  
☒ C) The code for 'senses' cannot be known as per the given coding scheme    D) None of the given options is true  
E) The code for 'broaded' will be 'dR9'

**Explanation:-** The code for 'Senses' cannot be known as per the given coding scheme as it is a six letter word.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 53**

In certain coding scheme,  
'treated Patient for money' is coded as tA7 fO3 pI7 mN5'  
'student letting false stories' is coded as 'fL5 IT7 sD7' and sR7  
'mending the display screens' is coded as 'sE7 tH3 dP7 mD7'  
'changes for doing job' is coded as 'jO3fO3 dI5 cN7'  
(All the given codes comprise of two English alphabets and a number).

In the given coding scheme, how will 'false codes generated' be coded as?

- A) fL5 cD5 dR9    B) gA7 cD9 fS5    C) gA7 sD5 fE5    D) dR9 eL5 sD7    ☒ E) gR9 fL5 cD5

**Explanation:-** The code of 'false codes generated' is 'gR9 fL5 cD5'.



**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 54**

In certain coding scheme,  
'treated Patient for money' is coded as tA7 fO3 pI7 mN5'  
'student letting false stories' is coded as 'fL5 IT7 sD7' and sR7  
'mending the display screens' is coded as 'sE7 tH3 dP7 mD7'  
'changes for doing job' is coded as 'jO3fO3 dI5 cN7'  
(All the given codes comprise of two English alphabets and a number).

As per the given coding scheme, the code for which of the following pairs of words will be the same?

- A) Advisedly and asking    ☒ B) Impacts and ideally    C) unhealthy and unwilling    D) bivalency and bankruptcy  
E) longevity and lengthy

**Explanation:-** Impacts and ideally have the same code.

**DIRECTIONS for the question:** The questions below has two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

**Question No. : 55**

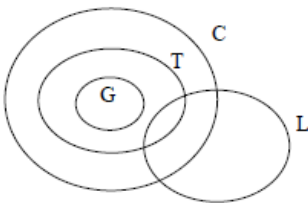
**Statements:** All graphs are tables. All tables are charts. Some tables are lines.

**Conclusion I:** All graphs are charts.

**Conclusion II:** At least some lines are graphs.

- A) Only conclusion II follows    B) Both conclusion I and conclusion II follow    C) Either conclusion I or conclusion II follows  
D) Neither conclusion I nor conclusion II follow    ☒ E) Only conclusion I follows

**Explanation:-** From the given information we can make the following venn diagram.



Hence only conclusion I follows.

**DIRECTIONS for the question:** The questions below has two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

**Question No. : 56**

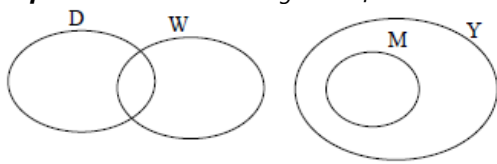
**Statements:** Some dates are weeks. No week is a month. All months are years.

**Conclusion I:** All years can never be weeks.

**Conclusion II:** Some dates are definitely not months.

- A) Only conclusion II follows    ☒ B) Both conclusion I and conclusion II follow    C) Either conclusion I or conclusion II follows  
D) Neither conclusion I nor conclusion II follow    E) Only conclusion I follows

**Explanation:-** From the given information we can make the following venn diagram.



Hence Both conclusions I and II follow.

**DIRECTIONS for the question:** The questions below has two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

**Question No. : 57**

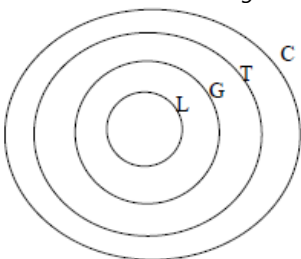
**Statements:** All graphs are tables. All tables are charts. Some tables are lines.

**Conclusion I:** All lines being charts is a possibility.

**Conclusion II:** All tables are graphs.

- A) Only conclusion II follows    B) Both conclusion I and conclusion II follow    C) Either conclusion I or conclusion II follows  
D) Neither conclusion I nor conclusion II follow    ☒ E) Only conclusion I follows

**Explanation:-** From the given information we can make the following venn diagram.



Hence only conclusion I is true.

**DIRECTIONS for the question:** Go through the graph and the information given below and answer the question that follows.

**Question No. : 58**

The 1500 new trainees who joined at MN Co. Ltd. Six months ago were transferred from City M to City B and were asked to join at their office in City B within a span of 15 days.

Which of the given situations may possibly be the reason for which the trainees were posted at their office in City B?

- A. The skills for which the trainees had to be trained further was to be done at City B.
- B. The MN Co. Ltd. Had opened a new store in City B and the trainees were asked to join at city B as employees.
- C. The employees in city M were unable to complete the necessary training in the given span of time.
- D. Some of the trainees in states of MN Co. Ltd. in City B left without prior information that burdened the employees.

A) Only(C)   B) Only (A) & (D)   C) All (A),(B),(C) & (D)   ☒ D) Only(B) & (C)   E) Only (A)

**Explanation:-** Statement B and D are the probable reasons for shifting the employees from city M to city B. As they have to join their offices so further training is ruled out. C is logically wrong and hence rejected.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 59**

The National Museum of Country 'Banibla' has 4 sections, each displaying different assets and aspects of the country Between 2-4 pm. Taking this step will have the following three consequences.

- A. The entry fees received from section 2 of the museum will decrease.
- B. The number of Banibian visitors in section 2 between 2-4 pm will increase considerably.
- C. The section displaying the cultural heritage of country X will start receiving foreign visitors.

Which of the following cannot be inferred from the given information?

- A) Each section of the museum has separate entry fees
- B) Section 2 is not the section that displays the country's cultural heritage.
- C) Foreign museums will be allowed in other sections of the museum between 2-4 pm.
- ☒ D) The entry fee of section2 was the highest among all the 4 sections.
- E) Earlier, the foreign visitors of the museum did not prefer to visit the section displaying cultural heritage of country X.

**Explanation:-** Option 4 cannot be inferred as decrease in the fees of this section does not imply that this section had the highest fees.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 60**

Five people viz. A, B, C, D and E live on five different floors of a building but not necessarily in the same order. The ground floor of the building is numbered one, the one above that is numbered two and so on till the topmost floor is numbered five. A lives on an odd numbered floor. Only three people live between A and B. Only one person lives between B and C. E lives on one of the floors above A. On which floor does D live?

- A) Floor numbered 1    ☒ B) Cannot be determined    C) Floor numbered 4    D) Floor numbered 2    E) Floor numbered 3

**Explanation:-** We have the following arrangement

Floor	Person
5	B
4	D/E
3	C
2	E/D
1	A

So D can live on either floor 2 or 4.

Hence the answer is option 2

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 61**

Is K the niece of R?

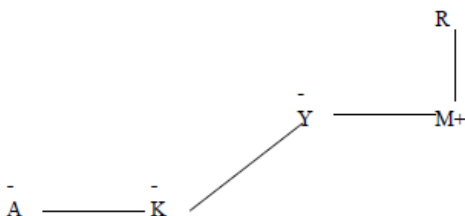
Statement I: A is the sister of K. K is the niece of Y.

Statement II: Y is the only sister of M, M is the son of R.

Statement III: M is married to B. A is the child of B.

- ☒ A) The data in both statements I and II together are necessary to answer the question.  
B) The data in all statements I, II and III together are not sufficient to answer the question  
C) The data in all statements I, II and III together are necessary to answer the question.  
D) The data in both statements I and III together are necessary to answer the question.  
E) The data in both statement II and III together are necessary to answer the question.

**Explanation:-** From the first two statements, we have



So K is not the niece of R.

**DIRECTIONS for the question:** Answer the following question as per the best of your ability.

**Question No. : 62**

If the expressions ' $A \leq B < C > D \leq E$ ;  $G \leq D \leq F$ ' are true, then which of the following conclusions is definitely false?

- A)  $E \leq C$     ☒ B)  $G > E$     C)  $D < B$     D)  $F > B$     E)  $D > A$

**Explanation:-** We have  $G \leq D \leq E \Rightarrow G \leq E$ .

So  $G > E$  is definitely false.

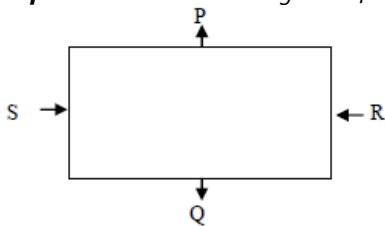
**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 63**

Four people viz. P, Q, R and S are sitting around a square table such that each of them sits at the middle of each of the sides, but not necessarily in the same order. Two of them are facing the centre and two face outside (opposite to the centre). Only one person sits between P and Q. P faces outside. R sits to the immediate right of P. Both the immediate neighbours of R face the same direction (If one neighbour faces the centre the other neighbour also faces the centre and vice-versa.) What is the position of S with respect to Q?

- ☒ A) Immediate right    B) Immediate left    C) Second to the right    D) Second to the left    E) Cannot be determined

**Explanation:-** From the gives information , we can make the following arrangement.



Hence S is to the immediately right of Q.

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

**Question No. : 64**

This consists of a statement and two conclusions numbered I and II given below it. A conclusion is something which can be directly deduced from the given. You have to decide which of the given conclusions logically follows from the given statement and select the appropriate answer.

**Statement:** Pen manufacturing company Elux manufactures the popular ball-point pens Rexa which are sold for only R\$. 10. If company Texur which manufactures pens similar to Rexa, most people will buy Texur ball-point pens only.

- I. Texur's ball point pens will definitely cost less than Rs. 10.  
II. Gel pens are more popular as well as preferred over ball-point pens these days.

- ☒ A) Neither I nor II can be concluded from the given information.    B) Only II can be concluded from the given information  
C) Either I or II can be concluded from the given information.    D) Both I and II can concluded from the given information.  
E) Only I can be concluded from the given information

**Explanation:-** There could be other reasons also other than cost of an item or because of specific attribute in it. Hence neither of the statements can be concluded from the given facts.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 65**

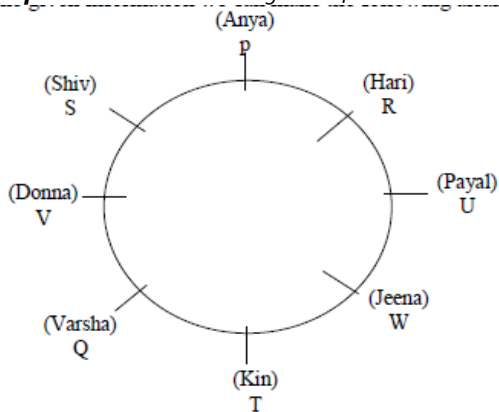
In a college, eight wings viz. P, Q, R, S, T, U, V and W are located around a circular area, with all wings facing the centre of the circle. Eight different people viz. Kin, Donna, Shiv, Anya, Jenna, Payal, Hari and Varsha study in one of these wings. No two wings appearing consecutively in alphabetical order are located immediately next to each other i.e. Wing P is not to the immediate right or immediate left of wing Q, similarly wing Q is not to the immediate right or immediate left of wing P and R and so on.

- Donna's wing is second to the left of T. There is only one wing between T and V.
- Anya's wing is second to the right of U. Anya's wing is not immediately next to Donna's wing.
- The number of wings between Anya's and Donna's wing is equal to the number of wings between U and P.
- There are only three wings between Shiv's and Jenna's wings. Shiv studies in wing S. Jenna's wing is not immediately next to Donna's wing.
- Payal's wing is to immediate right of Jenna's wing.
- Kin's wing is to immediate left of W. Kin's wing and Hari's wing are not immediately next to each other.

Based on the given information, which of the following is true?

- A) None of the given options is true    B) Shiv's wing is to the immediate left of Anya's wing.  
C) There are only two wings between R and Payal's wing.    D) Jenna's wing is exactly between Anya's and Hari's wing  
✓E) Hari studies in wing R.

**Explanation:-** From the given information we can make the following arrangement.



Hari studies in Wing R.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 66**

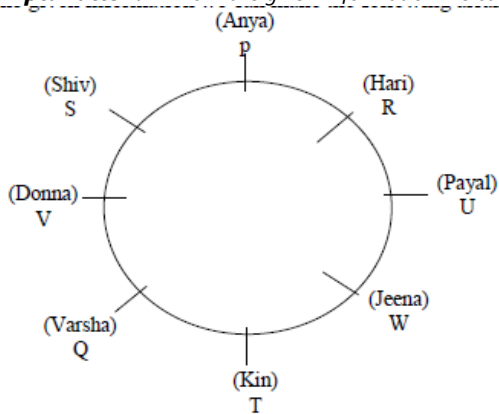
In a college, eight wings viz. P, Q, R, S, T, U, V and W are located around a circular area, with all wings facing the centre of the circle. Eight different people viz. Kin, Donna, Shiv, Anya, Jenna, Payal, Hari and Varsha study in one of these wings. No two wings appearing consecutively in alphabetical order are located immediately next to each other i.e. Wing P is not to the immediate right or immediate left of wing Q, similarly wing Q is not to the immediate right or immediate left of wing P and R and so on.

- Donna's wing is second to the left of T. There is only one wing between T and V.
- Anya's wing is second to the right of U. Anya's wing is not immediately next to Donna's wing.
- The number of wings between Anya's and Donna's wing is equal to the number of wings between U and P.
- There are only three wings between Shiv's and Jenna's wings. Shiv studies in wing S. Jenna's wing is not immediately next to Donna's wing.
- Payal's wing is to immediate right of Jenna's wing.
- Kin's wing is to immediate left of W. Kin's wing and Hari's wing are not immediately next to each other.

Which of the following represents Varsha's wing?

A) T   B) V   C) P   D) R   ☒ E) Q

**Explanation:-** From the given information we can make the following arrangement.



Varsha's wing is Q.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 67**

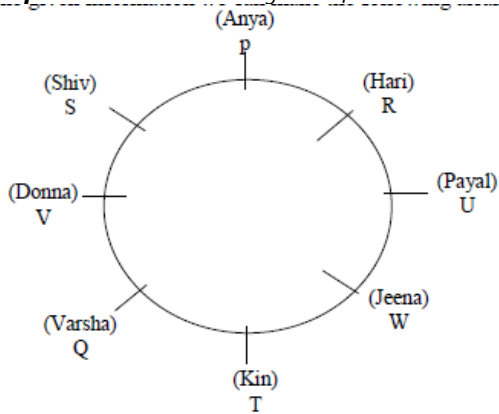
In a college, eight wings viz. P, Q, R, S, T, U, V and W are located around a circular area, with all wings facing the centre of the circle. Eight different people viz. Kin, Donna, Shiv, Anya, Jenna, Payal, Hari and Varsha study in one of these wings. No two wings appearing consecutively in alphabetical order are located immediately next to each other i.e. Wing P is not to the immediate right or immediate left of wing Q, similarly wing Q is not to the immediate right or immediate left of wing P and R and so on.

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- Anya's wing is second to the right of U. Anya's wing is not immediately next to Donna's wing.
- The number of wings between Anya's and Donna's wing is equal to the number of wings between U and P.
- There are only three wings between Shiv's and Jenna's wings. Shiv studies in wing S. Jenna's wing is not immediately next to Donna's wing.
- Payal's wing is to immediate right of Jenna's wing.
- Kin's wing is to immediate left of W. Kin's wing and Hari's wing are not immediately next to each other.

Which of the following represents the wing to immediate right of Varsha's wing?

- A) V   B) R   C) S   ☒ D) Kin's wing   E) Payal's wing

**Explanation:-** From the given information we can make the following arrangement.



Kin's wing is to the immediate right of varsha's wing.



**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 68**

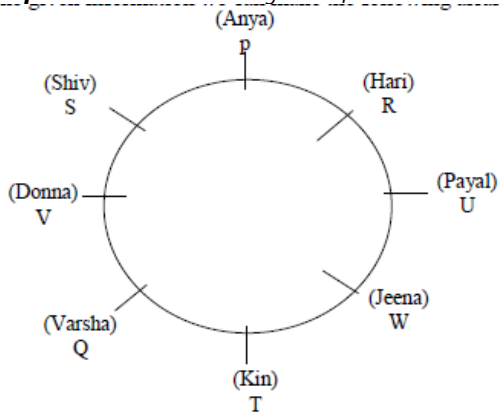
In a college, eight wings viz. P, Q, R, S, T, U, V and W are located around a circular area, with all wings facing the centre of the circle. Eight different people viz. Kin, Donna, Shiv, Anya, Jenna, Payal, Hari and Varsha study in one of these wings. No two wings appearing consecutively in alphabetical order are located immediately next to each other i.e. Wing P is not to the immediate right or immediate left of wing Q, similarly wing Q is not to the immediate right or immediate left of wing P and R and so on.

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- Anya's wing is second to the right of U. Anya's wing is not immediately next to Donna's wing.
- The number of wings between Anya's and Donna's wing is equal to the number of wings between U and P.
- There are only three wings between Shiv's and Jenna's wings. Shiv studies in wing S. Jenna's wing is not immediately next to Donna's wing.
- Payal's wing is to immediate right of Jenna's wing.
- Kin's wing is to immediate left of W. Kin's wing and Hari's wing are not immediately next to each other.

