

MAT MOCK TEST QUESTION

Quantitative Techniques

1. Ajay works as much in 2 days as Bin 3 days and B works as much in 4 days as C in 5 days; in how many days will AJAY, .B and C working together finish the work if Ajay alone can finish it in 11 days?
a) 3
b) 4
c) 5
d) 8
2. Shyam travels 600 kms to reach home partly by metro train & rest by motorcycle. He takes 8 hours if he travels 120 kms by metro train & the rest by motorcycle. But he would take 20 min more if he were to travel 200 kms by metro train and the rest by motorcycle. Find speeds of metro train and motorcycle. (in kmph)
a) 50 and 70 kmph
b) 40 and 80 kmph
c) 60 and 80 kmph
d) 30 and 60 kmph
3. In what ratio should a 35% milk solution be mixed with a 25% milk solution in order to get a 30% milk solution?
a) 1:3
b) 1:1
c) 3:1
d) 3:2
4. Rs.430 is divided among 45 persons consisting of men, women and children. The sum of men's, women's and children's shares are as 12 : 15 : 16 but the individual shares of a man, woman & child are as 6 : 5 : 4. Find share of 1 man, 1 child and 1 woman.
a) 12, 10, 8
b) 12, 8, 10
c) 12, 15, 16
d) 6, 5, 4
5. Find the length of the largest diagonal of a cuboid having dimensions of 4 m, 8 m and 15 m.
a) 12750m
b) $\sqrt{222}$ m
c) $\sqrt{333}$ m
d) $\sqrt{111}$ m
6. Aman and Bharat two cyclists ride in opposite directions from two places 108 km apart, and meet in 6 hours. If Aman's speed is twice that of Bharat, find the speed with which B is riding?
a) 3 kmph
b) 4 kmph
c) 6 kmph
d) 7 kmph
7. Spinning 6 hours daily P can spin 4 kg cotton balls in 24 days. Spinning 8 hours daily how many days will he take to spin 20 kg cotton balls?
a) 30 days
b) 80 days
c) 90 days

d) 100 days

8. A train travelling at 72 km/h overtakes a 100 m platform in 15 seconds. In how much time can it overtake a man moving in the opposite direction at 20 m/s?

- a) 5 seconds
- b) 10 seconds
- c) 4 seconds
- d) 7.5 seconds

9. Aman sold a watch at 10% loss. If he had sold for Rs. 100 more, he would have made a profit of 10%. At what price it should be sold to get a profit of 50%?

- a) 500
- b) 800
- c) 750
- d) 1200

10. An electric pump can fill a cistern in 6 hours. Because of a leak in the cistern it was taking 9 hrs to fill the cistern. Find the time in which the leak can drain all the water of the cistern when full.

- a) 18 hours
- b) 21 hours
- c) 24 hours
- d) 27 hours

11. If Akbar can beat Birbal by 20 m in a 100 m race and can beat Chandragupta by 50 m in a 200 m race, by how many metres can Birbal beat Chandragupta in a race of 500 m?

- a) 25 m
- b) 31.25 m
- c) 10 m
- d) 50 m

12. X, Y and Z shared Rs. 14800 such that X received 25% more than Y, and Y received 20% more than Z. What amount did Z receive?

- a) Rs. 7000
- b) Rs. 6000
- c) Rs. 4800
- d) Rs. 4000

13. A shop selling washing machines offers 3 % discount on all cash purchases. What cash amount does a customer pay for washing machine with marked price Rs. 1300? a) 1285 b) 1297 c) 1261 d) 1254

14. The expression $(2a - 3b)(4a + 0.5b) - a(8a - 11b)$

- a) Is always positive for all a and b
- b) Is always negative for all a and b
- c) Is zero
- d) Depends on the values of a and b

15. At 12:00 pm Ritika starts walking at 6 km/hr. At 13:30 pm, Rahul follows her on his bicycle at 8 km/hr. When will Ritika be 3 km behind Rahul?

- a) 1930 pm
- b) 1900 pm
- c) 2000 pm
- d) 1830 pm

16. Chitra had 40% savings with the total income of Rs. 10000. The income of Chitra decreased by 20%, she decided to decrease the expenditure by 10%. By what percentage does the saving change?

- a) 40%
- b) 43.33%
- c) 20%
- d) None of these

17. What is the least number which, when divided by 5, 6, 7, 8 gives the remainder 3 but is divisible by 9?

- a) 1463
- b) 1573
- c) 1683
- d) 1793

18. A man's working hours a day were increased by 20%, and his wages per hour were increased by 25%. By how much per cent were his daily earnings increased?

- a) 44%
- b) 34%
- c) 54%
- d) 47%

19. Raj, Federik and Philips are three contestants for a race of 1,000 m. If Raj can give Federik a start of 50 m and Philips a start of 69 m, then of how many metres would Federik give a start to Philips in a similar race?

- a) 40 m
- b) 20 m
- c) 19 m
- d) None of these

20. An incorrect clock set right at 9 am loses three minutes in every hour. If the time shown by the clock is 4 pm on the same day, what is the approximate actual time of the day? a) 4:12 pm b) 4:10 pm c) 4:22 pm d) 4:45 pm

21. If $x = 2 + \frac{2}{3} + \frac{2}{3}$, then the value of $x^3 - 6x^2 + 6x$ is

- a) 3
- b) 2
- c) 1
- d) None

22. A & B can together do a job in 2 days, B & C in 4 days & A and C in $\frac{12}{5}$ days. Find the no. of days required by A, B & C together to do the same job.

a) $\frac{7}{3}$ days

b) $\frac{5}{3}$ days

c) $\frac{12}{7}$ days

d) $\frac{15}{7}$ days

23. A bag contains 25-paise, 50-paise and 1-rupee coins in the ratio 4:2:5. If the total value of all the coins in the bag is Rs. 770, then find the value of all the 25 paise and 50 paise coins in the bag.

a) Rs. 220

b) Rs. 70

c) Rs. 110

d) Rs. 140

24. In 15 days, 9 women and 15 girls can reap a field. In what time could 15 women and 16 girls reap the same field, assuming 3 women can do as much work as 4 girls?

a) 10.5 days

b) 25 days

c) 11.25 days

d) 20 days

25. A earns 25% less than B, but 20% more than C. If C earns Rs 60 less than B, find their respective earnings.

a) 120, 160, 100

b) 120, 144, 90

c) 90, 144, 100

d) 160, 120, 144

26. Two parties contest in an election where all the eligible people vote. If the winner gets 60% of the total votes and wins by 150 votes, find the number of votes polled in favour of the losing party.

a) 300

b) 750

c) 450

d) 500

27. A manufacturing firm has a capital of Rs. 9000. The gross annual sales are Rs. 3750. The cost of materials and manufacture is 35% of the gross sales. Rent, rates and taxes amount to Rs. 386; advertising to Rs. 940; office expenses, Rs. 136; manager's salary Rs. 200 plus 1% of gross sales. Find the % profit on the capital. a) 8.5% b) 7.8% c) 9% d) 8.2%

28. A hound ran to catch a rabbit 70 m apart. The rabbit has 35 jumps in one minute & the hound has 50 jumps in 2 minutes. If 2 jumps of the rabbit equal 40 cm & one jump of the hound equal 60 cm, in what time will the hound catch the rabbit?

