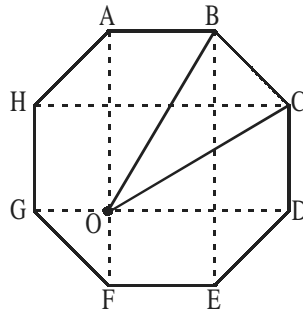


Unproctored Mock-25 2011

SECTION - I

1. Six men are in a queue at the ticket counter of 'PVR' movie theater. All of them want to buy a ticket which costs Rs. 75. Each of the six men has exactly one 'currency note'. Three of the men have 75 rupee-note and other three have 150 rupee-note. There are no 'currency notes' of any kind at the ticket counter initially. In how many different ways six men can be arranged in the queue such that there is no problem of extending change at the ticket counter?
a. 144 b. 252 c. 216 d. 180
2. The angles of a convex pentagon are in A.P. Then, which of the following can never be the value of any of its angles?
a. 36° b. 35° c. 34° d. All of these
3. A bag contains 9 blue cards numbered 1, ..., 9 and 9 yellow cards numbered 1, ..., 9. In how many ways can we choose 9 out of the 18 cards so that there are exactly 3 jugalbandis, where a jugalbandi means a blue card and a yellow card with the same number?
a. ${}^9C_3 \times 12 \times 10 \times 8$ b. ${}^9C_3 \times {}^6C_3 \times 2^3$ c. ${}^9C_3 \times {}^{12}C_3$ d. ${}^9C_3 \times {}^6C_3$
4. Two friends Aku and Chika are stationed at two different points P and Q respectively along the same bank of a straight stretch of a flowing river. The ratio of the speeds of Aku and Chika in still water is 1 : 3. When Aku and Chika swim in the opposite directions from P and Q respectively, they meet at a point 30 meters from Q. If the time taken by Aku to reach point Q and Chika to reach point P from their original positions P and Q is the same, then the distance (in meters) between P and Q is
a. 45 b. 90 c. 120 d. 60
5. The LCM of three positive integers X, Y and Z is 119^2 . Find the total number of ordered triplets (X, Y and Z).
a. 400 b. 361 c. 289 d. 225
6. V is a 56 digit number. All the digits except the 32^{nd} from the right are the same. If V is divisible by 13, then which of the following can never be the unit's digit of V?
a. 4 b. 7 c. 1 d. Both 4 and 7
7. Let $f(x) = ax^2 + bx + c$ where a, b and c are constants. If the maximum of $f(x)$ occurs at $x = \frac{1}{3}$, then which of the following is necessarily equal to $f(0)$?
a. $f\left(\frac{2}{3}\right)$ b. $f\left(\frac{-2}{3}\right)$ c. $-f\left(\frac{2}{3}\right)$ d. $-f\left(\frac{-2}{3}\right)$
8. $P = \{1, 2, 3, 6, 12, 24, 48, 96\}$. How many distinct values of 'x' are possible, if 'x' is defined as the sum of one or more elements of the set 'P'?
a. 150 b. 192 c. 148 d. 191

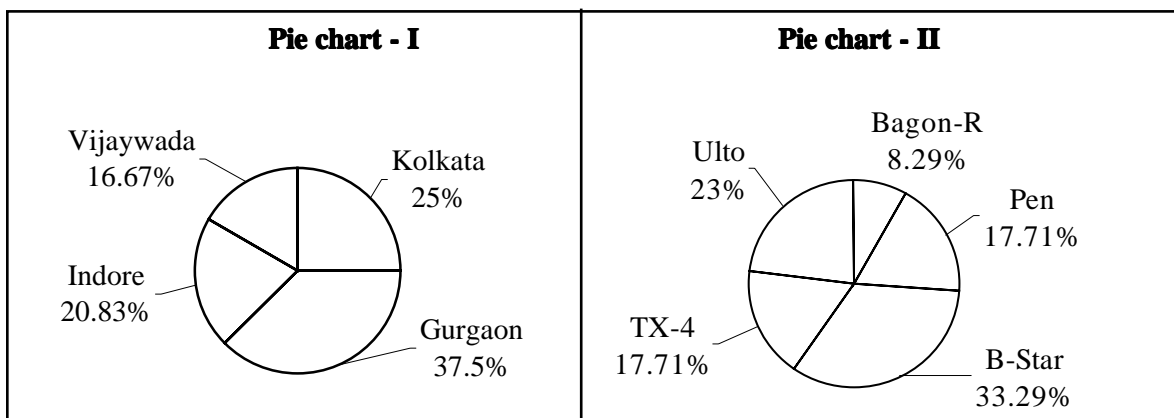
9. ABCDEFGH is a regular octagon as shown in the figure given below. What is the ratio of the area of the $\triangle BOC$ to the area of the octagon ABCDEFGH?