Who amongst the following studies in wing T?

A) Jenna   B) Payal   ☒ C) Kin   D) Anya   E) Varsha

**Explanation:-** From the given information we can make the following arrangement.



Kin studies in wing T.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 69**

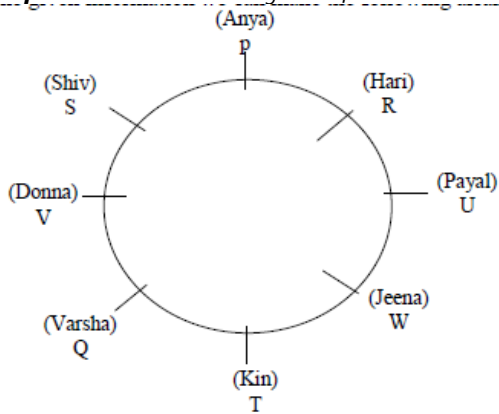
In a college, eight wings viz. P, Q, R, S, T, U, V and W are located around a circular area, with all wings facing the centre of the circle. Eight different people viz. Kin, Donna, Shiv, Anya, Jenna, Payal, Hari and Varsha study in one of these wings. No two wings appearing consecutively in alphabetical order are located immediately next to each other i.e. Wing P is not to the immediate right or immediate left of wing Q, similarly wing Q is not to the immediate right or immediate left of wing P and R and so on.

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- Anya's wing is second to the right of U. Anya's wing is not immediately next to Donna's wing.
- The number of wings between Anya's and Donna's wing is equal to the number of wings between U and P.
- There are only three wings between Shiv's and Jenna's wings. Shiv studies in wing S. Jenna's wing is not immediately next to Donna's wing.
- Payal's wing is to immediate right of Jenna's wing.
- Kin's wing is to immediate left of W. Kin's wing and Hari's wing are not immediately next to each other.

How many wings are there between U and P when counted from the left of P?

- ✓ A) One   B) Three   C) Five   D) None   E) Two

**Explanation:-** From the given information we can make the following arrangement.



Only wing R is there between U and P, when counted from the left of P.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 70**

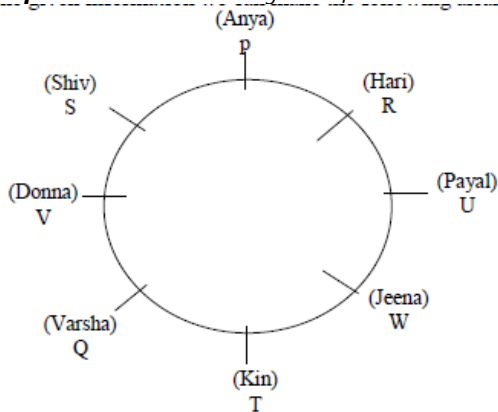
In a college, eight wings viz. P, Q, R, S, T, U, V and W are located around a circular area, with all wings facing the centre of the circle. Eight different people viz. Kin, Donna, Shiv, Anya, Jenna, Payal, Hari and Varsha study in one of these wings. No two wings appearing consecutively in alphabetical order are located immediately next to each other i.e. Wing P is not to the immediate right or immediate left of wing Q, similarly wing Q is not to the immediate right or immediate left of wing P and R and so on.

- Donna's wing is second to the left of T. There is only one wing between T and V.
- Anya's wing is second to the right of U. Anya's wing is not immediately next to Donna's wing.
- The number of wings between Anya's and Donna's wing is equal to the number of wings between U and P.
- There are only three wings between Shiv's and Jenna's wings. Shiv studies in wing S. Jenna's wing is not immediately next to Donna's wing.
- Payal's wing is to immediate right of Jenna's wing.
- Kin's wing is to immediate left of W. Kin's wing and Hari's wing are not immediately next to each other.

Which of the following represents the position of Donna's wing with respect to wing R?

- A) Third to the right   B) fourth to the left   ☒ C) Third to the left   D) Second to the right   E) Immediate left

**Explanation:-** From the given information we can make the following arrangement.



Donna's wing is third to the right of wing R

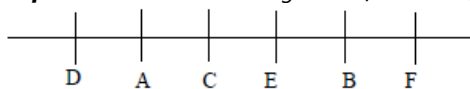
**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 71**

Six people viz. A, B, C, D, E and F are standing in a straight line facing north but not necessarily in the same order. A stands second from one of the extreme ends of the line. Only two people stand between A and B. Only three people stand between B and D. F stands to the immediate right of B. More than one person stands between F and C. What is the position of E with respect to A?

- ☒ A) Second to the right   B) Second to the left   C) Third to the right   D) Immediate left   E) Immediate right

**Explanation:-** From the given information, we have the following arrangement.



So E is second to the right of A.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 72**

In country X, although the dental health is proven to be deteriorating through generations, the number of individuals graduating as dentists has been steadily going down as well. Which of the following explains the incongruity stated above?

- A. The scheme in which the government funded most of the expenses of dental colleges is being withdrawn in a phased manner since last 20 years.
- B. In country X, it is mandatory for every medical college in Tier 1 and Tier 2 cities to have a dental college as well.
- C. The preference for commerce and engineering streams has been growing considerably over past decades owing to better compensations.
- D. Every sector and field of study is directly or indirectly correlated to the demands and patterns being available in the market.

A) . Only (A)    B) Both (A) & (D)    ☒ C) Both (A) & (C)    D) Both (B) & (D)    E) Only (D)

**Explanation:-** The hike in fees of the course and liking for other streams in students' fraternity could be the reasons for incongruity mentioned in the question.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 73**

Although overall health benefits of omega-3 fatty acids is well agreed upon, there still exist some differences in views regarding their major components- EPA and DHA. Dietary consumption of omega-3 fatty acids is one of the best studied interactions between food and brain evolution. DHA is most abundant omega-3 fatty acid in cell membranes in the brain. However, unlike the other nutrients, the human body is not efficient at synthesising DHA, so we are largely dependent on dietary DHA. Animal studies on non-human primates, also show that DHA-depleted diets have resulted in impaired learning and memory, and that re-treating DHA containing diets reverses these impairments. A growing number of similar studies in both human infants and animals are showing a strong correlation between the intake of omega-3 acids (especially DHA) and cognitive function, visual acuity and overall mental development.

Which of the following facts will contradict any part of the given Information?

- A) EPA is a component of omega-3 fatty acids that cannot be consumed through maternal diet but can only be synthesised by body in pre-natal period.
- ☒ B) Studies on monkeys show that 85% of these monkeys displayed normal memory despite having 24% lower DHA than the average required level.
- C) A low species of fish are innately high in DHA content and do not need to depend upon external dietary supplements.
- D) People living in western countries, who are believed to be highest consumers of omega-2, reportedly have exceptionally good memory, problem solving skills and less mental disorders.
- E) Doctors of many countries prefer to give high doses of omega-3 tablets to the patients with weaker vision.

**Explanation:-** The argument states that there is a strong correlation between the intake of omega-3 acids (especially DHA) and cognitive function, visual acuity and overall mental development. In order to contradict this information, we need to show that there isn't a strong correlation. Option 2 does just that and hence is the answer.

Option 1 is irrelevant.

Option 3 does not contradict the conclusion

Option 4 talks of Omega 2, which is again irrelevant.

Option 5 strengthens the conclusion by indicating that there is a correlation.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 74**

Although overall health benefits of omega-3 fatty acids is well agreed upon, there still exist some differences in views regarding their major components- EPA and DHA. Dietary consumption of omega-3 fatty acids is one of the best studied interactions between food and brain evolution. DHA is most abundant omega-3 fatty acid in cell membranes in the brain. However, unlike the other nutrients, the human body is not efficient at synthesising DHA, so we are largely dependent on dietary DHA. Animal studies on non-human primates, also show that DHA-depleted diets have resulted in impaired learning and memory, and that re-treating DHA containing diets reverses these impairments. A growing number of similar studies in both human infants and animals are showing a strong correlation between the intake of omega-3 acids (especially DHA) and cognitive function, visual acuity and overall mental development.

Following are two statements which may or may not be an inference based on the given Information. (An inference is something by which you can logically deduce something to be true based on known premises). You have to consider the given information and decide which of the given statements can be inferred?

- A. At least some of the nutrients necessary for bodily functions can be synthesised within the body.
- B. A diet rich in DHA assures no chances of developing brain disabilities/disorders.
- A) Neither I nor II can be inferred    B) Only II can be inferred    C) Both I and II can be inferred    D) Either I or II can be inferred
- ✓ E) Only I can be inferred

**Explanation:-**

Statement I can be inferred from the lines 'However, **unlike the other nutrients**, the human body is not efficient at synthesising DHA, so we are largely dependent on dietary DHA.' 'Unlike the other nutrients' shows that there are at least some nutrients that can be synthesized within the body.

Statement II is contradicted in the lines 'Animal studies on non-human primates, also show that DHA-depleted diets have resulted in impaired learning and memory, and that re-treating DHA containing diets reverses these impairments.'  
Hence, only statement I can be inferred.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 75**

Although overall health benefits of omega-3 fatty acids is well agreed upon, there still exist some differences in views regarding their major components- EPA and DHA. Dietary consumption of omega-3 fatty acids is one of the best studied interactions between food and brain evolution. DHA is most abundant omega-3 fatty acid in cell membranes in the brain. However, unlike the other nutrients, the human body is not efficient at synthesising DHA, so we are largely dependent on dietary DHA. Animal studies on non-human primates, also show that DHA-depleted diets have resulted in impaired learning and memory, and that re-treating DHA containing diets reverses these impairments. A growing number of similar studies in both human infants and animals are showing a strong correlation between the intake of omega-3 acids (especially DHA) and cognitive function, visual acuity and overall mental development.

Till now, chemotherapy was used for treating cancer patients which had many side effects. The red blood cells reduce considerably causing anemia especially in children after the chemotherapy sessions. To overcome these side effects, the scientists of country X have found a new technique called chemiactin for treating cancer patients although it is a little painful but does not cause anemia. Which of the following may prove that chemiactin will not be as successful as chemotherapy?

- A. The patients need to undergo therapies under chemiactin every three months whereas a total of only two sessions are required
- B. The reduction in red blood cells in cancer patients is considerably less in chemiactin as compared to chemotherapy.
- C. Unlike Chemotherapy, a person has to continue medicines for two months even after chemiactin is over.
- D. Cancer being a fatal disease, the chances of full recovery are very less despite using all medical techniques.

✓ A) Both (A) & (C)    B) Both (A) & (B)    C) Only (A)    D) All (A), (B), (C) & (D)    E) Only (B)

**Explanation:-** Let us consider all the statements one by one.

Statement A – This will lead to chemiactin **not being successful** as it will then be a cumbersome process and patients are more likely to prefer chemotherapy to chemiactin.

Statement B – This will lead to chemiactin being **successful**.

Statement C – This will again lead to chemiactin **not being successful** as it will then be a longer process and patients are more likely to prefer chemotherapy to chemiactin.

Statement D – This does not really show that which of the two is more likely to be successful and hence we **cannot conclude** that chemiactin will not be as successful as chemotherapy.

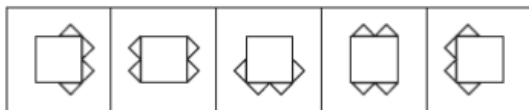
So statements A & C satisfy the condition and hence the answer should be option A.

**Section : Abstract Reasoning**

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 76**

**Problem Figures**



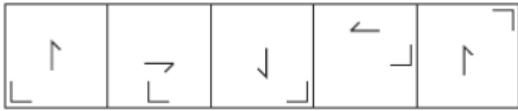
- A)
- B)
- ✓ C)
- D)
- E)

**Explanation:-** Here, two patterns are going consecutively. Figure a, c, e, b and d make pattern. Hence, option figure (c) is the correct answer.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 77**

**Problem Figures**



- A) B) C) D) E)

**Explanation:-** The half arrow in the middle moves 90° anti-clockwise. The line and L moves anti-clockwise alternately.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 78**

**Problem Figures**



- A) B) C) D) E)

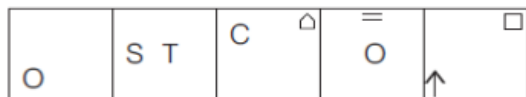
**Explanation:-**

In one step, the first and second symbols (counting is CW direction) interchange positions and in the next step, the first and the third symbols interchange positions. This goes on alternately. The remaining symbol moves to the vacant position and gets replaced by a new symbol in each step.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

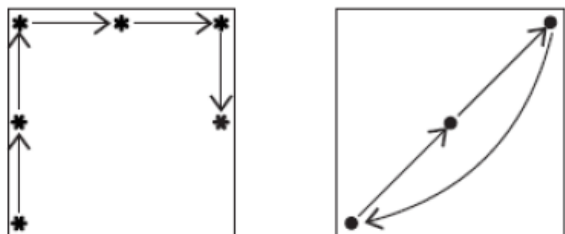
**Question No. : 79**

**Problem Figures**



- A) B) C) D) E)

**Explanation:-** (In every figure, symbols get replaced by a new one and they rotate in the following manner.



**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 80**

**Problem Figures**



- A) B) C) D) E)

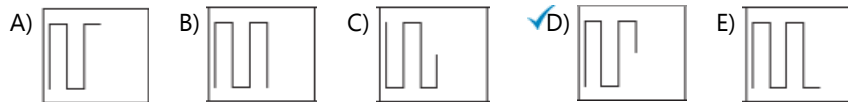
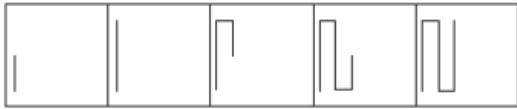
**Explanation:-** The 'circle' moves 45° clockwise and is replaced by a new symbol in every alternate figure. The 'equal' sign moves 135° clockwise, gets replaced by a new symbol and appears in every alternate figure.



**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 81**

**Problem Figures**

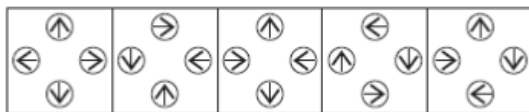


**Explanation:-** Here, in each figure one line, two lines and then three lines are added.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 82**

**Problem Figures**



**Explanation:-** All the arrows are pointing in four different directions.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 83**

**Problem Figures**

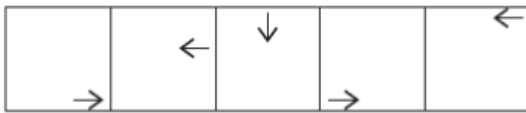


**Explanation:-** The figure rotates 45°, 90° and 135° clockwise, gets laterally inverted and a new arc is added in each step.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 84**

**Problem Figures**



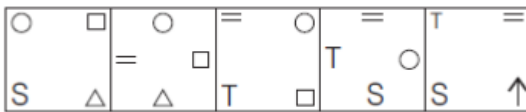
- A) B) C) D) E)

**Explanation:-** The arrow moves one step, two step and so on in each figure. Also, the arrow rotates  $90^\circ$  and  $180^\circ$  anti-clockwise alternately.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 85**

**Problem Figures**



- A) B) C) D) E)

**Explanation:-** All the symbols move  $45^\circ$  clockwise and a new symbol is added in each step.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 86**

**Problem Figures**



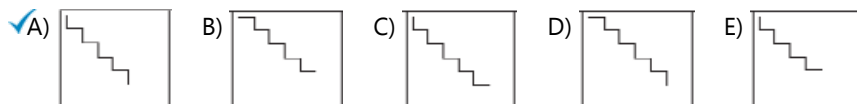
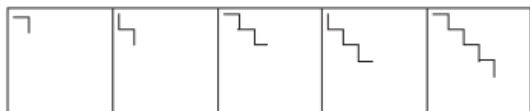
- A) B) C) D) E)

**Explanation:-** The arrow moves one step, two steps, three steps and so on in anti-clockwise direction and gets laterally inverted. (The degree is increasing in each step as  $45^\circ$ ,  $90^\circ$ ,  $135^\circ$ ,  $180^\circ$ , ...)