- a) $\frac{37}{4}$ min
- b) $\frac{33}{4}$ min
- c) $\frac{35}{4}$ min
- d) $\frac{29}{4}$ min

29. 6 gallons of milk are drawn from a cask and replaced by 6 gallons of water. 6 gallons of the mixture are next drawn and again replaced by 6 gallons of water. If the ratio of milk to water in the cask is now 81 : 19, how much milk was in the cask at first? (There was no water in the cask at first.) a) 100 b) 50 c) 80 d) 60

30. Two trains start from Delhi and Lucknow at 7 pm and 9 pm respectively and move towards Lucknow and Delhi. The train from Delhi reaches Lucknow at 1 am while the train from Lucknow reaches Katara at 3 pm. At what time will they meet during the journey?

- a) 11 pm
- b) 12 pm
- c) 1 pm
- d) 1.30 pm

31. At an exam $\frac{1}{5}$ of a class individually gained $\frac{7}{8}$ of the maximum marks, $\frac{1}{10}$ gained $\frac{3}{4}$ of the maximum, $\frac{1}{4}$ gained $\frac{1}{4}$ of the maximum, and the rest $\frac{1}{2}$ of the maximum. The average marks obtained by the whole class are 172. What are the maximum marks?

- a) 308
- b) 320
- c) 311
- d) 304

32. Find the digit sum of $1! + 2! + 3! + 4! + 5! + \dots + 200!$

- a) 1
- b) 8
- c) 9
- d) 3

33. The digits of a three-digit number A are written in reverse order to form another three digit number B. If $B > A$ and $B - A$ is perfectly divisible by 7, then which of the following is necessarily true?

- a) $112 < A < 311\lambda$
- b) $100 < A < 299\lambda$
- c) $106 < A < 305\lambda$
- d) $118 < A < 317\lambda$

Direction for questions 34 to 36: In a survey of 200 people, where each person plays from one of the games – Cricket, Basketball and TUK-TUK, it was found that 90 people play Cricket, 50 plays Basketball and 70 plays TUK-TUK. Further, 20 people play both Cricket and Basketball, 15 plays

both Basketball and TUK-TUK while 30 play both Cricket and TUK-TUK. Five people play all the three games.

34. How many people play none of the games?

- a) 40
- b) 50
- c) 60
- d) 30

35. Find the percentage of people who only play Basketball?

- a) 10%
- b) 20%
- c) 25%
- d) 30%

36. Number of people who play Cricket and TUK-TUK only is how much more than the number of people who play Basketball and TUK-TUK only?

- a) 15
- b) 20
- c) 25
- d) 30

37. The HCF of two numbers is 6 and their LCM is 50. If one of the numbers is 12, find the other number.

- a) 25
- b) 50
- c) 30
- d) Not possible

38. Lal, Bhan, Chaman hold a pasture for which they pay Rs. 16 per month. They put 70, 50, 40 sheep respectively on it. Lal sells $\frac{2}{7}$ of his flock to Bhan after 4 months and after 3 months more Chaman sells $\frac{2}{5}$ of his stock to Lal. How much rent should each pay in a year?

- a) 76, 76, 40
- b) 100, 40, 52
- c) 88, 73, 31
- d) 80, 71, 41

39. A salesman averages Rs. 480 during a normal 40-hour week. During a sale, his rates are increased by 50%. What is his commission if he puts in 60 hours during the sale?

- a) 780
- b) 1080
- c) 1200
- d) 1280

40. A dishonest dealer sells his goods at the cost price and still earns a profit of 25% by under weighing. What weight does he use for a kilogram?

- a) 750 g
- b) 800 g

c) 825 g

d) 850 g

Data Interpretation

Direction for question 1 to 15: Each item is followed by two statements, I and II. Answer each question using the following instructions.

1. A positive number is exactly divisible by 4 and 3 both. What is that number?

I. It is greater than 15

II. It is less than 14

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

2. What is the numerical value of the ratio $\frac{a}{b}$?

I. $ab = 12$

II. $a = 5b$

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

3. What are the ages of the brother (ages are natural numbers)?

I. The product of their ages is 21.

II. The sum of their ages is not divisible by 3.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

4. Product of w , x , y and z is 1003 (w , x , y and z are all natural numbers). Which one is the largest among them?

I. $w > x > y$

II. $w > x > z$

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

5. Is pq an even number?

I. p is divisible by 3.

II. $(q + 1)$ is divisible by 4.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

6. What is the HCF of natural numbers A and B?

I. LCM of the natural numbers A and B is 101.

II. A and B are distinct natural numbers.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

7. A is not shorter than B, who in turn is not taller than C who is shorter than D. Who among A, B, C and D is the tallest?

I. C and A are of equal height

II. B and A are of equal height

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

8. How many marks did Sanskar raj obtain in mathematics?

I. Sanskar raj secured on an average 45% marks in mathematics, physics, and chemistry together.

II. Sanskar raj secured 5% marks more in mathematics than the average of mathematics, physics and chemistry.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

9. What is a two digits number?

I. The number obtained by interchanging the digits is smaller than the original number by 45.

II. Sum of the digits is 11.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

10. Average age of Vijay, Badal, Chitransh and Divya is 46 years. Who is the oldest among them?

I. Chitransh is 91 years old.

II. Ages (in years) of all of them are distinct natural numbers.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

11. Pari, Qasim, Rupali and Saurav are four consecutive even integers. What is the value of the largest integer among these?

I. The average of the four numbers is the first prime number greater than 10.

II. The ratio between the largest and the smallest of the number is less than 10.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

12. On a fishing trip, Raju and Vijay each caught some fishes. Who caught more fish?

I. Raju and Vijay caught fishes in the ratio 2 : 3.

II. After Raju stopped fishing, Vijay continued fishing until he caught 12 fishes.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

13. Is Q a positive number?

I. $4Q + 24 > 0$

II. $4Q - 24 < 0$

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

14. If the ratio of boys to girls attending school in school in 2000 was $\frac{1}{3}$, what was the ration of boys to girls attending school in 2001?

I. 100 more boys were attending school in 2001 than in 2000.

II. 150 more girls were attending school in 2001.

- a) If the question can be answered by one of the statements alone and not by the other.
- b) If the question can be answered by using either statement alone.
- c) If the question can be answered by using both the statements together, but cannot be using either statement alone.
- d) If the question cannot be answered even by using both the statements together.

15. If a and b are positive numbers, is $b > a$?

I. $a^2 > b$

II. $a^2 > b^2$

- a) If the question can be answered by one of the statements alone and not by the other.

b) If the question can be answered by using either statement alone. c) If the question can be answered by using both the statements together, but cannot be using either statement alone. d) If the question cannot be answered even by using both the statements together.

16. Quantity I: What is the highest power of 5 that is contained in $125125 - 2525$?

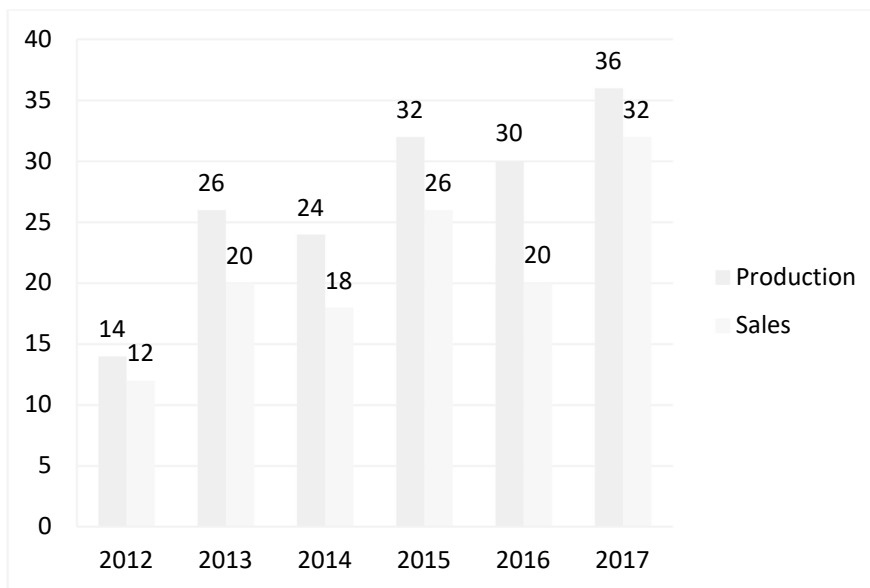
Quantity II: What is the remainder when 5163 is divided by 1000?

