

## Solutions

1. Ans. A

In the first few lines of the passage, it has been stated that "cheap personal computers (PCs) and servers, the Internet and its local wired/wireless feeder networks, and powerful, low-cost software..." has resulted into "a democratization of publishing and media production using digital technology" which implies that it is no more a privilege of the few.

2. Ans. C

It can be interpreted from the following statements of the passage "Nor is it to say that entertainment companies (e.g., film, music, radio, and television companies) and information companies (e.g., book, database, and serial publishers) have ceded the digital-content battlefield to the upstarts. Quite the contrary. High-quality, thousand-page-per-volume scientific journals and Hollywood blockbusters cannot be produced for pennies, even with digital wizardry."

3. Ans. E

It can be interpreted from the following statement of the passage, "Unconstrained access to past works helps determine the richness of future works."

4. Ans. C

The central theme that runs through the passage is digital technology and its impact on conventional media which is analysed while concluding by juxtaposing it to the challenge of copyright laws.

5. Ans. D

Statement (i) can be inferred from the following statements of the passage, "Information and entertainment companies still have an important role to play, and, even if they didn't, they hold the copyrights to a significant chunk of our cultural heritage." Moreover, it has been again stated in the passage that, "The thing about the future is that it is rooted in the past. Culture, even digital culture, builds on what has gone before."

Hence, option (i) is correct.

Statement (ii) can be inferred from the following statement, "Citizens have morphed from passive media consumers to digital-media producers and publishers".

Statement (iii) can be inferred from the following statements of the passage, "Not to say that print and conventional media are dead, of course, but it is clear that their era of dominance is waning."

6. Ans. C

Concocting stands for "creating or devising" whereas "manipulating" has a negative connotation that means "to control or influence". Hence, "devising" is the most similar word.

7. Ans. D

"Ceded" refers to "give up" or "yield" whereas "contended" means the contrary. Hence, "relinquish" is the most similar word.

8. Ans. B

"Connote" means to imply or suggest whereas "infer" is used for deducing from the explicit statements. Hence, the word "Predicate" is the most similar word.

9. Ans. E

All other words except "subservience" are synonyms of "dominance".

10. Ans. D

"Waning" means to "decrease in strength" whereas "accentuating" means to make more "noticeable" or "prominent".

11. Ans. C

The passage talks about the \$625 million grid-connected rooftop solar fund and not \$652.

12. Ans. C

Refer to the fourth line of the passage.

13. Ans. A

Refer to the following statement of the passage, 'Developing a strong solar manufacturing industry is essential for sustained economic growth, and to connect those who never had the boon of electricity.'

14. Ans. E

It can be inferred from the first paragraph.

15. Ans. D

After considering the context of the passage, 'Sunny times for solar' seems to be the most apt title for the passage.

16. Ans. E

'Aspiration' is the most similar word for ambition.

17. Ans. A

'Hurdle' refers to a barrier or an obstacle. Contrary to that 'opening' is the most apt response.

18. Ans. C

Stipulation refers to a condition of agreement. Corresponding to that clause is the most suitable response.

19. Ans. D

'Metering' refers to a proper measurement. Contrary to that 'guessing' is the most apt response.

20. Ans. A

Here, 'to exploit' has a positive meaning. Corresponding to that adventure is the most apt response which means an unexpected undertaking or experience.

21. Ans. D

The problem with the given statement is that of parallelism. The whole statement should use verb+ 'ing' form. Only C and D adhere to this. Out of these two, C is eliminated due to the use of 'avoiding of' which is incorrect. Only D is grammatically correct.

Hence D is the correct answer.

22. Ans. E

'To put a check on something' means to reduce or stop something. Since the given statement is correct, preference is given to 'no error'.

23. Ans. A

The answer to this is 'exorbitant prices are costing them an arm and a leg.' The phrase 'costs an arm and leg' is used to describe anything that is considered to be extremely expensive or excessively pricey.

24. Ans. B

A- 'Facilitate' needs to be replaced with 'facilitating' because the action in context hasn't finished and is in continual phase.

C- 'Transferring to power' is the incorrect phrase and needs to be replaced with 'transfer'.

D- The regulatory body has to 'work for' not 'work to', thus here is the wrong use of modal.

E- 'During' makes the statement timeline ambiguous. So, **option B is correct.**

25. Ans. E

A- The subject is 'trees', which is plural, so the use of 'has' is incorrect as a helping verb.

B- 'Approaching' is the wrong form of the verb.

C- This option mixes two tenses. The first part uses 'approached' which makes the action of shedding trees as an action of past but the use of 'gets' in the end makes the action of getting back leaves a present action; this ambiguity in tenses is incorrect.

D- The subject is plural and therefore 'its' can't be used to address the subject.

So, **option E is correct.**

26. Ans. E

The first statement tells us that the Austrian army has some kind of an advantage in the war since they are acquainted with the field where the French have to be fought. The word 'manoeuvre', which also means a military exercise of the troops, completes the sentence correctly. Manoeuvre also means 'to move skilfully', which makes it an ideal choice for the second statement as well. In the second statement, the cart has to be moved skilfully through the crowded store.

27. Ans. D

Multiple options may appear to fit in. However, 'Blatant' which means egregious, conspicuous is the most suitable according to the context and the tone of the statements.

28. Ans. A

The first question hints towards some kind of disagreement due to poor quality of goods received by the importer. Hence, 'contention' fits in well here. The word 'contention' also means an 'assertion in an argument', which makes it the suitable choice for the second statement as well.

29. Ans. C

In the first statement, the word negotiated fits in correctly as the 'terms' of the industrial issues are settled after negotiations. In the second statement, negotiated fits well as the word 'negotiated' also means 'finding a way through a difficult route'.

30. Ans. B

'Devised' is the most suitable response. It fits both the blanks contextually as well as grammatically.

31. Ans. B

'Splendid' means dazzling, distinguished, priceless. It fits in the context of both the statements aptly.

32. Ans. C

Scale is the most appropriate word for both the blanks. For first, it refers to the level and amount of operations. For the second it specifies a measurement degree.

33. Ans. D

Without is a preposition which means not using or taking something. It makes both the statements grammatically as well as contextually correct.

34. Ans. B

Since the baby was later adopted by the mayor, it must have been found 'abandoned'. Also, the political party must have 'abandoned' its prior policy since it led to the party's defeat in the elections.

35. Ans. B

Collapse means to fall down suddenly because of pressure or having no strength or support. Statement A, among all the options, collapse is the word that is suitable for the economy and budget. Statement B- If something falls down, it collapses. The word collapsing is appropriate for the sentence.

36. Ans. A

Refer to the last question of the series.

37. Ans. B

Refer to the last question of the series.

38. Ans. C

Refer to the last question of the series.

39. Ans. B

Refer to the last question of the series.

40. Ans. A

Option D should be the first statement as it introduces us to the subject i.e increasing fiscal vulnerabilities in the EMDEs as highlighted in the World Bank's new Global Economic Prospects report. Next follows statement E further elaborating the facts stated in the report that the government debt is soaring and fiscal balance has deteriorated. It should be followed by Statement C as it connects to the worsening government finances stated in the preceding statement. The next statement should be option A as it states that as far as the financial conditions of the global market is concerned, there is nothing to worry but a slight pressure on it may adversely affect these EMDEs. Next follows statement F that states the good performance of India during the given period. The use of "it" in statement B obviously relates to India mentioned in statement F.

The correct Sequence is DECAF B

41. Ans. B

The error in I is that the verb 'requiring' is incorrect and needs to be replaced with the noun 'requirement'. The preposition in II should not be 'up' but 'out' after the verb 'pointed'. The phrase 'pointed out' means 'identified or focused on.'

42. Ans. D

The verb 'backed' must be in simple past tense to make the sentence correct. The whole sentence is in past tense. Thus the verb 'back' in simple present is incorrect. The preposition after the word fight 'of' is incorrect and must be replaced with 'for' as people fight 'for' certain things and not 'of'. Thus D is the correct answer.

43. Ans. C

The error lies only in II as the verb 'to passage' is incorrect and needs to be replaced with the conjugated form of the verb 'to be passed' to make the sentence correct. Thus C is the correct answer.

44. Ans. A

The error lies only in II of the sentence where the preposition 'upon' is incorrect and needs to be replaced with 'to'. 'Upon' is more formal term for on, especially in abstract senses. Things are shifted from one state to another. Thus 'to' is the correct preposition here.

45. Ans. C

The error in part I is that the verb 'wondered' in simple past is incorrect and needs to be replaced in present continuous form which is 'wondering'. The error in part III is that the pronoun 'her' is missing after the verb 'loved' and it is mandatory to be written there to make the sentence grammatically correct. Without the pronoun the sentence is incomplete. Thus C is the correct answer.

46. Ans. D

The error lies only in part II of the sentence where the word 'judge' must be in plural form to make the sentence correct. It should read as: 'the three other judges held that it was.'

47. Ans. B

The error is in part III only where the word 'influencing' is incorrect and needs to be replaced with 'influential' to make the sentence correct. The correct adjective should be placed here.