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 87**

**Problem Figures**



**Explanation:-** The figure gets laterally inverted and one line and two lines are added alternately.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 88**

**Problem Figures**

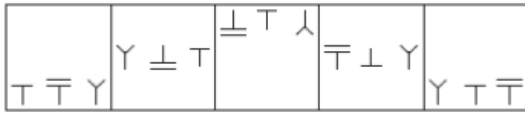


**Explanation:-** Both the elements move to the adjacent side in a clockwise direction. The half arrow rotates 90° anti-clockwise. The semi-circular element rotates 90° anti-clockwise and gets laterally inverted.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

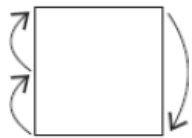
**Question No. : 89**

**Problem Figures**



- A) B) C) D) ☒ E)

**Explanation:-** Here, the symbols move in the following pattern :

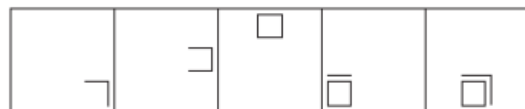


Also, element Y interchanges its position with the next element and the remaining third element gets inverted in each step.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 90**

**Problem Figures**



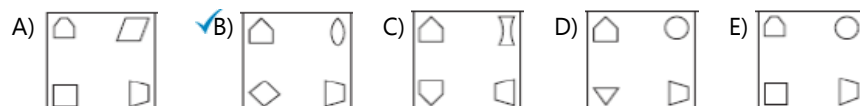
- ☒ A) B) C) D) E)

**Explanation:-** Here, the figure, moves in anticlockwise direction at an angle of 45°, then 90°, 135° and then again 45°. Also, a line is added in each step in clockwise direction.

**DIRECTIONS for the questions:** The second figure in the first unit of the problem figures bears a certain relationship to the first figure. Similarly one of the figures in the answer figures bears the same relationship to the first figure in the second unit of the problem figures. You are therefore to locate the figure which would fit in the question mark.

**Question No. : 91**

**Problem Figures**



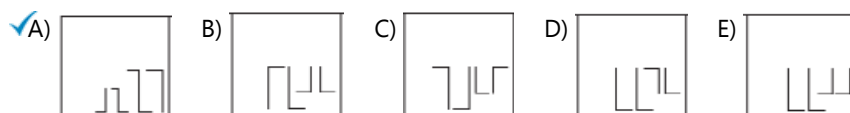
**Explanation:-** From I figure to II figure, each element changes its position in the following manner.

- (i) The element in the bottom left corner goes up and gets vertically inverted.
- (ii) The element in the top left corner comes down and its side increases by 1.
- (iii) The element in the top right corner comes down and gets horizontally inverted.
- (iv) A new element is added in the top right corner.

**DIRECTIONS for the questions:** The second figure in the first unit of the problem figures bears a certain relationship to the first figure. Similarly one of the figures in the answer figures bears the same relationship to the first figure in the second unit of the problem figures. You are therefore to locate the figure which would fit in the question mark.

**Question No. : 92**

**Problem Figures**

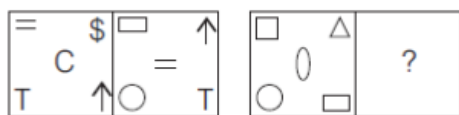


**Explanation:-** Here, all the element gets vertically inverted. Also, the row of elements comes down to bottom right corner.

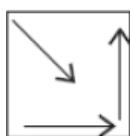
**DIRECTIONS for the questions:** The second figure in the first unit of the problem figures bears a certain relationship to the first figure. Similarly one of the figures in the answer figures bears the same relationship to the first figure in the second unit of the problem figures. You are therefore to locate the figure which would fit in the question mark.

**Question No. : 93**

**Problem Figures**



- A) B) C) ☒ D) E)



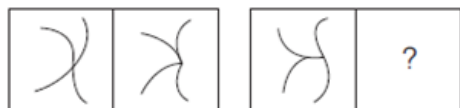
**Explanation:-**

Here, the pattern is Also, two new elements are added in top left and bottom left corners. Hence, option figure (d) is the correct answer.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 94**

**Problem Figures**



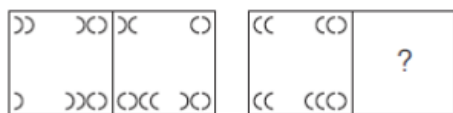
- A) B) ☒ C) D) E)

**Explanation:-** Here only the top right and bottom left lines get inverted.

**DIRECTIONS for the questions:** The second figure in the first unit of the problem figures bears a certain relationship to the first figure. Similarly one of the figures in the answer figures bears the same relationship to the first figure in the second unit of the problem figures. You are therefore to locate the figure which would fit in the question mark.

**Question No. : 95**

**Problem Figures**



- A) B) C) D) E)

**Explanation:-** Here, each element rotates 90° clockwise. Now, observe the inversion of each element separately.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 96**



- A) B) C) D) E)

**Explanation:-** Here, the first element gets vertically inverted and the half arrow moves 180° clockwise. Also, the second element gets vertically and horizontally inverted. Among the given figures, only option figure (b) follows the similar pattern.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 97**

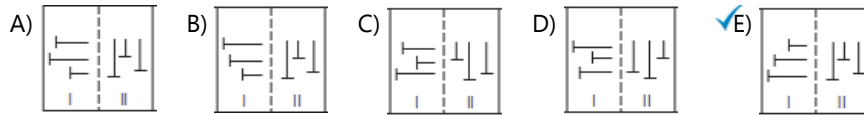
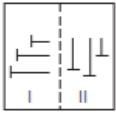


- A) B) C) D) E)

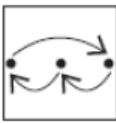
**Explanation:-** Here, the right half of the element is removed. Also, shaded portion gets unshaded and vice-versa. Among the given figures, only option figure (c) follows the similar pattern.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 98**



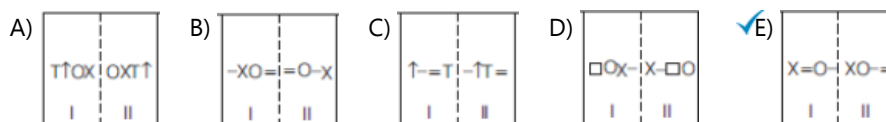
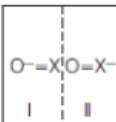
**Explanation:-** Here, the figure gets rotated 90° anti-clockwise. Also, the element changes their position in clockwise manner as follows:



Among the given figure, only option figure (5) follows the same pattern.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 99**



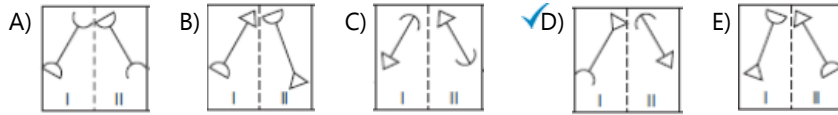
**Explanation:-**

Here, the pattern of rotation of element is as follows Among, the given figures, only option figure (5) follows the similar pattern.



**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 100**



**Explanation:-** Here, the line rotates 90° anti-clockwise and top and bottom elements interchange their positions. Among, the given figures, only option figure (4) follows the similar pattern.

### Section : Verbal Usage & Reading Comprehension

**Question No. : 101**

Last year was supposed to bring faster economic growth and a good monsoon that would end the miseries of two back-to-back years of drought. That complacency gave way to the sober realisation that optimism doesn't wait for facts.

- A. Optimism will wait for facts is established
- B. Despite last year being successful
- C. It was believed that last year

A) Only A   B) Both A & C   C) Both A & B   ☒ D) Only C   E) None

**Explanation:-** Only C option talks about the last year and if used would portray the same meaning as the first line of the sentence.

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 102**

Over five crore citizens suffered from depression, a major contributor to global suicides which occurs mainly in low-and middle-income countries. Over three crore others suffered from anxiety disorders.

- A. Because a major contributor to global suicides occurs
- B. In addition to over five crore citizens
- C. Ever since over three crore citizens suffer

A) Only A   B) Both A & C   C) Both A & B   D) Only B   ☒ E) None

**Explanation:-** Statement tells us that Depression is the major contributor to global suicides. None of the option states the same. Option A does not mention about depression being the major contributor

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 103**

Expectation of the buyer is different in different geographies. Companies must understand the psyche of the buyer and then come up with a product based on what they need.

- A. Even if buyers understand the psyche of
- B. While coming up with a product
- C. When expectation of the buyer is

☒ A) Both B and C   B) Both A and C   C) Both A & B   D) Only B   E) None

**Explanation:-** Option A cannot be the starter as it talks about the psyche of the buyers and the same is mentioned in the second line of the statement. Option B is correct as it talks about the product whose expectation is different in different geographies. Option C too talks about the expectation, so it can definitely be used as the first line of the statement..

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 104**

Migration to urban areas is a worldwide phenomenon. Currently thirty-two percent of the population live in urban areas in another five years, it is estimated to grow to thirty-eight percent.

- A. Even though thirty-two percent of the population
- B. When it is estimated that the population growth
- C. Urban areas are saturated with worldwide

A) Only A   B) Both A and C   C) Both A & B   D) Only B   ☒ E) None

**Explanation:-** None of the options state the same meaning regarding migration being a worldwide phenomenon.

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 105**

Laws to protect the privacy and financial details of people using electronic payments are on the cards. The move, aimed at preventing data theft, comes in the wake of a surge in phone banking and electronic payments.

- A. In the wake of a surge in phone banking
- B. Preventing data theft is not a priority
- C. In order to protect financial details

A) Only A   ☒ B) Both A and C   C) Both A & B   D) Only B   E) None

**Explanation:-** Statement states that laws to protect the privacy of people using e-cards are being made; Both Options A & C are good starters.

**DIRECTIONS for the question:** In the question below a sentence with four words printed in **bold** type is given. These are numbered as (A), (B), (C) and (D). One of these four words printed **in bold** may be either wrongly spelt or inappropriate in the context of the sentence. Find out the word, which is wrongly spelt or is inappropriate, if any. The number of that word is your answer. If all the words printed **in bold** are correctly spelt and also appropriate in the context of the sentence, mark (E) i.e. 'All Correct' as your answer.

**Question No. : 106**

The first satellites launched five years ago, could send off pictures of just 3,000 square kilometres a day, but the satellites have followed a trajectory of improving more closer to that seen in cell phones and the latest satellites can be covered 2.5 million square kilometres a day.

- A. can send- advancement close- can report on
- B. could send back- improvement similar- can cover
- C. would send- improvement skin- are covering
- ✓ A) Only (B) & (C)    B) All (A), (B) & (C)    C) Only (A) & (B)    D) Only (C)    E) No correction required

**Explanation:-** We are talking about 5 years ago, So option A is incorrect as it is in present tense. Option B & C both are suitable to be used in the statement.

**DIRECTIONS for the question:** In the given paragraph, the last line has been deleted. Choose the option that logically follows the paragraph.

**Question No. : 107**

Italy's fragmented banking industry is consolidating. The resolution in November 2015 of four tiny banks, in which bondholders were bailed in, caused uproar. Now UBI Banca, the fifth-largest lender hopes to buy three of the four "good" residual banks for €1. (\_\_\_\_). Another is on the horizon, of two Venetian banks. Analysts at Credit Service suggest that the government's €20 billion fund should suffice to plug any remaining capital gaps. All this is necessary-but not sufficient.

- A) Carved, a ratings agency, predict that by 2018, bad loans will always be back to their pre-crisis level-although
- ✓ B) A merger finalised on January 1<sup>st</sup> created Banca BPM, now Italy's third largest bank.
- C) All this is necessary- but not sufficient- the vicious cycle will be hard to break.
- D) The finance minister says, the banking system is turning a page and he is yet to be proved right.
- E) All the given options fit.

**Explanation:-** The word "another" after the blank is the clue that suggests something has happened before which we can locate in option (2).

**DIRECTIONS for the question:** Read the passage and answer the question based on it.

**Question No. : 108**

The need for regulation to protect the environment gets widespread but grudging acceptance: widespread because everyone wants a liveable planet, grudging because of the lingering belief that environmental regulations erode competitiveness. The prevailing view is that there is an inherent and fixed trade-off: ecology versus the economy. On one side of the trade-off are the *social* benefits that arise from strict environmental standards. On the other are industry's *private* costs for prevention and cleanup—costs that lead to higher prices and reduced competitiveness. With the argument framed this way, progress on environmental quality has become a kind of arm-wrestling match. One side pushes for tougher standards; the other tries to roll them back. The balance of power shifts one way or the other depending on the prevailing political winds.

This static view of environmental regulation, in which everything except regulation is held constant, is incorrect. If technology, products, processes, and customer needs were all fixed, the conclusion that regulation must raise costs would be inevitable. But companies operate in the real world of dynamic competition, not in the static world of much economic theory. They are constantly finding innovative solutions to pressures of all sorts—from competitors, customers, and regulators.

Properly designed environmental standards can trigger innovations that lower the total cost of a product or improve its value. Such innovations allow companies to use a range of inputs more productively—from raw materials to energy to labor—thus offsetting the costs of improving environmental impact and ending the stalemate. Ultimately, this enhanced *resource productivity* makes companies more competitive, not less.

Consider how the Dutch flower industry has responded to its environmental problems. Intense cultivation of flowers in small areas was contaminating the soil and groundwater with pesticides, herbicides, and fertilizers. Facing increasingly strict regulation on the release of chemicals, the Dutch understood that the only effective way to address the problem would be to develop a closed-loop system. In advanced Dutch greenhouses, flowers now grow in water and rock wool, not in soil. This lowers the risk of infestation, reducing the need for fertilizers and pesticides, which are delivered in water that circulates and is reused. The tightly monitored closed-loop system also reduces variation in growing conditions, thus improving product quality. Handling costs have gone down because the flowers are cultivated on specially designed platforms. In addressing the environmental problem, then, the Dutch have innovated in ways that have raised the productivity with which they use many of the resources involved in growing flowers. The net result is not only dramatically lower environmental impact but also lower costs, better product quality, and enhanced global competitiveness.

This example illustrates why the debate about the relationship between competitiveness and the environment has been framed incorrectly. Policy makers, business leaders, and environmentalists have focused on the static cost impacts of environmental regulation and have ignored the more important offsetting productivity benefits from innovation. As a result, they have acted too often in ways that unnecessarily drive up costs and slow down progress on environmental issues. This static mind-set has thus created a self-fulfilling prophecy leading to ever more costly environmental regulation. Regulators tend to set regulations in ways that deter innovation. Companies, in turn, oppose and delay regulations instead of innovating to address them. The whole process has spawned an industry of litigators and consultants that drains resources away from real solutions.

Which of the following is/are not true in the context of the passage?

1. Following advanced technologies, successful access Europe, has helped the Dutch flower industry boom.
2. Having a static view of environmental regulation is not desirable
3. There exist disagreements among shareholders with respect to the regulation to protect the environment.

A) Only A   B) Both A and C   C) Only B   ☒ D) Only C   E) All the given options are true

**Explanation:-** Option C is incorrect. In the last few lines, author states that the disagreements happen but nothing is mentioned about the shareholders.

**Question No. : 109**

The author in the given passage \_\_\_\_\_

- A) is Dutch   ☒ B) encourage policymakers and stakeholders to innovate  
C) is pessimistic about the outlook people have towards environment protection  
D) encourages forest to adopt the closed-loop system for all crops  
E) is contented with the present governments for playing their role efficiently

**Explanation:-** The passage has motivational connotation so option (b) is appropriate.

**Question No. : 110**

Which of the following correctly explains the meaning of the phrase 'ending the stalemate' as used in terms of innovation in the passage?

- A) dependent on technological advancements    ☒ B) resolves a deadlock    C) depletes resources  
D) adversely affects the environment    E) curbs innovation

**Explanation:-** Stalemate means a draw kind of situation; So option B is correct as it says resolving a deadlock which means the same as its meaning.

**Question No. : 111**

Which of the following is most nearly the opposite in meaning as the word **TRIGGER** as used in the passage?

- A) support    B) Affect    ☒ C) Prevent    D) Switch    E) Illicit

**Explanation:-** Refer para 3, line 1 where trigger means to start and opposite is prevent.

**Question No. : 112**

Which of the following is most nearly the same in meaning as the word **SPAWNED** as used in the passage?

- ☒ A) Created    B) Mounted    C) Issued    D) Spared    E) Destroyed

**Explanation:-** Refer last line in last para and contextual meaning of spawned is to create.

**Question No. : 113**

As mentioned in the passage, the need for regulation to protect the environment \_\_\_\_\_.

- A. exists in different intensities among the stakeholders.  
B. is affected by political pressures.  
C. always forms out to be an expensive affair.

- A) Only A    B) Both A and C    C) Both A and B    ☒ D) Only C    E) Both B and C

**Explanation:-** Refer 4<sup>th</sup> and 5<sup>th</sup> line of para 1.

**Question No. : 114**

Which of the following is a suitable title for the passage?

- A) Stringent Environmental Regulations- A Must For Supporting the Economy  
☒ B) Green and Competitive- Accommodating Two Sweets at One Sheath    C) Innovation in Agriculture Across the World  
D) Environmental Policies- Effective Only on Paper    E) All those given as options

**Explanation:-** Option B is most appropriate. As it talks about the environment and the related competition together in one passage.

**Question No. : 115**

As mentioned in the passage, companies can gain a competitive edge if \_\_\_\_\_.

- A. there exists a team of experts responsible for implementing practices having a history of success.  
B. the environment is devoid of competition.  
C. there is thoughtful utilisation of resources.

- A) Only A    B) Both A and C    C) Only B    ☒ D) Only C    E) None

**Explanation:-** Refer 3<sup>rd</sup> para last line.

**DIRECTIONS for the question:** In the given paragraph, the last line has been deleted. Choose the option that logically follows the paragraph.