- a. $\frac{2\sqrt{2}+1}{8(\sqrt{2}+1)}$ b. $\frac{2\sqrt{2}+1}{4(\sqrt{2}+1)}$ c. $\frac{3\sqrt{2}+1}{4(\sqrt{2}+1)}$ d. $\frac{3\sqrt{2}+1}{2(\sqrt{2}+1)}$
10. The number of polynomials of the form $y^3 + ay^2 + by + c$ which are divisible by $y^2 + 1$ and where a, b and c belong to $\{1, 2, 3, 4, 5, 6\}$, is
- a. 6 b. 7 c. 1 d. 36

Directions for questions 11 to 13: Answer the questions on the basis of the information given below.

An Indian automobile company 'Baruti Ltd' sells only six brands of cars namely Bagon-R, Valeno, Pen, B-Star, TX4 and Ulto. The company has five regional offices in India located at Gurgaon, Surat, Kolkata, Indore and Vijaywada. **Pie chart-I** shows the percentage of sales volume, region wise, of 'Baruti Ltd' as compared to the combined sales volume of the four regions mentioned in this Pie chart. **Pie chart-II** shows the percentage of sales volume, brand-wise, of 'Baruti Ltd' as compared to the combined sales volume of the five brands mentioned in this Pie chart.



Actual percentage contribution of the Indore region is 16.67 % to the total all India sales of 1500 cars and the total brand Valeno sales is half the total sales of Vijaywada region.

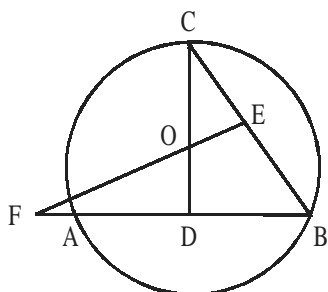
11. The maximum number of cars of brand B-star sold in the Gurgaon region can be
- a. 400 b. 450 c. 466 d. 360
12. What is the approximate percentage contribution (volume wise) of brand 'Bagon-R' sales to the total all India sales of 'Baruti Ltd'?
- a. 6.66 b. 8.51 c. 7.73 d. 7.51

13. The table given below shows the percentage contribution, region-wise, to the total sales of brand Valeno and the percentage contribution, brand-wise, to the total sales of Surat region.

Region	Kolkata	Gurgaon	Indore	Surat	Vijaywada	
% Contribution to sales of Valeno	20.00	30.00	16.67	20	13.33	
Brand	Bagon-R	Valeno	Pen	B-Star	TX-4	Ulto
% Break up for sales of Surat	6.67	20.00	10.00	26.67	10.00	26.67

What is the approximate ratio of sales of Valeno in Vijaywada to the aggregate sales of TX-4 and Bagon-R in the Surat region?

- a. 1 : 1 b. 3 : 4 c. 4 : 5 d. Cannot be determined
14. A circle with centre at O is shown in the figure given below. AB is a chord of the circle having length 8 cm. OD = 3 cm and is perpendicular to the chord AB. DO when extended intersect the circumference of the circle at C. E is the mid point of CB. EO, when extended, intersects BA extended at the point F. The length of FE is