48. Ans. B

The error in I is that the preposition 'on' must be present after the verb 'brought'. The phrase 'brought on' means 'led to the development of.' The correct preposition to be used after the word 'challenges' is 'to' and not 'of'. The point mentioned is something positive so 'to' is the correct preposition. Had it been a problem mentioned here the preposition 'of' would have been correct.

49. Ans. E

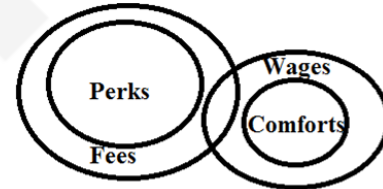
The verb 'show' is plural and is incorrect with the singular noun 'experience'. The verb should also be singular, which is 'shows'.

The correct adjective to be used before the word 'difficult' should be in comparative form 'more' and not superlative form 'most'. The word 'than' makes it clear that a comparison is being made between two things. Thus E is the correct answer.

50. Ans. A

The verb 'set' in simple present tense is incorrect and needs to be replaced with the verb 'setting' in present continuous form to make the sentence correct.

51. Ans. B

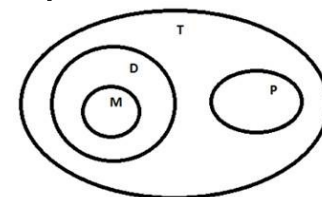


(Basic Diagram)

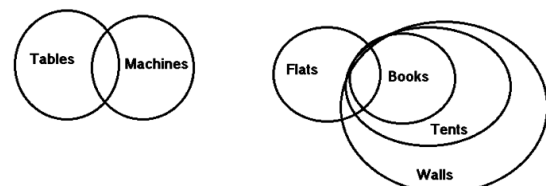
None of the conclusion follow from basic diagram. Either I or II follow.

52. Ans. C

**Explanation:**



53. Ans. B

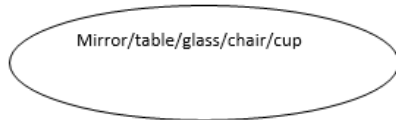


54. Ans. E

A possible Venn-diagram is:



Another possible Venn-diagram is :

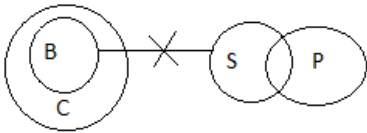


From the above Venn-diagram all the given conclusion follows. Hence answer is 5).

Shortcut: When All and Some's conditions are given is possibility case then all the possible answer follows.

55. Ans. E

The diagram is as follows:-



conclusion II, III & IV does not follow

56. Ans. B

• 3 persons watched movie between U and the one who watched Avengers and U watched movie before the one who watched Avengers but not on Monday. So U either watched on Tuesday or Wednesday.

**Case 1: If U watched on Wednesday-**

- P watched Inception two days before the one who watched Avengers. P watched on Friday.
- One person watched movie between P and the one who watched Logan. Then U watched Logan.
- Q watched Avatar just before U. So Q watched on Tuesday.
- One person watched movie between Q and T. T didn't watch movie on Thursday. So this case gets rejected.

Day	Person	Movie
Monday		
Tuesday	Q	Avatar
Wednesday	U	Logan
Thursday		
Friday	P	Inception
Saturday		
Sunday		Avengers

**Case 1: If U watched on Tuesday-**

- P watched Inception two days before the one who watched Avengers. P watched on Thursday.
- One person watched movie between P and the one who watched Logan. Then U watched Logan.
- Q watched Avatar just before U. So Q watched on Monday.
- One person watched movie between Q and T. T watched on Wednesday.
- S watched Batman before R who watched Thor. S watched on Friday and R watched on Sunday.
- T watched Superman and V watched Avengers.

**Here is the final table:**

Day	Person	Movie
Monday	Q	Avatar
Tuesday	U	Logan
Wednesday	T	Superman
Thursday	P	Inception
Friday	S	Batman
Saturday	V	Avengers
Sunday	R	Thor

Q watched on Monday.

57. Ans. A

• 3 persons watched movie between U and the one who watched Avengers and U watched movie before the one who watched Avengers but not on Monday. So U either watched on Tuesday or Wednesday.

**Case 1: If U watched on Wednesday-**

- P watched Inception two days before the one who watched Avengers. P watched on Friday.
- One person watched movie between P and the one who watched Logan. Then U watched Logan.
- Q watched Avatar just before U. So Q watched on Tuesday.
- One person watched movie between Q and T. T didn't watch movie on Thursday. So this case gets rejected.

Day	Person	Movie
Monday		
Tuesday	Q	Avatar
Wednesday	U	Logan
Thursday		
Friday	P	Inception
Saturday		
Sunday		Avengers

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- S watched Batman before R who watched Thor. S watched on Friday and R watched on Sunday.
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**Here is the final table:**

Day	Person	Movie
Monday	Q	Avatar
Tuesday	U	Logan
Wednesday	T	Superman
Thursday	P	Inception
Friday	S	Batman
Saturday	V	Avengers
Sunday	R	Thor

T watched Superman.

58. Ans. C

• 3 persons watched movie between U and the one who watched Avengers and U watched movie before the one who watched Avengers but not on Monday. So U either watched on Tuesday or Wednesday.

**Case 1: If U watched on Wednesday-**

- P watched Inception two days before the one who watched Avengers. P watched on Friday.
- One person watched movie between P and the one who watched Logan. Then U watched Logan.
- Q watched Avatar just before U. So Q watched on Tuesday.
- One person watched movie between Q and T. T didn't watch movie on Thursday. So this case gets rejected.

Day	Person	Movie
Monday		
Tuesday	Q	Avatar
Wednesday	U	Logan
Thursday		
Friday	P	Inception
Saturday		
Sunday		Avengers

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- Q watched Avatar just before U. So Q watched on Monday.
- One person watched movie between Q and T. T watched on Wednesday.
- S watched Batman before R who watched Thor. S watched on Friday and R watched on Sunday.
- T watched Superman and V watched Avengers.

Here is the final table:

Day	Person	Movie
Monday	Q	Avatar
Tuesday	U	Logan
Wednesday	T	Superman
Thursday	P	Inception
Friday	S	Batman
Saturday	V	Avengers
Sunday	R	Thor

Two persons watched movie between P and R.

59. Ans. A

The arrangement is:

Day	Person	Movie
Monday	Q	Avatar
Tuesday	U	Logan
Wednesday	T	Superman
Thursday	P	Inception
Friday	S	Batman
Saturday	V	Avengers
Sunday	R	Thor

As per the given arrangement, 'Thor' would be related to 'Friday', since there is a gap of one day for the given movies.

60. Ans. E

The arrangement is:

Day	Person	Movie
Monday	Q	Avatar
Tuesday	U	Logan
Wednesday	T	Superman
Thursday	P	Inception
Friday	S	Batman
Saturday	V	Avengers
Sunday	R	Thor

As clearly mentioned in the above arrangement, 'V' watches 'Avengers' on 'Saturday'. Hence all the given statements are incorrect.

61. Ans. C

$$J = K \leq L$$

$$I. L > J$$

$$II. L = J$$

62. Ans. E

$$I > J = K$$

$$I. I > K \text{ (true)}$$

$$Q > K = J$$

$$II. Q > J \text{ (true)}$$

63. Ans. D

$$A = M > P, N > R, A > T$$

I.  $T = P$  (false) There is no relation between T and P.

For conclusion II -

$$A = M > P, N > R$$

II.  $R < A$  (false) - there is no relation between R and A. Hence, neither conclusion I nor II follows.

64. Ans. B

$$X = M < A < S = T < R$$

**Conclusions:**

For conclusion I -  $M < A < S = T$  - There is no relation between M and T.

I.  $M = T$  (false)

For conclusion II -

$$A < S = T < R$$

II.  $R > A$  (True) - R is greater than A.

Hence, only conclusion II follow.

65. Ans. A

$$Y > A < N, Y = B < P$$

$$P > B = Y > A < N$$

For conclusion I -

$$P > B = Y > A$$

$$P > Y > A$$

I.  $P > A$  (True) P is greater than A is true.

For conclusion II -

$$B = Y > A < N$$

II.  $N > B$  (false) There is no relation between N and B.

Hence, only conclusion I follow.

