

## SBI PO Mains Previous Year Paper 2023

**Directions (1-5):** Read the given information carefully and answer the questions based on it:

Five spouses sit in two parallel rows in such a way that five persons sit in each row. All the females sit in row 1 and face south while all the males sit in row 2 and face north. The persons of both rows face each other. The persons of row 1 like different fruits and the persons of row 2 like different flowers. The fruits are Apple, Cherry, Mango, Orange, Papaya. The flowers are Lily, Rose, Daisy, Tulip, Orchid. The persons are B, C, E, K, L, M, R, S, U, T. The information of fruits, flowers and persons is not used in the same sequence as given.

**Note:** Spouses do not face each other. (Ex.- If A and B are spouse, then A and B do not face each other).

The one who likes orange faces R's husband who sits just left of S. K does not sit at any end. Two persons sit between C and E's wife. The one who likes Daisy sits just right of B's husband. M's husband sits second to the right of the one who likes Orchid. L faces the one who likes rose and sits just left of the one who likes papaya. One person sits between M and the one who faces the one who likes Tulip. C sits just left of the one who likes cherry. The number of persons sit to the right of the one who likes papaya is same as the number of persons sit to the left of the one who likes apple. E is not M's husband. One person sits between S and T who is neither M's husband nor sits at any end of the row. No person sits between the one who likes cherry and the one who faces M's husband. U doesn't sit adjacent to E

**Q1. Who among the following is wife of K?**

- (a) The one who sits just right of M
- (b) The one who faces E
- (c) The one who likes cherry
- (d) The one who faces the one who likes Orchid
- (e) The one who faces M's husband

**Q2. U's wife likes which of the following fruit?**

- (a) Apple
- (b) Mango
- (c) Papaya
- (d) Orange
- (e) Cherry

**Q3. What is the position of T with respect to the one who likes Lily?**

- (a) Immediate right
- (b) Second to the left
- (c) Third to the left
- (d) Second to the right
- (e) Fourth to the left

**Q4. The person who faces S's wife likes which of the following flower?**

- (a) Tulip
- (b) Orchid
- (c) Daisy
- (d) Lily
- (e) Rose

**Q5. Who among the following sits at exactly middle of row 1?**

- (a) The one who likes mango
- (b) The one who faces R's husband
- (c) The one who sits second to the left of E's wife
- (d) The one who faces T
- (e) The one who sits adjacent to B

**Q6. Eight different letters are arranged to form a meaningful word. Only two letters are arranged between P and E. R is arranged adjacent to E. Only two letters are arranged between R and L which is not adjacent to P. Only one letter is arranged between E and O. W is arranged adjacent to O. F and U are the two letters of the meaningful word. If only one meaningful word can be formed from the fourth, fifth, seventh and eighth letters (using each letter once only) from the left end of the word then which among the following is the second letter from the right end of the word. If no meaningful word is formed mark X as your answer if more than one such word is formed mark Y as your answer.**

- (a) L
- (b) U
- (c) Y
- (d) X
- (e) R

**Q7. Statement: 200 workers are hired in the newly opened factory. Some of them are caught stealing products from the factory.**

**Course of action:**

- I. The owner of the company should immediately fire those workers who are caught stealing products.
- II. Warning should be issued to those employees who are caught stealing products.

Give answer:

- (a) if only I follows.
- (b) if only II follows.
- (c) if either I or II follows.
- (d) if neither I nor II follows.
- (e) if both I and II follow.

**Q8. Statements: On 1st May 2020 the central government has decided to declare "Covid-19" as a notifiable disease under the Epidemics act, 1987. Government will take legal action if patient or family members of patients do not isolate and inform concerned authorities.**

- I. Efforts should be made to effectively implement the act.
- II. The cases of punishment should be propagated through mass media so that more people become aware of the stern action.

Which of the following course of action does logically follow?

- (a) If only I follows
  - (b) None follows except II
  - (c) If either I or II follows
  - (d) If neither I nor II follows
  - (e) If both I and II follow
-

**Directions (9-13): Study the following information carefully and answer the questions given below-**  
Ten persons attend the seminar in two different months i.e., June and July in consecutive two weeks. Each month has one week. First week start from Monday to Sunday.

Note: P attends the seminar on double digit odd prime numbered date in the given month. No two adjacent days are vacant.

R attends the seminar two days before P. One person attends the seminar between P and I who attends the seminar in the month having odd number of days. I and Q attend the seminar on the same day. J attends the seminar after Q and before R on an even numbered date. As many persons attend the seminar between J and R as between I and L. L attends the seminar on an even numbered date. O attends the seminar three days after L. L attends after I. No one attends the seminar between O and K who attends the seminar on an odd numbered date. As many persons attend the seminar after K as before Q. M attends the seminar in the month having maximum number of days. N attends before Q.

