


SNAP 2022 Question Paper

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General English

Q1. Directions to Solve: In the question below, each passage consists of six sentences. The first and sixth sentences are given in the beginning. The middle four sentences in each have been removed and jumbled up. These are labeled as P, Q, R, and S. Find out the proper order for the four sentences.

S1: In the middle of one side of the square sits the Chairman of the committee, the most important person in the room.

P : For a committee is not just a mere collection of individuals.

Q : On him rests much of the responsibility for the success or failure of the committee.

R : While this is happening we have an opportunity to get the 'feel' of this committee.

S : As the meeting opens, he runs briskly through a number of formalities.

S6: From the moment its members meet, it begins to have a sort of nebulous life of its own.

The Proper sequence should be:

1. RSQP
2. PQRS
3. SQPR
4. QSRP

Q2-Q3. Directions to solve: Some proverbs/idioms are given below together with their meanings. Choose the correct meaning of proverb/idiom

To make clean breast of

1. To gain prominence
2. To praise oneself
3. To confess without reserve
4. To destroy before it blooms

To keeps one's temper

1. To become hungry
2. To be in a good mood
3. To preserve one's energy
4. To be aloof from

Q4. Directions to Solve: In the following questions choose the word which is the exact OPPOSITE of the given words.

ENORMOUS

1. Soft
2. Average
3. Tiny
4. Weak

Q5-Q6. Directions to Solve: In the questions below the sentences have been given in Direct/Indirect speech. From the given alternatives, choose the one that best expresses the given sentence in Indirect/Direct speech.

"If you don't keep quiet I shall shoot you", he said to her in a calm voice.

1. He warned her to shoot if she didn't keep quiet calmly.
2. He said calmly that I shall shoot you if you don't be quiet.
3. He warned her calmly that he would shoot her if she didn't keep quiet.
4. None of these

I told him that he was not working hard.

1. I said to him, "You are not working hard."
2. I told to him, "You are not working hard."
3. I said, "You are not working hard."
4. None of these

Q7-Q9. Directions to Solve: In each question, an incomplete statement (Stem) followed by fillers is given. Pick out the best one which can complete incomplete stem correctly and meaningfully.

Despite his best efforts to conceal his anger

1. we could detect that he was very happy
2. he failed to give us an impression of his agony
3. he succeeded in camouflaging his emotions
4. people came to know that he was annoyed

Even if it rains I shall come means

1. If I come it will not rain
2. If it rains I shall not come
3. I will certainly come whether it rains or not
4. Whenever there is rain I shall come

His appearance is unsmiling but

1. his heart is full of compassion for others

2. he looks very serious on most occasions
3. people are afraid of him
4. he is uncompromising on matters of task performance

Q10. Directions to Solve: In the following questions choose the word which best expresses the meaning of the given word.

CORPULENT

1. Lean
2. Gaunt
3. Emaciated
4. Obese

Q11. Directions to Solve: Find the correctly spelt words.

(solve as per the direction given above)

1. Foreign
2. Foreine
3. Fariegn
4. Forein

Q12-Q13. Directions to Solve: Pick out the most effective word(s) from the given words to fill in the blank to make the sentence meaningfully complete.

Fate smiles..... those who untiringly grapple with the stark realities of life.

1. with
2. over
3. on
4. round

The miser gazed at the pile of gold coins in front of him.

1. avidly
2. admiringly
3. thoughtfully
4. earnestly

Q14-Q15. Directions to Solve: Each question consists of two words that have a certain relationship to each other followed by four pairs of related words, Select the pair that has the same relationship.

DIVA: OPERA

1. producer: theatre
2. director: drama

3. thespian: play
4. None of these

GRAIN: SALT

1. shard: pottery
2. shred: wood
3. blades: grass
4. chip: glass

Analytical & Logical Reasoning

Q16. A, B, C, D, E, F, and G are members of a sports club who enjoy a variety of activities, including Carrom, Table Tennis, Badminton, Bridge, Hockey, Football, and Lawn Tennis, albeit not necessary in that order.

They all have distinct musical preferences, such as Sitar, Guitar, Harmonium, Flute, Tabla, Banjo, and Santoor, though not necessarily in that order.

B enjoys playing Carrom and Banjo. E enjoys playing bridge but not the harmonium or the tabla. Sitar is played by the person who plays hockey.