66. Ans. B

Floor	Person	City
8	T	Jaipur
7	P	Pune
6	U	Delhi
5	W	Patna
4	Q	Raipur
3	S	Mumbai
2	R	Kolkata
1	V	Ranchi

67. Ans. C

Floor	Person	City
8	T	Jaipur
7	P	Pune
6	U	Delhi
5	W	Patna
4	Q	Raipur
3	S	Mumbai
2	R	Kolkata
1	V	Ranchi

68. Ans. A

Floor	Person	City
8	T	Jaipur
7	P	Pune
6	U	Delhi
5	W	Patna
4	Q	Raipur
3	S	Mumbai
2	R	Kolkata
1	V	Ranchi

69. Ans. D

Floor	Person	City
8	T	Jaipur
7	P	Pune
6	U	Delhi
5	W	Patna
4	Q	Raipur
3	S	Mumbai
2	R	Kolkata
1	V	Ranchi

70. Ans. D

Floor	Person	City
8	T	Jaipur
7	P	Pune
6	U	Delhi
5	W	Patna
4	Q	Raipur
3	S	Mumbai
2	R	Kolkata
1	V	Ranchi

71. Ans. C

'wo' stands for value.

in	to
market -	ki
loss -	le
value -	wo
increase -	xo
money -	bc
now -	pu
making -	na
the/decrease	bo/co

72. Ans. A

Code for making is - **na**

in	to
market -	ki
loss -	le
value -	wo
increase -	xo
money -	bc
now -	pu
making -	na
the/decrease	bo/co

73. Ans. E

Either co or bo is the code for decrease

in	to
market -	ki
loss -	le
value -	wo
increase -	xo
money -	bc
now -	pu
making -	na
the/decrease	bo/co

74. Ans. E

none of these is the correct option for **the increase you value**

in	to
market -	ki
loss -	le
value -	wo
increase -	xo
money -	bc
now -	pu
making -	na
the/decrease	bo/co

75. Ans. D

'to na ki bc' is a code of - making money in market.

in	to
market -	ki
loss -	le
value -	wo
increase -	xo
money -	bc
now -	pu
making -	na
the/decrease	bo/co

76. Ans. A

V is the daughter of S, S is the wife of T, So, wife's daughter=daughter

From the above information

i. There are eight people P, Q, R, S, T, U, V & W. Each of the female is sitting between two males and vice versa i.e. there are equal number of male and female i.e. four female, four male present in that family

ii. Four persons are sitting at the middle of each side of the table. All the mothers present in that family is facing their own respective daughters i.e. all four females are sitting at the middle of each side of the table and facing each other & mothers are facing their own daughter. It's clear that all the males of the family are sitting at the corners

iii. W is son in law of S i.e. W is male, Grandmother of Q is sitting to his left i.e. Q is male, R is the wife of U i.e. U is male and granddaughter of T is sitting to his right i.e. T is male.

I.e. males are W, U, Q, T and females are P, R, S, V

iv. U is sitting third to the right of R, R is the wife of U i.e. daughter of R is facing towards R.

v. Only S is sitting between U & Q, grandmother of Q is sitting to his first left

vi. Mother of U is sitting to his first right and father of U is sitting to his 2<sup>nd</sup> left i.e. S is the mother of U and S is

the grandmother of Q.

vii. W is sitting 3<sup>rd</sup> to the left of S and W is the son in law of S

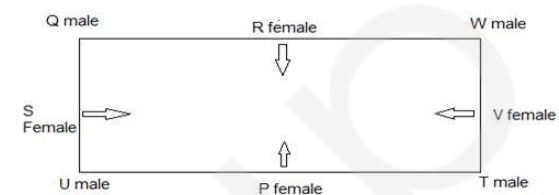
viii. Clearly T sits 3<sup>rd</sup> to the right of S since T is a male(all males are sitting at the corners)

ix. Father of U is sitting to his 2<sup>nd</sup> left i.e. T is the father of U i.e. S is the wife of T.

x. R is the mother of Q, P is the sister of Q i.e. P is the daughter of R. P is sitting 4<sup>th</sup> to the right of R i.e.

granddaughter of T is sitting to his first right

xi. Clearly V is the daughter of S sitting 4<sup>th</sup> to the right of S.



77. Ans. B

From the above information

i. There are eight people P, Q, R, S, T, U, V & W. Each of the female is sitting between two males and vice versa i.e. there are equal number of male and female i.e. four female, four male present in that family

ii. Four persons are sitting at the middle of each side of the table. All the mothers present in that family is facing their own respective daughters i.e. all four females are sitting at the middle of each side of the table and facing each other & mothers are facing their own daughter. It's clear that all the males of the family are sitting at the corners

iii. W is son in law of S i.e. W is male, Grandmother of Q is sitting to his left i.e. Q is male, R is the wife of U i.e. U is male and granddaughter of T is sitting to his right i.e. T is male.

I.e. males are W, U, Q, T and females are P, R, S, V

iv. U is sitting third to the right of R, R is the wife of U i.e. daughter of R is facing towards R.

v. Only S is sitting between U & Q, grandmother of Q is sitting to his first left

vi. Mother of U is sitting to his first right and father of U is sitting to his 2<sup>nd</sup> left i.e. S is the mother of U and S is the grandmother of Q.

vii. W is sitting 3<sup>rd</sup> to the left of S and W is the son in law of S

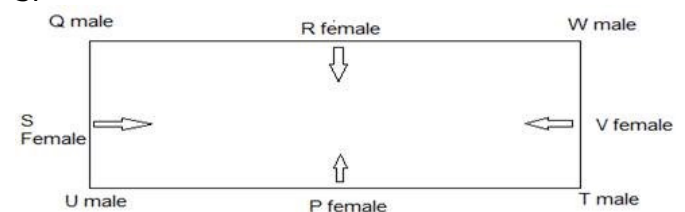
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ix. Father of U is sitting to his 2<sup>nd</sup> left i.e. T is the father of U i.e. S is the wife of T.

x. R is the mother of Q, P is the sister of Q i.e. P is the daughter of R. P is sitting 4<sup>th</sup> to the right of R i.e.

granddaughter of T is sitting to his first right

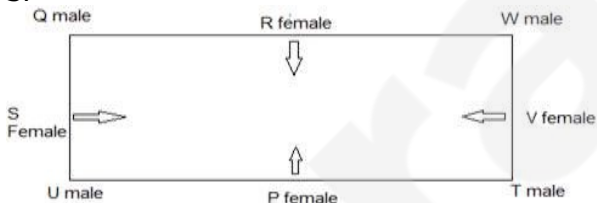
xi. Clearly V is the daughter of S sitting 4<sup>th</sup> to the right of S.



78. Ans. C

From the above information

- i. There are eight people P, Q, R, S, T, U, V & W. Each of the female is sitting between two males and vice versa i.e. there are equal number of male and female i.e. four female, four male present in that family
- ii. Four persons are sitting at the middle of each side of the table. All the mothers present in that family is facing their own respective daughters i.e. all four females are sitting at the middle of each side of the table and facing each other & mothers are facing their own daughter. It's clear that all the males of the family are sitting at the corners
- iii. W is son in law of S i.e. W is male, Grandmother of Q is sitting to his left i.e. Q is male, R is the wife of U i.e. U is male and granddaughter of T is sitting to his right i.e. T is male.
- I.e. males are W, U, Q, T and females are P, R, S, V
- iv. U is sitting third to the right of R, R is the wife of U i.e. daughter of R is facing towards R.
- v. Only S is sitting between U & Q, grandmother of Q is sitting to his first left
- vi. Mother of U is sitting to his first right and father of U is sitting to his 2<sup>nd</sup> left i.e. S is the mother of U and S is the grandmother of Q.
- vii. W is sitting 3<sup>rd</sup> to the left of S and W is the son in law of S
- viii. Clearly T sits 3<sup>rd</sup> to the right of S since T is a male (all males are sitting at the corners)
- ix. Father of U is sitting to his 2<sup>nd</sup> left i.e. T is the father of U i.e. S is the wife of T.
- x. R is the mother of Q, P is the sister of Q i.e. P is the daughter of R. P is sitting 4<sup>th</sup> to the right of R i.e. granddaughter of T is sitting to his first right
- xi. Clearly V is the daughter of S sitting 4<sup>th</sup> to the right of S.

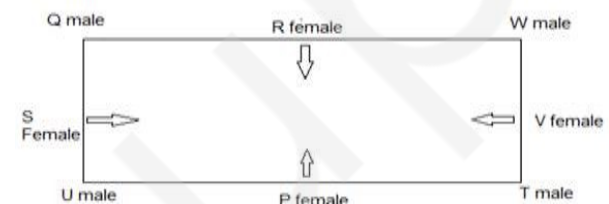


79. Ans. A

From the above information

- i. There are eight people P, Q, R, S, T, U, V & W. Each of the female is sitting between two males and vice versa i.e. there are equal number of male and female i.e. four female, four male present in that family
- ii. Four persons are sitting at the middle of each side of the table. All the mothers present in that family is facing their own respective daughters i.e. all four females are sitting at the middle of each side of the table and facing each other & mothers are facing their own daughter. It's clear that all the males of the family are sitting at the corners
- iii. W is son in law of S i.e. W is male, Grandmother of Q is sitting to his left i.e. Q is male, R is the wife of U i.e. U is male and granddaughter of T is sitting to his right i.e. T is male.
- I.e. males are W, U, Q, T and females are P, R, S, V
- iv. U is sitting third to the right of R, R is the wife of U i.e. daughter of R is facing towards R.