- a) Quantity I > Quantity II
- b) Quantity II > Quantity I
- c) Quantity I = Quantity II
- d) relationship cannot be determined

17. Quantity I: Twenty times a positive integer is less than than it is square by 96. What is the integer?

Quantity II: Two times a two digit number is 9 times the number obtained by reversing the digits and sum of the digit is 9 what is the value of that number

- a) Quantity I > Quantity II
- b) Quantity II > Quantity I
- c) Quantity I = Quantity II
- d) relationship cannot be determined



18. What is the difference between the sales of 2012 and 2014 (in lac tonnes)?

- a) 6
- b) 4
- c) 10
- d) 8

19. Total sales of 2016 and 2017 together are approximately what percentage of sales in 2014?

- a) 260%
- b) 160%
- c) 360%
- d) 240%

20. What is the approximate percentage increase in the production from 2014 to 2016? a) 30%
 b) 20%
 c) 25%
 d) 40%

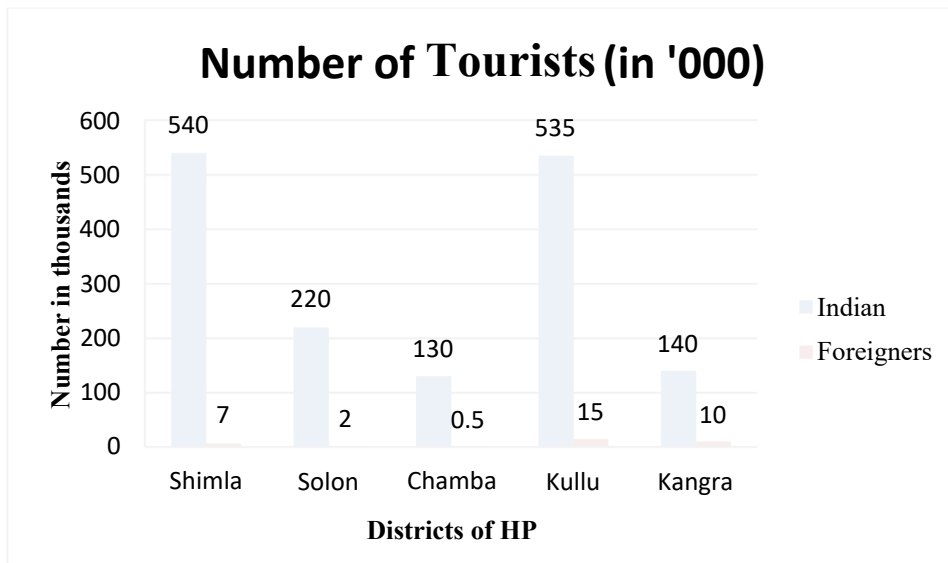
21. What is the percentage drop in sales from 2013 to 2012?

- a) 30%
 b) 40%
 c) 50%
 d) 10%

22. In which year is the difference between the production and sales the maximum?

- a) 2013
 b) 2015
 c) 2016
 d) 2017

The bar graph given below show the five districts of the state of Himachal Pradesh and the number of tourists visiting them. For the given bar chart, total number of Indian tourists is more that the total number of foreign tourists. None of the tourists can be Indian as well as foreigner.



23. By the percentage are the Indian tourists visiting Chamba less than those visiting Shimla? a)

- 30%
 b) 50%
 c) 60%
 d) 75%

24. Approximately what percentage of the total tourists visiting Himachal Pradesh are foreigners?

- a) 2%
 b) 8%

c) 4% d) 5%

25. What is the ratio between the Indian tourists and the foreign tourists visiting Kullu?

- a) 105: 3
- b) 70: 3
- c) 107: 3
- d) 35: 3

26. Which of the following districts has the maximum ration of Indian and foreign tourists?

- a) Shimla
- b) Solon
- c) Chamba
- d) Kangra

27. Which of the following districts has the maximum ration of Indian and foreign tourists?

- a) Shimla
- b) Solon
- c) Chamba
- d) Kangra

The table given below shows the number of people visiting six different Super–markets and the percentage of Men, Women and Children visiting those Super–markets.

Name of the Super-markets	Total Number of people	Percentage of		
		Men	Women	Children
A	34560	35	55	10
B	65900	37	43	20
C	45640	35	45	20
D	55500	41	26	33
E	42350	06	70	24
F	59650	24	62	14

28. Number of men visiting Super-market B forms approximately what percent of the total number of people visiting all the super markets together?

- a) 12
- b) 8
- c) 13.5
- d) 5.75

29. Number of children visiting Super-market A forms what percent of number of children visiting Supermarket F? (rounded off to two digits after decimal)

- a) 94
- b) 40
- c) 15
- d) 75

30. What is the total number of children visiting Super-market A and C together?

- a) 16525

- b) 26459
- c) 12584
- d) 24306

31. What is the average of the women visiting all the Super-markets together?

- a) 24823.5
- b) 23387.5
- c) 25412.5
- d) 20886.5

32. What is the respective ratio of the number of women visiting Super-market A to those visiting Super-market C?

- a) 33 : 35
- b) 235 : 336
- c) 332 : 379
- d) None of these

33. Quantity I: What least number should be added to 231228 to make it exactly divisible by 30?

Quantity II: What least number should be subtracted from 231228 to make it exactly divisible by 90?

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II

34. At a construction site 20 worker can complete a certain work in 15 days while working 6 hours a day.

Quantity I: If 10 workers are employed to work 12 hours a day, what time will they take to complete the work?

Quantity II: If 18 workers are employed to work 5 hours a day. What time will they take to complete the work?

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II

35. Rs. 150 is divided among A, B and C so that A receives half as much as B and C receive together and B receives 1/4th of what A and C receive together.

Quantity I: The absolute difference between share of A and B.

Quantity II: If A gives 40% of his share to an orphanage as charity, then how much money does the orphanage get?

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II

Direction for question 36 to 40: The table given below shows the sales volume of five products A, B, C, D and E manufactured by a company named XUAC Pvt. Ltd. From October to November in the year 2018.

Month product	June	July	August	September	October	November
P	6746	7813	8761	8093	9257	9809
Q	4072	4239	6577	7081	7341	6958
R	4185	6164	6328	6961	6916	8011
S	2285	3015	3327	4239	6273	9036
T	3819	5648	5841	6179	7214	7645

36. In July, the sales of R constituted what percent of the total sales of the five products put together?

- a) 21.94
- b) 22.42
- c) 22.93
- d) 23.40

37. Which product recorded the maximum percentage in its sales in any month, except October, over the previous month during the given period?

- a) P
- b) T
- c) Q
- d) S

38. In December 2018, the sales of S witnessed an increase of over the previous month and the sales of T was the same as that of S. What was the percentage increase in the sales. Of T in December over the previous months?

- a) 46.75
- b) 47.25
- c) 47.74
- d) 48.75

39. In October, the total sales of Q and S constituted what percentage of the total sales of the five products put together?