F does not play table tennis or lawn tennis. A is a badminton and flute player. Tabla is not played by those who play lawn tennis. G plays hockey and C plays the Harmonium.

Which of the following game person-musical instrument pairings is absolutely correct?

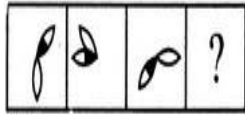
1. Badminton-B-Flute
2. Table Tennis-E-Santoor
3. Lawn Tennis-D-Tabla
4. None of these.

Q17. Directions to Solve: Each of the following questions consists of two sets of figures. Figures A, B, C and D constitute the Problem Set while figures 1, 2, 3, 4 and 5 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by selecting a suitable figure from the Answer Set that would replace the question mark (?) in fig. (D).

Select a suitable figure from the Answer Figures that would replace the question mark (?).

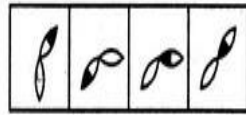
Problem Figures:

Answer Figures:



(A) (B) (C) (D)

- 1
- 2
- 3
- 4



(1) (2) (3) (4)

Q18. Directions to Solve: In each question below is given a statement followed by two assumptions numbered I and II. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

Give answer

- (A) If only assumption I is implicit
- (B) If only assumption II is implicit
- (C) If either I or II is implicit
- (D) If both I and II are implicit.

Statement: "You are hereby appointed as a programmer with a probation period of one year and your performance will be reviewed at the end of the period for confirmation." - A line in an appointment letter.

Assumptions:

- I. The performance of an individual generally is not known at the time of appointment offer.
- II. Generally an individual tries to prove his worth in the probation period.

- A. Only assumption I is implicit
- B. Only assumption II is implicit
- C. Either I or II is implicit
- D. Both I and II are implicit

Q19. Directions to Solve: In each question below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

Give answer:

- (A) If only conclusion I follows
- (B) If only conclusion II follows

- (C) If either I or II follows
- (D) If neither I nor II follows and

Statements: In a one day cricket match, the total runs made by a team were 200. Out of these 160 runs were made by spinners.

Conclusions:

- I. 80% of the team consists of spinners.
- II. The opening batsmen were spinners.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows

Q20. Directions to Solve: Each question given below consists of a statement, followed by two arguments numbered I and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

Give answer:

- (A) If only argument I is strong
- (B) If only argument II is strong
- (C) If either I or II is strong
- (D) If neither I nor II is strong and

Statement: Should India encourage exports, when most things are insufficient for internal use itself?

Arguments:

- I. Yes. We have to earn foreign exchange to pay for our imports.
- II. No. Even selective encouragement would lead to shortages.

- A. Only argument I is strong
- B. Only argument II is strong
- C. Either I or II is strong
- D. Neither I nor II is strong

Q21-Q22. Directions to Solve: In each series, look for the degree and direction of change between the numbers. In other words, do the numbers increase or decrease, and by how much

Look at this series: 2, 1, (1/2), (1/4), ... What number should come next?

1. (1/3)
2. (1/8)
3. (2/8)
4. (1/16)

Look at this series: 7, 10, 8, 11, 9, 12, ... What number should come next?

1. 7
2. 10
3. 12
4. 13

Q23-Q24. Directions to Solve: In each of 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 as

- (A) If statement I is the cause and statement II is its effect;
- (B) If statement II is the cause and statement I is its effect;
- (C) If both the statements I and II are independent causes;
- (D) If both the statements I and II are effects of independent causes; and

23. Statements:

- I. The prices of petrol and diesel in the domestic market have remained unchanged for the past few months.**
- II. The crude oil prices in the international market have gone up substantially in the last few months.**

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

24. Statements:

- I. The government has recently fixed the fees for professional courses offered by the unaided institutions which are much lower than the fees charged last year.**
- II. The parents of the aspiring students launched a severe agitation last year**

protesting against the high fees charged by the unaided institutions.

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

Q25-Q26. Pointing to a photograph of a boy Mr. Ram said, "He is the son of the only son of my mother." How is Mr Ram related to that boy?

1. Brother
2. Uncle
3. Cousin
4. Father

Ravi is the son of Aman's father's sister. Sahil is the son of Divya who is the mother of Gaurav and grandmother of Aman. Ashok is the father of Tanya and grandfather of Ravi. Divya is the wife of Ashok. How is Ravi related to Divya?