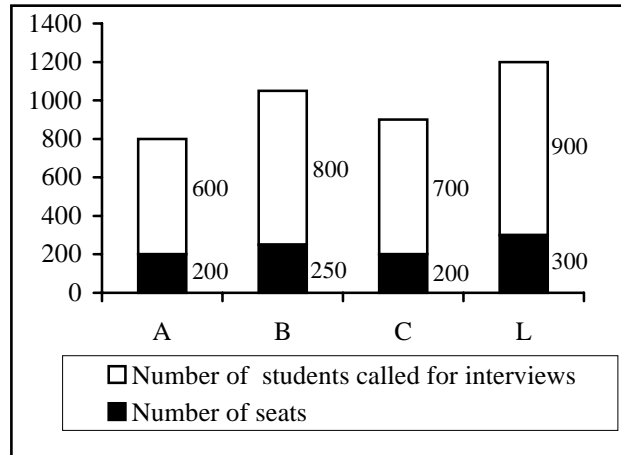


- a. 8 cm b. $4\sqrt{3}$ cm c. $3\sqrt{5}$ cm d. $4\sqrt{5}$ cm
15. If $\log_4(x + 2y) + \log_4(x - 2y) = 1$, then the minimum value of $|x| - |y|$ is
- a. $\sqrt{2}$ b. $\sqrt{3}$ c. $2\sqrt{3}$ d. $\sqrt{5}$
16. A 'table set' consists of a 'table' and a 'table cloth'. For every 'table set', the price of its 'table cloth' is directly proportional to the price of the 'table'. The 'table cloths' of two 'table sets' A and B are exchanged. The ratio of the prices of the 'table set' A and 'table set' B before and after the exchange of the 'table cloths' are 5:1 and 4:1 respectively. If the price of 'table set' C is 8 times that of 'table set' D, then the ratio of the prices of 'table set' C and 'table set' D when their respective 'table cloths' are exchanged is (A 'table set' is identified by the 'table', and not by the 'table cloth')
- a. 5:1 b. 17:3 c. 8:1 d. 7:1
17. In a triangle ABC, AB = 10 cm, AC = 4 cm. $3(\angle CAB) + 2(\angle ABC) = 180^\circ$. What is the length of the line segment BC (in cm)?
- a. $2\sqrt{15}$ b. $\sqrt{17}$ c. $5\sqrt{5}$ d. $4\sqrt{7}$
18. A function $f(x)$ is defined as $f(x) = f(x - 2) + x(x - 2)$ for all the integer values of 'x'. Given that $f(1) + f(6) = 0$. What is the value of $f(1) + f(2) + f(3) + f(4) + f(5) + f(6)$?
- a. 0 b. 10 c. -20 d. -35

Directions for questions 19 to 21: Answer the questions on the basis of the information given below. The following table gives the summary of interview calls that have been sent out to the students by four institutes viz. A, B, C and L. For example, from among the students who have calls from institute C, the number of students with exactly three interview calls is 210 and the number of students with exactly two interview calls is 150. There are 150 students who received calls from all the four given institutes.

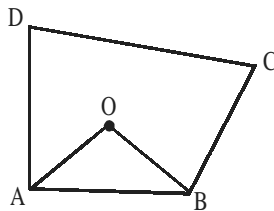
The bar-graph provides information about the total number of seats in each institute and the total number of students who have received interview calls from these institutes.

Institute	Students with 3 interview calls	Students with 2 interview calls
A	230	140
B	220	120
C	210	150
L	180	170



19. How many students received exactly one interview call?
 - a. 1380
 - b. 980
 - c. 860
 - d. 1580
20. The total number of seats in these four institutes, as a percentage of total number of individuals with interview calls from these institutes, is closest to
 - a. 31.6%
 - b. 61.3%
 - c. 55.9%
 - d. Data Insufficient
21. The number of students who got interview calls from both A and L cannot exceed
 - a. 420
 - b. 290
 - c. 270
 - d. 470
22. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
 Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
 Mark (b) if the question can be answered by using either statement alone.
 Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
 Mark (d) if the question cannot be answered even by using both the statements together.

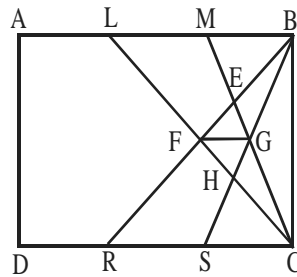
Q. In the figure given below ABCD is a quadrilateral. What is the measure of $\angle AOB$?



- A.** ABCD is a parallelogram and AO and OB are the angular bisectors of $\angle DAB$ and $\angle ABC$ respectively.
- B.** P is a point on AB such that $\triangle APO$ is an isosceles triangle and $AO > AB$.

23. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
 Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
 Mark (b) if the question can be answered by using either statement alone.
 Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
 Mark (d) if the question cannot be answered even by using both the statements together.
- Q.** Set 'A' contains all possible values of highest power of 2 in $N!$ where $0 < N < 20$. 'x' is a natural number such that $0 < x < 15$ and it does not belong to the set A. What is the highest power of 2 in $x!$?
A. 'x' leaves a remainder 1 when divided by 4.
B. 'x' is a prime number.
24. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
 Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
 Mark (b) if the question can be answered by using either statement alone.
 Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
 Mark (d) if the question cannot be answered even by using both the statements together.
- Q.** In a class of 200 students, the ratio of the number of students who do not play cricket, football and hockey is 2:1:3. The ratio of number of students who play exactly two games to those who play all the three games is 2:1. The number of students who do not play hockey is 150. What is the number of students who play none of the three games?
A. The number of students who play all the three games is 28.
B. The number of students who play cricket only is 20.
25. Mr. Ganguly, the captain, after winning the match distributed few toffees to every other player of his team. The first player received 50 toffees and then one tenth of the remaining toffees available with Mr. Ganguly. The second player received 100 toffees and then one tenth of the remaining toffees available with the captain. The third player received 150 toffees and then one tenth of the remaining toffees available with the captain. The same was true for the toffees received by the subsequent players. After distributing the toffees Mr. Ganguly found that every other player of his team got the same number of toffees. How many players are there in the team including the captain?
 a. 9 b. 10 c. 11 d. 12
26. A Shopkeeper can buy 'X' number of pencils and 'Y' number of pens in Rs. 1000. Cost price of a pencil is Rs. 30 and that of a pen is Rs. 20. He gifts away a few pens and sells the remaining pens at Rs. 25 each and pencils at Rs. 35 each. If he does not make any profit or loss in this transaction, then which of the following relations can be correct?
 I. $X + Y = 25$
 II. $X + Y = 34$
 III. $X + Y = 45$
 a. Only I b. I and II c. Only III d. I and III
27. P is a prime number greater than 30. When P is divided by 30, the remainder is x. How many different values of x are possible?
 a. 9 b. 8 c. 10 d. 11