- v. Only S is sitting between U & Q, grandmother of Q is sitting to his first left
- vi. Mother of U is sitting to his first right and father of U is sitting to his 2<sup>nd</sup> left i.e. S is the mother of U and S is the grandmother of Q.
- vii. W is sitting 3<sup>rd</sup> to the left of S and W is the son in law of S
- viii. Clearly T sits 3<sup>rd</sup> to the right of S since T is a male (all males are sitting at the corners)
- ix. Father of U is sitting to his 2<sup>nd</sup> left i.e. T is the father of U i.e. S is the wife of T.
- x. R is the mother of Q, P is the sister of Q i.e. P is the daughter of R. P is sitting 4<sup>th</sup> to the right of R i.e. granddaughter of T is sitting to his first right
- xi. Clearly V is the daughter of S sitting 4<sup>th</sup> to the right of S.

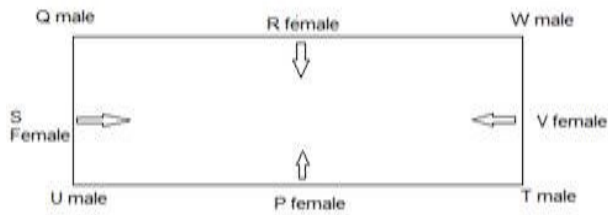


80. Ans. B

from the arrangement only S, U, P are only serially sitting in the table in the above question

From the above information

- xii. There are eight people P, Q, R, S, T, U, V & W. Each of the female is sitting between two males and vice versa i.e. there are equal number of male and female i.e. four female, four male present in that family
- xiii. Four persons are sitting at the middle of each side of the table. All the mothers present in that family is facing their own respective daughters i.e. all four females are sitting at the middle of each side of the table and facing each other & mothers are facing their own daughter. It's clear that all the males of the family are sitting at the corners
- xiv. W is son in law of S i.e. W is male, Grandmother of Q is sitting to his left i.e. Q is male, R is the wife of U i.e. U is male and granddaughter of T is sitting to his right i.e. T is male.
- I.e. males are W, U, Q, T and females are P, R, S, V
- xv. U is sitting third to the right of R, R is the wife of U i.e. daughter of R is facing towards R.
- xvi. Only S is sitting between U & Q, grandmother of Q is sitting to his first left
- xvii. Mother of U is sitting to his first right and father of U is sitting to his 2<sup>nd</sup> left i.e. S is the mother of U and S is the grandmother of Q.
- xviii. W is sitting 3<sup>rd</sup> to the left of S and W is the son in law of S
- xix. Clearly T sits 3<sup>rd</sup> to the right of S since T is a male (all males are sitting at the corners)
- xx. Father of U is sitting to his 2<sup>nd</sup> left i.e. T is the father of U i.e. S is the wife of T.
- xxi. R is the mother of Q, P is the sister of Q i.e. P is the daughter of R. P is sitting 4<sup>th</sup> to the right of R i.e. granddaughter of T is sitting to his first right
- xxii. Clearly V is the daughter of S sitting 4<sup>th</sup> to the right of S.



81. Ans. C

In the rearrangement, first numbers are arranged and then words are rearranged. In the first step the smallest even number comes at the left end and the largest odd number comes at right end. In the second step second smallest even number comes at the left end and the second largest odd number comes at the right end and so on till the numbers are rearranged. After that words are rearranged. The words beginning with consonant are rearranged in alphabetical order on the left end and words beginning with vowels are rearranged in reverse alphabetical order on the right end till the final arrangement.

**Input:** enough 57 plum 12 67 sense other 44 amount 71 hill 98

**Step I:** 12 enough 57 plum 67 sense other 44 amount hill 98 71

**Step II:** 44 12 enough 57 plum sense other amount hill 98 71 67

**Step III:** 98 44 12 enough plum sense other amount hill 71 67 57

**Step IV:** hill 98 44 12 enough plum sense amount 71 67 57 other

**Step V:** plum hill 98 44 12 sense amount 71 67 57 other enough

**Step VI:** sense plum hill 98 44 12 71 67 57 other enough amount

82. Ans. B

In the rearrangement, first numbers are arranged and then words are rearranged. In the first step the smallest even number comes at the left end and the largest odd number comes at right end. In the second step second smallest even number comes at the left end and the second largest odd number comes at the right end and so on till the numbers are rearranged. After that words are rearranged. The words beginning with consonant are rearranged in alphabetical order on the left end and words beginning with vowels are rearranged in reverse alphabetical order on the right end till the final arrangement.

**Input:** enough 57 plum 12 67 sense other 44 amount 71 hill 98

**Step I:** 12 enough 57 plum 67 sense other 44 amount hill 98 71

**Step II:** 44 12 enough 57 plum sense other amount hill 98 71 67

**Step III:** 98 44 12 enough plum sense other amount hill 71 67 57

**Step IV:** hill 98 44 12 enough plum sense amount 71 67 57 other

**Step V:** plum hill 98 44 12 sense amount 71 67 57 other enough

**Step VI:** sense plum hill 98 44 12 71 67 57 other enough amount

83. Ans. A

In the rearrangement, first numbers are arranged and then words are rearranged. In the first step the smallest even number comes at the left end and the largest odd number comes at right end. In the second step second smallest even number comes at the left end and the second largest odd number comes at the right end and so on till the numbers are rearranged. After that words are rearranged. The words beginning with consonant are rearranged in alphabetical order on the left end and words beginning with vowels are rearranged in reverse alphabetical order on the right end till the final arrangement.

**Input:** enough 57 plum 12 67 sense other 44 amount 71 hill 98

**Step I:** 12 enough 57 plum 67 sense other 44 amount hill 98 71

**Step II:** 44 12 enough 57 plum sense other amount hill 98 71 67

**Step III:** 98 44 12 enough plum sense other amount hill 71 67 57

**Step IV:** hill 98 44 12 enough plum sense amount 71 67 57 other

**Step V:** plum hill 98 44 12 sense amount 71 67 57 other enough

**Step VI:** sense plum hill 98 44 12 71 67 57 other enough amount

84. Ans. D

In the rearrangement, first numbers are arranged and then words are rearranged. In the first step the smallest even number comes at the left end and the largest odd number comes at right end. In the second step second smallest even number comes at the left end and the second largest odd number comes at the right end and so on till the numbers are rearranged. After that words are rearranged. The words beginning with consonant are rearranged in alphabetical order on the left end and words beginning with vowels are rearranged in reverse alphabetical order on the right end till the final arrangement.

**Input:** enough 57 plum 12 67 sense other 44 amount 71 hill 98

**Step I:** 12 enough 57 plum 67 sense other 44 amount hill 98 71

**Step II:** 44 12 enough 57 plum sense other amount hill 98 71 67

**Step III:** 98 44 12 enough plum sense other amount hill 71 67 57

**Step IV:** hill 98 44 12 enough plum sense amount 71 67 57 other

**Step V:** plum hill 98 44 12 sense amount 71 67 57 other enough

**Step VI:** sense plum hill 98 44 12 71 67 57 other enough amount

85. Ans. B

In the rearrangement, first numbers are arranged and then words are rearranged. In the first step the smallest even number comes at the left end and the largest odd number comes at right end. In the second step second smallest even number comes at the left end and the second largest odd number comes at the right end and so on till the numbers are rearranged. After that words are

rearranged. The words beginning with consonant are rearranged in alphabetical order on the left end and words beginning with vowels are rearranged in reverse alphabetical order on the right end till the final arrangement.

**Input:** enough 57 plum 12 67 sense other 44 amount 71 hill 98

**Step I:** 12 enough 57 plum 67 sense other 44 amount hill 98 71

**Step II:** 44 12 enough 57 plum sense other amount hill 98 71 67

**Step III:** 98 44 12 enough plum sense other amount hill 71 67 57

**Step IV:** hill 98 44 12 enough plum sense amount 71 67 57 other

**Step V:** plum hill 98 44 12 sense amount 71 67 57 other enough

**Step VI:** sense plum hill 98 44 12 71 67 57 other enough amount

86. Ans. B

South	U(Black)	T(Brown)	Q(Yellow)	S(Grey)	R(White)
North	W(Orange)	Y(Blue)	V(Pink)	Z(Red)	X(Green)

87. Ans. C

South	U(Black)	T(Brown)	Q(Yellow)	S(Grey)	R(White)
North	W(Orange)	Y(Blue)	V(Pink)	Z(Red)	X(Green)

88. Ans. A

South	U(Black)	T(Brown)	Q(Yellow)	S(Grey)	R(White)
North	W(Orange)	Y(Blue)	V(Pink)	Z(Red)	X(Green)

89. Ans. D

South	U(Black)	T(Brown)	Q(Yellow)	S(Grey)	R(White)
North	W(Orange)	Y(Blue)	V(Pink)	Z(Red)	X(Green)

90. Ans. B

South	U(Black)	T(Brown)	Q(Yellow)	S(Grey)	R(White)
North	W(Orange)	Y(Blue)	V(Pink)	Z(Red)	X(Green)

91. Ans. E

**From both the statements:**

eat and drink healthy  $\Rightarrow$  se ta pa me . . . (i)

drink hot beverages  $\Rightarrow$  ta nu fa . . . (ii)

eat hot meal daily  $\Rightarrow$  fa me la du . . . (iii)

cold and hot  $\Rightarrow$  pa fa ga . . . (iv)

From (i) and (ii), drink  $\Rightarrow$  ta

From (i) and (iii), eat  $\Rightarrow$  me

From (i) and (iv), and  $\Rightarrow$  pa

The code for 'healthy' is 'su'.