1. Nephew
2. Son
3. Grandson
4. Father-in-law

Q27-Q28. The angle between the minute hand and the hour hand of a clock when the time is 4:20, is:

1. 0°
2. 10°
3. 5°
4. 20°

At 3:40, the hour hand and the minute hand of a clock form an angle of:

1. 120°
2. 125°
3. 130°
4. 135°

Q29-Q30. Directions to Solve: In each of the following questions two statements are given and these statements are followed by two conclusions

numbered (1) and (2). You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

Give answer:

- (A) If only (1) conclusion follows
- (B) If only (2) conclusion follows
- (C) If either (1) or (2) follows
- (D) If neither (1) nor (2) follows and

29. Statements: Some actors are singers. All the singers are dancers.

Conclusions:

- I. Some actors are dancers.**
- II. No singer is an actor.**

- A. Only (1) conclusion follows
- B. Only (2) conclusion follows
- C. Either (1) or (2) follows
- D. Neither (1) nor (2) follows

30. Statement:

- I. All Actors are Musicians.**
- II. No Musician is a Singer.**
- III. Some Singers are Dancers.**
- IV. Some dancers are Musicians.**

Conclusions:

- I : Some Actors are Singers**
- II : Some Dancers are Actors**
- III : No Actor is a Singer**

- A. Only (1) conclusion follows
- B. Only (2) conclusion follows
- C. Either (1) or (2) follows
- D. Neither (1) nor (2) follows

Q31. Directions to Solve: In this series, you will be looking at both the letter pattern and the number pattern. Fill the blank in the middle of the series or the end of the series.

SCD, TEF, UGH, _____, WKL

- 1. CMN
- 2. UJI
- 3. VIJ
- 4. IJT

Q32-Q33. Directions to Solve: In each question below is given a statement followed by two courses of action numbered I and II. You have to assume everything in the statement to be true and on the basis of the information given in the statement, decide which of the suggested courses of action logically follow(s) for pursuing.

Give answer

- (A) If only I follows
- (B) If only II follows
- (C) If either I or II follows
- (D) If both I and II follow.

Statement: A large number of people in ward X of the city are diagnosed to be suffering from a fatal malaria type.

Courses of Action:

- I. The city municipal authority should take immediate steps to carry out extensive fumigation in ward X.**
- II. The people in the area should be advised to take steps to avoid mosquito bites.**

- A. Only I follow
- B. Only II follows
- C. Either I or II follows
- D. Both I and II follow

Statement: Severe drought is reported to have set in several parts of the country.

Courses of Action:

Government should immediately make arrangement for providing financial assistance to those affected. Food, water and fodder should immediately be sent to all these areas to save the people and cattle.

- A. Only I follows
- B. Only II follows
- C. Either I or II follows
- D. Both I and II follow

Q34-Q35. It was Sunday on Jan 1, 2006. What was the day of the week Jan 1, 2010?

- 1. Sunday
- 2. Saturday
- 3. Friday
- 4. Wednesday

What was the day of the week on 28th May 2006?

1. Thursday
2. Friday
3. Saturday
4. Sunday

Q36. There are 8 houses in a line and in each house, only one boy lives with the conditions as given below:

Jack is not the neighbor Siman.
 Harry is just next to the left of Larry.
 There is at least one to the left of Larry.
 Paul lives in one of the two houses in the middle.
 Mike lives in between Paul and Larry.

If at least one lives to the right of Robert and Harry is not between Taud and Larry, then which one of the following statements is not correct?

1. Robert is not at the left end.
2. Robert is in between Simon and Taud.
3. Taud is in between Paul and Jack.
4. There are three persons to the right of Paul.

Q37. Direction: Study the following information carefully to answer these questions.

A, B, C, D, E, F and G are members of a sports club and have a liking for different games, viz Carrom, Table Tennis, Badminton, Bridge, Hockey, Football and Lawn Tennis but not necessarily in the same order. Each one of them has a liking for different musical instruments, viz Sitar, Guitar, Harmonium, Flute, Tabla, Banjo, and Santoor, not necessarily in the same order. B likes Carrom and Banjo. E likes to play Bridge but not Harmonium or Tabla. The one who plays Hockey plays Sitar. F plays Guitar but not Table Tennis or Lawn Tennis. A plays badminton and Flute. The one who plays Lawn Tennis does not play Tabla. C plays Harmonium and G plays Hockey.

D plays which game ?

1. Table Tennis
2. Lawn Tennis
3. Football
- None of these

Q38. Direction: Arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence.