- a) 34.89%
- b) 36.79%
- c) 38.67%
- d) 42.34%

40. In December 2018, the sales of each product witnessed an increase of 15% over the previous month, then what was the total sales of the five products put together in December 2018?

- a) 47677.85
- b) 45604.60
- c) 62188.5
- d) 53766.75

Logical Reasoning

Direction for question 1 to 5: Each question below is 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.

1. Statement

Should the subsidy on petroleum product be further reduced?

Arguments

- I. Yes, the present subsidy is a drain on national resources; let the consumer share the burden.
 - II. No, this will have a cascading effect and the prices of all the commodities will sharply increase, creating higher rate of inflation.
- a) If only argument I is strong
 - b) If only argument II is strong
 - c) If neither I nor II is strong
 - d) If both I and II are strong

2. Statement

Should government close down loss-making public sector enterprises?

Arguments

- I. No, all employees will lose their jobs, security and earning; what would they do?
 - II. Yes, in a competitive world the rule is 'survival of the fittest'.
- a) If only argument I is strong
 - b) If only argument II is strong
 - c) If neither I nor II is strong
 - d) If both I and II are strong

3. Statement

Should the school teachers be necessarily involved in the census activities?

Arguments

- I. No, this will adversely affect the quality of teaching programme.
 - II. Yes, the teachers are the best fit for this job.
- a) If only argument I is strong
 - b) If only argument II is strong
 - c) If neither I nor II is strong
 - d) If both I and II are strong

4. Statement

Should all the professional colleges in India be encouraged to run their own courses without affiliation to any university?

Arguments

- I. Yes, this is only way to create more opportunities for those who seek professional training.
 - II. No, this will dilute the quality of professional training as all such colleges may not be equipped to conduct such courses.
- a) If only argument I is strong
 - b) If only argument II is strong
 - c) If neither I nor II is strong
 - d) If both I and II are strong

5. Statement

Should the parents of those children who do not send their wards to school be fined?

Arguments

- I. Yes, this is only way to eradicate illiteracy.
 - II. No, why should the parents be fined?
- a) If only argument I is strong
 - b) If only argument II is strong
 - c) If neither I nor II is strong
 - d) If both I and II are strong

Direction for question 6 to 12: In each question below is given a statement followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

6. Statement

The local civic body has urged all the residents to voluntarily reduce consumption of potable water by about 30 per cent to tide over the water crisis.

Assumptions

- I. Many residents may reduce consumption of potable water.
- II. Many activity may welcome the civic body's move and spread awareness among residents.
- a) If only assumptions I is implicit
 - b) If only assumptions II is implicit
 - c) If neither assumptions I nor II is implicit
 - d) If both assumptions I and II are implicit

7. Statement

The chairman of the company decided to hold a grand function to celebrate silver jubilee during the next weekend and invited a large number of guests.

Assumptions

- I. The company officials may be able to make all the necessary preparations for the silver jubilee celebration.
- II. Majority of the guests invited by the Chairman may attend the function.
- a) If only assumptions I is implicit
 - b) If only assumptions II is implicit
 - c) If neither assumptions I nor II is implicit
 - d) If both assumptions I and II are implicit

8. Statement

The traffic police department has put huge notice boards at all the major junctions of the city warning drivers to refrain from using cell phones while driving or else their licences will be impounded.

Assumptions

- I. The drivers of the vehicles may ignore the warning and continue using cell phones while driving.
- II. The traffic police department may be able to nab most of the offenders and impound their licences.
- a) If only assumptions I is implicit
 - b) If only assumptions II is implicit
 - c) If neither assumptions I nor II is implicit
 - d) If both assumptions I and II are implicit

9. Statement

Many people were caught by the railway police while they were trying to cross the railway tracks and imposed heavy penalty before releasing them.

Assumptions

- I. People may refrain from crossing railway tracks in future.
 - II. People may continue crossing railway tracks and pay hefty penalty.
- a) If only assumption I is implicit
 - b) If only assumption II is implicit
 - c) If neither assumption I nor II is implicit
 - d) If both assumptions I and II are implicit

10. Statement

“If you are a first class graduate with good communication skill and also have work experience of at least two years in the sales related activities, you are welcome in our organization.” – An employment advertisement.

Assumptions

- I. Many with good communications skills may not respond to the advertisement.
 - II. All the first class graduates may possess good communications skills.
- a) If only assumption I is implicit
 - b) If only assumption II is implicit
 - c) If neither assumption I nor II is implicit
 - d) If both assumptions I and II are implicit

11. Statement

In view of the severe heat wave passing through the state, the government has asked all the schools to remain closed for the next fortnight with immediate effect.

Assumptions

- I. The heat wave may not continue beyond a fortnight.
 - II. The parents of the students may not allow their wards to attend school even after a fortnight.
- a) If only assumption I is implicit

- b) If only assumptions II is implicit
- c) If neither assumptions I nor II is implicit
- d) If both assumptions I and II are implicit

12. Statement

The government has recently announced additional food for work programmes for all the drought affected regions in the country.

Assumptions

- I. The government has adequate funds to run these programmes.
- II. Affected people may be able to get at least one meal a day due to these programmes.

- a) If only assumptions I is implicit
- b) If only assumptions II is implicit
- c) If neither assumptions I nor II is implicit
- d) If both assumptions I and II are implicit

Directions for question 13 to 17: In each of the questions below are given statements followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

13. Statement

Some notes are coins. Some papers are plastics. All coins are papers. No note is cardboard.

Conclusions

- I. Some notes are papers
- II. Some coins are plastics
- III. No paper is cardboard
- IV. No note is plastic

- a) Only I follow
- b) I and II follow
- c) I and III follow
- d) None of these

14. Statement

Some tyres are ropes. Some ropes are tents. Some tents are walls. Some walls are building

Conclusions

I. Some buildings are ropes

II. Some walls are ropes

III. Some tents are tyres

a) None follows

b) Only I follow

c) Only II follow

d) Only III follow

e) I and II follow

15. Statement

Some plates are knives. All knives are chains. Some chains are wheels. All wheels are poles.

Conclusions

I. Some poles are chains

II. Some wheels are knives

III. Some chains are plates

a) I and II follow

b) I and III follow

c) II and III follow

d) All I, II and III follow

e) None of the above

16. Statement

Some trees are bushes. All flowers are bushes.

Conclusions

- I. Atleast some bushes are trees.
- II. Atleast some flowers are trees.
- a) If only Conclusions I is follows
- b) If only Conclusions II is follows
- c) If neither Conclusions I nor II is follows
- d) If both Conclusions I and II are follows

17. Statement

Some pencils are blankets. All blankets are erasers.

Conclusions

- I. Atleast some pencils are erasers.
- II. All erasers being pencils is a possibility.
- a) If only Conclusions I is follows
- b) If only Conclusions II is follows
- c) If neither Conclusions I nor II is follows
- d) If both Conclusions I and II are follows

Direction for question 18 to 21: In each of the questions given below there are two statements labeled Assertion (A) and Reason (R).

18. Assertion (A)

A ship rises as it enters the sea from a river.

Reason (R)

The density of sea water is higher as compared to river water.

- a) If both (A) and (R) are true and (R) is the correct explanation of (A)
- b) If both (A) and (R) are true but (R) is not the correct explanation of (A)
- c) If (A) is true but (R) is false
- d) If (A) is false but (R) are true

19. Assertion (A)

A person with blood group O is considered a universal recipient.

Reason (R)

Group O blood does not contain any antigens.

- a) If both (A) and (R) are true and (R) is the correct explanation of (A)
- b) If both (A) and (R) are true but (R) is not the correct explanation of (A)
- c) If (A) is true but (R) is false
- d) If (A) is false but (R) are true

20. Assertion (A)

Plaster of Paris is used by doctors for setting fractured bones.