92. Ans. A

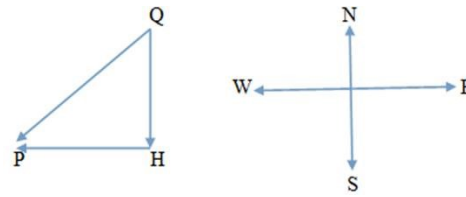
if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

Using statement I alone, C is the brother of D.

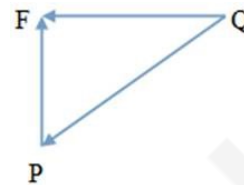
From Statement II, gender of C cannot be determined.

93. Ans. C

From statement I ,



Hence P is the south-west of Q



From statements II, P is the South-West of Q.

94. Ans. D

From statements I,

(J & T) > M > (L & R)

From statement II,

L & R

Hence from statements I & II ,

(J & T) > M > L > R

95. Ans. E

From I Neha's birthday, according to Ramesh, falls on Wednesday or Thursday.

From II Neha's birthday, according to kiran, falls on Tuesday or Wednesday.

From I and II Neha's birthday falls on Wednesday.

96. Ans. B

The amount of disposable income is higher in rural household than semi urban even though they get same monthly income is because semi urban household have to pay more rent and maintenance expenses for their basic amenities. The services are costlier in semi urban so they need to spend more and will have lesser disposable cash than rural households

97. Ans. B

It's a laptop for all. The statement says students will get an offer that does not mean other can't buy it. So I does not follow. Since students are given an offer we can conclude that Lenovo wants students to buy their laptops. So II follow.

98. Ans. D

Choice (A): Based on some assessment, the school has come to the understanding that the students are not getting proper meal at home. No facts are provided to conform this. Hence, (A), is not implicit. Choice (B): There is no information given about the donation, which is given to the charity. Hence (B) is out of context. Statement (C) the statement has no reference to the utilization of funds. Hence it is out of context. Choice (D) The school authority was providing the breakfast to the students assuming that they are not getting a proper meal. Hence Choice (D) is an assumption.

99. Ans. A

Educating the school going children on politics will definitely acquaint them with the intricacies and modalities of the same thus help them to make informed decision. Hence, argument I is strong.

100. Ans. C

Both are the viable course of action and results in immediate response.

101. Ans. C

The pattern followed is:

$$4 = 3.5 + 0.5$$

$$5 = 4 + 1 \text{ (i.e. } 0.5 \times 2)$$

$$8 = 5 + 3 \text{ (i.e. } 1 \times 3)$$

$$20 = 8 + 12 \text{ (i.e. } 3 \times 4)$$

$$? = 20 + 60 \text{ (i.e. } 12 \times 5)$$

$$? = 80$$

102. Ans. A

The pattern followed is:

$$86 = 88 - 2 (1^3 + 1)$$

$$95 = 86 + 9 \text{ (i.e. } 2^3 + 1)$$

$$67 = 95 - 28 \text{ (i.e. } 3^3 + 1)$$

$$132 = 67 + 65 \text{ (i.e. } 4^3 + 1)$$

$$? = 132 - 126 \text{ (i.e. } 5^3 + 1)$$

$$? = 6$$

103. Ans. B

The pattern followed is:

$$4 = 3 * 1 + 1$$

$$9 = 4 * 2 + 1$$

$$28 = 9 * 3 + 1$$

$$113 = 28 * 4 + 1$$

$$? = 113 * 5 + 1$$

$$? = 566$$

104. Ans. D

The pattern followed is:

$$491 = 500 - 9$$

$$478 = 491 - 13 \text{ (i.e. } 9 + 2^2)$$

$$449 = 478 - 29 \text{ (i.e. } 13 + 4^2)$$

$$384 = 449 - 65 \text{ (i.e. } 29 + 6^2)$$

$$? = 384 - 129 \text{ (i.e. } 65 + 8^2)$$

$$? = 255$$

105. Ans. A

The pattern followed is:

$$5 = 9 * 0.5 + 0.5$$

$$6 = 5 * 1 + 1$$

$$10.5 = 6 * 1.5 + 1.5$$

$$23 = 10.5 * 2 + 2$$

$$? = 23 * 2.5 + 2.5$$

$$? = 60$$

106. Ans. D

Total Dungal tickets sold in Mumbai = 24000

45% of the sold tickets ranged between INR 1 and INR 250

⇒ 55% of the sold tickets ranged between INR 251 and INR 350

∴ Number of tickets sold of Dungal ranged between INR 251 and INR 350 = 55% of 24000

⇒ Number of tickets sold of Dungal ranged between INR

251 and INR 350 = 13200

Additional 8% entertainment duty should be imposed duty on movie tickets priced between INR 251 and INR 350

⇒ Amount collected as entertainment duty = 8% of 13200

⇒ Amount collected as entertainment duty = INR 1056

The government has also allowed theatre owners to collect INR 11 as service charges on the tickets

⇒ Amount collected as service charge = 11 × 24000

⇒ Amount collected as service charge = INR 264000

Now, total amount collected as revenue by theatre and government = 264000 + 1056 = INR 265056

Hence, an amount of INR 265056 is collected as revenue by theatre and government on movie Dungal from Mumbai.

107. Ans. A

Total number of Neerja tickets sold in all six cities = 19000 + 17000 + 28000 + 23000 + 22000 + 14000 = 123000

The number of tickets sold of film Neerja in these six cities is 75% of the total tickets of film Neerja sold in India

⇒ Total number of Neerja tickets sold in India

$$= \frac{123000}{75} \times 100 = 164000$$

∴ Total number of Neerja tickets sold in India = 164000

Let the number of tickets sold over the globe be x

The total number of ticket sold over the globe except India is 36% of the total number of ticket sold over the globe

⇒ Total number of Neerja tickets sold over the globe

$$= \frac{164000}{64} \times 100$$

⇒ Total number of Neerja tickets sold over the globe = 256250

Hence, number of Neerja tickets sold over the globe is 256250

108. Ans. C

Total number of Airlift tickets sold in Manali = 18000

7% of the total number of Airlift tickets sold in Manali was sold by one multiplex

⇒ Number of Airlift tickets sold by the multiplex = 7% of 18000

⇒ Number of Airlift tickets sold by the multiplex = 1260

Let the number of children tickets sold be x

And number of adult tickets sold be y

According to the question:

$$\Rightarrow x + y = 1260 \text{ ..... (1)}$$

The cost of tickets for movie Airlift is 120 for children and 250 for adults and INR 274050 was collected in total for movie Airlift by the multiplex

$$\Rightarrow 120x + 250y = 274050 \text{ ..... (2)}$$

Now, multiply equation (1) by 120 and subtract equation (1) from (2)

$$\Rightarrow 120x + 250y - 120x - 120y = 274050 - 151200$$

$$\Rightarrow 130y = 122850$$

$$\Rightarrow y = 945$$

Putting value of y in equation (1)

$$\Rightarrow x + 945 = 1260$$

$$\Rightarrow x = 315$$

Hence, 315 tickets of children and 945 tickets of adults were sold by the multiplex of the airlift.

109. Ans. B

Let price of sultan ticket be  $x$

Price of Dangal ticket be  $y$

And price of Neerja ticket be  $z$

Anita buys 2 sultan tickets, 1 Dangal ticket and 3 Neerja tickets for a total of INR 1500

$$\Rightarrow 2x + y + 3z = 1500 \quad \text{..... (1)}$$

Gunjan buys 1 sultan ticket, 2 Dangal ticket and 2 Neerja tickets for INR 1225

$$\Rightarrow x + 2y + 2z = 1225 \quad \text{..... (2)}$$

Khushboo buys 2 sultan tickets, 3 Dangal tickets and 1 Neerja tickets for INR 1200

$$\Rightarrow 2x + 3y + z = 1200 \quad \text{..... (3)}$$

Now, subtract (3) from (1)

$$\Rightarrow 2x + y + 3z - 2x - 3y - z = 300$$

$$\Rightarrow 2z - 2y = 300 \quad \text{..... (4)}$$

Multiply equation (2) by 2 and then equation (1) by (2)

$$\Rightarrow 2x + 4y + 4z - 2x - y - 3z = 2450 - 1500$$

$$\Rightarrow 3y + z = 950 \quad \text{..... (5)}$$

Multiply equation (4) by 3 and equation (5) by 2 and then add both of them

$$\Rightarrow 6z - 6y + 6y + 2z = 900 + 1900$$

$$\Rightarrow 8z = 2500$$

$$\Rightarrow z = 350$$

Putting value of  $z$  in equation (5)

$$\Rightarrow 3y + 350 = 950$$

$$\Rightarrow 3y = 600$$

$$\Rightarrow y = 200$$

Now putting value of  $y$  and  $z$  in (1)

$$\Rightarrow 2x + 200 + 3(350) = 1500$$

$$\Rightarrow 2x = 1500 - 1250$$

$$\Rightarrow x = 125$$

Hence, price of one Sultan ticket is INR 125

Number of Sultan tickets sold in Bangalore = 24000

$$\therefore \text{Collection made by sultan from Bangalore} = 24000 \times 125$$

$$\Rightarrow \text{Collection made by sultan from Bangalore} = \text{INR } 30,00,000$$

Hence, movie Sultan collected INR 30,00,000 from Bangalore.