1. Preach
2. Praise
3. Precinct
4. Precept

1. 2, 1, 3, 4
2. 2, 1, 3, 4
3. 2, 1, 3, 4
4. 2, 1, 4, 3

Q39. Choose the alternative that closely resembles the mirror image of the given combination.

ANS43Q12

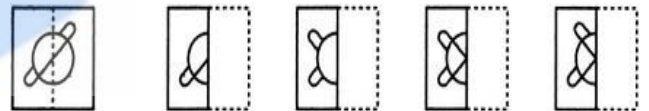
(1) ANS43Q12

(2) 21Q34SNA

(3) 2NAE4Q51

(4) 12Q4EANS

Q40. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



- (X)
- (1)
- (2)
- (3)
- (4)
1. (1)
2. (2)
3. (3)
4. (4)

Quantitative, DI and Data Sufficiency

Q41. Which one of the following is not a prime number?

1. 31
2. 61
3. 71
4. 91

Q42. $(112 \times 5^4) = ?$

1. 67000
2. 70000
3. 76500
4. 77200

Q43. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?

1. 12 days
2. 15 days
3. 16 days
4. 18 days

Q44. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:

1. 39, 30
2. 41, 32
3. 42, 33
4. 43, 34

Q45. A fruit seller had some apples. He sells 40% apples and still has 420 apples. Originally, he had:

1. 588 apples
2. 600 apples
3. 672 apples
4. 700 apples

Q46. A sum of money at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 years. The sum is:

1. Rs. 650
2. Rs. 690
3. Rs. 698
4. Rs. 700

Q47. Mr. Thomas invested an amount of Rs. 13,900 divided in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in 2 years is Rs. 3508, what was the amount invested in Scheme B?

1. Rs. 6400
2. Rs. 6500
3. Rs. 7200
4. Rs. 7500

Q48. Two numbers are respectively 20% and 50% more than a third number. The ratio of the two numbers is:

1. 2 : 5
2. 3 : 5
3. 4 : 5
4. 6 : 7

Q49. In the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 runs?

1. 6.25
2. 6.5
3. 6.75
4. 7

Q50. A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour?

1. 3.6
2. 7.2
3. 8.4
4. 10

Q51. The cost price of 20 articles is the same as the selling price of x articles. If the profit is 25%, then the value of x is:

1. 15
2. 16
3. 18
4. None of these

Q52-Q53. Directions to Solve: Study the following table and answer the questions based on it.

Expenditures of a Company (in Lakh Rupees) per Annum Over the given Years.

Year	Item of Expenditure				
	Salary	Fuel and Transport	Bonus	Interest on Loans	Taxes
1998	288	98	3.00	23.4	83
1999	342	112	2.52	32.5	108

2000	324	101	3.84	41.6	74
2001	336	133	3.68	36.4	88
2002	420	142	3.96	49.4	98

What is the average amount of interest per year which the company had to pay during this period?

1. Rs. 32.43 lakhs
2. Rs. 33.72 lakhs
3. Rs. 34.18 lakhs
4. Rs. 36.66 lakhs

The total amount of bonus paid by the company during the given period is approximately what percent of the total amount of salary paid during this period?

1. 0.1%
2. 0.5%
3. 1%
4. 1.25%

Q54. From a group of 7 men and 6 women, five persons are to be selected to form a committee so that at least 3 men are there on the committee. In how many ways can it be done?

1. 564
2. 645
3. 735
4. 756

Q55. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5?

1. $\frac{1}{2}$
2. $\frac{2}{5}$
3. $\frac{8}{15}$
4. $\frac{3}{5}$

Q56. Two ships are sailing in the sea on the two sides of a lighthouse. The angle of elevation of the top of the lighthouse is observed from the ships are 30° and 45° respectively. If the lighthouse is 100 m high, the distance between the two ships is:

1. 173 m
2. 200 m

3. 273 m
4. 300 m

Q57. A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?

1. 120 metres
2. 180 metres
3. 324 metres
4. 150 metres

Q58. A right triangle with sides 3 cm, 4 cm and 5 cm is rotated the side of 3 cm to form a cone. The volume of the cone so formed is:

1. 12π cm³
2. 15π cm³
3. 16π cm³
4. 20π cm³

Q59. A hall is 15 m long and 12 m broad. If the sum of the areas of the floor and the ceiling is equal to the sum of the areas of four walls, the volume of the hall is:

1. 720
2. 900
3. 1200
4. 2000

Q60. Find the greatest number that will divide 43, 91 and 183 so as to leave the same remainder in each case.