Reason (R)

When plaster of Paris is mixed with water and applied around the fractured limbs, it sets into a hard mass.

- a) If both (A) and (R) are true and (R) is the correct explanation of (A)
- b) If both (A) and (R) are true but (R) is not the correct explanation of (A)
- c) If (A) is true but (R) is false
- d) If (A) is false but (R) are true

21. Assertion (A)

The body of the fish is streamlined.

Reason (R)

The streamlined body helps the fish to cut its way through the water.

- a) If both (A) and (R) are true and (R) is the correct explanation of (A)
- b) If both (A) and (R) are true but (R) is not the correct explanation of (A)
- c) If (A) is true but (R) is false
- d) If (A) is false but (R) are true
- e) If both (A) and (R) are false

Direction for question 22 to 24: In each question, two statements I and II are provided. These may have a cause and effect relationship or may have independent cause or be the effects of independent causes. Read the statements carefully and firm mark your answer as

22. Statement I

Afghanistan skipper Md. Nabi justified his decision to step down from the captaincy of ODI and T20 teams by saying ‘I will be 37 by the next World Cup and I can’t be sure of my place in the team. It is better that Afghanistan is now led by a player who will be at the peak of his career during that tournament.’

Statement II

Remarkably, unlike most skippers, whose individual performance drops after assuming the leadership role. Md. Nabi has actually batted better as captain in all three formats of the game.

- 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 effects of independent causes
- d) If both the statements I and II are effects of some common cause

23. Statement I Worldwide recession has created uncertainty in the job market.

Statement II

Many people are opting for change from private sector to public sector.

- a) If statement (A) is the cause and statement (B) is its effect
- b) If statement (B) is the cause and statement (A) is its effect
- c) If both the statements (A) and (B) are effects of independent causes
- d) If both the statements (A) and (B) are effects of some common cause

24. Statement I

Majority of the Government school teachers in the town joined the one-day strike called by the local teacher’ union.

Statement II

The state Government had recently imposed ban on the teachers of the Government schools joining private coaching classes.

- a) If statement (A) is the cause and statement (B) is its effect

- b) If statement (B) is the cause and statement (A) is its effect
- c) If both the statements (A) and (B) are effects of independent causes
- d) If both the statements (A) and (B) are effects of some common cause

Directions for questions 25 to 27: In each question is given a statement followed by two courses of action numbered I and II. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true and then decided which of the suggested courses of action logically follows for pursuing.

25. Statement

People in the logically were agitated as more than thirty people died in a building collapse.

Course of action

- I. Government should immediately announce compensation for the affected families.
 - II. Authorities should take a stringent action against builders tending to compromise over quality of material used.
- a) If only course of action I follows
 - b) If only course of action II follows
 - c) If neither course of action I nor course of action II follows
 - d) If both courses of action I and II follows

26. Statement

Expensive clothes and accessories are becoming a growing need among college going teenage children of middle income group.

Course of action

- I. Colleges should introduce a dress code.
 - II. Children should be counseled emphasizing the importance of many other things.
- a) If only course of action I follows
 - b) If only course of action II follows
 - c) If neither course of action I nor course of action II follows
 - d) If both courses of action I and II follows

27. Statement

Indian Airlines is running in loss.

Course of action

I. It should be privatised

II. It must curb the expenditure by removing concessions in the fare to MPs, bureaucrats and airline officers.

a) If only I follows

b) If only II follows

c) If neither I nor II follows

d) If both I and II follows

Directions for question 28 to 30: Vijay would do five tasks: P, Q, R, S and T; starting at 9 am in the morning. P is the first task and takes 2 h. Q can be done after P is complete and requires 1 h. Work on R which would take 1 h can start only P and Q are complete. Vijay can do task S along with Q and R and would take 3 h for that. Activity T with duration of 1 h can start on completion of P, Q, R and S.

28. What is the earliest time when Vijay would complete R?

a) 11 am

b) 12 noon

c) 1 pm

d) 2 pm

29. If Vijay takes 2 h for Q and completes other preceding tasks without delay, when can T start?

a) 12 noon b) 3 pm c) 2 pm d) 1 pm

30. What is the earliest time when Vijay can complete all tasks?

a) 4 pm b) 3 pm c) 2 pm

d) 1 pm

Directions for question 31 to 32: Ravi, who is facing North, starts from point A, walks 4m towards the right. He then takes a left turn and walks 3 m before taking a right turn, walking 2 m and stopping at point B.

Seema starts from the same point A walks 2 m towards the South. She then takes a left turn and walks 4 m. she now takes a right turn, walks 2 m before taking a left turn, walking 2 m and stopping at point C.

31. How far and towards which direction must Ravi walk in order to reach point C?

- a) 8 m towards North
- b) 7 m towards North
- c) 8 m towards South
- d) 7 m towards South

32. If Seema walks 4 m towards North from Points C, how far will she be from Point A?

- a) 4 m b) 2 m c) 6 m d) 8 m

Direction for question 33 and 34: Study the following information carefully and answer the questions given below it

- (i) P, Q, R, S, T and U are six members in a family in which there are two married couples.
- (ii) T a teacher is married to the doctor who is mother of R and U.
- (iii) Q, the lawyer, is married to P.
- (iv) P has one son and one grandson.
- (v) Of the two married ladies one is a housewife.
- (vi) There is also one student and one student and one male engineer in the family.

33. How is P related to R?

- a) Grandfather
- b) Mother
- c) Sister
- d) Grandmother

34. Who among the following is the housewife?

- a) P
- b) Q
- c) S
- d) T

35. Among P, Q, R, S and T each having different weight. R is heavier than only P and S is lighter than Q and heavier than T. who among them is the heaviest?

- a) P
- b) Q
- c) S
- d) Data inadequate

36. 0, 6, 24, 60, 120, 210, 336, ?

- a) 504
- b) 512
- c) 520
- d) 501

Directions: (Q. Nos. 37 and 38) in each of the following question find the relationship that can definitely be deduced on the basis of the relations given the symbol used to define the relationship are as follows.

@ means 'greater than'

means 'less than'

\$ means 'not equal to'

% means 'equal to'

37. If it is given that, $3M \% 2N$ and $N \% 30$, then

- a) $0 @ M$
- b) $M \# 0$
- c) $2 0 \% M$
- d) None of these

38. If it is given that, $N @ P$, $P \# O$, $O @ M$ and $N \% M$, then.

- a) $O @ N$ b) $O \# N$ c) $O \$ N$ d) None of these

39. Directions: Question are given with two statements (A) and (B) these statements may be either independent causes or may be effects of independent causes or a common cause one of these statements may be the effect of the other statement read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements.

(A) DTTDC recorded an all-time high liquor sale on this Holi eve.

(B) Dry days increased liquor sales

- a) If statement (A) is the cause and statement (B) is its effect
- b) If statement (B) is the cause and statement (A) is its effect
- c) If both the statements (A) and (B) are independent causes
- d) If both the statements (A) and (B) are effects of independent causes

40. Directions: In each of the question given below there are two statements labeled Assertion (A) and reason (R).

Assertion (A): Bulb filament is made of titanium.

Reason (R): The filament should have low melting point.