28. Find the sum of all the digits in the integers from 1 to 100000.
a. 5000050000 b. 2250001 c. 225001 d. None of these
29. Raman took classes for 20 consecutive days. On n^{th} day, there were $(n + 1)$ students present in his class, where n is a natural number. Each day Raman distributed Rs.1100 equally among the students present in the class. Student 'x', who attended all the 20 classes of Raman, donated $\frac{1}{(m + 1)}$ th part of the amount received by him (from Raman on that particular day) to a charity at the end of each day, where 'm' is the number of students attending the class on that day. What is the total amount donated by student 'x' to the charity?
a. Rs. 300 b. Rs. 1000 c. Rs. 666 d. Rs. 500
30. In the figure given below ABCD is a square. It is also given that $AL : LB = BM : MA = DR : RC = CS : SD = 1 : 2$. What is the ratio of the area of the ΔEFG to the area of the ΔERC ?



- a. 1 : 4 b. 1 : 9 c. 1 : 16 d. 1 : 25

SECTION - II

31. The word given below has been used in sentences in four different ways. Choose the option corresponding to the sentence in which the usage of the word is **incorrect or inappropriate**.

Pick

- a. Don't pick at your food.
- b. She is our pick for Class President.
- c. I am going to pick apart feathers from a chicken.
- d. He likes to pick a fight with boys who are twice his size.

32. The word given below has been used in sentences in four different ways. Choose the option corresponding to the sentence in which the usage of the word is **incorrect or inappropriate**.

Account

- a. His blog contains a detailed account of his recent trip to Malaysia.
- b. She said that the Students' Union could account her in for tomorrow's peace march.
- c. Rahul wants to work on his own account.
- d. Someone has to account for the late deliveries.

Directions for questions 33 to 35: The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

Many settler capitalist economies have had their economies based on a single or multiple set of 'primary' or resource industries, ranging from the US (North 1961), to Argentina, Chile, New Zealand, Australia, Canada, Brazil, Norway and many still do so, including oil-reliant states in the middle east and central Asia and mineral-reliant ones in Africa. Some of these countries have evolved from a staples base to a manufacturing or service one, but others have not, or have only partially done so.

Originally, the staples thesis, as developed by Canadian political economists, set out an export-led model of economic growth and attempted to show how regional natural resource endowments led to the autonomous demands for and dependence upon exports, their spreading effects (linkages) to the rest of the economy, and to technological changes. Staples theorists view Canadian political economy as having been shaped by the export of successive staples over the course of Canadian history from the earliest colonial times to the modern era.

Michael Howlett and Keith Brownsey in Canadian Political Science Review say that:

While a mature staples political economy may still be characterized as "resource dependent", the economy is more diffused and diversified than in the past, if this diffusion, diversification, and resource depletion continues, then an economy may make a further transition towards a "post-staples" one in which severe pressures on the critical resource sector coupled with the prospect of even more substantial contractions in the near future lead to an internal reconfiguration of growth and development as unprocessed bulk commodities can no longer compete with low-cost suppliers in traditional export markets. Typically this would involve a significant increase in metropolitan shares of population and employment, the emergence of regional economic centres, the decline of smaller resource-dependent communities and the increased prominence of the internal market for remaining, smaller-scale, resource industries.

On this account Australia, like Canada, is a mature staples economy. In The (Post) Staples Economy and the (Post) Staples State in Historical Perspective Adam Wellstead argues that the staple thesis was that this form of economic life could provide relatively high standards of living to citizens of exporting countries, but only as long as domestic resource supplies and world demand remained constant or increased. Any declines in demand or increases in supplies would have drastic consequences for the domestic political economy, which would be poorly placed to respond to the challenge of finding a new economic base. The ‘staples trap’; is where the country becomes dependent on the economies that receive its imports and supply its manufactured goods.