1. 4
2. 7
3. 9
4. 14

ANSWERS:

1. Correct option is 4. Q should be placed after S1, since it describes the responsibilities of the chairman. And then S, as it contains some more information about the chairman. Then R and then P. So, the proper sequence can be formed is Q-S-R-P.

2. The correct answer would be option would be 3 i.e. to confess everything without reserve.

3. The correct answer is option 3 i.e. to preserve one's energy.

4. Option 3 Tiny because Enormous means big.

5. Option 3 : He warned her calmly that he would shoot her if she didn't keep quiet.

6. The correct option is 1 I said to him, "You are not working hard." While converting from indirect speech to direct speech, "was/were" becomes "am/is/are" and "him/her" becomes "you". Direct speech is : I said to him, "You are not working hard."

7. Correct option is 4. We can understand from the use of the conjunction despite that something opposite to the situation is happening. Option 4 is the only one that justifies this, and the situation is discussed in the first part of the sentence. Thus, Option 4 is the most suitable option.

8. Option 3 "I will certainly come whether it rains or not" is the correct interpretation of the given statement "Even if it rains I shall come."

9. Option 1.

10. Option 4

11. Option 1

12. Option 3

13. The correct option is 1. Avidly means to desire something longingly.

14. Diva (woman singer) plays a leading role in an opera (musical play). Similarly, thespian (actor) plays a leading role in a play. So the correct option is 3.

15. Salt consists of grains and glass is made up of chips. So the correct answer is option 4.

16. Option 4.

Member	Sports	Instrument
A	Badminton	Flute
B	Carrom	Banjo
C	Lawn Tennis	Harmonium
D	Table Tennis	Tabla
E	Bridge	Santoor
F	Football	Guitar
G	Hockey	Sitar

17. Option 3 . The half-shaded leaf rotates 135° ACW and the unshaded leaf rotates 135° CW.

18. The correct option is 5 Both I and II are implicit. The performance of the individual has to be tested over a span of time as the statement mentions. So, I is implicit. The statement mentions that the individual's worth shall be reviewed (during the probation period) before confirmation. So, II is also implicit.

19. The correct option is 4 Neither I nor II follows. According to the statement, 80% of the total runs were made by spinners, So, I does not follow. Nothing about the opening batsmen is mentioned in the statement. So II also does not follow.

20. The correct option is 1. Clearly, India can export only the surplus and that which can be saved after fulfilling its own needs, to pay for its imports. Encouragement to export cannot lead to shortages as it shall provide the resources for imports. So, only argument I holds.

21. The correct option is 1/8.



22. The correct option is 2. This is a simple alternating addition and subtraction series. In the first pattern, 3 is added; In the second pattern, 2 is subtracted. Rule = (1st number) (1st number + 3 = 2nd number) (2nd number - 2 = 3rd number) (3rd number + 3 = 4th number) Now (7) (7 + 3 = 10) (10 - 2 = 8) (8 + 3 = 11) (11 - 2

= 9) (9 + 3 = 12) (12 - 2 = 10)...
So the answer is b = 10.

23. The correct option is 3. Since In one part of world prices are same and in other parts, prices are shooting up. So, they both are causes of different events. Hence, Option C is correct.

24. The correct option is 2. The parents' protest against the high fees being charged by the institutions led the government to interfere and fix the fees at a more affordable level.

25. The boy in the photograph is the only son of the son of Ram's mother i.e., the son of Ram. Hence, Ram is the father of the boy. Hence, option 4 is the correct answer.

26. Divya is the grandmother of Aman and Aman and Ravi are cousins (from the first statement). Ravi should be a grandson to Divya. Hence, option C is the correct answer.

27. Option 2. At 4:20, the minute hand is at 4 i.e. it has covered $(360^\circ/12) * 4 = 120^\circ$ (from 12). The hour hand has covered $(360^\circ/12\text{hrs}) * (4\text{hrs}+20\text{mins}) = (360^\circ/(12*60\text{ mins}))*260\text{mins} = 130^\circ$
Angle between them is difference in angles covered = $130^\circ - 120^\circ = 10^\circ$
Hence the angle between the hands of the clock at 4:20 is 10° .

28. Correct option is 3.

Angle traced by hour hand in 12hrs = 360° .