110. Ans. D

Let total number of tickets sold in day be  $x$

$$\therefore \text{Total collection in day} = 76x$$

Let the total number of tickets sold in night be  $y$

$$\therefore \text{Total collection in night} = 60y$$

$$\text{Total day and night customers} = x + y$$

$$\text{Total average collection} = 65(x + y)$$

According to the question:

$$\Rightarrow 76x + 60y = 65(x + y)$$

$$\Rightarrow 76x - 65x = 65y - 60y$$

$$\Rightarrow 11x = 5y$$

$$\Rightarrow x/y = 5/11$$

Total number of M.S. Dhoni tickets sold in Ahmedabad = 32000

15% of the total number is sold by the theatre

$$\Rightarrow \text{Number of M.S. Dhoni tickets sold by theatre} = 15\% \text{ of } 32000$$

$$\Rightarrow \text{Number of M.S. Dhoni tickets sold by theatre} = 4800$$

$$\therefore \text{Number of tickets sold by theatre in night} = 11/16 \times 4800$$

$\Rightarrow$  Number of tickets sold by theatre in night = 3300  
Total number of M.S. Dhoni tickets sold in Hyderabad = 15000

$$\text{Now, required percentage} = \frac{3300}{15000} \times 100 = 22\%$$

Hence, the number of tickets sold in the night is 22% of total M.S. Dhoni tickets sold in Hyderabad.

111. Ans. B

$$\frac{68}{100} \times 595 - \frac{45}{100} \times 372$$

$$404.6 - 167.4$$

$$237.2$$

112. Ans. D

Let the answer be  $Y$

$$\frac{49.84}{\sqrt{5.2}} \times 18.12 = 62.21 \times \sqrt{Y}$$

By approximation,

$$\frac{50}{\sqrt{4}} \times 20 = 60 \times \sqrt{Y}$$

$$\frac{50}{2} \times 20 = 60 \times \sqrt{Y}$$

$$500 = 60 \times \sqrt{Y}$$

$$\sqrt{Y} \approx 8$$

Squaring both sides

$$Y \approx 64$$

Hence the answer is option (D).

113. Ans. C

$$\Rightarrow \frac{(\frac{9}{4})^{\frac{1}{4}}}{(\frac{1}{4})^{\frac{1}{4}}} = \frac{324}{9}$$

$$\Rightarrow (\frac{9}{4})^{\frac{1}{4}} = 36$$

$$\Rightarrow (\frac{9}{4})^2 = 36 = 6^2$$

$$\Rightarrow ? = 6$$

114. Ans. B

By approximation,

$$\left( \frac{70}{100} \times 260 \right) - 63 = Y - \left( \frac{5}{100} \times 900 \right)$$

$$(7 \times 26) - 63 = Y - (5 \times 9)$$

$$182 - 63 = Y - 45$$

$$Y = 182 - 63 + 45 = 164$$

Hence the answer is option (B).

115. Ans. E

$$\frac{17}{7} - \frac{9}{4} - \frac{5}{4} + \frac{29}{28} = -\frac{1}{28}$$

Hence option E is correct

116. Ans. E

$$\text{Boys \%} = \frac{(4000 - 2500)}{4000} \times 100 = 38\% \text{ approx.}$$

117. Ans. A

Total students enrolled in singing &amp; craft

$$= \frac{4000 \times (20 + 20)}{100} = 1600$$

Total girls enrolled in singing &amp; craft

$$= \frac{2500 \times (20 + 25)}{100} = 1125$$

No. of boys enrolled = 1600 - 1125 = 475

118. Ans. B

$$\frac{2500 \times (20 + 14)}{100} = 850$$

119. Ans. C

No. of girls enrolled in dancing

$$= \frac{21 \times 2500}{100} = 525$$

$$\% = \frac{525}{4000} \times 100 = 13.12\%$$

120. Ans. D

Total students in swimming = 840

$$\text{No. of girls enrolled in swimming} = \frac{2500 \times 20}{100} = 500$$

No. of boys enrolled in swimming = 340

Ratio = 500 : 340 = 25 : 17

121. Ans. E

$$(X + 5)(5X + 3) = 0 \Rightarrow X = -5, -3/5$$

$$(Y + 5)(6Y + 5) = 0 \Rightarrow Y = -5, -5/6$$

No relation

122. Ans. C

$$\text{I. } 12x^2 + 82x + 140 = 0$$

$$x = -7/2, -10/3$$

$$\text{II. } 16y^2 + 48y + 32 = 0$$

$$y = -1, -2$$

$$Y > X$$

123. Ans. E

$$(2X - 11)(2X - 13) = 0 \Rightarrow X = +11/2, +13/2$$

$$(2Y - 11)(2Y - 15) = 0 \Rightarrow Y = +11/2, +15/2$$

say  $x = 11/2$  and  $y = 15/2$ ;  $y > x$ 

but if say  $x = 13/2$  and  $y = 11/2$ ; then  $x > y$   
Hence, No relation.

124. Ans. E

$$(X - 3)(X + 7) = 0 \Rightarrow X = +3, -7$$

$$(Y - 4)(Y - 2) = 0 \Rightarrow Y = +4, +2$$

No relation

125. Ans. E

From I,

$$\frac{8}{\sqrt{x}} + \frac{6}{\sqrt{x}} = \sqrt{x}$$

$$\Rightarrow x = 14$$

From II,

$$y^2 - (14^{5/2} / y^{1/2}) = 0$$

$$\Rightarrow y^{5/2} = 14^{5/2}$$

$$\Rightarrow y = 14$$

$$\text{So, } x = y$$

126. Ans. C

Average number of students (males and females) passed out from all the colleges together.

$$\frac{(15 + 22.5) + (17.5 + 20) + (27.5 + 35) + (25 + 30) + (7.5 + 10)}{5}$$

$$= \frac{210.0}{5} \text{ thousands}$$

$$= 42000$$

127. Ans. B

Number of females passed out from college C = 35

Total number of females passed out from all the colleges together.

$$= 22.5 + 20 + 35 + 30 + 7.5$$

$$= 115$$

Required percentage

$$= \frac{35}{115} \times 100 = 30.43\%$$

$$\approx 30\% (\text{approx.})$$

128. Ans. E

Total number of students passing out from college A

$$= 15 + 22.5$$

$$= 37.5 \text{ thousand}$$

Total number of students passing out from college E

$$= 7.5 + 10$$

$$= 17.5 \text{ thousand}$$

$$\text{Required difference} = (37.5 - 17.5) \text{ thousand}$$

$$= 20 \text{ thousand} = 20000$$

129. Ans. A

Required ratio

$$= \frac{15 + 17.5 + 27.5 + 20 + 10.0}{22.5 + 20 + 35 + 30 + 7.5}$$

$$= \frac{95}{115} = \frac{19}{23} = 19:23$$

130. Ans. D

Number of males passing out from college A and B

$$= 15 + 17.5 = 32.5$$

Number of females passing out from college C and D

$$= 35 + 30 = 65$$

Required percentage

$$= \frac{32.5}{65} \times 100 = 50\%$$

131. Ans. E

From II: it is clear that out of 180 students, 120 students scored over 70% In the test.

From I: 15 boys scored over 70%.

Hence using both the statements, number of girls who scored over 70% = 120-15 = 105.

132. Ans. E

From statement I,

Given: The ratio of speed in upstream to the speed in downstream is 2 : 3

Let speed in upstream be 2x km/hr and speed in downstream be 3x km/hr.

Since x is not known, so speed of the stream cannot be obtained.

Thus, the data in Statement I alone are not sufficient to answer the question

From statement II,

Given: The distance travelled in upstream in 2 hours by a man is more than distance travelled by him in downstream in 1 hour by 4km.

⇒ distance travelled in upstream – distance travelled in downstream = 4 km

$$(2 \times \text{speed in downstream} - 1 \times \text{speed in upstream}) = 4 \text{ km}$$

∴ Speed in upstream and downstream is not known, so speed of the stream cannot be found using these data.

Thus, the data in Statement II alone are not sufficient to answer the question

Combining I and II,

Speed in upstream = 2x

Speed in downstream = 3x

$$(2 \times \text{speed in downstream} - 1 \times \text{speed in upstream}) = 4 \text{ km}$$

$$\Rightarrow (2 \times 3x - 1 \times 2x) = 4 \text{ km}$$

$$\Rightarrow 6x - 2x = 4$$

$$\Rightarrow x = 1 \text{ km/hr}$$

∴ Speed in upstream and downstream are 2 km/hr and 3 km/hr respectively.