33. Which of the following can be inferred from the passage?
- Countries like the US have evolved from a staples base.
 - Many oil-reliant states in the middle east have their economies based on primary or resource industries.
 - Countries like New Zealand have evolved from a staples base to a manufacturing or service one.
 - Settler capitalist economies which are reliant on minerals are based on a set of primary industries.
34. Which of the following cannot be inferred from the passage?
- A mature staples economy is more resource dependent than a staples economy.
 - A mature staples economy may move to a post staples economy due to a significant increase in metropolitan shares of population and employment.
 - Diffusion , diversification and resource depletion can lead an economy from a mature staple stage to a post staples stage but not from a staples stage to a mature staples stage.
- a. Only A b. Only B c. A and C d. A, B and C
35. Which of the following statement best captures the central idea of the passage?
- Some of the settler economies based on resource industry or industries have evolved from a staples base and they can change into a mature staples economy through export of the primary resources.
 - Canadian economy is an example of the staple thesis where natural resource endowments have made an economy export dependent.
 - Regional natural endowments can lead to a mature staple economy as shown by the staple thesis which may further lead to a post staple economy or even a staples trap.
 - An economy can change into a mature staples economy through exports which can create conditions for the same economy to change into a post staples economy or even slip into a staples trap.
36. There are two gaps in the sentence/paragraph given below. From the pairs of words given, choose the one that fills the gaps most appropriately.
- A number of environmentalists have published articles _____ global warming, stating _____ that there is hardly any scientific evidence to support the theory of global warming because of increases in the greenhouse gases.
- debunking...categorically
 - rejecting...paradoxically
 - deploring...optimistically
 - dismissing...hesitantly
37. There are two gaps in the sentence/paragraph given below. From the pairs of words given, choose the one that fills the gaps most appropriately.
- Jawaharlal Nehru’s great socialist contemporary, Dr Ram Manohar Lohia, fired the first _____ in “The Guilty Men of Partition”: the title implied that responsibility extended beyond Jinnah. But since his purpose was _____, the frisson was lost in forgotten corners of libraries.
- broadside, polemical
 - salvo, extolment
 - slander, to besmirch
 - attack, litigious

Directions for questions 38 to 40: The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

The absolutely free will, at the stage when its concept is abstract, has the determinate character of immediacy. Accordingly this stage is its negative actuality, an actuality contrasted with the real world, only an abstractly self-related actuality — the inherently single will of a subject. Pursuant to the moment of the particularity of the will, it has in addition a content consisting of determinate aims and, as exclusive individuality, it has this content at the same time as an external world directly confronting it. When I say that ‘the absolutely free will at the stage when its concept is abstract has the determinate character of immediacy’, what I mean is this: when the concept had fully realised itself and when the embodiment of the concept had become nothing but the unfolding of its own self, then that state of affairs would be the fully developed Idea of the will. But at the start the concept is abstract, which means that all its determinations are contained within it, but still only contained within it; they are only implicit and not yet developed to be a totality in themselves. If I say ‘I am free’, the ego is still this inwardness, not confronted by an opposite. In morality, on the other hand, there is opposition from the start, since I stand in the moral sphere as a *single* will while the good is the *universal* even though it is within myself. Thus at that level, the will has in itself the different factors of singularity and universality, and this gives it its specific character. But, to begin with, no such difference is present, since at the first stage, that of abstract unity, there is no advance and no mediation and so the will has the form of immediacy, of mere being. The essential point of view to be taken here then is that this original indeterminacy is itself a determinacy. The indeterminacy lies in the fact that there is as yet no difference between the will and its content; but indeterminacy, opposed to the determinate, acquires the character of being something determinate. It is abstract identity which here constitutes determinacy; the will therefore becomes a single will, a person.

The universality of this consciously free will is abstract universality, the self-conscious but otherwise contentless and simple relation of itself to itself in its individuality, and from this point of view the subject is a person. Personality implies that as *this* person: (i) I am completely determined on every side and so finite, yet (ii) none the less I am simply and solely self-relation, and therefore in finitude I know myself as something infinite, — universal, and free.

The abstract will, consciously self-contained, is personality. Man’s chief glory is to be a person, and yet in spite of that the bare abstraction, ‘person’, is somewhat contemptuous in its very expression. A person is a unit of freedom aware of its sheer independence. As *this* person, I know myself to be free in myself I can abstract from everything, since nothing confronts me save pure personality, and yet as *this* person I am something wholly determinate, e.g. I am of a certain age, a certain stature etc. Thus personality is at once the sublime and the trivial. It implies this unity of the infinite with the purely finite, of the wholly limitless with determinate limitation. It is the sublimity of personality that is able to sustain this contradiction, a contradiction which nothing merely natural contains or could endure.

38. Which of the following is not true when the concept of the absolutely free will is abstract ?
- It has both a self-related actuality as well as determinations which are contained within it.
 - It has a character of exclusive individuality which is not confronted by an opposite.
 - The will takes the form of mere being, and its indeterminacy itself is a determinacy.
 - The will faces an opposition which characterizes the moral sphere.
39. Which of the following is not true of ‘personality’?
- It consists of the finite and the infinite at the same time.
 - It has a contradiction which raises it to sublime levels.
 - It has a self-relation as well as a determined finite character.
 - None of the above.