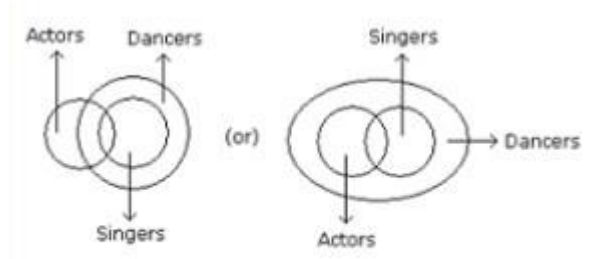
Angle traced by it in $\frac{11}{3}$ hrs = $\left(\frac{360}{12} \times \frac{11}{3}\right)^\circ = 110^\circ$

Angle traced by minute hand in 60min = 360° .

Angle traced by it in 40min. = $\left(\frac{360}{60} \times 40\right)^\circ = 240^\circ$.

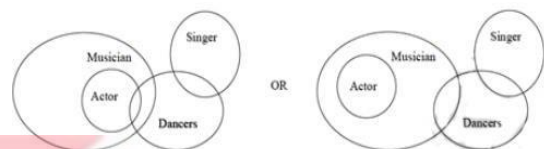
\therefore Required angle $(240 - 110)^\circ = 130^\circ$.

29. Option 1.



30. The correct option is 2
Only conclusion III follows.

From the given information, only conclusion III follows. I cannot follow as No Actor is a Singer (from Statement I and II).



31. The correct option is 3.

32. Option 5. Clearly, prevention from mosquitoes and elimination of mosquitoes are two ways to prevent malaria. So, both the courses follow.

33. Option 2. In this situation, the government should think about saving the lives of people and livestock by providing basic amenities like food and water. Providing financial assistance will not provide immediate relief and would put an extra burden on the funds.

34. Option 1

35. Option 4

36. Option 3.

We have totally 8 people.

Jack, Harry, Larry, Paul, Mike, Siman, Robert, and Taud.

Main condition: Paul occupies one of the 2 middle seats

1 2 3 4 5 6 7 8 : So 5th or 4th is occupied by him.

So, remaining 6 seats are there.

Now lets take larry into consideration. It is said that harry sits to the immediate left of larry and

also they have told that there can be atleast one person next to larry(so it means,the clue here is there is one more person to the left of larry after harry).

So, now the confusion is what are the seats occupied by the three people.

Lets assume that larry has occupied 3rd seat and so harry will take up 2nd seat and one more person will be there after harry.

This person can be Robert or Taud or jack or Siman.

To select among these options we go for the trial and error method using options A,B,C,D

The first option: Robert is there at the left end.

There is a possibility for this option to be true. So we eliminate it.

The second: Robert is in between Simon and Taud.

This is also possible

Third: Taud is in between Paul and Jack

This is not possible.

Explanation:

If taud is in between paul and jack then

R H L M P T J S ---> this is wrong because jack and siman cannot be together.

Similarly, -----

S H L M P T J S ---->this is also wrong because as per condition "at least one person should be there to the right of Robert"

So, the correct answer is 3.

37. Option 1.

Members	Sports	Musical instruments
A	Badminton	Flute
B	Carron	Banjo
C	Lawn Tennis	Harmonium
D	Table Tennis	Tabla
E	Bridge	Santoor
F	Football	Guitar
G	Hockey	Sitar

38. Correct option is 1. According to arrangement of words in alphabetical order the sequence will be:

2. Praise

1. Preach

5. Precede

4. Precept

3. Precinct

Hence, the order is 2 1 5 4 3.

39. Option 2.

40. Option 4.

41. Option 4.

42. Option 2.

43. Option 2.

$$A's\ 2\ day's\ work = \left(\frac{1}{20} \times 2\right) = \frac{1}{10}$$

$$(A + B + C)'s\ 1\ day's\ work = \left(\frac{1}{20} + \frac{1}{30} + \frac{1}{60}\right) = \frac{6}{60} = \frac{1}{10}$$

$$Work\ done\ in\ 3\ days = \left(\frac{1}{10} + \frac{1}{10}\right) = \frac{1}{5}$$

Now, $\frac{1}{5}$ work is done in 3 days.

∴ Whole work will be done in $(3 \times 5) = 15$ days.

44. Option 3.

Let one student secure x marks.