**Question No. : 116**

Work smarter, not harder: It is one of the more irritating things a book can tell you. But at the macroeconomic level, it is important Growth can come from having more labour (recruiting more workers, or making existing employees work for longer hours), more capital, or from using that labour and capital more effectively- something known as total factor productivity (TFP). This can come from the kind of brilliant innovations devised by Thomas Edison. (\_\_\_\_)

- A) This shows that at the global level, total factor productivity fell last year, was flat the two years before, and has barely budged since 2007.
- B) It could also come from the less-heralded but equally important improvements such as the adoption of the moving conveyor belt to speed up assembly work.
- ✓C) Whatever the reason, economic growth did not rebound until productivity perked up,
- D) A recovery has been underway for a while.
- E) Others might counter that the full benefits of new technology are not reflected in the data

**Explanation:-** Option C is most appropriate as it mentions increase in productivity with increase in growth.

**DIRECTIONS for the question:** In the given paragraph, the last line has been deleted. Choose the option that logically follows the paragraph.

**Question No. : 117**

(\_\_\_\_). Rising prosperity in the region means the cost of manual work, outsourced to the region is rising. Labour shortages loom. Certain jobs require craft skills which are becoming rarer. From the first sketch of a completely new pair of trainers to making and testing prototypes, ordering materials, sending samples back and forth, rebooting a factory, working up production and eventually shipping the finished goods to the shops can take the industry as long as 18 months.

- A) Currently, trainers (shoes) are made mostly by hand in giant factories, often in Asian countries, with people assembling components or shaping, bonding and sewing materials.
- ✓B) In Asia wealth is rising.
- C) Many people now have the wherewithal to avoid tasks that are thought of as manual and monstrous.
- D) The company will use robots and novel production techniques such as 3D printing to reinvent its manufacturing process.
- E) All the given options fit.

**Explanation:-** Rising prosperity is complementary to option B i.e. "in Asia wealth is rising"

**DIRECTIONS for the question:** In the given paragraph, the last line has been deleted. Choose the option that logically follows the paragraph.

**Question No. : 118**

(\_\_\_\_). By 2022 more than 4.5 million are expected every year- about the same as the country's resident population. Tourism has overtaken dairy produce as the biggest export, helped by a large In the number of visitors from China. They are seen to experience the natural beauty promised by the country's "100% pure New Zealand" advertising campaign and shown off in the film adaptations of "The Lord of the Rings" and 'The Hobbit', which were shot in New Zealand's breathtaking wilderness.

- ✓A) In 2016 New Zealand hosted 3.5 million tourists from overseas.
- B) Tourists already contribute around NZ \$1.1 billion through the country's 15 percent sales tax.
- C) It would be difficult to prevent tourists from sneaking around the toll booths.
- D) Many New Zealanders foresee a huge influx of foreigners who have been seeking to four national parks.
- E) All the given options fit.

**Explanation:-** Some comparison about the time period is made so option A is appropriate.

**DIRECTIONS for the question:** Which of the phrases (A), (B), (C) and (D) given below should replace the phrase given in bold the following sentence to make the sentence grammatically meaningful and correct?

**Question No. : 119**

Which of these sentences is/are correct?

- A. The spokesperson announced that a female police officer would be the next Commissioner of the police force.
- B. Wounds made by words are hard to hear.
- C. The film depicts an inspirational story of a young tribal girl who dreams of climbing Mount Everest.
- D. The captives used this woollen sticks to write on the internal side of envelopes.

A) Only B    B) Only B, C and D    C) Only A and D    ✓D) Only A and C    E) All are correct

**Explanation:-** Option A & C are correct. Option B will have 'heal' instead of 'hear'. Option D will have 'these' instead of 'this'

**DIRECTIONS for the question:** Which of the phrases (A), (B), (C) and (D) given below should replace the phrase given in bold the following sentence to make the sentence grammatically meaningful and correct?

**Question No. : 120**

Which of these sentences is/are incorrect?

- A. What is bred in the bone will not wear out of the flesh.
- B. He was so annoyed on been contradicted.
- C. It is not for such as they, to dictate us.
- D. There never had arise a great man who has not been misunderstood.

A) Only C    B) Only B, C and D    ✓C) Only B and C    D) Only A and D    E) Only D

**Explanation:-** In option A it should be 'will come out' instead of 'will not wear out'. In option D it should be 'has arisen' instead of 'had arise'

**DIRECTIONS for the question:** Which of the phrases (A), (B), (C) and (D) given below should replace the phrase given in bold the following sentence to make the sentence grammatically meaningful and correct?

**Question No. : 121**

Which of these sentences is/are correct?

- A. The army had to suffer terrible privations due to the war.
- B. He was as tired as he could scarcely stand.
- C. The most exquisitely work of literary art exhibits a certain crudeness and coarseness.
- D. Education and poverty are the most pressing issues for our country.

A) Only B and C    B) Only A, C and D    ✓C) Only A and D    D) Only A and B    E) Only D

**Explanation:-** Grammatically sentence A and D are correct. Option B will be 'so tired' instead of 'as tired as'. Option C use 'exquisite' instead of 'exquisitely'.

**DIRECTIONS for the question:** Which of the phrases (A), (B), (C) and (D) given below should replace the phrase given in bold the following sentence to make the sentence grammatically meaningful and correct?

**Question No. : 122**

Which of these sentences is/are correct?

- A. Do not be idle, lest you come to ruins.  
B. As he had not paid his bid, following his electricity was cut off.  
C. Giving on wrong pleasure is not self-sacrifice, though self-culture.  
D. There were doors all around the hall, but they were all locked.
- A) Only D    B) Only A, B and C    C) Only A and D    ☒ D) Only C and D    E) All are correct

**Explanation:-** Grammatically only sentence C and D are correct. Option A will be 'else you'll come' instead of 'lest'. Option B will have 'bill' instead of 'bid'.

**DIRECTIONS for the question:** In the question below a sentence with four words printed in **bold** type is given. These are numbered as (A), (B), (C) and (D). One of these four words printed **in bold** may be either wrongly spelt or inappropriate in the correct in the context of the sentence. Find out the word, which is wrongly spelt or is inappropriate, if any. The number of that word is your answer. If all the words printed **in bold** are correctly spelt and also appropriate in the correct of the sentence, mark (E) i.e. 'All Correct' as your answer.

**Question No. : 123**

As less of 5 percent of the total fleet of cars in Norway are electric at present, the country's transport minister calls it 'realistic' **expectation** an end to sales of new cars **power** fossil fuels by 2025.

- A. Though less than-to expect-powered by  
B. Since approximately- an expectation- controlling  
C. All though not even- to envisage- fuelled by
- ☒ A) Only(A) &(C)    B) All (A), (B) & (C)    C) Only (A) & (B)    D) Only (A)    E) No correction required

**Explanation:-** Option B is incorrect , as the word power cannot be replaced by controlling.Option A & C can be the replacements in the given statement.

**DIRECTIONS for the question:** In the question below a sentence with four words printed in **bold** type is given. These are numbered as (A), (B), (C) and (D). One of these four words printed **in bold** may be either wrongly spelt or inappropriate in the correct in the context of the sentence. Find out the word, which is wrongly spelt or is inappropriate, if any. The number of that word is your answer. If all the words printed **in bold** are correctly spelt and also appropriate in the correct of the sentence, mark (E) i.e. 'All Correct' as your answer.

**Question No. : 124**

To some audiences, orchestral conductors **seemingly to** dramatically wave their arms with no discernible effect on the music,, whereas really, conductors undergo rigorous conservatory training, followed by further feedback on the job **when their climb** the career ladder.

- A. merely- in reality- In their climb up  
B. seem to- in fact- as they climb up  
C. will- actually- while their climb
- A) Only(C)    ☒ B) All (A), (B) & (C)    C) Only(A) & (B)    D) Only (A)    E) No correction required

**Explanation:-** All options can fit well in the statement



**DIRECTIONS for the question:** In the question below a sentence with four words printed in **bold** type is given. These are numbered as (A), (B), (C) and (D). One of these four words printed **in bold** may be either wrongly spelt or inappropriate in the correct in the context of the sentence. Find out the word, which is wrongly spelt or is inappropriate, if any. The number of that word is your answer. If all the words printed **in bold** are correctly spelt and also appropriate in the correct of the sentence, mark (E) i.e. 'All Correct' as your answer.

**Question No. : 125**

Like roads, which have well-established rules, lane markings and traffic signals to guide autonomous vehicle being use, the pavements running alongside those roads are what roboticists **known to** "unstructured environments".

- A. While -in use of- called
- B. Unlike- using those- refer to
- C. Although- being in use- speak of

✓ A) Only(B)   B) All (A), (B) & (C)   C) Only(A) & (B)   D) Only (C)   E) No correction required

**Explanation:-** First line states the contrast between roads and lane markings; For contrast 'unlike' is appropriate. So only option B is correct. While & Although cannot be used.

**DIRECTIONS for the question:** In the given paragraph, the last line has been deleted. Choose the option that logically follows the paragraph.

**Question No. : 126**

In this question, a paragraph with a blank space indicated by (\_\_\_\_) is given. The blank space stands for a sentence which fits contextually but presently hidden. From the given alternatives, find the sentence which is/are the perfect fit in terms of grammar as well as context in the blank space of the paragraph. Infrastructure is a tricky business. When it comes to public infrastructure projects, the benefits are long term but the costs are short term. (\_\_\_\_). So an elected leader gets all the fink from those who oppose this while elephant/blot on the landscape but none of the praise for the reduced traffic jams or cheaper power that ensue.

- A) Private investors are happy to own infrastructure projects once they are up and running and delivering reliable yields, they are less keen on financing Greenfield projects with all the risks that go with them.
- ✓ B) The politician that authorises the project is rarely the same one that opens it.
- C) Infrastructure can have positive externalities that are not captured by investors but will benefit society (the building of the internet or America's interstate highway system, for example).
- D) Far too many projects get build and the overall returns are disappointing.   E) All the given options fit.

**Explanation:-** The next line talks about the leader, so the sentence preceding it should mention something about the same. Only option B talks about the politician who leads the project. Hence option B is correct.

**DIRECTIONS for the question:** Read the passage and answer the question based on it.

**Question No. : 127**

The death of Harambe- the Western lowland gorilla shot dead at the Cincinnati Zoo after a three-year-old boy fell into his enclosure- ignited a fierce debate. Some critics seized the tragedy as an opportunity to advance an uncompromising anti-captivity narrative in which all zoos and aquariums are inherently unethical and cruel. To be sure, there are bad actors. The spawning of so-called "roadside zoos"--an exploitative enterprise known for its systematic negligence and abuse of animals—are some of the most egregious cases-in-point. But responsible zoos and aquariums exist to facilitate and promote the conservation of animals. And the need for intensive conservation campaigns is now more urgent than ever before: Our world is currently in the midst of the "Sixth Extinction," a term coined by Elizabeth Kolbert in her Pulitzer Prize-winning book of the same name. Unlike the five preceding die-offs, which were precipitated by natural events—such as those that killed off the dinosaurs, exterminating three-quarters of all species on the planet—the current mass extinction is a result of human activities encroaching on wild spaces. Today's zoos and aquariums are uniquely positioned to combat those evolving threats. Using robust and sophisticated breeding programs, these institutions fund and facilitate countless initiatives to propagate species and preserve genetic biodiversity, and then reintroduce critically endangered or extinct species into the wild. Consider the Arabian Oryx, a striking breed of antelope from the Arabian Peninsula. The species was hunted to extinction in the wild nearly four decades ago. The Phoenix Zoo helped lead the ensuing breeding and reintroduction programs, which ultimately birthed more than 200 calves from just nine individuals. Now between Oman and Jordan, there are about 1,000 Arabian Oryx living in the wild. The Arabian Oryx—which has since been removed from the endangered species list—isn't alone. Breeding programs at zoos and aquariums have since saved numerous other species from extinction, including the European bison, the red wolf, and the Oregon spotted frog.

Even when animals are never introduced into the wild, placing them under human care can still improve the lives of their wild counterparts. Modern zoos and aquariums serve as bases for observation and research, which then helps protect wild animals. One compelling example is the study of animal infection and disease, currently the subject of numerous ongoing research projects at zoos worldwide. The Zoological Society of London, for instance, is developing innovative methods to assess the risks of animals contracting disease when they're reintroduced into the wild. Smithsonian's National Zoo in Washington is leading global research efforts on the detection and treatment of the sometimes-fatal elephant herpes virus, with the ultimate goal of developing an effective vaccine to be administered to the species in both zoo and wild populations. Of course, the positive contributions of zoos and aquariums in conserving wild animals cannot—and should not—outweigh the health and well-being of the animals living under the care of these institutions. The American Humane Association is thus launching a global initiative to elevate the welfare standards of zoos and aquariums worldwide. The Humane Conservation program will be the first third-party certification devoted solely to verifying that animals living in these institutions are healthy, positively social, active, safe, and living with proper light, sound, air, and heat levels. These standards will be set not by zoos but instead an independent collection of world-renowned experts in the fields of animal science, behaviour, and ethics—a sharp departure from most existing accreditation programs, which are vulnerable to accusations of conflicts of interest and leniency. To some detractors, the humane certification of zoos and aquariums is an oxymoron. But vast empirical and academic research discredits this black-and-white view. Animals in zoos and aquariums today can live longer, healthier, and richer lives than their forbearers ever did in the wild. Go see for yourself.

Why has the author cited the example of the Arabian Oryx?

- A. To show that reviving species which are extinct is dangerous.
  - B. To draw attention to the fact that conservation efforts of zoos are effective.
  - C. To demonstrate that at times it is possible to reverse the effects of human activities.
- A) Only (C)    ☒ B) Only (B) & (C)    C) Only (B)    D) All (A), (B) & (C)    E) Only (A) & (B)

**Explanation:-** Refer line 18-19 of passage.

**Question No. : 128**

Which of the following is/are the theme(s) discussed in the passage?

- A. Evolution of science and animal wellbeing.
- B. Outrage surrounding zoos.
- C. Destructive footprint of human activities.

A) Only(A)&(C)    ✓B) Only (B)    C) Only (A) & (B)    D) Only (B) & (C)    E) All (A), (B) & (C)

**Explanation:-** *The passage is about zoo.*

**Question No. : 129**

Which of the following is/are objective(s) Of the Humane Conservation Programme?

- A. To focus solely on the conservation of endangered species.
- B. To entrust the regulation of zoos and ethical treatment of animals to independent experts.
- C. To advocate the abolition of keeping animals in captivity.

A) Only (A)    ✓B) Only (B)    C) Only(A)&(B)    D) All (A), (B) & (C)    E) Only (A) & (C)

**Explanation:-** *Refer 11<sup>th</sup> line of second para*

**Question No. : 130**

Which of the following words as used in the passage are synonyms?

- A. fierce    B. egregious    C. cruel    D. wild

✓A) Only (A) & (C)    B) Only (B) & (C)    C) Only (A) & (C)    D) None of (A), (B), (C) and (D) are synonyms  
E) All (A), (B), (C) and (D) are synonyms

**Explanation:-** *Refer initial lines of the para. Fierce and Cruel are synonyms.*

**Question No. : 131**

Why does the author cite the phrase given in bold and in Italics in the passage?

- A. It is his firm belief that zoos are detrimental to animal welfare.
- B. To point out that accreditation agencies are corrupt.
- C. To advocate that zoos should be allowed autonomy to govern themselves.

A) Only(C)    B) Only (B)    ✓C) None of (A), (B) & (C)    D) Only (B) & (C)    E) Only (A) & (B)

**Explanation:-** *Oxymoron is a figure of speech in which apparently contradictory terms appear in conjunction; No Option gives us a correct answer.*

**Question No. : 132**

Which of the following can be said in the context of the passage?

- A. Zoos are investing in bettering the health of animals in the wild.
- B. It is possible to reintroduce extinct animal species.
- C. The existence of zoos is a complex issue.

A) Only (A)    B) Only(B)    ✓C) Only (A)&(B)    D) All (A), (B) & (C)    E) Only (A) (C)

**Explanation:-** *Both A and B find mention in the first para.*

**Question No. : 133**

Which of the following is true about roadside zoos?

- A) These are lucrative and allow even the hunting of animals.    B) These play a vital role in extinction of endangered species.  
C) These are unscrupulous and distinct    ✓D) These are a threat to ethics pertaining to animal safety.  
E) None of the given options is true.

**Explanation:-** Refer 3<sup>rd</sup> and 4<sup>th</sup> line of the passage.

**DIRECTIONS for the question:** In this question, there are five sentences (A), (B), (C), (D) & (E). Four of these sentences contribute to one main idea when these sentences are formed into a paragraph. One sentence does not contribute to that main idea. That sentence is your answer. In case, all the given sentences contribute to the main idea, mark 'All contribute to the main idea' as the answer.

**Question No. : 134**

Which of the following sentences does not contribute to the main idea of the paragraph?