- a) If both (A) and (R) are true and (R) is the correct explanation of (A)
- b) If both (A) and (R) are true but (R) is not the correct explanation of (A)
- c) If (A) is true but (R) is false
- d) If both (A) and (R) are false

Indian and Global Environment

1. Which of the following is Asia's oldest football tournament?

- a) Durand Cup
- b) Subroto Cup
- c) Trades Cup
- d) Dr. B.C. Roy Trophy

2. Who wrote the book "The Guide"?

- a) Amrita Pritam
- b) Khushwant Singh
- c) R.K. Narayan
- d) Vikram Seth

3. Who of the following is appointed as the Chief Justice of India in November 2022?

- a) T.S. Thakur
- b) Dhananjaya Y Chandrachud
- c) Bhushan Ramkrishna Gavai
- d) S.P. Bharucha

4. When does India celebrate National Sports Day?

- a) 30 January
- b) 28 February
- c) 29 July
- d) 29 August

5. Ellora cave is located in which of the following states?

- a) Gujarat
- b) Maharashtra
- c) Madhya Pradesh
- d) Himachal Pradesh

6. When did the first battle of Tarain take place?

- a) 1026

b) 1191 c) 1198 d) 1220 7. The Brahmaputra river is known as which of the following in Arunachal Pradesh? a) T-shang Po b) Jamuna c) Meghana d) Dihang 8. Wings of

Fire are the autobiography of which of the following? a) M. G. K. Menon

b) Satish Dhawan

c) A. P. J. Abdul Kalam

d) Vikram Sarabhai

9. What is the tagline of Maruti Suzuki? a) The power to surprise b) Way of life c)

Total control d) Be 100% sure 10. Who of the following is known as Payoli Express

as his nickname? a) P T Usha b) Hima Das c) Menaka Guruswamy d) Duti Chand 11.

The All India Muslim League was established in which of the following years?

a) 1885

b) 1906

c) 1915

d) 1924

12. Who of the following is known as 'Nightingale of India'?

- a) Annie Besant
- b) Indira Gandhi
- c) Sucheta Kripalani
- d) Sarojini Naidu

13) Asian Games 2023 were held in which country?

- a) China
- b) India
- c) South Korea
- d) Japan

14. Which of the following is rich source of vitamin C?

- a) Papaya
- b) Banana
- c) Orange
- d) Carrots

15. Sambhar Lake is located in which of the following states?

- a) Gujarat
- b) Rajasthan
- c) Maharashtra
- d) Tamil Nadu

16. Who among the following was the first Indian to receive the Nobel Prize for Physics?

- a) C.V. Raman
- b) Satish Dhawan
- c) A. P. J. Abdul Kalam
- d) Vikram Sarabhai

17. Which of the following five-year plans of India was based on the Harrod-Domar model?

- a) Fourth five year Plan
- b) Third five year Plan

c) Second five year Plan

d) First five year Plan

18. Where among the following is the headquarters of the International Monetary Fund located?

a) Washington

b) Geneva

c) Paris

d) Rome

19. In which year was SAARC established?

a) 1972

b) 1982

c) 1985

d) 1993

20. Who became the 19th Chief Minister of Madhya Pradesh?

a) Shivraj Singh Chouhan

b) Mohan Yadav

c) Rajendra Shukla

d) Jagdish Devda

21. Who won the Best Actor award at the 69th National Film Awards 2023?

a) Pankaj Tripathi

b) Ayushman khurana

c) Allu Arjun

d) Vicky Kaushal

22. Where is the smallest bone in the body?

a) Nose

b) Hand

c) Leg

d) Ear

23. How many bones are found in adults?

- a) 280 b) 250 c) 206 d) 170
24. Which of the following is the largest state in India in terms of area? a) Rajasthan b) Madhya Pradesh c) Maharashtra d) Uttar Pradesh
25. Which of the following countries hosted the Asian Athletics Championships in 2023?
- a) Pakistan
- b) Japan
- c) Thailand
- d) South Korea
26. In which of the following years was NABARD established? a) 1982 b) 1988 c) 1992 d) 2002
27. Who has been crowned Miss Universe for the year 2023? a) Shweta Sharda b) Sheynnis Palacios c) Antonia Porsild d) Moraya Wilson
28. Which of the following films won seven awards at the Oscars 2023 event?
- a) Black Panther: Wakanda Forever
- b) All Quiet On The Western Front
- c) Guillermo del Toro's Pinocchio

d) Everything Everywhere All at Once

29. Who is the Executive Chairman and CEO of Microsoft?

a) Satya Narayana Nadella

b) Pichai Sundararajan

c) Shantanu Narayen

d) Salil Parekh

30. Who is the founder and CEO of the beauty and lifestyle retail company Nykaa?

a) Revathi Advaiti

b) Indra Nooyi

c) Falguni Nayar

d) Leena Nair

31. 'Taste of India' is the tagline of which company?

a) Coca-Cola

b) Amul

c) Nestle

d) Thums Up

32. Which of the following is the capital of Nagaland?

a) Kohima

b) Imphal

c) Dispur

d) Agartala

33. Who among the following is the father of the green revolution in India?

a) C.V. Raman

b) Jagadish Chandra Bose

c) M.S. Swaminathan

d) Srinivasa Ramanujan

34. Who of the following gives the slogan 'do and die'?

a) Bhagat Singh

b) Mahatma Gandhi

c) J.L Nehru

d) C. R Das

35. The Beighton Cup is associated with which of the following sports?

a) Cricket

b) Bad minton

c) Table Tennis

d) Hockey

36. World Outlook Report was published by which of the following organizations?

a) International Monetary Fund (IMF)

b) World Bank

c) UNESCO

d) UNEP

37. Which of the following is the Rabi crop?

a) Maize

b) Paddy

c) Wheat

d) Jowar

38. In which year was the Pradhan Mantri Kaushal Vikas Yojana started?

a) 2015

b) 2017

c) 2019

d) 2020

39. Pankaj Advani is associated with which of the following sports?

a) Table Tennis

b) Billiards

c) Bad Minton

d) Chess

40. On which of the following dates is World Food Day observed every year?

- a) 16 July
- b) 16 August
- c) 16 September
- d) 16 October

Language Comprehension

1. Fill in the blank with an appropriate word and complete the given sentence.

The individual _____ of international student mobility are well known.

- a) benefits
- b) temper
- c) energy
- d) position

2. Fill in the blanks with the appropriate words and complete the given sentence.

A well-known chef, started his career _____ the age of 15 when the prodigy _____ cooking under Eric Ripert at the iconic New York restaurant.

- a) in, has begun
- b) to, have begin
- c) on, begin
- d) at, began

3. Fill in the blanks with the appropriate words and complete the given sentence.

The gastronomy of food plays a _____ role in society at both utilitarian and _____ levels.

- a) central, hedonic
- b) centre, hedonist
- c) perpetual, beguile
- d) sanity, central

4. Fill in the blank with the appropriate words and complete the given sentence.

The annotations and _____ are taken in Catalan or Spanish depending on the mother tongue of each person.

- a) tensions
- b) transcriptions
- c) requirement
- d) palpitations

5. What is the meaning of the idiom/phrase – Touch-and-go?

- a) To make a mistake and leave
- b) Believe what is in front
- c) To make no excuses
- d) Having an uncertain and possibly bad result

6. What is the meaning of the idiom/phrase – Red-tapism?

- a) The place where all mechanical tests take place
- b) The place where all bad things happen
- c) The main source of talent, power, or ability in a team or group.
- d) Strict adherence to official formalities

7. Which of the following phrases should replace the highlighted phrase in the following sentence to make the sentence grammatically correct?

Our approach emphasizes the *pointof viewing of the consumers* in their understanding of drugs.

- a) point of view of the consumers
- b) point off view of the consumers
- c) pointing of view of consumers
- d) No correction required

8. Which of these phrases should replace the highlighted phrase in the following sentence to make the sentence grammatically correct?