Therefore, the other student secures (x+9) marks.

$$(x + 9) = 56\% \text{ of } (x + x + 9) = \frac{56}{100} \times (2x + 9)$$

$$\Rightarrow 100x + 900 = 112x + 504$$

$$\Rightarrow 12x = 900 - 504 = 396$$

$$\Rightarrow x = \frac{396}{12} = 33$$

Therefore, marks obtained by other student $x + 9 = 33 + 9 = 42$.

Marks obtained by both students are 33 and 42.

45.

% of apples sold = 40%

% of apples left = 60%

Number of apples left = 420

Percentage formula :

$$\frac{\text{Part}}{\text{Whole}} = \frac{\text{Percent}}{100}$$

Therefore,

$$\text{Whole} = \frac{\text{Part} \times 100}{\text{Percent}}$$

$$\Rightarrow \text{Total apples} = \frac{420 \times 100}{60} = 700$$

46. Option 1.

A sum of money at Simple Interest amounts to Rs. 815 in 3 years.

The same money is amount to Rs. 854 in 4 years.

Formula used Simple interest = (Principal x rate x time)/100

A sum of money at Simple Interest amounts to Rs. 815 in 3 years and Rs. 854 in 4 years

Simple interest for 1 year = 854-815 \Rightarrow Rs. 39
 Simple interest for 3 year = 39 \times 3 \Rightarrow 117
 The sum is = 815-117 \Rightarrow Rs. 698
 The sum is 698.

47.

Let the sum invested in Scheme A be Rs. x and that in Scheme B be Rs. $(13900 - x)$.
 Then,

$$\frac{x \times 14 \times 2}{100} + \frac{(13900 - x) \times 11 \times 2}{100} = 3508$$

$$\Rightarrow 28x - 22x = 350800 - (13900 \times 22)$$

$$\Rightarrow 6x = 45000$$

$$\Rightarrow x = 7500$$
 So, sum invested in Scheme B
 = Rs. $(13900 - 7500)$
 = Rs. 6400

48. Correct option is 3

Correct option is C)

Let the third number be x .

$$\text{First number } \frac{120}{100} \times x = \frac{6x}{5}$$

$$\text{Second number } \frac{150}{100} \times x = \frac{3x}{2}$$

$$\text{Ratio} = \frac{6x}{5} : \frac{3x}{2}$$

$$= 4 : 5$$

Thus, the ratio of two numbers is 4 : 5.

49. The correct option is 1.

For first 10 overs, run rate = 3.2

$$\Rightarrow \text{Runs scored} = 3.2 \times 10 = 32$$

Total runs to be scored = 282

Runs Left to be scored in 40 overs =

$$282 - 32 = 250$$

$$= 250/40$$

Required Run-Rate in remaining overs = 6.25

50. The correct option is 2.

Distance = 600m

Time = 5 min = 5/60 sec

Speed = Distance/Time

$$= 600/5 \times 60 \text{ m/sec}$$

$$= 2 \text{ m/s} \times 18/5$$

$$= 7.2 \text{ km/hr}$$

51. The correct option is 2.

Let C.P. of each article be Re1.

C.P. of x articles = Rs. x and S.P. of x articles = Rs. $20x$.

Profit = Rs. $(20x - x)$.

$$\therefore 20x - x \times 100 = 25x$$

$$\Rightarrow 2000 - 100x = 25x$$

$$\Rightarrow 125x = 2000$$

$$\therefore x = 16$$

52. Option 4.

Average amount of interest paid by the Company during the given period

$$= \text{Rs. } \left[\frac{23.4 + 32.5 + 41.6 + 36.4 + 49.4}{5} \right] \text{ lakhs}$$

$$= \text{Rs. } \left[\frac{183.3}{5} \right] \text{ lakhs}$$

$$= \text{Rs. } 36.66 \text{ lakhs}$$

53. Option 3.

$$\text{Required percentage} = \left[\frac{(3.00 + 2.52 + 3.82 + 3.68 + 3.96)}{(288 + 342 + 324 + 336 + 420)} \times 100 \right] \%$$

$$= \left[\frac{17}{1710} \times 100 \right] \%$$

$$\approx 1\%$$

54. (7 men + 6 women) 5 persons are to be chosen for a committee.