Speed of the stream =  $\frac{1}{2}$  (speed in downstream – speed in upstream)

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

$$= \frac{1}{2} \text{ km/hr}$$

133. Ans. C

From I:  $x + (x+2) = 34$  i.e.  $x = 16$ , hence, fourth consecutive even number is  $(x+6) = 22$ .

From II:  $x + 4 + (x+6) = 42$  i.e.  $x = 16$ , hence, fourth consecutive even number is  $(x+6) = 22$ .

134. Ans. A

From statement 1,

Marks in English =  $\frac{1}{2}$  Hindi

Marks in chemistry = 50% of Hindi

$$\text{Hindi} = 42 \times 2$$

$$\text{English} = \frac{1}{2} \times 42 \times 2 = 42$$

In statement 2 total marks is not given

135. Ans. A

Our aim is to calculate the ratio of the total number of girls to the total number of boys in a college.

From statement A,

There are 2000 students in the college out of which 40% are girls.

$$\Rightarrow \text{Number of girls} = \frac{40}{100} \times 2000 = 800$$

Thus, number of boys = 2000 – 800 = 1200

Ratio of number of boys to the total number of girls in a college = 1200 : 800

⇒ Ratio of number of boys to the total number of girls in a college = 3 : 2

So, statement A is sufficient to reach at the solution.

From statement B,

The ratio of the total number of boys to the total number of girls in the last year was 5 : 5.

Here, only last year ratio is given but this data is not sufficient to calculate ratio of number of girls to the total number of boys in a college.

So, Statement B alone is not sufficient to reach at the solution.

136. Ans. C

Let the age of A, 5 years ago be X

Then, the age of B, 5 years ago will be 3X

According to question

$$(3X+5+6)/(X+5+12)=7/4$$

$$(3X+11)/(X+17)=7/4$$

$$12X+44 = 7X+119$$

$$5X = 119-44$$

$$5X = 75$$

$$X = 15$$

$$\text{A's present age} = 15+5 = 20$$

$$\text{B's present age} = 3 \times 15 + 5 = 45+5 = 50$$

$$\text{Ratio} = (20-3):(50+3) = 17:53$$

137. Ans. A

Let CP1 = 100 CP2 = 100 overall CP= 200

15% 20%

$$\text{SP1} = 115 \text{ overall SP} = 240$$

$$\text{SP2} = \text{overall SP} - \text{SP1} = 240 - 115 = 125$$

$$\text{Difference in SP} = 125-115 = 10$$

$$\text{Therefor CP} = 48000 \times 100/10 = \text{Rs.48000 Ans.}$$

138. Ans. B

Speed of boat going downstream = 30 + 5 = 35 kmph

Speed of boat going upstream = 30 – 5 = 25 kmph

Speed of approach = 35 + 25 = 60 kmph

Distance to be travelled = 300 km

Time required = 300/60 = 5 hours

139. Ans. A

Ratio of weight of three types of rice = (5\*6) : (4\*5) : (3\*4) = 15:10:6

$$\text{Weight of type one rice} = 248 \times (15/31) = 120 \text{ kg}$$

140. Ans. D

Let Rakesh's salary be '100x'.

Salary spent in PPF = 12x

Remaining Salary = 88x

So, Salary spent on clothes =  $\frac{3}{8}$  of 88x = 33x

As per the question,

$$33x - 12x = 10500$$

$$21x = 10500,$$

$$\text{i.e. } x = 500$$

So, Rakesh's Salary = Rs. 50000/-

Amount spent on Remaining expenses = 50000 -

$$((12 \times 500) + (33 \times 500))$$

$$= 50000 - (6000 + 16500) = 50000 - 22500 = 27500.$$

Now, let House rent be 'a'

Other expenses = a + 1500

As per question,

$$a + (a + 1500) = 27500$$

$$2a = 26000$$

$$a = \text{Rs. } 13000/-$$

141. Ans. B

X, Y, and Z invested Rs. 14000 in total in a business.

Let Y invested Rs. x in the business.

X invested Rs. 3120 more than Y and Z, Rs. 1720 less than Y.

So, we can write now,

$$(x + 3120) + x + (x - 1720) = 14000$$

$$\Rightarrow 3x + 3120 - 1720 = 14000$$

$$\Rightarrow 3x = 14000 - 1400$$

$$\Rightarrow x = 12600/3$$

$$\Rightarrow x = 4200$$

So, the investment of Y = Rs. 4200

The investment of X = Rs. 4200 + 3120 = Rs. 7320

And, the investment of Z = Rs. 4200 - 1720 = Rs. 2480

Then, the ratio of their shares = X : Y : Z = 7320 : 4200

$$: 2480 = 183 : 105 : 62$$

The total profit was Rs. 35000.

$$\therefore \text{The share of Z} = \text{Rs. } 35000 \times (62/350) = \text{Rs. } 6200$$

142. Ans. E

Let the sum invested at 6% be Rs. x

Total sum = Rs. 5500

The interest of one part at 6% for 4 years is equal to the interest of another at 10% for 2 years.

We know,

Simple interest =  $P \times T \times R$  [Where, P = Principal amount, T = duration in years, R = Interest percentage annually]

So, we can write now,

$$x \times 4 \times 6\% = (5500 - x) \times 2 \times 10\%$$

$$\Rightarrow 6x/25 = (5500 - x) \times 1/5$$

$$\Rightarrow 6x = (5500 - x) \times 25 \times (1/5)$$

$$\Rightarrow 6x = 27500 - 5x$$

$$\Rightarrow 11x = 27500$$

$$\Rightarrow x = 2500$$

$$\therefore \text{The sum invested at 6% interest} = \text{Rs. } 2500.$$

143. Ans. D

Total no of balls = 8 + 7 + 6 = 21

Let, E be the event where the ball can be selected which is neither yellow nor black

Number of events where the ball can be selected which is neither yellow nor black = 7

$$P(E) = 7/21 = 1/3$$

144. Ans. A

Given, A certain work is completed by A and B together in 10 days.

Let the number of days taken by A alone be 'a' and by B alone be 'b'

In 1 day,

A completes  $1/a$  part and B completes  $1/b$  part.

$$1/a + 1/b = 1/10 \text{ ---- (1)}$$

Now, if A had worked at twice the speed and B had worked at half his speed it would have taken them 8 days to finish the work.

$$\text{Thus, } 2/a + 1/2b = 1/8 \text{ ----- (2)}$$

$$2 \times (1) - (2)$$

$$\Rightarrow 2/b - 1/2b = 1/5 - 1/8$$

$$\Rightarrow 3/2b = 3/40$$

$$\Rightarrow b = 20 \text{ days}$$

145. Ans. A

Let the radius of cylinder A = 4X and that of cylinder B = 7X

And height of cylinder A = 5Y and that of cylinder B = 2Y

Volume of cylinder =  $22/7 \times r^2 \times h$ .

$$\text{Ratio} = [22/7(4X)^2 \times 5Y] / [22/7(7X)^2 \times 2Y] = 40:49$$

146. Ans. C

The relative speed = (58+50) km/hr = 108km/hr

$$= 108 \times \frac{5}{18} \text{ m/sec} = 30 \text{ m/s}$$

The distance covered to pass each other = 60+90 = 150m

$\therefore$  The time taken to pass each other

$$= \frac{\text{distance}}{\text{relative speed}} = 150/30 = 5 \text{ second}$$

147. Ans. D

Let the capacity of the tank be C

Speed of inlet tap = C/16

Speed of outlet tap = C/8

Difference in speed = C/8 - C/16 = C/16 hours

Time to empty  $3/4^{\text{th}}$  of the tank =  $(3C/4) / C/16 = 3C/4$

$$\times 16/C = 12 \text{ hours}$$

148. Ans. D

Suppose MP = 100

$$\text{Then CP} = 100 \times 80 / 100 = 80$$

According to question

Half the goods at MP =  $100/2 = 50$

One quarter =  $100/4 = 25$  at 10% discount =

$$25 \times 90 / 100 = 22.5$$

And rest =  $100 - 50 - 25 = 25$  at 30% discount =

$$25 \times 70 / 100 = 17.5$$

$$\text{Total sold} = 50 + 22.5 + 17.5 = 90$$

$$\text{Gain\%} = (90 - 80) \times 100 / 80 = 12.5\% \text{ Ans.}$$

149. Ans. B

Let the principal amount be Rs. x

Calculating SI:

SI for 1 year at 12% rate is Rs  $(12/100) \times x$ . For 3 years it will be Rs  $(36/100) \times x$  ----- (1)

Calculating CI:

For 1<sup>st</sup> year, Interest =  $(12/100)*x$   
 For 2<sup>nd</sup> year, interest =  $(12/100)*x + (12/100)*x + (144/10000)*x$   
 For 3<sup>rd</sup> year, interest =  $(12/100)*x + (12/100)*x + (12/100)*x + (144/10000)*x + (144/10000)*x + (1728/1000000)*x$ . ----- (2)  
 Subtracting equation 2 and 1 and solving further,  
 $312*144*x/1000000 = 112.32$   
 $X = \text{Rs } 2500$ .