40. All of the following are interpretations of the word 'person', except ?
- An entity which knows itself to be free as well as determinate.
 - An entity which is not characterized by advance and mediation.
 - An entity which consists of various factors of singularity and universality.
 - An entity which has the character of original indeterminacy.
41. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
 Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
 Mark (b) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
 Mark (c) if the question can be answered by using either statement alone.
 Mark (d) if the question cannot be answered even by using both the statements together.
- Q.** Eight students A, B, C, D, E, F, G and H obtained 3, 5, 7, 9, 10, 12, 15 and 17 marks not necessarily in the same order. It is also known that C obtained more marks than F, and G obtained 5 marks. What was the marks obtained by H?
- C didn't obtain the highest marks and the number of students obtaining more marks than C is equal to the number of students obtaining lesser marks than F.
 - B obtained more marks than A and the difference of marks obtained by B and D is same as the difference of marks obtained by D and A. E obtained 9 marks.
42. A rugby team has 15 players such that each player is wearing only one Jersey. The Jerseys of these 15 players are numbered 1 to 15 such that there is only one number on one Jersey. While playing a game on the rugby field, the players identify each other by their jersey numbers. For example, the player wearing the jersey number 7, is identified as "Jersey 7". As per the team's strategy, "Jersey x" always passes the ball to "Jersey y" such that y is exactly three numbers ahead of x. For example, "Jersey 1" always passes the ball to "Jersey 4" whereas "Jersey 15" always passes the ball to "Jersey 3". Out of 1001 consecutive passes between his team members, at most how many times did "Jersey 6" pass the ball?
- 102
 - 200
 - 201
 - Cannot be determined.
43. The number assigned by Professor Chaurasia to each of the 26 alphabets namely A, B, C,, Y and Z is 1, 2, 3,, 25 and 26 respectively. He makes a selection of certain alphabets such that his selection includes all the vowels and all those alphabets which have been assigned a number that is prime. He forms a five-letter word using the alphabets from his selection. Which of the following is definitely not a word formed by him?
- IGCAM
 - SCEKA
 - SUOEM
 - OGVUE
44. 7 containers namely C1, C2, C3, C4, C5, C6 and C7 are filled with one out of the 7 liquids namely A, B, C, D, E, F and G not necessarily in this particular order. C2, C4 and C6 are filled with A, E and C respectively. C1 is neither filled with D nor G. C7 is neither filled with B nor D. If C1 is filled with F, which liquid is filled in C7?
- A
 - G
 - C
 - Either G or C

45. Given below is a paragraph from which one of the intermediate sentences has been deleted. From the given options, choose the sentence that completes the paragraph in the most appropriate way.

It took them both a long time to understand that the boy was sick, though she would point out that she had been the first to notice that he was unhappy, and had sought to remedy his discontent with sweeter treats and more delightful distractions. She thought it was evidence that she loved him more—that she had noticed first that something was wrong—and she said as much to her husband, when they were still trying to outdo each other in love for the child. _____

—They had each taken many mortal lovers, but had cast them off before they could become old or infirm, and all their previous changelings had stayed healthy until they were returned, unaged and unstuck from their proper times, to the mortal world.

- a. Neither of them had ever taken care of a child.
 - b. The child had never been ill for more than a week.
 - c. Neither of them had much experience with illness.
 - d. Both of them shared a common phobia of illness.
46. Given below is a paragraph from which one of the intermediate sentences has been deleted. From the given options, choose the sentence that completes the paragraph in the most appropriate way.

Monitoring programmes show evidence of changes in one place over a few years or decades, but they are already being made more difficult by the impact climate change is having on the distribution of organisms - and thus on biodiversity - at any particular place on the planet. _____

_____This is where scientific collections such as those in natural history museums and herbaria can make a unique contribution. These vast, painstakingly assembled collections of animals and plants are more than mere relics: they offer snapshots of past biodiversity.

- a. When it comes to longer-term changes, monitoring clearly cannot help.
- b. Monitoring can help record the effects of climate change on biodiversity.
- c. Rapid changes in climate are impacting biodiversity by producing rapid changes in organisms.
- d. When organisms are monitored over long periods of time, scientists fail to see the minute changes.