Formula used: ${}^nC_r = \frac{n!}{(n-r)!r!}$

Calculation: Ways in which at least 3 men are selected;

3 men + 2 women

\Rightarrow 4 men + 1 woman

\Rightarrow 5 men + 0 woman

Number of ways = ${}^7C_3 \times {}^6C_2 + {}^7C_4 \times {}^6C_1 + {}^7C_5 \times {}^6C_0$

$$= \frac{7!}{(3! \times 4!)} \times \frac{6!}{(2! \times 4!)} + \frac{7!}{(4! \times 3!)} \times \frac{6!}{(1! \times 5!)} + \frac{7!}{(5! \times 2!)} \times \frac{6!}{(6! \times 0!)}$$

$$= 35 \times 15 + 35 \times 6 + 21$$

$$\Rightarrow 735 + 21 = 756$$

The required no of ways = 756.

55. Option 3.

Here, $S = \{1, 2, 3, 4, \dots, 19, 20\}$.

Let $E =$ event of getting a multiple of 3 or 5 = $\{3, 6, 9, 12, 15, 18, 5, 10, 20\}$.

$$P(E) = \frac{n(E)}{n(S)} = \frac{9}{20}.$$

56. Option 3

Correct option is C)

Let AB be the lighthouse and C and D be the positions of the ships.

Then, $AB = 100$ m, $\angle ACB = 30^\circ$ and $\angle ADB = 45^\circ$.

$$\frac{AB}{AC} = \tan 30^\circ = \frac{1}{\sqrt{3}} \Rightarrow AC = AB \times \sqrt{3} = 100\sqrt{3} \text{ m.}$$

$$\frac{AB}{AD} = \tan 45^\circ = 1 \Rightarrow AD = AB = 100 \text{ m.}$$

$$\therefore CD = (AC + AD) = (100\sqrt{3} + 100) \text{ m}$$

$$= 100(\sqrt{3} + 1)$$

$$= (100 \times 2.73) \text{ m}$$

$$= 273 \text{ m.}$$

57.

The correct option is **B** 150 metres

Time = 9 seconds

$$\text{Speed} = \left(60 \times \frac{5}{18}\right) \text{ m/sec} = \left(\frac{50}{3}\right) \text{ m/sec}$$

$$\therefore \text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$\text{Length of the train (Distance)} = (\text{Speed} \times \text{Time}) = \left(\frac{50}{3} \times 9\right) \text{ m} = 150 \text{ m.}$$

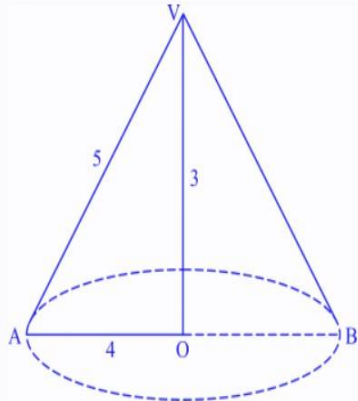
58.

Radius of cone VAOB

$$r = 4 \text{ cm}$$

Height of cone VAOB

$$h = 3 \text{ cm}$$



The volume of cone VAOB

$$= \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \pi \times 4^2 \times 3$$

$$= 16\pi \text{ cm}^3$$

Hence, the correct answer is choice (c).

60. In this case, we have to find HCF with the remainder

Step

1. Find the Differences between numbers
2. Get the HCF (that differences)

We have here 43, 91 and 183

So differences are

$$183 - 91 = 92,$$

$$183 - 43 = 140,$$

$$91 - 43 = 48.$$

Now

HCF (48, 92 and 140)

As

$$48 = 2 \times 2 \times 2 \times 2 \times 3,$$

$$92 = 2 \times 2 \times 23,$$

$$140 = 2 \times 2 \times 5 \times 7$$

$$\text{HCF} = 2 \times 2 = 4.$$

And 4 is the required number.

59. Step-1: Solve for the height of the hall

Given: length(l) = 15 m, breadth(b) = 12 m

Let the height be h

According to the equation sum of the areas of the floor and the ceiling is equal to the sum of the areas of the four walls

area of floor= l x b

area of ceiling= l x b

area of wall= 2(l + b)h

so, the equation will become

$$= l*b + l*b = 2(l + b) \times h$$

$$= lb = lh + bh$$

$$= 15(12) = 15(h) + 12(h)$$

$$= 180 = 27h$$

$$h = 20/3$$

Step-2: Solve for the volume of the height

$$\text{Volume of hall } l \times b \times h = 15 * 12 * 20/3$$

$$= 1200$$

Hence, the volume of hall= 1200 m³.