- A. Industry automation has started causing disruption in the labour market.  
B. Textile and footwear industry that were considered non-susceptible to computerisation are being taken under control by the computers.  
C. Given the current trends there will be an immediate slump in enrolment in courses as Nano-technology, robotics, biotechnology etc. observed among college students.  
D. Computers have already replaced jobs which are easy to automate.  
E. It is predicted that harder domains will also be captured during the next wave of computerisation.

A) A    ✓B) C    C) E    D) D    E) All contribute to the main idea

**Explanation:-** Line C is not contributing to main idea. The passage is about jobs in different industry whereas in line 3 courses in technology are mentioned.

**DIRECTIONS for the question:** In this question, there are five sentences (A), (B), (C), (D) & (E). Four of these sentences contribute to one main idea when these sentences are formed into a paragraph. One sentence does not contribute to that main idea. That sentence is your answer. In case, all the given sentences contribute to the main idea, mark 'All contribute to the main idea' as the answer.

**Question No. : 135**

Which of the following sentences does not contribute to the main idea of the paragraph?

- A. Animals to protect themselves from predators resort to blending in with certain aspects of environment.  
B. Mimicry of their surroundings among animals is common to maintain the continuity of their species.  
C. Adaptation provides animals with better chance of survival.  
D. Camouflage is used some animals as a tool for hunting.  
E. Adaptive tools are maintained and evolved by means of natural selection.

✓A) E    B) D    C) A    D) C    E) All contribute to the main idea

**Explanation:-** We are not sure whether line E is related to the topic or it is rather a generalized statement.

**DIRECTIONS for the question:** In this question, there are five sentences (A), (B), (C), (D) & (E). Four of these sentences contribute to one main idea when these sentences are formed into a paragraph. One sentence does not contribute to that main idea. That sentence is your answer. In case, all the given sentences contribute to the main idea, mark 'All contribute to the main idea' as the answer.

**Question No. : 136**

Which of the following sentences does not contribute to the main idea of the paragraph?

- A. Voting is not only a right but also the responsibility of each and every citizen.
- B. The person elected will help decide policies on a plethora of issues such as health condition, corruption etc.
- C. Awareness among citizens about their responsibilities as a voter should be cultivated.
- D. By casting their vote citizens elect the person who would assure the power of governance and help transform their condition of living.
- E. Seats are won or lost by a single vote thereby making the person casting his vote more responsible.

A) C   B) D   ☒ C) B   D) E   E) All contribute to the main idea

**Explanation:-** Passage is about importance of voting and line B is talking about the person having being elected.

**DIRECTIONS for the question:** In this question, there are five sentences (A), (B), (C), (D) & (E). Four of these sentences contribute to one main idea when these sentences are formed into a paragraph. One sentence does not contribute to that main idea. That sentence is your answer. In case, all the given sentences contribute to the main idea, mark 'All contribute to the main idea' as the answer.

**Question No. : 137**

Which of the following sentences does not contribute to the main idea of the paragraph?

- A. Sports instil or infuse a sporting spirit to take up the heavy burden of life in a lighter vein.
- B. The necessity of sports is felt to be so great in life that there is ample justification in its favour.
- C. Sports and games are the right avenues to channelize the energy and vitality of students.
- D. Government has taken a decision to ensure 50 percent reservation in colleges and hospitals in the state.
- E. The greatest educational value of the sports and games is to provide stimulation to study.

A) C   ☒ B) D   C) B   D) A   E) All contribute to the main idea

**Explanation:-** Passage is about importance of sports whereas line D is away from main topic.

**DIRECTIONS for the question:** In this question, there are five sentences (A), (B), (C), (D) & (E). Four of these sentences contribute to one main idea when these sentences are formed into a paragraph. One sentence does not contribute to that main idea. That sentence is your answer. In case, all the given sentences contribute to the main idea, mark 'All contribute to the main idea' as the answer.

**Question No. : 138**

Which of the following sentences does not contribute to the main idea of the paragraph?

- A. Free market boosts effectiveness and efficiency in the production of goods and services.
- B. Consumers are provided with various options of goods and services in a free market economy.
- C. Free market makes consumers apparently believe that they influence the production in an economy.
- D. Better awareness among consumers regarding options results in stable demand and supply.
- E. Wastage in production of goods and services does not occur due to the stability of supply.

A) C   ☒ B) E   C) D   D) B   E) All contribute to the main idea

**Explanation:-** Passage is about free market economy and line E is about wastage in supply of goods.

**DIRECTIONS for the question:** In this question, a sentence is given with three words/group of words in bold type. One or more of them may have a certain error. Below the sentence is given three combinations of words/ group of words i.e. (A), (B) & (C). You have to find out the correct word/group of words from among (A), (B) & (C) given below each sentence to replace the Incorrect words/ group of words and make the sentence grammatically correct and meaningful. One, two, all three or none of them may be correct. Decide upon which is/are correct, if any, and mark the option which denotes your answer. If the sentence is correct as it is, mark 'No correction required' as your answer.

**Question No. : 139**

Having seen Greece consistently fail to meet previous bail-out targets, the IMF thinks the European Commission's forecasts are too rosy, and that, without relief, Greece's debt will balloon after 2030.

- A. consistency In failing- most rosy- no relief
- B. consistent failure- overly optimistic- unless relief
- C. consistently falling- very rosy- being relieved

A) Only (A)   B) All (A), (B) & (C)   C) Only(A)&(B)   D) Only(C)   ☒ E) No correction required

**Explanation:-** No correction is required.

**DIRECTIONS for the question:** In each question below, a word is printed in **bold CAPITALS** followed by five options. Find out, if any, that is either **most nearly same** in meaning **OR** Opposite of the word printed in **bold**.

**Question No. : 140**

**EMANCIPATE**

- A. enslave
- B. loiter
- C. conjecture
- D. assumption

A) Only B   B) Only B, C and D   C) Only C and D   D) Only A and C   ☒ E) Only A

**Explanation:-** Enslave is opposite.

**DIRECTIONS for the question:** In each question below, a word is printed in **bold CAPITALS** followed by five options. Find out, if any, that is either **most nearly same** in meaning **OR** Opposite of the word printed in **bold**.

**Question No. : 141**

**DRUDGE**

- A. foreboding
- B. toiler
- C. prod
- D. menial

A) Only B   ☒ B) Only B and D   C) Only A, C and D   D) Only A and B   E) Only C

**Explanation:-** Drudge is a person made to do hard menial or dull work. Both B and D are synonyms of drudge.

**DIRECTIONS for the question:** In each question below, a word is printed in **bold CAPITALS** followed by five options. Find out, if any, that is either **most nearly same** in meaning **OR** Opposite of the word printed in **bold**.

**Question No. : 142**

**LUDICROUS**

A. absurd      B. lavishness      C. farcical      D. laughable

A) Only B    ☒ B) Only A, C and D    C) Only B and C    D) Only D    E) Only A and D

**Explanation:-** Ludicrous means so foolish, unreasonable, or out of place as to be amusing. So A, C and D are synonyms of ludicrous.

**DIRECTIONS for the question:** In the given passage there are words/group of words highlighted in bold and underlined. You have to decide if the word/group of words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, mark the option 'The given word(s) is/are correct' as your answer.

**Question No. : 143**

Every year over a lakh of our students seek admissions abroad, spending about \$4 billion (Rs. 16,400 crore) annually. The (\_\_\_\_) **demand in** seats in metres is maddening. Even third-rate institutes are **(/)** **crowded** students. There is an **(/)** **urgent need** in our country to expand capacity of higher education. To **(/)** **linked** this huge supply-demand gap, one of the recommendations of the Knowledge Commission is to allow foreign universities in the country.

The government, it seems, is all set to follow this recommendation. This is a **(/)** **selective**, but there are some concerns too. There is a possibility that the craze for a foreign label and lack of information about these institutes can leave thousands of students duped by fly-by-night operators, especially the franchisees. The government has to be **(/)** **choose** in allowing entry to foreign universities. Only those institutions that are accredited by reputed organisations should be given permission to start companies here.

In the field of management, only those which are accredited by the Association to Advance Collegiate Schools of Business (AACSB) or the European Quality Improvement System (EQUIS) should be allowed. They should be asked to invest directly without any franchisee. Such accredited institutes have **(/)** **strength** pedagogic systems and processes, and they are **(/)** **unlikely** to cut corners for making a quick buck,

☒ A) rush for    B) craze of    C) processes on    D) rat race    E) The given word(s) is/are correct

**Explanation:-** Option A is appropriate. There is a rush for seats.

**DIRECTIONS for the question:** In the given passage there are words/group of words highlighted in bold and underlined. You have to decide if the word/group of words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, mark the option 'The given word(s) is/are correct' as your answer.

**Question No. : 144**

Every year over a lakh of our students seek admissions abroad, spending about \$4 billion (Rs. 16,400 crore) annually. The **(/)** **demand in** seats in metres is maddening. Even third-rate institutes are ( ) **crowded** students. There is an **(/)** **urgent need** in our country to expand capacity of higher education. To **(/)** **linked** this huge supply-demand gap, one of the recommendations of the Knowledge Commission is to allow foreign universities in the country.

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A) fulfilled with    B) overwhelmed with    ✓C) completely packed    D) lack    E) The given word(s) is/are correct

**Explanation:-** Option C is appropriate. Crowded would mean completely packed.

**DIRECTIONS for the question:** In the given passage there are words/group of words highlighted in bold and underlined. You have to decide if the word/group of words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, mark the option 'The given word(s) is/are correct' as your answer.

**Question No. : 145**

Every year over a lakh of our students seek admissions abroad, spending about \$4 billion (Rs. 16,400 crore) annually. The **(/)** **demand in** seats in metres is maddening. Even third-rate institutes are **(/)** **crowded** students. There is an ( ) **urgent need** in our country to expand capacity of higher education. To **(/)** **linked** this huge supply-demand gap, one of the recommendations of the Knowledge Commission is to allow foreign universities in the country.

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In the field of management, only those which are accredited by the Association to Advance Collegiate Schools of Business (AACSB) or the European Quality Improvement System (EQUIS) should be allowed. They should be asked to invest directly without any franchisee. Such accredited institutes have **(/)** **strength** pedagogic systems and processes, and they are **(/)** **unlikely** to cut corners for making a quick buck,

A) desperation    B) Immediate desires    C) imperative    D) important step    ✓E) The given word(s) is/are correct

**Explanation:-** No change is required.



**DIRECTIONS for the question:** In the given passage there are words/group of words highlighted in bold and underlined. You have to decide if the word/group of words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, mark the option 'The given word(s) is/are correct' as your answer.

**Question No. : 146**

Every year over a lakh of our students seek admissions abroad, spending about \$4 billion (Rs. 16,400 crore) annually. The **(/)** **demand in** seats in metres is maddening. Even third-rate institutes are **(/)** **crowded** students. There is an **(/)** **urgent need** in our country to expand capacity of higher education. To ( ) **linked** this huge supply-demand gap, one of the recommendations of the Knowledge Commission is to allow foreign universities in the country.

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In the field of management, only those which are accredited by the Association to Advance Collegiate Schools of Business (AACSB) or the European Quality Improvement System (EQUIS) should be allowed. They should be asked to invest directly without any franchisee. Such accredited institutes have **(/)** **strength** pedagogic systems and processes, and they are **(/)** **unlikely** to cut corners for making a quick buck,

A) be connected   B) fixing   C) allow   ✓D) bridge   E) The given word(s) is/are correct

**Explanation:-** We bridge the gap.

**DIRECTIONS for the question:** In the given passage there are words/group of words highlighted in bold and underlined. You have to decide if the word/group of words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, mark the option 'The given word(s) is/are correct' as your answer.

**Question No. : 147**

Every year over a lakh of our students seek admissions abroad, spending about \$4 billion (Rs. 16,400 crore) annually. The **(/)** **demand in** seats in metres is maddening. Even third-rate institutes are **(/)** **crowded** students. There is an **(/)** **urgent need** in our country to expand capacity of higher education. To **(/)** **linked** this huge supply-demand gap, one of the recommendations of the Knowledge Commission is to allow foreign universities in the country.

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In the field of management, only those which are accredited by the Association to Advance Collegiate Schools of Business (AACSB) or the European Quality Improvement System (EQUIS) should be allowed. They should be asked to invest directly without any franchisee. Such accredited institutes have **(/)** **strength** pedagogic systems and processes, and they are **(/)** **unlikely** to cut corners for making a quick buck,

A) dogmatic steps   B) realistically change   C) critical measure   ✓D) pragmatic move   E) The given word(s) is/are correct

**Explanation:-** This can be considered as practical move or pragmatic move.

**DIRECTIONS for the question:** In the given passage there are words/group of words highlighted in bold and underlined. You have to decide if the word/group of words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, mark the option 'The given word(s) is/are correct' as your answer.

**Question No. : 148**

Every year over a lakh of our students seek admissions abroad, spending about \$4 billion (Rs. 16,400 crore) annually. The **(/)** **demand in** seats in metres is maddening. Even third-rate institutes are **(/)** **crowded** students. There is an **(/)** **urgent need** in our country to expand capacity of higher education. To **(/)** **linked** this huge supply-demand gap, one of the recommendations of the Knowledge Commission is to allow foreign universities in the country.

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In the field of management, only those which are accredited by the Association to Advance Collegiate Schools of Business (AACSB) or the European Quality Improvement System (EQUIS) should be allowed. They should be asked to invest directly without any franchisee. Such accredited institutes have **(/)** **strength** pedagogic systems and processes, and they are **(/)** **unlikely** to cut corners for making a quick buck,

- A) carefully    ✓ B) judicious in    C) selective    D) discriminate    E) The given word(s) is/are correct

**Explanation:-** We are choosing judicious as it means being sensible or having insight.

**DIRECTIONS for the question:** In the given passage there are words/group of words highlighted in bold and underlined. You have to decide if the word/group of words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, mark the option 'The given word(s) is/are correct' as your answer.

**Question No. : 149**

Every year over a lakh of our students seek admissions abroad, spending about \$4 billion (Rs. 16,400 crore) annually. The **(/)** **demand in** seats in metres is maddening. Even third-rate institutes are **(/)** **crowded** students. There is an **(/)** **urgent need** in our country to expand capacity of higher education. To **(/)** **linked** this huge supply-demand gap, one of the recommendations of the Knowledge Commission is to allow foreign universities in the country.

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- ✓ A) robust    B) vigor    C) potency    D) fragile    E) The given word(s) is/are correct

**Explanation:-** We are choosing robust as it means having solid foundation.

**DIRECTIONS for the question:** In the given passage there are words/group of words highlighted in bold and underlined. You have to decide if the word/group of words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, mark the option 'The given word(s) is/are correct' as your answer.

**Question No. : 150**

Every year over a lakh of our students seek admissions abroad, spending about \$4 billion (Rs. 16,400 crore) annually. The **(/)** **demand in** seats in metres is maddening. Even third-rate institutes are **(/)** **crowded** students. There is an **(/)** **urgent need** in our country to expand capacity of higher education. To **(/)** **linked** this huge supply-demand gap, one of the recommendations of the Knowledge Commission is to allow foreign universities in the country.

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- A) implausible   B) strange   C) remote   D) never   ☒ E) The given word(s) is/are correct

**Explanation:-** No change is required.

**Section : Quantitative Ability**

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 151**

12 women can complete a project in 36 days and 15 men complete the same project in 27 days. 16 women start working and after 6 days they were replaced by 'X' men. If 'X' men complete the remaining work in 5 days, what is the value of 'X'?

- A) 40   ☒ B) 57   C) 45   D) 21   E) 42

**Explanation:-** According to question  $\frac{16 \times 6}{12 \times 36} + \frac{5x}{15 \times 27} = 1$

Solving we get  $x = 57$

**DIRECTIONS for the questions:** In the given question two quantities are given, one as Quantity I and another as Quantity II. You have to determine the relationship between two Quantities and choose the appropriate option.

**Question No. : 152**

The sum of cubes of a and b is 7560. The sum of a and b is 30.

**Quantity I:** The sum of reciprocals of a and b.

**Quantity II:**  $\frac{1}{3}$

- A) Quantity I = Quantity II or the relationship cannot be established from the information that is given  
B) Quantity I  $\leq$  Quantity II    C) Quantity I  $\geq$  Quantity II    ☒ D) Quantity I < Quantity II    E) Quantity I > Quantity II

**Explanation:-**  $a^3 + b^3 = 7560$

$$a + b = 30$$

$$\text{So } a = 18, b = 12$$

$$\text{Quantity I } \frac{1}{18} + \frac{1}{12} = \frac{5}{36}$$

$$\text{Quantity II } \frac{1}{3}$$

So quantity I < Quantity II.

So answer is option D

**DIRECTIONS for the questions:** In the given question two quantities are given, one as Quantity I and another as Quantity II. You have to determine the relationship between two Quantities and choose the appropriate option.

**Question No. : 153**

'M' is an even integer.