Directions for questions 47 to 50: The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

In America, after the War of 1812, the sharply rising prices of agricultural commodities pulled settlers westward to find more arable land and become farmers. Between 1815 and 1819, commodity prices climbed steeply, driving up land prices as well. Farmers took advantage of the extensive river system of the West, shipping wheat and corn down the Ohio River to the Mississippi and then down the Mississippi to the port of New Orleans where it was sold or shipped to distant ports. Due to the capabilities of the Eli Whitney's newly invented cotton gin, farmers rushed to claim lands in the southwest, hoping to cash in on cotton. "Alabama fever" gripped the South after the War of 1812, and settlers flowed into Alabama and Mississippi, driving land prices to unprecedented levels. By 1820, Mississippi and Alabama produced half of the nation's cotton. The United States' total cotton output tripled between 1816 and 1826. Cotton continued to rise in value as the nation's primary export, and by 1836, made up two-thirds of all American exports in terms of value. High prices tempted many former subsistence farmers to enter the market economy.

However, the agriculture and land boom collapsed temporarily in the Panic of 1819. The state banks that had risen up to support speculation and expansion financially had long issued notes guaranteeing redemption for specie or gold. These notes had then been widely circulated as a method of exchange throughout the West.

The state banks governed the issuance of these notes very loosely, and thus issued notes far in excess of what they could realistically redeem. In reaction to this situation, the Bank of the United States began to insist that the state banks redeem all notes that had passed into the hands of the Bank of the US, branches of which had been in the practice of redeeming the notes themselves and amassing large numbers of state bank notes which they assumed would be redeemed by the state banks. In order to pay the Bank of the US, the state banks had to demand payment of debts by the farmers of the Midwest. The result was a vast restriction in the amount of circulating money, and a substantial cutback in the amount of credit offered to farmers and speculators, dramatically slowing the economy.

The credit squeeze coincided with increased foreign production and thus falling export demand for US crops. Agricultural prices, which had sparked the boom, dropped off sharply, bringing the value of land down. Farmers could not afford to pay their debts, and since speculators could not collect payment for lands they had sold, the value of land plummeted even further. Eventually, through maintained production, innovation, and economic measures by the federal government, prices stabilized and progress continued in settling the West, but at a slower rate than the boom of 1815 to 1819.

The paralleling meteoric rises in agricultural prices and land values fed off of each other to define the character of the western economy. Despite the Republicans' efforts to create a West filled with small subsistence farmers, high land prices and high-interest loans from state banks forced many settlers to focus on cash crops and enter the agricultural market, with which few had previous experience.

47. Which of the following can be inferred from the practice of the state banks?
- The state banks demanded payment of debts by farmers in order to revive the economy.
 - That their workings were not properly regulated.
 - The crisis was evoked only by their wrong decisions.
 - They were equally responsible for the evoking the crisis.
48. The author, in the third paragraph indicates that:
- The boom was not dependent on Agricultural prices.
 - The speculators waited for selling the lands after the credit squeeze.
 - The credit squeeze was one of the contributory factors towards the decrease in the value of land.
 - None of the above.
49. Which of the following cannot be validated by the passage?
- The farmers were completely dependent on the banks.
 - Cash crops were preferred by the small farmers.
 - Land prices rose spectacularly.
 - The economy was agriculture based.
50. According to the author, the Panic of 1819 was predominantly due to:
- Collapse of the agriculture boom.
 - Newness of the trade.
 - Drop in agricultural prices.
 - None of the above.

Directions for questions 51 to 53: Answer the questions on the basis of the information given below.

Certain number of players participated in a tournament. Each player was categorised as either a 'Pro' or an 'Amateur'. An 'Amateur' would immediately turn 'Pro' once he had played exactly 3 matches with 'Pro' players in the tournament. There were 3 rounds in the tournament. At the end of Round 3 it was found that each player had now turned a 'Pro'. No player left the tournament before the completion of Round 3.

The following table provides the information about the number of matches played in each round and the number of 'Pro' and 'Amateur' players at the beginning of each round.

Round	Number of 'Pro' players	Number of 'Amateur' players	Number of Matches
Round 1	P_1	A_1	14
Round 2	P_2	A_2	N_1
Round 3	12	3	N_2

Here, P_1 , P_2 , A_1 , A_2 , N_1 and N_2 represent missing values in the table.

Further, the following information is given below:

- Each match involved one 'Pro' and one 'Amateur' player.
- It is not necessary that each player played a match in every Round.
- At the end of Round 1, the number of 'Amateur' players was half of the number of 'Pro' players.
- There were exactly 3 more 'Pro' players at the beginning of Round 2 as compared to the beginning of Round 1.

- How many matches were played in the tournament?
a. 30 b. 21 c. 24 d. Cannot be determined
- What can be the maximum possible difference between any two possible values of N_2 ?
a. 3 b. 5 c. 6 d. 8
- Which of the following cannot be TRUE?
I. $N_1 - N_2 = 4$
II. $N_1 - N_2 = 6$
III. $N_1 - N_2 = 3$
a. Only I b. Only II c. Only III d. Both II and III
- Five sentences are given below, labeled A, B, C, D and E. The sentence labeled A is in its correct place. The four that follow are labeled B, C, D and E, and need to be arranged in the logical order to form a coherent paragraph. From the given options, choose the **most appropriate** option.