150. Ans. D

Let us suppose Women give 10 units a day  
 Therefore, a man gives  $1.4 * 10 = 14$  units a day  
 Similarly, a child gives  $0.6 * 10 = 6$  units a day  
 Total job (units) = (7 days \* per day contribution) =  $7 * (3 * 14 + 5 * 10 + 4 * 6) = 812$  units  
 New combination = 2 M + 7 W + 3 C  
 Contribution per day =  $2 * 14 + 7 * 10 + 3 * 6 = 116$  units  
 Days required to complete the job =  $812/116 = 7$  days

151. Ans. E

Through Drive duplexing we can get redundancy if we use 2 disks and 2 controllers. Drive duplexing duplicate the hardware too that controls it. Drive duplexing gives protection against drive failure and also for the failures of controllers.

152. Ans. A

Frame relay is a type of hared network service technology. It does the task of making packages of data and converting them to bundles. It has a type of bit command in its header.

153. Ans. A

Home page serves as the access page for a website, means through it we can go to the other pages of the same website or of the other site. It is the first page which is seen by a person when he accesses that website.

154. Ans. C

Through a search engine we can find whatever material there is on world wide web. Search engines works in such a way that they uses technology that joins one page to another so that you can easily locate whatever you were finding.

155. Ans. E

We design performance tests for webapp to simulate real-world loading. As the number of user of the web app increases, so due to this we perform web app testing. We measure the performance of web app using a toll called web application performance tool.

156. Ans. B

In web app testing we perform operations like to find out errors in content, function, performance etc. Therefor http-method is not a confirmable part of web app security.

157. Ans. A

Backward recovery(Roll-back) is Known for it's undo wanted variation that it does to the database. The images that were altered are been put back and the database goes back to it's previous state.

158. Ans. D

The type of language that comprises of semantic tags which are use to provide details about data is Known a XML. It consists of a start tag, end and content between them.

159. Ans. E

The structure query language comprises of many function but the functions that are built in are- COUNT, SUM, AVG, MAX, MIN, RAND, CONCAT, SQRT etc.

160. Ans. C

in acyclic diagram you can opt for any node as the root node of the tree. When a tree comprises of root then it is known to be rooted and if that tree is directed too then it is known as directed acyclic graph.

161. Ans. A

Through XML one can build their information semantically. Using XML we can build tags of our choice. Like whatever tags we want to be part of our XML. Hence Semantic web can easily be build up using XML.

162. Ans. C

In case of TIPS, transactions are been generated by action document. Information document plays the role of informing an individual about the details related to their particular transaction.

163. Ans. A

streaming media is the technology where the audio and video content that you are viewing is delivered directly to you over Internet. In it the internet is transmitting your video and audio content, acting as a broadcasting medium for you. Types of download and play available are- Download and play, progressing download and true streaming.

164. Ans. B

The Domain name system is also known as the book of internet it does the task of mapping domain names to their ip addresses.

165. Ans. E

You can have bind data amid your web application and database. Blind variable keep real values in there SQL statements. Introducing bind variables in your SQL statements helps you in reducing processing time and also improves the work speed of your application.

166. Ans. D

The SQL SELECT statement gives you the result of the select query that you have executed and the output of that is stored in table. So after execution we get table.

167. Ans. B

The SQL CASE statement is a way to establish IF-THEN-ELSE statement. It is a same type of programming language as C# and JAVA are. The syntax followed by a CASE statement are- CASE column\_name, When condition1 THEN result1, When condition2 THEN result2, ....., ELSE result, END

168. Ans. B

The IP address 0.0.0.255 meets similar 1<sup>st</sup> 3 octets of the other 2 packets. Therefore 0.0.0.255 is most suitable for matching all IP packets in subnet 10.1.128.0, mask 255.255.255.0

169. Ans. A

Cracking is a term given to the activities done by a cracker. A cracker is a person who is known for his skills that he has, with his skill he can access your internet security, can get to your personal data and passwords.

170. Ans. D

Malicious software popular goes on by the name of malware. A malware is responsible for causing trouble to your system. They can be any type may be viruses or worms. They can take your personal data, passwords etc.

171. Ans. A

Locking procedure results in deadlock, the reason for this is that when a transaction locks a resource that is needed by other transaction leading to deadlock. And the transaction which has locked that too is waiting for resource needed by another transaction.

172. Ans. B

Procedural program is known for its technique in which keeps data in variables or in structured form and it has functions which are known for doing operations on data.

173. Ans. A

Ping sweep is a method through which we can easily find that which IP addresses is mapping to its live end hosts. We can know from any single point the presence of a host in the network.

174. Ans. E

IPsec is known for its standard for security that is inclined at the network or packet processing layer of network communications, as opposed to the application layer. The types of security provided by IPsec include authentication and encapsulation.

175. Ans. E

The outer join gives us the rows that have met the specified condition and also gives rows from one table which has satisfied condition which no other row has satisfied. Hence an outer join gives the set of incomparable rows from both of the tables.

176. Ans. B

In case of system development, it associates with various cross life cycle activities. These activities comprise of- fact finding, documentation and presentation, feasibility analysis and many others.

177. Ans. C

The tools needed by a user to interact with a web application interface include links, forms, client side scripting etc. But a browser is not needed in this case.

178. Ans. E

Globalization refers to the integration of economic, social, cultural and ecological facets of life, enabled by information technologies.

179. Ans. B

java.awt.Cursor is used to denote the object of a cursor. The cursor class characterizes cursors to many constants eg DEFAULT\_CURSOR.

180. Ans. A

SCSI is known to be a small computer system interface that is used to link various types of hardware devices to the motherboard or to the controller card. Parallel advanced technology is used to link hard devices to a computer.

181. Ans. B

In optical fiber medium we convert data to light pulses. As the optical cables are formed by combining many thin glass fibers and the data is converted to light pulses which are ejected by the laser.

182. Ans. D

Social engineering points out to a technique where you fraud a victim in telling personal information or making them do what you want.

183. Ans. B

We can do operations like insert, delete, concatenate and rearrange substrings in a linked list. We can perform all these operations easily without any need of altering the memory space. As in a linked list we can place and delete nodes from any point easily.

184. Ans. E

DLCI stands for Data Link Connection Identifier and denotes a channel number which is available with data frames.

185. Ans. D

We can create and delete views and relations within tables through SQL Data Definition Language. With this language we build a number of objects that have been implemented in SQL. It supports the majority of data vendors in its standard form.

186. Ans. C

Drilling down means that you have to look from one place to another for clues to refine data. In it we begin from a table that displays detailed knowledge and one after the other goes to tables that have more precise info.

187. Ans. C

Non-primitive data types comprise of those data types that do not come under primary data types. We can keep them in groups of values. Eg structures.

188. Ans. B

When you pass through some websites, there are chances that you might get spyware. It gets installed to your system on its own. It is also known as drive-by-download.

189. Ans. E

Apart from internet connection a web browser is essential to go to a web page. Only having internet connection can't get you to a web page so therefore a browser is essential.

190. Ans. D

Every host computer should have its own IP address. A host computer network address consists of network prefix and the host number.

191. Ans. B

The functions that are provided by DBMS to ensure purity and firmness are data dictionary management, data storage management, data transformation and presentation, multiuser access control, data integrity management and application programming interfaces and many more but data reports are not one of them.

192. Ans. D

As we know that the 5 maturity levels of CMM are needed to check the condition of an organization and its process in SDLC. The tasks to accomplish are been setup when you enter the level four. Accurate measures for processes of SDLC and for the quality of product are stored in a data base.

193. Ans. E

We can denote a class and any of the members in it using accessibility levels like public, private or protected. A class and its member needs to be public to get accessed by any other class. So the UML designation used is public

194. Ans. B

A wide area network is known for its distance that it covers between cities, country and may also extend to intercontinental. Eg- telephone lines, cables etc.

195. Ans. C

Web pages consist of texts along with HTML tags, if you want to build it you can use any word processor.

196. Ans. D

We can explain a program by giving its graphical representation of the order of the activity. A system flow chart depicts how the data flows from documents to final users. We can use different types of symbols in a flowchart to show different types of operations.

197. Ans. C

In stack elements are added and deleted following the LIFO order. So the statement claiming first-in first-out is incorrect.

198. Ans. C

In case of a dequeue you can put an element at the end or also at the beginning but for an element to get placed in the middle is not possible, as it has two ends. But for the case of input restriction dequeue, in it we are allowed to put elements at one end, but are not allowed to delete element from any of the end of the list and an output restricted dequeue is completely opposite to input restricted as it allows to remove an element from one end and also allows to put elements at both the end.

199. Ans. D

In the designing phase we consider the requirements mentioned in the SRS document and then we try to formulate them in to a logical structure so that structure can be used for a programming language. So the final result that we get in designing phase is the document that consists of design.

200. Ans. E

CGI serves as the form of a script that helps to run a program on a server through a web page. These programs are independent and can perform well on many servers without any problem. CGI has been used by languages like C, C++, python etc.

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