**Quantity I:** Number of distinct prime factors of 16M.

**Quantity II:** Number of distinct prime factors of M.

- ☒ A) Quantity I = Quantity II or the relationship cannot be established from the information that is given  
B) Quantity I  $\leq$  Quantity II    C) Quantity I  $\geq$  Quantity II    D) Quantity I < Quantity II    E) Quantity I > Quantity II

**Explanation:-** Both are equal as in 16 the only prime factor is 2, which is already in M.

**DIRECTIONS for the questions:** In the given question two quantities are given, one as Quantity I and another as Quantity II. You have to determine the relationship between two Quantities and choose the appropriate option.

**Question No. : 154**

A and B can together finish a piece of work in 10 days. If A starts working and after 3 days is replaced by B, B can finish the remaining work in 24 days.

**Quantity I:** Number of days taken by B alone to finish the piece of work.

**Quantity II:** Number of days taken by C alone to finish the piece of work. (C is 40% less efficient than A.)

- A) Quantity I = Quantity II or the relationship cannot be established from the information that is given  
B) Quantity I  $\leq$  Quantity II    C) Quantity I  $\geq$  Quantity II    D) Quantity I < Quantity II    ☒ E) Quantity I > Quantity II

**Explanation:-** As per the question,

$$\frac{1}{A} + \frac{1}{B} = \frac{1}{10} \text{ and } \frac{3}{A} + \frac{24}{B} = 1$$

$$\Rightarrow A = 15 \text{ and } B = 30$$

$$\text{Also } C = \frac{15}{0.6} = 25$$

$$\text{Quantity I} = 30$$

$$\text{Quantity II} = 25$$

Hence I > II, E option

**DIRECTIONS for the questions:** In the given question two quantities are given, one as Quantity I and another as Quantity II. You have to determine the relationship between two Quantities and choose the appropriate option.

**Question No. : 155**

A rod (X) is cut into 3 equal parts. The resultant rods are cut into 10, 30 and 36 equal parts respectively. Each of these resulting rods has an integer length (in m).

**Quantity I:** the minimum possible length of the rod X (in m).

**Quantity II:** 520m

- A) Quantity I = Quantity II or the relationship cannot be established from the information that is given  
B) Quantity I  $\leq$  Quantity II    C) Quantity I  $\geq$  Quantity II    D) Quantity I < Quantity II    ☒ E) Quantity I > Quantity II

**Explanation:-** Quantity I of each part

Minimum possible length = LCM (10, 30, 36) = 180.

Total minimum length =  $180 \times 3 = 540$

Quantity II = 520

So quantity I > quantity II

**DIRECTIONS for the questions:** In the given question two quantities are given, one as Quantity I and another as Quantity II. You have to determine the relationship between two Quantities and choose the appropriate option.

**Question No. : 156**

Bag A contains 8 red and 4 blue balls. Bag B contains 1 red and 5 blue balls. One bag is selected at random. From the selected bag one ball is drawn at random.

**Quantity I:** 5/12

**Quantity II:** Probability that the ball is red.

- ☒ A) Quantity I = Quantity II or the relationship cannot be established from the information that is given  
B) Quantity I  $\leq$  Quantity II    C) Quantity I  $\geq$  Quantity II    D) Quantity I < Quantity II    E) Quantity I > Quantity II

$$\text{Quantity A} = \frac{5}{12}$$

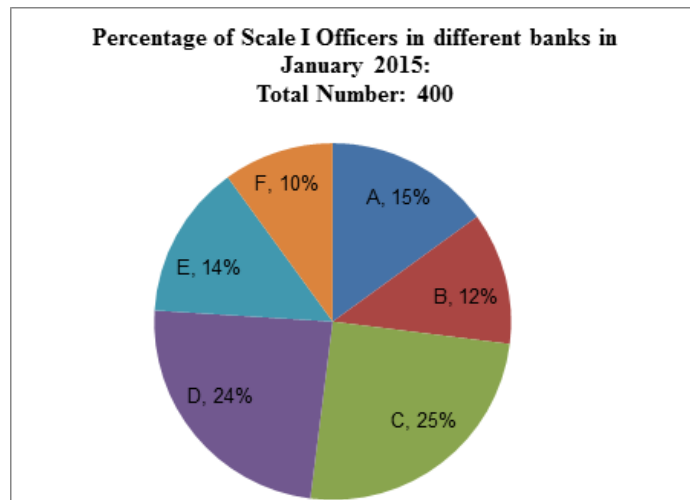
$$\text{Quantity B} = \frac{1}{2} \times \frac{8}{12} + \frac{1}{2} \times \frac{1}{6} = \frac{5}{12}$$

**Explanation:-**

Hence both are equal.

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

**Question No. : 157**



**NOTE:** No new employees joined the given banks or left the given banks from January 2015 to December 2015.

What is the average number of scale I officers in Banks D, E and F?

- A) 63   B) 65   ☒ C) 64   D) 67   E) 68

**Explanation:-** Required average =  $\frac{24\% + 14\% + 10\%}{3} \times 400 = \frac{48}{3} \times 400 = \frac{48}{3 \times 100} \times 400 = 64$

**Question No. : 158**

In December 2014, 4% of the candidates who applied for job as Scale 1 officer were recruited in Bank A. If Bank A had 44 Scale I officers in 2014, what was the number of candidates who applied for the job?

- A) 240   B) 450   ☒ C) 400   D) 250   E) 300

**Explanation:-** No. of officers in Bank A in 2014 = 44

No. of officers in Bank A in 2015 = 60.

Selected = 60 - 44 = 16

ATQ.

Total applied = x

$$\frac{4}{100}x = 16$$

$$x = 400$$

**Question No. : 159**

In January 2015, 32% of the total number of scale I officers in Banks B, D and E together were unmarried. If the respective ratio between the number of unmarried male officers in these banks was 3:2:3, what was the number of unmarried Scale I officers in Bank D?

- A) 18   B) 24   C) 14   D) 20   ☒ E) 16

$$\text{Employees in B, D and E} = \frac{50}{100} \times 400 = 200$$

$$\text{Unmarried} = \frac{32}{100} \times 200 = 64$$

$$\text{Unmarried in Bank D} = 64 \times \frac{2}{8} = 16.$$

**Explanation:-**

**Question No. : 160**

In January 2016, 20% and 15% Scale I officers were promoted to scale II in banks A and F respectively and therefore the total number of scale II officers in Banks A and F together was 126. If in Bank A, the number of scale II officers in December 2015 was 100% more than that in bank F, what was the number of scale II officers in Bank F in December 2015?

- A) 24   B) 48   ☒ C) 36   D) 32   E) 40

**Explanation:-** Scale II officers in A in 2015 = A

Scale II officers in F in 2015 = F

$$1.2A + 1.15F = 126$$

$$\text{and } A = 2F$$

By solving these two equations  $F = 36$

**Question No. : 161**

In January 2015, the number of male Scale I Officers in Bank B was three times the number of female Scale I Officers in the same bank. If in Bank D, the number of female Scale I Officers was same as that in bank B; what was the number of male Scale I Officers in Bank D?

- A) 80   B) 78   C) 82   ☒ D) 84   E) 76

$$\text{Employees in Bank B} = \frac{12}{100} \times 400 = 48$$

$$\text{Males in B} = \frac{3}{4} \times 48 = 36$$

**Explanation:-**

Females in B = 12

Females in D = 12.

$$\text{Total in D} = \frac{24}{100} \times 400 = 96$$

$$\text{Males} = 96 - 12 = 84$$

**Question No. : 162**

In January 2016, some Scale I Officers resigned from Bank C and all of them joined Bank B. If the resultant respective ratio between the number of Scale I Officers in Bank c and that in Bank B is 24 :13, what is the number of Scale I Officers who resigned from Bank C?

- A) 3   B) 6   C) 7   ☒ D) 4   E) 5

$$\frac{\frac{29}{100} \times 400 - x}{\frac{12}{100} \times 400 + x} = \frac{24}{13}$$

**Explanation:-**

$$x = 4$$

**Question No. : 163**

A's age six years ago was equal to twice of B's age four years ago. C is nine years elder to B and also nine years younger to A. What is the sum of present ages of A, B and C?

- A) 90 years   B) 64 years   C) 65 years   ☒ D) 87 years   E) 81 years

**Explanation:-** Let B's age 4 year ago =  $x$

$$\therefore \text{A's age 51 \times year ago} = 2x$$

$$\therefore \text{present age of B} = x + 4$$

$$\text{Present age of A} = 2x + 6$$

According to question

$$x + 4 + 9 = 2x + 6 - 9$$

$$x + 13 = 2x - 3$$

$$x = 16$$

$\therefore$  required sum

$$= x + 4 + 2x + 6 + x + 13$$

$$= 4x + 23$$

$$= 64 + 23 = 87$$

**DIRECTIONS for the question:** In the following series, one of the terms given is **wrong**. Find that term and mark that as your answer.

**Question No. : 164**

54 57 62 69 78 90 102

- A) 57   B) 69   ☒ C) 90   D) 78   E) 62

**Explanation:-**

The sequence is +3, +5, +7, +9

Hence in place of 90 it should be  $78 + 11 = 89$

**DIRECTIONS for the question:** In the questions given below a series is given. Understand the series to pick one of the options given in the alphabetical form, which is again a series of similar pattern.

**Question No. : 165**

4 7 15 30 54 91 137

- A) 54   B) 30   C) 15   D) 7   ☒ E) 91

**Explanation:-** The difference between consecutive numbers is +3, +8, +15, +24

So next gap should be 35. Hence in place of 91 it should be  $54 + 35 = 89$

So 91 is the wrong number.

**DIRECTIONS for the question:** In the questions given below a series is given. Understand the series to pick one of the options given in the alphabetical form, which is again a series of similar pattern.

**Question No. : 166**

446 445 437 410 348 221 5

- A) 410   ☒ B) 348   C) 221   D) 445   E) 437

**Explanation:-** The difference between consecutive terms is -1, -8, -27 i.e.  $1^3, 2^3, 3^3$  in place of 348 it should be  $410 - 4^3 = 410 - 64 = 346$



**DIRECTIONS for the question:** In the questions given below a series is given. Understand the series to pick one of the options given in the alphabetical form, which is again a series of similar pattern.

**Question No. : 167**

16 10 8 16 64 512 8192

A) 16   B) 512   ✓C) 10   D) 8   E) 64

**Explanation:-** The difference between consecutive numbers is  $\times .5, \times 1, \times 2, \times 4$  ---- so in place of 10 it should be  $16 \times .5 = 8$

**DIRECTIONS for the question:** In the questions given below a series is given. Understand the series to pick one of the options given in the alphabetical form, which is again a series of similar pattern.

**Question No. : 168**

5 3 6 15 56 275 1644

✓A) 3   B) 6   C) 275   D) 6   E) 15

**Explanation:-** The sequence is  $\times 1 - 1, \times 2 - 2, \times 3 - 3$  and so on.  
So in place of 3 it should be  $5 \times 1 - 1 = 4$   
So 3 is the wrong number.

**DIRECTIONS for the question:** In the questions given below a series is given. Understand the series to pick one of the options given in the alphabetical form, which is again a series of similar pattern.

**Question No. : 169**

160 80 40 20 10 4.5 2.5

A) 60   ✓B) 4.5   C) 20   D) 40   E) 10

**Explanation:-** Each term is obtained by multiplying previous term by .5 so in place 4.5 it should be  $10 \times .5 = 5$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 170**

Pipe A and B together can fill an empty tank in  $1\frac{3}{5}$  hours. Pipe B alone takes 6 hours more than the time taken by pipe A alone to fill the tank. If Pipe B was opened for 2.5 hours and then closed, what portion of the tank will remain empty?

A)  $\frac{3}{4}$    B)  $\frac{13}{16}$    ✓C)  $\frac{11}{16}$    D)  $\frac{15}{16}$    E)  $\frac{5}{16}$

**Explanation:-**  $A = x$  hr

$$B = x + 6$$

ATQ.

$$= \frac{x(x+6)}{x+x+6} = \frac{8}{5}$$

$$x = 2$$

$$B = 2 + 6 = 8 \text{ hrs}$$

$$\text{Tank filled by B in } \frac{5}{2} \text{ hrs} = \frac{5}{2} \times \frac{1}{8} = \frac{5}{16}$$

$$\text{Remaining} = 1 - \frac{5}{16} = \frac{11}{16}$$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 171**

20 L of pure water was added to a vessel containing 80 L of pure milk. 36 L of the resultant mixture was then sold and some more pure milk and pure water was added to the vessel in the respective ratio of 7 : 2. If the final quantity of water was 3 litres less than the initial quantity of water in the vessel, what was the quantity of pure milk that was added to the vessel? (in litres)

- A) 15.4    ☒ B) 14.7    C) 13.9    D) 16.8    E) 16.1

**Explanation:-** Total = 80 + 20 = 100 ℓ

$$\text{Milk withdrawn} = 36 \times \frac{80}{100} = \frac{144}{5} = 28.8 \text{ ℓ}$$

$$\text{Remaining milk} = 80 - 28.8 = 51.2$$

$$\text{Water} = 36 - 28.8 = 7.2$$

$$\text{Reaminign water} = 20 - 7.2 = 12.8$$

$$\text{Milk in new solution} = 7K$$

$$\text{Water} = 36 - 28.8 = 7.2$$

ATQ.

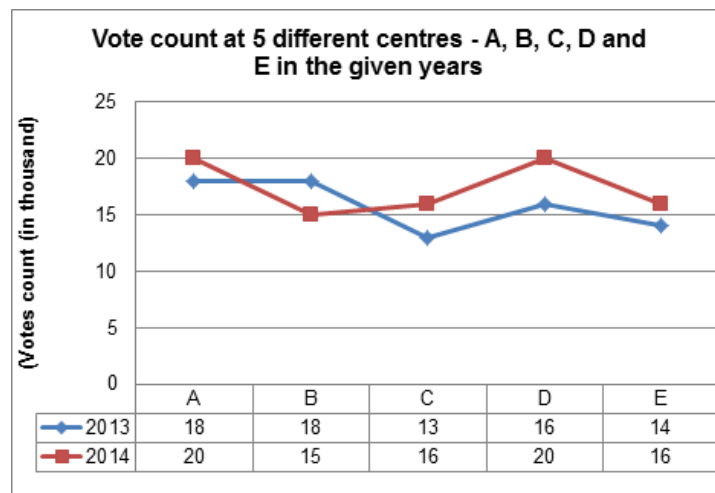
$$12.8 + 12k = 17$$

$$K = 2.1$$

$$\text{Milk added} = 7 \times 2.1 = 14.7$$

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

**Question No. : 172**



What is the respective ratio between the total vote count at Centre D in 2013 and 2014 together and that at Centre E in both years together?

- A) 7:6    B) 8:7    C) 9:7    D) 5:4    ☒ E) 6:5

**Explanation:-** Required ratio

$$= 20 + 16 : 14 + 16$$

$$= 36 : 30$$

$$= 6 : 5$$

**Question No. : 173**

If the vote count at centre A in 2014 comprised 40% of the total number of registered voters for that centre, what was the total number of registered voters for Centre A?

- ✓A) 50000   B) 54000   C) 60000   D) 40000   E) 48000

**Explanation:-** Required number =  $\frac{20}{.4} \times 1000 = 50000$

**Question No. : 174**

What is the average vote count at Centres B, C and E in 2013 (in thousands)?

- A) 16   B) 17   C) 14   D) 18   ✓E) 15

**Explanation:-** Required average =  $\frac{18+13+14}{3} = \frac{45}{3} = 15$  (thousand)

**Question No. : 175**

Out of the total vote count at Centre C in 2013 and 2014 together, 18% were invalid. How many votes at Centre C in both these years were valid?

- A) 29800   B) 24750   ✓C) 23780   D) 30050   E) 21400

**Explanation:-** Required numbers = 82% of  $(13 + 16) \times 1000$   
 $= \frac{82}{100} \times 29 \times 1000 = 23780$

**Question No. : 176**

If the vote count at Centre F In 2013 and 2014 was 10% and 20% more than that of Centre B In these years respectively, what was the total vote count at centre F In both these years together?

- ✓A) 37800   B) 41000   C) 36900   D) 40000   E) 36500

**Explanation:-** Required  
 Count =  $(18 \times 1.1 + 15 \times 1.2)$   
 $= (19.8 + 18)$   
 $= 37.8 \times 1000$   
 $= 37800$

**Question No. : 177**

Out of the total vote at centre B and D together in 2014, If the respective ratio of the number of males and females was 4:3, what was the number of males who voted at both these centres?

- A) 15000   B) 18000   C) 21000   D) 22000   ✓E) 20000

**Explanation:-** Required number of Males =  $\frac{4}{7} \times (15 + 20)$   
 $= \frac{4}{7} \times 35 \times 1000 = 20000$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 178**

Sam bought two different articles- A and B at a total cost of Rs. 5000. He sold article A at a loss of 25% and article B at a profit of 6%. Sam incurred an overall loss of Rs. 165 by using both the articles. What is the cost price of article A?