A. Charged by the longer days and the tease of warmth in the air, the sap is now flooding into previously barren growth. You can practically hear it coursing towards the end of every branch and on into the twigs to flesh out buds that have been tightly sealed for five months.
B. The fresh green of spring is like a high that I find myself chasing. I want more and I want to be consumed by the deluge of newness that comes with it.
C. A beech wood is my favourite place to go at precisely this moment, not just to catch the violet wave of bluebells but also to soak in the intense and luminous greens.
D. The colour is magnified, with one branch layered upon the next, filtering the spring sunshine from way up in the canopy with the grandeur of a cathedral.
E. The scales protecting these buds litter the ground under beech trees and remind you to look up to where the action is.

a. BCDE b. ECDB c. ECBD d. BDCE

55. Five sentences are given below, labeled A, B, C, D and E. The sentence labeled A is in its correct place. The four that follow are labeled B, C, D and E, and need to be arranged in the logical order to form a coherent paragraph. From the given options, choose the **most appropriate** option.
- A. An especially important barrier is the traditional stereotyping of leadership which has failed to address the female perspective and its related qualities. Most of what is learned in administrative leadership courses comes from male-based experiences.
 - B. Over 30 years ago, it was found through research that men tended to select careers based on interests, aptitudes, and financial possibilities, while women, on the other hand, tended to be influenced in career decisions by career role models or significant others
 - C. Historically, men have been encouraged towards management and women to instruction- For years, male organizational leaders have supported and mentored each other in “a good old boy” network, filling administrative positions with friends and proteges, while largely ignoring qualified women for these positions.
 - D. Supported by a study which found that while female and male teachers identify the same qualities as desirable in a principal regardless of the principal’s gender, male principals are viewed by females as having legitimate authority based solely on the position, whereas both males and females say that women must work to earn their authority.
 - E. Yet, others noted that while women are less able than men to influence others, they are more effective at getting things done; however, there is another barrier related to ingrained cultural perceptions of leadership and that is of sponsorship or networking.
- a. BCDE b. DECB c. BDCE d. CDBE
56. Five sentences are given below, labeled A, B, C, D and E that form a paragraph. Identify the sentence(s) or part(s) of sentences that is/are correct in terms of grammar and usage (including spelling, punctuation and logical consistency.) Then, choose the **most appropriate option**.
- A. Although I had made up my mind
 - B. to write a book on Lawrence
 - C. I had made up my mind to write a novel also,
 - D. and while the decision to write the book on Lawrence was made later
 - E. it had not entirely superseded that early decision.
- a. A and E b. Only A c. B, C and D d. B and D
57. Five sentences are given below, labeled A, B, C, D and E that form a paragraph. Identify the sentence(s) or part(s) of sentences that is/are correct in terms of grammar and usage (including spelling, punctuation and logical consistency.) Then, choose the **most appropriate option**.
- A. What has Dylan been reading?
 - B. “Together Through Life,” his new album, comes out April 28th,
 - C. and Dylanologists have already started to trace the album’s title and themes.
 - D. Some are looking toward Ovid as an inspiration for “I Feel a Change Comin’ On.”
 - E. Others have pointed toward Whitman for the album’s title.
- a. A, B, C and E b. A, B, C and D c. A and E d. B and C

Directions for questions 58 to 60: Answer the questions on the basis of the information given below.

A teacher distributed two types of articles viz. A and B among six children namely Aanya, Ayush, Ajay, Anand, Aarushi and Aaroohi. The number of articles of type A received by the children are X, 19, 36, 13, 27 and 31 and the number of articles of type B received by the children are 19, 31, 24, 41, 11 and 37 not necessarily in that order. X is a natural number. Out of the given children Aanya, Aarushi and Aaroohi are girls whereas the rest are boys.

Additional Information Given:

- I.** A boy and a girl received a total of 46 and 58 articles respectively and each of the remaining four children received a total of more than 46 but less than 58 articles. The girl who received 58 articles received 27 articles of type A.
 - II.** The number of articles of type A received by Ajay is more than the number of articles of type B received by the child who received the maximum number of articles.
 - III.** Aanya received 31 articles of type B.
 - IV.** Ayush received more number of articles than those received by Aarushi.
58. Which of the following can be total number of articles received by Ajay?
a. 46 b. 47 c. 55 d. (a) or (b) or (c)
59. What is the number of articles of type B received by Ajay?
a. 11 b. 19 c. 24 d. Cannot be determined
60. If the number of articles of type A received by one of the girls is 31, then maximum number of articles received by all the girls together can be
a. 167 b. 168 c. 162 d. 169