Some types of food may *beprepared in different ways* or include a different variety of ingredients.

- a) be prepared on different ways
- b) been preparing in different ways
- c) being prepared in different ways
- d) No correction required

9. Read each part of the sentence for grammatical or idiomatic errors. Choose the part that contains an error.

- a) Dung beetles disperse
- b) the seeds that promotes

- c) revegetation and spreads
- d) nutrients in the soil

10. Read each part of the sentence for grammatical or idiomatic errors. Choose the part that contains an error.

- a) Most Chinese dishes contain
- b) a mixture of vegetables that
- c) are stir-fried and combined
- d) by aromatic spices and herbs

11. Read each part of the sentence for grammatical or idiomatic errors. Choose the part that contains an error.

- a) Bartering is usually conducted
- b) directly among two parties; however
- c) it may be done multilaterally
- d) through a trade exchange

12. In the following question, two of the words are related in some way i.e., they are similar or opposites. Pick out the option which represents this pair.

- a) Blocking, Sulking
- b) Protest, Frugal
- c) Magical, Enchanted
- d) Trapped, Dapper

13. In the following question, two of the words are related in some way i.e., they are similar or opposites. Pick out the option which represents this pair.

P. Blast Q.
Meticulous R.
Trash S.
Whomp

- a) P-R
- b) R-S
- c) S-Q
- d) P-S

14. Choose the most appropriate synonym of the given word.

Juggle

- a) Nadir
- b) Hustle
- c) Unmask
- d) Bloom

15. Choose the most appropriate synonym of the given word.

Gargantuan

- a) Bitty
- b) Midget
- c) Pygmy
- d) Monumental

16. Choose the most appropriate antonym of the given word.

Lengthen

- a) Abbreviate
- b) Pinch
- c) Poll
- d) Nip

17. Choose the word which can replace the given group of words.

Comprising or relating to all sorts or varieties.

- a) Omnifarious
- b) Omnipresent
- c) Omniscient
- d) Omnipotent

18. Choose the word which can replace the given group of words.

A person who is extremely interested in only one thing

- a) Mythomania
- b) Monomania
- c) Pyromania
- d) Satyromania

19. Sentences of a paragraph are given below in a jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

P. With an aim to assist the loco pilots for train movement during the foggy weather conditions, fog PASS devices have been introduced. Q. The fog PASS devices are global positioning system (GPS)-enabled handheld portable devices, which are given to loco pilots operating in fog affected areas. R. The fog device serves as an aid for the loco crew during foggy weather conditions through an audio visual alarm, wherever any landmark comes within the geo-fence range of the locomotive. S. The location of the stations, signals, warning boards, level crossing gates as well as the whistle for level crossing (W/L) boards in the section is fed in the device's equipment.

- a) PSQR
- b) PRQS
- c) SRPQ
- d) PQRS

20. Sentences of a paragraph are given below in a jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph. P. The volcanic eruption was caused when lava was pushed upwards from the Earth's Mantle before it split off to form a lava channel.

Q. The lava was then pushed up towards the surface through the Earth's crust, causing minor earthquakes as it moved, before causing a big quake as it erupted under the sea.

R. However, scientists soon realised that the earthquake was in fact caused by an enormous underwater volcanic eruption.

S. On 15 May 2018 a 5.8 magnitude earthquake shook the nearby island of Mayotte.

- a) PSQR
- b) QRSP
- c) QPRS
- d) SRPQ

Direction (21-25): Read the following passage and answer the given questions.

In February 2010 the Medical Council of India announced a major change in the regulation governing the establishment of medical colleges. With this change, corporate entities were permitted to open medical colleges. The new regulation also carried the following warning: "permission shall be withdrawn if the colleges resort to commercialisation". Since the regulation does not elaborate on what constitutes "resorting to commercialisation", this will presumably be a matter left to the discretion of the Government.

A basic requirement for a new medical college is a pre-existing hospital that will serve as a teaching hospital. Corporate entities have hospitals in the major metros and that is where they will have to locate medical colleges. The earlier mandated land requirement for a medical college campus, a minimum of 25 acres of contiguous land, cannot be fulfilled in the metros. Not surprisingly, yet another tweak has been made in the regulation, prescribing 10 acres as the new minimum campus size

for 9 cities including the main metros. With this, the stage is set for corporate entities to enter the medical education market.

Until now, medical education in India has been projected as a not for profit activity to be organized for the public good. While private bodies can run medical colleges, these can only be societies or trusts, legally non-profit organizations. In opening the door to corporate colleges, thus, a major policy change has been effected without changing the law or even a discussion in Parliament, but by simply getting a compliant MCI to change the regulation on establishment of medical colleges. This and other changes have been justified in the name of addressing the shortage of doctors. At the same time, over 50, existing medical colleges, including 15 run by the government, have been prohibited from admitting students in 2010 for having failed to meet the basic standards prescribed. Ninety per cent of these colleges have come up in the last 5 years. Particularly shocking is the phenomenon of government colleges failing short of standards approved by the Government. Why are state government institutions not able to meet the requirements that have been approved by the central government? A severe problem faced by government-run institutions is attracting and retaining teaching faculty, and this is likely to be among the major reasons for these colleges failing to satisfy the MCI norms. The crisis building up on the faculty front has been flagged by various commissions looking into problems of medical education over the years.

21. What change has been given by the Medical Council of India regarding the campus size?

- a) 10 acres as the minimum campus size for 9 countries
- b) 25 acres as the minimum campus size for 10 countries
- c) 9 acres as the minimum campus size for 10 countries
- d) 20 acres as the minimum campus size for 15 countries

22. Which of the following is a severe problem faced by government-run institutions?

- a) Dealing with unregulated leaves of employees
- b) Recruiting and maintaining teaching staff
- c) Equipment shortage
- d) Noncommittal attitude of teaching staff

23. Which of the following is possibly the most appropriate title for the passage?

- a) Healthcare in India -The Questionable Changes
- b) Medical Centres in Rural India
- c) Commercialization of Medical Education in India
- d) The Medical Council of India

24. What does the phrase ‘flagged by’ means in the passage?

- a) To warn someone to not use any information further
- b) To make things more complex
- c) To draw attention to information that you think is important
- d) To plead someone

25. Which of the following statements can be inferred from the given passage?

I. Corporate entities were not permitted to open medical colleges before February 2010.

II. Medical education in India was never seen as not for profit activity.

- a) Only I
- b) Only II
- c) Both I and II
- d) Neither I nor II

Direction (26-30): Read the following passage and answer the given questions.

Weather is the mix of events that happen each day in our atmosphere. Even though there’s only one atmosphere on Earth, the weather isn’t the same all around the world. Weather is different in different parts of the world and changes over minutes, hours, days, and weeks.

Most weather happens in the part of Earth’s atmosphere that is closest to the ground—called the troposphere. And, there are many different factors that can change the atmosphere in a certain area like air pressure, temperature, humidity, wind speed and direction, and lots of other things. Together, they determine what the weather is like at a given time and location.

Whereas weather refers to short-term changes in the atmosphere, climate describes what the weather is like over a long period of time in a specific area. Different regions can have different climates. To describe the climate of a place, we might say what the temperatures are like during different seasons, how windy it usually is, or how much rain or snow typically falls.

When scientists talk about climate, they're often looking at averages of precipitation, temperature, humidity, sunshine, wind, and other measures of weather that occur over a long period in a particular place. In some instances, they might look at these averages over 30 years. And, we refer to these three-decade averages of weather observations as Climate Normals.

Looking at Climate Normals can help us describe whether the summers are hot and humid and whether the winters are cold and snowy at a particular place. They can also tell us when we might expect the warmest day of the year or the coldest day of the year at that location.