- A) Rs. 1200    B) Rs. 2000    C) Rs. 1250    D) Rs. 1800    ☒ E) Rs. 1500

**Explanation:-** Let cost price of article A = x

Cost price of article B = y

According to question

$$x + y = 5000 \quad \text{---(i)}$$

$$25\% x - 6\% y = 165 \quad \text{---(ii)}$$

Solving (i) and (ii) we get x = 1500

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 179**

Sarah keeps aside 25% of her monthly salary as petty cash and she divides the remaining salary into two funds expenditure and investments in the respective ratio of 2 :1. She makes only two types of Investment- PPF and MFs, in respective ratio of 3:2. If the sum she keeps as petty cash is Rs.5400 more than that she invests in IMF, what is Sarah's monthly salary?

- ☒ A) Rs. 36,000    B) Rs. 27,000    C) Rs. 42,000    D) Rs. 56,000    E) Rs. 24,000

**Explanation:-** Let total salary = x

Petty cash = .25x

$$\text{Contribution in investment} = \frac{1}{3} \times .75x = .25x$$

$$\text{Investment in MF} = \frac{2}{5} \times .25x = .1x$$

ATQ.

$$.25x - .1x = .15x = 5400$$

$$x = \frac{5400}{.15} = 36000$$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 180**

A and B start a business. Sum invested by B is half of that invested by A. Nine months after start of the business, B completely withdraws from the business and C joins the business with Rs. 9000. If the total annual profit earned was Rs. 27000 and C earned Rs. 5000 in his share from the profit, what was A's initial investment?

- A) Rs. 8000    B) Rs. 9000    C) Rs. 6000    D) Rs. 4000    ☒ E) Other than those given as options

**Explanation:-** Let A's investment = x

Profit sharing ratio

A	B	C
12x	$9 \times \frac{x}{2}$	9000 × 3
8x	3x	18000

ATQ.

$$\frac{18000}{11x + 18000} = \frac{5000}{27000}$$

$$x = 7200$$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 181**

To cross each other from the moment they meet, two trains A (with speed 81 km/h) and B (with speed 36 km/h) running in opposite direction (one towards south and one towards north) take 32 seconds less than the time they take while travelling in same direction (both towards north). If length of train B is 80 m more than the length of Train A, what is the length of Train A?

- A) 215    B) 298    C) 265    D) 278    ☒ E) 285

$$\text{Relative speed in opposite direction} = (81 + 36) \times \frac{5}{18} = \frac{65}{2} \text{ m/s}$$

$$\text{Relative speed in same direction} = (81 - 36) \times \frac{5}{18} = \frac{25}{2}$$

$$\frac{A+B}{\frac{25}{2}} - \frac{A+B}{\frac{65}{2}} = 32$$

$$\frac{A+B}{25} - \frac{A+B}{65} = 16$$

**Explanation:-**

$$A + B = 650$$

$$B - A = 80 \text{ - (Given)}$$

Solving these  $A = 285$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 182**

Som invested in scheme B offering simple interest @5% p.a., was 80% more than the sum invested in scheme A offering compound Interest (compounded annually) @10% p.a. If at the end of two years, the total amount received from both the schemes together was Rs. 6,360, what was the difference between the sum invested in both the schemes?

- A) 1800    B) 1500    ☒ C) 1595    D) 1650    E) 2000

**Explanation:-** Let the sum invested by Som in scheme A be Rs.  $P$

Then, the sum invested by Som in scheme B Rs.  $\frac{180}{100}P$

$$SI = \frac{180P}{100} \times \frac{5 \times 2}{100} = \text{Rs. } \frac{18P}{100}$$

Amount received by Som 2 yr from scheme

$$B = \frac{180P}{100} + SI = \frac{180P}{100} + \frac{18P}{100} = \text{Rs. } \frac{198P}{100}$$

$$CI = P \left\{ \left( 1 + \frac{10}{100} \right)^2 - 1 \right\}$$

$$= P \left( \frac{121}{100} - 1 \right) = \text{Rs. } \frac{21P}{100}$$

Amount received by Som after 2 yr from scheme

$$\frac{198P}{100} + \frac{21P}{100} = 6360$$

$$\Rightarrow 319P = 636000$$

$$\Rightarrow P = \text{Rs. } \frac{636000}{319}$$

Difference between the sum invested

$$= \frac{180P}{100} - P = \frac{80P}{100}$$

$$= \frac{80}{100} \times \frac{636000}{319}$$

$$= \text{Rs. } 1594.98 \approx \text{Rs. } 1595$$

**DIRECTIONS for the question:** Go through the graph and the information given below and answer the question that follows.

**Question No. : 183**

product A and B. (Note: All the pieces produced on the particular day are sold, unless specified otherwise.)

3 Please note:

I. Revenue = Selling price per piece (\*) number of pieces sold

II. Profit = Revenue (-) Cost incurred for total number of pieces produced

III. Profit % = (Profit ÷ Cost incurred for total number of pieces produced ) \* 100

### **Bakery Cakies**

Cost incurred on production of product A was Rs. 12/piece. Revenue generated on selling @ Rs. 18/piece was Rs. 810. Profit made on sales of product A there by was Rs. 90.

Prices of product B was 25% more than that of product of product A produced. Profit on selling 2/5th of the total pieces of product B produced was Rs. 1125, thereby making a profit of 60%.

### **Bakery Misty**

Pieces of product A produced was 20% less than that produced by bakery cakies. It could sell all the pieces of product A produced. Profit made on sales of product A was 220%.

Prices of product A produced was equal to that of product B produced. Profit on selling 36 pieces of product B @ Rs. 50/piece was Rs. 360. Profit made on the sales of product A was 175% more than that of product B.

Selling price of per piece of product B by bakery Cakies is what per cent more than the selling price of the same product by bakery Misty?

✓ A) 20%   B) 10%   C) 15%   D) 30%   E) 25%

### **Explanation:- Cakies**

#### **Product A**

Revenue generated = Rs. 810

Profit = Rs. 90

Selling price (SP) = Rs. 18/ piece

Number of pieces sold =  $\frac{\text{Revenue}}{\text{S.P}} = \frac{810}{18} = 45$

Cost incurred = Rs. 12 / piece

Let the total number of pieces produced = x

According to the question,

$$90 = 810 - [(45+x)12]$$

$$\Rightarrow 90 = 810 - 540 - 12x$$

$$\Rightarrow 12x = 810 - 540 - 90$$

$$\Rightarrow 12x = 180$$

$$\Rightarrow x = 15$$

Total number of pieces produce = 45 + 15 = 60

Cost incurred for total number of pieces produced = Rs. (810 - 90) = Rs. 720

$$\text{Profit \%} = \frac{90}{720} \times 100 = 12.5\%$$

#### **Cakies**

#### **Product B:**

$$\text{Cost incurred} = \text{Rs.} \left( 12 \times \frac{125}{100} \right) = \text{Rs.} 15$$

Profit = Rs. 1125

Profit = 60%

Let the total number of pieces produced be 'x'.

According to the question,

$$60 = \frac{1125}{15x} \times 100 \Rightarrow x = \frac{1125 \times 100}{15 \times 60}$$

$$\Rightarrow x = 125$$

$$\text{Total pieces sold} = \frac{2}{5} \times 125 = 50$$

Cost incurred for total number of pieces produced = 125 × 15 = Rs. 1875

Revenue = 1125 + 1875 = Rs. 3000

$$\text{Selling price per piece} = \frac{3000}{50} = \text{Rs.} 60$$

#### **Misty**

#### **Product A**

Number of pieces

$$\text{Produce} = \frac{75}{100} \times (\text{number of pieces of product A of bakery cakies}) = \frac{75}{100} \times 60 = 45$$

$$\text{Profit} = 220\%$$

$$\text{Profit} = 175\% \text{ more than product B of bakery Misty} = \frac{275}{100} \times 360 = \text{Rs. } 990$$

$$\text{Cost incurred for total number of pieces produce} = \frac{990}{220} \times 100 = \text{Rs. } 450$$

**Misty**

**Product B**

$$\text{Profit} = \text{Rs. } 360$$

$$\text{Number of pieces sold} = 36$$

$$\text{Selling price} = \text{Rs. } 50$$

$$\text{Revenue} = 50 \times 36 = \text{Rs. } 1800$$

$$\text{Cost incurred for total number of pieces produced} = 1800 - 360 = \text{Rs. } 1440$$

$$\text{Profit \%} = \frac{360}{1440} \times 100 = 25\%$$

$$\text{Required percentage} = \frac{60-50}{50} \times 100 = \frac{10}{50} \times 100 = 20\%$$

**Question No. : 184**

Per piece selling price of product A by bakery Misty is what percent more or less than that of the same product by bakery Cakies?

- A) 60% more    ✓ B) 66 2/3% more    C) 62 1/3% less    D) 64% less    E) 70% more

**Explanation:- Cakies**

**Product A**

$$\text{Revenue generated} = \text{Rs. } 810$$

$$\text{Profit} = \text{Rs. } 90$$

$$\text{Selling price (SP)} = \text{Rs. } 18/\text{piece}$$

$$\text{Number of pieces sold} = \frac{\text{Revenue}}{\text{S.P}} = \frac{810}{18} = 45$$

$$\text{Cost incurred} = \text{Rs. } 12/\text{piece}$$

$$\text{Let the total number of pieces produced} = x$$

$$\text{According to the question,}$$

$$90 = 810 - [(45+x)12]$$

$$\Rightarrow 90 = 810 - 540 - 12x$$

$$\Rightarrow 12x = 810 - 540 - 90$$

$$\Rightarrow 12x = 180$$

$$\Rightarrow x = 15$$

$$\text{Total number of pieces produce} = 45 + 15 = 60$$

$$\text{Cost incurred for total number of pieces produced} = \text{Rs. } (810 - 90) = \text{Rs. } 720$$

$$\text{Profit \%} = \frac{90}{720} \times 100 = 12.5\%$$

**Cakies**

**Product B:**

$$\text{Cost incurred} = \text{Rs. } \left( 12 \times \frac{125}{100} \right) = \text{Rs. } 15$$

$$\text{Profit} = \text{Rs. } 1125$$

$$\text{Profit} = 60\%$$

$$\text{Let the total number of pieces produced be 'x'.$$

$$\text{According to the question,}$$

$$60 = \frac{1125}{15x} \times 100 \Rightarrow x = \frac{1125 \times 100}{15 \times 60}$$

$$\Rightarrow x = 125$$

$$\text{Total pieces sold} = \frac{2}{5} \times 125 = 50$$

$$\text{Cost incurred for total number of pieces produced} = 125 \times 15 = \text{Rs. } 1875$$

$$\text{Revenue} = 1125 + 1875 = \text{Rs. } 3000$$

$$\text{Selling price per piece} = \frac{3000}{50} = \text{Rs. } 60$$

**Misty**

**Product A**

$$\text{Produce} = \frac{80}{100} \times (\text{number of pieces of product A of bakery cakes}) = \frac{80}{100} \times 60 = 48$$

$$\text{Profit} = 220\%$$

$$\text{Profit} = 175\% \text{ more than product B of bakery Misty} = \frac{275}{100} \times 360 = \text{Rs. } 990$$

$$\text{Cost incurred for total number of pieces produce} = \frac{990}{220} \times 100 = \text{Rs. } 450$$

**Misty**

**Product B**

$$\text{Profit} = \text{Rs. } 360$$

$$\text{Number of pieces sold} = 36$$

$$\text{Selling price} = \text{Rs. } 50$$

$$\text{Revenue} = 50 \times 36 = \text{Rs. } 1800$$

$$\text{Cost incurred for total number of pieces produced} = 1800 - 360 = \text{Rs. } 1440$$

$$\text{Profit \%} = \frac{360}{1440} \times 100 = 25\%$$

$$\text{Required percentage} = \frac{30-18}{18} \times 100 = \frac{12}{18} \times 100 = 66.66\% \text{ more} = 66\frac{2}{3}\% \text{ more.}$$

**Question No. : 185**

What is the difference between the revenue generated by selling product B by both the bakeries?

- A) Rs. 1800    B) Rs. 720    ☒ C) Rs. 1200    D) Rs. 1500    E) Rs. 900

**Explanation:- Cakes**

**Product A**

$$\text{Revenue generated} = \text{Rs. } 810$$

$$\text{Profit} = \text{Rs. } 90$$

$$\text{Selling price (SP)} = \text{Rs. } 18/\text{piece}$$

$$\text{Number of pieces sold} = \frac{\text{Revenue}}{\text{S.P.}} = \frac{810}{18} = 45$$

$$\text{Cost incurred} = \text{Rs. } 12/\text{piece}$$

$$\text{Let the total number of pieces produced} = x$$

According to the question,

$$90 = 810 - [(45+x)12]$$

$$\Rightarrow 90 = 810 - 540 - 12x$$

$$\Rightarrow 12x = 810 - 540 - 90$$

$$\Rightarrow 12x = 180$$

$$\Rightarrow x = 15$$

$$\text{Total number of pieces produce} = 45 + 15 = 60$$

$$\text{Cost incurred for total number of pieces produced} = \text{Rs. } (810 - 90) = \text{Rs. } 720$$

$$\text{Profit \%} = \frac{90}{720} \times 100 = 12.5\%$$

**Cakes**

**Product B:**

$$\text{Cost incurred} = \text{Rs. } \left(12 \times \frac{125}{100}\right) = \text{Rs. } 15$$

$$\text{Profit} = \text{Rs. } 1125$$

$$\text{Profit} = 60\%$$

Let the total number of pieces produced be 'x'.

According to the question,

$$60 = \frac{1125}{15x} \times 100 \Rightarrow x = \frac{1125 \times 100}{15 \times 60}$$

$$\Rightarrow x = 125$$

$$\text{Total pieces sold} = \frac{2}{5} \times 125 = 50$$

$$\text{Cost incurred for total number of pieces produced} = 125 \times 15 = \text{Rs. } 1875$$

$$\text{Revenue} = 1125 + 1875 = \text{Rs. } 3000$$

$$\text{Selling price per piece} = \frac{3000}{50} = \text{Rs. } 60$$

**Misty**

**Product A**



$$\text{Produce} = \frac{220}{100} \times (\text{number of pieces of product A of bakery cakies}) = \frac{220}{100} \times 60 = 48$$

$$\text{Profit} = 220\%$$

$$\text{Profit} = 175\% \text{ more than product B of bakery Misty} = \frac{275}{100} \times 360 = \text{Rs. } 990$$

$$\text{Cost incurred for total number of pieces produce} = \frac{990}{220} \times 100 = \text{Rs. } 450$$

### **Misty**

#### **Product B**

$$\text{Profit} = \text{Rs. } 360$$

$$\text{Number of pieces sold} = 36$$

$$\text{Selling price} = \text{Rs. } 50$$

$$\text{Revenue} = 50 \times 36 = \text{Rs. } 1800$$

$$\text{Cost incurred for total number of pieces produced} = 1800 - 360 = \text{Rs. } 1440$$

$$\text{Profit \%} = \frac{360}{1440} \times 100 = 25\%$$

Revenue generated by selling product.

$$B = \text{Rs. } (3000 - 1800) = \text{Rs. } 1200$$

### **Question No. : 186**

Had the cost incurred on per piece of product A produced by bakery Cakies been 40% less than the original and had it been able to sell 40 pieces each of products B and A produced that day, then would have been the total profit by the bakery on selling both the products?

- A) Rs. 840    ☒ B) Rs. 813    C) Rs. 864    D) Rs. 720    E) Rs. 687

### **Explanation:- Cakies**

#### **Product A**

$$\text{Revenue generated} = \text{Rs. } 810$$

$$\text{Profit} = \text{Rs. } 90$$

$$\text{Selling price (SP)} = \text{Rs. } 18/\text{piece}$$

$$\text{Number of pieces sold} = \frac{\text{Revenue}}{\text{S.P.}} = \frac{810}{18} = 45$$

$$\text{Cost incurred} = \text{Rs. } 12/\text{piece}$$

$$\text{Let the total number of pieces produced} = x$$

According to the question,

$$90 = 810 - [(45+x)12]$$

$$\Rightarrow 90 = 810 - 540 - 12x$$

$$\Rightarrow 12x = 810 - 540 - 90$$

$$\Rightarrow 12x = 180$$

$$\Rightarrow x = 15$$

$$\text{Total number of pieces produce} = 45 + 15 = 60$$

$$\text{Cost incurred for total number of pieces produced} = \text{Rs. } (810 - 90) = \text{Rs. } 720$$

$$\text{Profit \%} = \frac{90}{720} \times 100 = 12.5\%$$

### **Cakies**

#### **Product B:**

$$\text{Cost incurred} = \text{Rs. } \left(12 \times \frac{125}{100}\right) = \text{Rs. } 15$$

$$\text{Profit} = \text{Rs. } 1125$$

$$\text{Profit} = 60\%$$

Let the total number of pieces produced be 'x'.

According to the question,

$$60 = \frac{1125}{15x} \times 100 \Rightarrow x = \frac{1125 \times 100}{15 \times 60}$$

$$\Rightarrow x = 125$$

$$\text{Total pieces sold} = \frac{2}{5} \times 125 = 50$$

$$\text{Cost incurred for total number of pieces produced} = 125 \times 15 = \text{Rs. } 1875$$

$$\text{Revenue} = 1125 + 1875 = \text{Rs. } 3000$$

$$\text{Selling price per piece} = \frac{3000}{50} = \text{Rs. } 60$$

**Product A**

Number of pieces

$$\text{Produce} = \frac{80}{100} \times (\text{number of pieces of product A of bakery cakes}) = \frac{80}{100} \times 60 = 48$$

$$\text{Profit} = 220\%$$

$$\text{Profit} = 175\% \text{ more than product B of bakery Misty} = \frac{275}{100} \times 360 = \text{Rs. } 990$$

$$\text{Cost incurred for total number of pieces produce} = \frac{990}{220} \times 100 = \text{Rs. } 450$$

**Misty****Product B**

$$\text{Profit} = \text{Rs. } 360$$

$$\text{Number of pieces sold} = 36$$

$$\text{Selling price} = \text{Rs. } 50$$

$$\text{Revenue} = 50 \times 36 = \text{Rs. } 1800$$

$$\text{Cost incurred for total number of pieces produced} = 1800 - 360 = \text{Rs. } 1440$$

$$\text{Profit \%} = \frac{360}{1440} \times 100 = 25\%$$

$$\text{Cost incurred of per piece of product A @ 40\% less} = \text{Rs. } \left( 12 \times \frac{60}{100} \right) = \text{Rs. } 7.20$$

$$\text{total cost incurred for total number of pieces produced of product A} = \text{Rs. } 720 \times 60 = \text{Rs. } 432$$

$$\text{Revenue generated on selling 40 piece of product A} = \text{Rs. } (40 \times 18) = \text{Rs. } 720$$

$$\text{total cost incurred for number of pieces produced of product B} = \text{Rs. } 1875$$

$$\text{Revenue generated on selling 40 pieces of product B} = \text{Rs. } (40 \times 60) = \text{Rs. } 2400$$

$$\text{Total profit} = [(2400 + 720) - (1875 + 432)] = \text{Rs. } (3120 - 2307) = \text{Rs. } 813$$

**Question No. : 187**

What per cent of product A produced could bakery Cakies sell?

A) 70%    B) 65%    ☒ C) 75%    D) 80%    E) Other than those given as options

**Explanation:- Cakies****Product A**

Revenue generated = Rs. 810

Profit = Rs. 90

Selling price (SP) = Rs. 18/ piece

$$\text{Number of pieces sold} = \frac{\text{Revenue}}{\text{S.P}} = \frac{810}{18} = 45$$

Cost incurred = Rs. 12 / piece

Let the total number of pieces produced =  $x$

According to the question,

$$90 = 810 - [(45+x)12]$$

$$\Rightarrow 90 = 810 - 540 - 12x$$

$$\Rightarrow 12x = 810 - 540 - 90$$

$$\Rightarrow 12x = 180$$

$$\Rightarrow x = 15$$

Total number of pieces produce =  $45 + 15 = 60$

Cost incurred for total number of pieces produced = Rs.  $(810 - 90) = \text{Rs. } 720$

$$\text{Profit \%} = \frac{90}{720} \times 100 = 12.5\%$$

**Cakies****Product B:**

$$\text{Cost incurred} = \text{Rs.} \left( 12 \times \frac{125}{100} \right) = \text{Rs. } 15$$

Profit = Rs. 1125

Profit = 60%

Let the total number of pieces produced be ' $x$ '.

According to the question,

$$60 = \frac{1125}{15x} \times 100 \Rightarrow x = \frac{1125 \times 100}{15 \times 60}$$

$$\Rightarrow x = 125$$

$$\text{Total pieces sold} = \frac{2}{5} \times 125 = 50$$

Cost incurred for total number of pieces produced =  $125 \times 15 = \text{Rs. } 1875$

Revenue =  $1125 + 1875 = \text{Rs. } 3000$

$$\text{Selling price per piece} = \frac{3000}{50} = \text{Rs. } 60$$

**Misty****Product A**

Number of pieces

$$\text{Produce} = \frac{220}{100} \times (\text{number of pieces of product A of bakery cakies}) = \frac{220}{100} \times 60 = 48$$

Profit = 220%

$$\text{Profit} = 175\% \text{ more than product B of bakery Misty} = \frac{275}{100} \times 360 = \text{Rs. } 990$$

$$\text{Cost incurred for total number of pieces produce} = \frac{990}{220} \times 100 = \text{Rs. } 450$$

**Misty****Product B**

Profit = Rs. 360

Number of pieces sold = 36

Selling price = Rs. 50

Revenue =  $50 \times 36 = \text{Rs. } 1800$

Cost incurred for total number of pieces produced =  $1800 - 360 = \text{Rs. } 1440$

$$\text{Profit \%} = \frac{360}{1440} \times 100 = 25\%$$

$$\text{Required percentage} = \frac{45}{60} \times 100 = 75\%$$

Profit on sales of product A by bakery Misty is what per cent of revenue generated by the sales of the same product by the same bakery?

- A) 48%   B) 72%   C) 62.25%   D) 60%   ☒ E) 68.75%

**Explanation:- Cakies**

**Product A**

Revenue generated = Rs. 810

Profit = Rs. 90

Selling price (SP) = Rs. 18/ piece

$$\text{Number of pieces sold} = \frac{\text{Revenue}}{\text{S.P}} = \frac{810}{18} = 45$$

Cost incurred = Rs. 12 / piece

Let the total number of pieces produced = x

According to the question,

$$90 = 810 - [(45+x)12]$$

$$\Rightarrow 90 = 810 - 540 - 12x$$

$$\Rightarrow 12x = 810 - 540 - 90$$

$$\Rightarrow 12x = 180$$

$$\Rightarrow x = 15$$

Total number of pieces produce = 45 + 15 = 60

Cost incurred for total number of pieces produced = Rs. (810 - 90) = Rs. 720

$$\text{Profit \%} = \frac{90}{720} \times 100 = 12.5\%$$

**Cakies**

**Product B:**

$$\text{Cost incurred} = \text{Rs.} \left( 12 \times \frac{125}{100} \right) = \text{Rs.} 15$$

Profit = Rs. 1125

Profit = 60%

Let the total number of pieces produced be 'x'.

According to the question,

$$60 = \frac{1125}{15x} \times 100 \Rightarrow x = \frac{1125 \times 100}{15 \times 60}$$

$$\Rightarrow x = 125$$

$$\text{Total pieces sold} = \frac{2}{5} \times 125 = 50$$

Cost incurred for total number of pieces produced = 125 × 15 = Rs. 1875

Revenue = 1125 + 1875 = Rs. 3000

$$\text{Selling price per piece} = \frac{3000}{50} = \text{Rs.} 60$$

**Misty**

**Product A**

Number of pieces

$$\text{Produce} = \frac{220}{100} \times (\text{number of pieces of product A of bakery cakies}) = \frac{220}{100} \times 60 = 48$$

Profit = 220%

$$\text{Profit} = 175\% \text{ more than product B of bakery Misty} = \frac{275}{100} \times 360 = \text{Rs.} 990$$

$$\text{Cost incurred for total number of pieces produce} = \frac{990}{220} \times 100 = \text{Rs.} 450$$

**Misty**

**Product B**

Profit = Rs. 360

Number of pieces sold = 36

Selling price = Rs. 50

Revenue = 50 × 36 = Rs. 1800

Cost incurred for total number of pieces produced = 1800 - 360 = Rs. 1440

$$\text{Profit \%} = \frac{360}{1440} \times 100 = 25\%$$

$$\text{Required percentage} = \frac{990}{1440} \times 100 = 68.75\%$$

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 189**

**Data related to number of movies watched by students of different colleges:**

Name of the college	% students who have seen no movies	% of students who have seen one movies	% of students who have seen two movies	% of students who have seen three movies	% of students who have seen four movies	% of students who have seen more than four movies
A	20%	18%	16%	21%	15%	10%
B	9%	16%	24%	8%	3%	40%
C	20%	20%	15%	18%	18%	9%
D	20%	19%	14%	20%	23%	4%
E	20%	20%	24%	16%	11%	9%
F	10%	26%	20%	26%	12%	6%
G	9%	13%	30%	35%	8%	5%

Total number of students who have seen at the most one movie in college F and those in College G together is 304. Total number of students who have seen at least four movies in college F and those in college G together is 180. What is the number of students in college G?

- A) 1300    ☒ B) 1400    C) 1500    D) 1600    E) 2400

**Explanation:-** ATQ.

$$.36F + .22G = 304$$

$$.185F + .13G = 180$$

Solving these two  $G = 1400$

**Question No. : 190**

In College D, if the average number of students who have seen at the most four movies and number of students who have seen at least two movies is 1099, what is the number of students in college D?

- A) 1800    B) 1500    C) 1200    ☒ D) 1400    E) None of these

$$\frac{96\% + 61\%x}{2} = 1099$$

$$1574x = 1099 \times 2$$

$$\therefore x = \frac{1000 \times 2}{157} \times 100 = 1400$$

**Explanation:-**

**Question No. : 191**

In college E, the respective ratio of boys and girls who have seen at the most four movies was 5 : 3 and the respective ratio of boys and girls who have seen at least three movies is 5 : 4. Number of boys is what percent more than number of girls in college E?

- A) 40   B) 60   C) 50   D) 55   ✓E) 52.8

$$\% \text{ Boys seen at most 4 movies} = \frac{5}{8} \times 91 = 56.875$$

$$\% \text{ girls seen at most 4 movies} = 34.125 =$$

$$\% \text{ of boys seen at least 3 movies} = \frac{5}{9} \times 36 = 20$$

$$\% \text{ of girls seen at least 3 movies} = 36 - 20 = 16$$

**Explanation:-** Required percentage =  $\frac{56.875 - 34.125}{34.125} = 52.8\%$

**Question No. : 192**

If the number of students who have seen at least three movies in college C is equal to those who have seen at the most four movies in College B, number of students in College C is what percent more than number of students in College B?

- A) 36 2/3   ✓B) 33 1/3   C) 28 1/3   D) 30 1/3   E) 42 2/3

**Explanation:-** 45% C = 60% B

$$\frac{C}{B} = \frac{60}{45} = \frac{4}{3}$$

$$\therefore \text{Required \%} = \frac{1}{3} \times 100 = \frac{100}{3} = 33\frac{1}{3}\%$$

**Question No. : 193**

In college A, if the difference between the number of students who have seen at least four movies and those who have seen at the most two movies is 203, what is the number of students who have seen three movies?

- A) 153   B) 141   ✓C) 147   D) 159   E) 140

**Explanation:-** Let total students in A = x  $\therefore 54\% x - 25\% x = 203$   $29\% x = 203 \Rightarrow x = 700$

$\therefore$  required number = 21% of 700 = 147

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 194**

A bag contains 8 red balls and 12 blue balls. One ball is drawn at random and replaced with 5 green balls. A second ball was drawn without replacement. What is the probability that first ball drawn is red in colour and the second ball drawn is blue in colour?

- A) 2/5   ✓B) 1/5   C) 1/15   D) 3/5   E) 7/15

**Explanation:-** Required Probability =  $\frac{8}{20} \times \frac{12}{24} = \frac{1}{5}$

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 195**

What is the actual percent profit made by the trader on selling rice @Rs. 36//kg?

- I. The trader falsely claims to be making a profit of 20%.  
II. The trader has tampered with his weighing instrument in such a way that it reads 1 kg for every 800 gm of rice weighed.
- A) The data in both the statements I and II together are necessary to answer the question.  
B) The data either in statement I alone or in statement II alone are sufficient to answer the question.  
C) The data in both the statements I and II together are not sufficient to answer the question.  
✓D) The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question  
E) The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

**Explanation:-** Statement I  $\Rightarrow$  Not sufficient to answer the question.

Statement II  $\Rightarrow$  Profit % =  $x = \frac{200}{800} \times 100 = 25$

$\therefore$  Statement II is sufficient to answer the above question.

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 196**

A and B started a business. A invested Rs. X and B invested Rs. 1.5X. Six months after the start of business, C joined them with an investment of Rs. 5000. If the total annual profit is Rs. 6000, what is A's share of the same?

- I. C's share of the total annual profit is Rs. 2000.  
II.  $X = 2000$
- A) The data in both the statements I and II together are necessary to answer the question.  
✓B) The data either in statement I alone or in statement II alone are sufficient to answer the question.  
C) The data in both the statements I and II together are not sufficient to answer the question.  
D) The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question  
E) The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

**Explanation:-** Statement I is sufficient as follows

Ratio of A: B : C

$6x : 9x : 30000$

Profit of A and B =  $6000 - 2000 = 4000 \therefore x$  can be found

Statement II is sufficient as information are  $2000 \times 12 : 2000 \times 12 : 5000 \times 6$

$\therefore$  profit can be found  $\therefore$  either of statements are sufficient.

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 197**

Jar A comprises a mixture of milk and water in the ratio of 3 :2 respectively. Another mixture of milk and water is added to jar A and the ratio of milk and water in the resultant mixture changes. What was the initial quantity of mixture present in Jar A?

- I. The ratio of milk and water in the mixture that was added to Jar A was 2 :1 respectively.  
 II. The ratio of the new quantities of milk and water in Jar A was 8 : 5 respectively. The quantity of water in the mixture added to jar A was 6 litre.

- ✓A) The data in both the statements I and II together are necessary to answer the question.  
 B) The data either in statement I alone or in statement II alone are sufficient to answer the question.  
 C) The data in both the statements I and II together are not sufficient to answer the question.  
 D) The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question  
 E) The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

**Explanation:-** By combining statement I and II

$$\frac{3x+2y}{2x+y} = \frac{8}{5}$$

$$15x + 10y = 16x + 8y$$

$$x = 2y \text{ and } 3y = 6, y = 2$$

$$x = 2 \times 2 = 4$$

$$\text{Initial equanuity of mixture} = 5x, 5 \times 2 = 10.$$

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 198**

If the given solid metallic right circular cone is melted and recast into a right circular cylinder having the same radius, what would be the height of this cylinder?

- I. The sum and product of the radius and height of the cone are 31 cm and 147 cm<sup>2</sup> respectively.  
 II. Total surface area of the cone is 550 cm<sup>2</sup>.

- A) The data in both the statements I and II together are necessary to answer the question.  
 B) The data either in statement I alone or in statement II alone are sufficient to answer the question.  
 ✓C) The data in both the statements I and II together are not sufficient to answer the question.  
 D) The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question  
 E) The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

$$\pi r^2 h = \frac{1}{3} \pi r^2 h$$

$$h = \frac{1}{3} h_1$$

**Explanation:-**

Height of cyclinder = 1/3 (height of cone)

From statement I  $r + h_1 = 31$   $h_1 r = 147$

By solving we can get value of  $h_1$  from that we get the value of  $h$ .

From statement II we did not get height of cylinder.



**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 199**

A car travels along a path A-B-C-D (along segments AB, BC and CD). Points A, B, C, D are equidistant from each other, what was the speed of the car while travelling in the segment CD?

- I. The total distance covered by the car is 288 km and the speed of the car in segment BC is 72 km/h.  
 II. The average speed of the car during the entire Journey is 72 km/h. The speed of the car to cover segments AB, BC and CD Is in the ratio of 15 :12 :10 respectively.

- ✓A) The data in both the statements I and II together are necessary to answer the question.  
 B) The data either in statement I alone or in statement II alone are sufficient to answer the question.  
 C) The data in both the statements I and II together are not sufficient to answer the question.  
 D) The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question  
 E) The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

**Explanation:-** From statement I

Speed of car in segment BC = 72 km/hr

From statement II ratio of speeds in AB, BC and CD 15:12 : 10

Combining these two we get

$$12x = 72$$

$$x = 6$$

$$\text{Speed in segment CD} = 10x = 60.$$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 200**

The circumference of a semi-circle is 125 cm. If the diameter of the semi-circle is 30% less than the diagonal of the square, what is the perimeter of the square?

- ✓A)  $140\sqrt{2}$  cm    B)  $120\sqrt{2}$  cm    C) 120 cm    D)  $160\sqrt{2}$  cm    E) 148 cm

$$\begin{aligned} \text{Given : } \pi \frac{d}{2} + d &= 126 \Rightarrow d(\pi + 2) = 126 \times 2 \\ \Rightarrow d &= \frac{126 \times 2}{\left(\frac{22}{7} + 2\right)} \Rightarrow d = \frac{126 \times 2 \times 7}{36} \end{aligned}$$

**Explanation:-**

$$\Rightarrow d = 49$$

According to the question, 30% less than diagonal of a square

= Diameter of a semi-circle

$$\Rightarrow \frac{70}{100} \times \sqrt{2}a = 49$$

$$\Rightarrow a = \frac{49 \times 100}{70 \times \sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} = 35\sqrt{2}$$

$$\therefore \text{Perimeter of square} = 4 \times a = 4 \times 35\sqrt{2}$$

$$= 140\sqrt{2} \text{ cm}$$