26. What is the structure of the passage?

- a) Process writing
- b) Compare and contrast
- c) Enumeration
- d) Problem and solution

27. What is the tone of the given passage?

- a) Persuasive
- b) Bitter
- c) Cynical
- d) Informative

28. What is the most suitable tagline for the passage?

- a) Transformation of weather and climate
- b) What brings rain?
- c) The amalgamation of weather and climate
- d) Climate is what you expect, weather is what you get

29. Which of the following statements is correct regarding the Climate Normals?

I. They can help us describe whether the summers are hot and humid.

II. They can tell us when we might expect the warmest day of the year or the coldest day of the year at that location.

- a) Only I
- b) Only II
- c) Both I and II
- d) Neither I nor II

30. Which word describes 'certain' used in the passage most appropriately?

- a) Unsure
- b) Negotiable

- c) Hesitant
- d) Self-assured

Direction (31-35): Read the following passage and answer the given questions.

Even the biggest chocolate lovers, though, might not recognize what this ancient food has in common with kimchi and kombucha: its flavours are due to fermentation. That familiar chocolate taste is thanks to tiny microorganisms that help transform chocolate's raw ingredients into the much-beloved rich, complex final product.

Cacao fermentation is a multi-step process. Any compound microorganisms produced along the way that changes the taste of the beans will also change the taste of the final chocolate.

The first fermentation step may be familiar to home brewers, because it involves yeasts – some of them the same yeasts that ferment beer and wine. Just like the yeast in your favourite brew, yeast in a cacao fermentation produces alcohol by digesting the sugary pulp that clings to the beans.

This process generates fruity-tasting molecules called esters and floral-tasting fusel alcohols. These compounds soak into the beans and are later present in the finished chocolate.

As the pulp breaks down, oxygen enters the fermenting mass and the yeast population declines as oxygen-loving bacteria take over. These bacteria are known as acetic acid bacteria because they convert the alcohol generated by the yeast into acetic acid.

The acid soaks into the beans, causing biochemical changes. The sprouting plant dies. Fats agglomerate. Some enzymes break proteins down into smaller peptides, which become very “chocolatey”-smelling during the subsequent roasting stage. Other enzymes break apart the antioxidant polyphenol molecules, for which chocolate has gained renown as a superfood. As a result, contrary to its reputation, most chocolate contains very few polyphenols, or even none at all.

All the reactions kicked off by acetic acid bacteria have a major _____ on flavour. These acids encourage the degradation of heavily astringent, deep purple polyphenol molecules into milder-tasting, brown-coloured chemicals called o-quinones. Here is where cacao beans turn from bitter-tasting to rich and nutty. This flavour transformation is accompanied by a colour shift from reddish-purple to brown, and it is the reason the chocolate you're familiar with is brown and not purple.

Finally, as acid slowly evaporates and sugars are used up, other species – including filamentous fungi and spore-forming Bacillus bacteria – take over.

As vital as microbes are to the chocolate-making process, sometimes organisms can ruin a fermentation. An overgrowth of the spore-forming Bacillus bacteria is associated with compounds that lead to rancid, cheesy flavours.

31. According to the passage, all the given statements are true EXCEPT:

- a) Kimchi and kombucha are flavourful due to the process called fermentation.
- b) Most chocolate contains a large quantity of polyphenols.

- c) O- quinones are brown-coloured chemicals.
- d) Acetic acid bacteria is an oxygen loving bacteria.

32. What is the structure of the passage?

- a) Descriptive
- b) Compare and contrast
- c) Process writing
- d) Enumeration

33. Which of the following statements is NOT correct as per the given passage?

I. Oxygen enters the fermenting mass and the yeast population declines.

II. Yeast in a cacao fermentation produces alcohol by digesting the sugary pulp that clings to the beans.

- a) Only I
- b) Only II
- c) Both I and II
- d) Neither I nor II

34. Which word can meaningfully replace the word 'sprouting' in the passage?

- a) Cutting
- b) Ripening
- c) Plucking
- d) Digging

35. Which of the following words can meaningfully fill in the blank given in the passage.

- a) impact
- b) liability
- c) strength
- d) mass

Direction (36-40): Read the following passage and answer the given questions.

COVID-19 has renewed the focus on public health threats – making countries review their public health systems and healthcare infrastructure. Some countries, such as New Zealand and Vietnam have done better than others including the US, UK, but the underlying reasons for this outcome remain unknown. However, there are important lessons to be learnt from global and domestic health responses. World Health Day is celebrated on 7 April and it is the perfect occasion to review India's response to COVID-19 and identify threats to our health security that can be rectified on a war footing. These threats go beyond the biological causes of well-being and include policy and health responses that, when misaligned, can exacerbate an otherwise low-level threat into a serious one.

The most well-characterised threat are biological causes of poor health, such as infectious diseases, malnutrition and obesity, lack of sanitation, tobacco consumption, etc. These threats are well-recognised and oft-discussed from a preparedness perspective. Once identified, steps can be taken to counter these threats through increased surveillance, targeted health programmes and effective biocontainment policies.

However, this response to biological threats is underpinned by the availability of adequate health capacity. COVID-19 has demonstrated a paucity in India's infrastructural and healthcare professional's capacity. An important capacity deficit is in data surveillance of lifestyle and infectious diseases that can drive evidence-based actionable policy actions. Continued deficiencies in infrastructure, healthcare workers, and administrators will aggravate even minor causes into public health threats. Thus, fixing these deficits have to be our top priority in our preparation to prevent future outbreaks.

A critical threat to public health highlighted in the COVID-19 pandemic has been the lack of effective public engagement. For example, fear over lockdown saw migrants walk hundreds of kilometres and lack of clarity over vaccine approvals fuelled vaccine scepticism. Setting up effective public engagement mechanisms will be critical to better tackle future outbreaks and promote health-seeking behaviour.

Finally, India needs to learn lessons from the COVID-19 pandemic and take data-driven steps. This applies to both state and society. We are already seeing a COVID-19 second wave in several Indian states, accompanied by inappropriate COVID-19 behaviour, the politicisation of vaccine approvals and ineffective policy response. For example, despite the issues caused by low testing capacity early in the pandemic, vaccine distribution was also limited to government centres early in the vaccine rollout. Clearly, the lessons of ramping up capacity – manufacture and distribution – could have applied better, facilitating more vaccinations within India.

36. What can be the suitable tagline for the given passage?

- a) Healthcare facilities during COVID-19 Pandemic
- b) Lessons learnt by India during COVID-19 Pandemic
- c) Responses of Domestic Health during Global Pandemic

d) World Health Day and its Theme

37. All the given statements regarding threats faced by India during pandemic are correct EXCEPT:

- a) Biological causes of poor health has been one of the most well characterized threats.
- b) Targeted health programmes and effective biocontainment policies can help in subduing imminent threats.
- c) Continued deficiencies in infrastructure is also aggravating the public health threats.
- d) Abundance of healthcare workers is the only strength of India keeping everything in check.

38. What is the tone of the passage?

- a) Cautionary
- b) Barbaric
- c) Romantic
- d) Grandiose

39. What is the meaning of the phrase 'vaccine scepticism' as per the context of the passage?

- a) It refers to the confusion regarding the effectiveness of vaccine.
- b) It means lack of information regarding the availability of the vaccine.
- c) It means having negative thoughts regarding the vaccine.
- d) It refers to the conspiracy going against the vaccine.

40. What is the synonym of the word 'aggravate' as used in the passage?

- a) Appease
- b) Placate
- c) Pacify
- d) Infuriate