**Q9. How many persons attend the seminar between N and I?**

- (a) Four
- (b) Six
- (c) Three
- (d) Five
- (e) Seven

**Q10. Which among the following pair of persons attend the seminar on same day?**

- (a) N, O
- (b) I, K
- (c) L, R
- (d) J, L
- (e) K, Q

**Q11. Four of the following five are alike in a certain way and form a group. Who among the following person does not belong to the group?**

- (a) O
- (b) N
- (c) K
- (d) M
- (e) I

**Q12. On which among the following date and month N attends the seminar?**

- (a) 24th June
- (b) 5th July
- (c) 30th June
- (d) 1st July
- (e) 3rd July

**Q13. Which among the following statement(s) is/are true?**

- I. No one attends the seminar on 6th July
- II. More than six persons attend the seminar between after R
- III. O attends the seminar on Sunday

- (a) Both I and II
  - (b) Both II and III
  - (c) Only I
  - (d) Both I and III
  - (e) Only III
-

**Directions (14-17):** A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

**Input:** temperature compensated 58 67 sources growing 33 29 century 38 62 despite

Step I: 201 temperature compensated 58 sources growing 33 29 38 62 despite ' ---- '

Step II: 124 201 temperature 58 sources growing 33 29 38 despite '-----' date

Step III: 116 124 201 temperature sources growing 33 29 38 '-----' date '-----'

Step IV: 76 116 124 201 temperature sources 33 29 '-----' date ' ---- ' wing

Step V: 66 76 116 124 201 temperature 29 '-----' date '-----' wing '-----'

Step VI: 87 66 76 116 124 201 '-----' date '-----' wing '-----' true

And step VI is the last step of the arrangement. As per the above rule followed in the above steps, find out in each of the following questions the appropriate step for the given input:

**Input:** 41 countries 19 humanity 28 breached 46 fuels 51 36 collectively particular

**Q14. How many even numbers in the right of humanity in step III?**

- (a) Three
- (b) Two
- (c) Four
- (d) One
- (e) None

**Q15. Which of the following pair of new words are formed?**

- (a) Stay, Tune
- (b) Grow, Rise
- (c) Tiny, Slue
- (d) Pure, Hear
- (e) None of these

**Q16. In which of the following step “humanity 28 particular” is found in the same order of the given input?**

- (a) Step I
- (b) Step II
- (c) Step III
- (d) Step IV
- (e) Step V

**Q17. Which of the following is the penultimate step?**

- (a) 56 72 32 92 102 19 particular '-----' ' ---- ' rise slue tiny
- (b) 56 72 123 92 102 19 particular '-----' rise slue '-----' tiny
- (c) 56 72 123 102 92 19 particular '-----' '-----' rise slue tiny
- (d) 56 72 123 92 102 19 particular '-----' ' ---- ' rise slue tiny
- (e) None of these

**Directions (18-22): Read the given information carefully and answer the questions based on it:**

Twelve persons A to L belong to four different cities. These four cities are located in two countries i.e., two cities in each country. The two countries are Italy and Spain, the four cities are Valencia, Granada, Verona and Genoa. Minimum two and maximum four persons belong to each city. All the persons like different colors i.e. red, green, blue, pink, teal, cyan, grey, yellow, olive, black, maroon and white. The information about persons, countries, cities and color is not used in the same sequence as given.

J is neither from Italy nor likes red. The one who likes green belong to the city of G who is neither from Italy nor belongs to C's city. D (who does not like grey) and the one who likes yellow are from same country. F and the one who likes pink belong to same country but not from same city. K and the one who likes olive are from Spain but belong to different cities. F is from Granada but not from Spain. D does not like maroon but belong to the city of the one who likes grey. The number of persons belong to H's city are less than the number of persons belong to Valencia. C and the one who likes red are from Spain but not belong to Verona. One of the persons who has vowel name likes cyan. A likes black but neither belong to Genoa nor to Valencia. H and E are from same country, but they neither are from F's country nor like red. One of the persons from Genoa likes blue but he is not C. The person who likes maroon belong to Valencia from where odd number of persons belong. Verona is not the city of Italy. B and the one who likes teal belong to the city of the one who likes black.

**Q18. What is the ratio of the persons from Italy and Spain respectively?**

- (a) 5:7
- (b) 7:5
- (c) 1:1
- (d) 1:2
- (e) 2:1

**Q19. I belongs to which city and likes which color?**

- (a) Valencia, Cyan
- (b) Granada, white
- (c) Granada, Teal
- (d) Valencia, Grey
- (e) Genoa, Blue

**Q20. The one who likes cyan belongs to which city and lives with which person?**

- (a) Valencia, C
- (b) Genoa, J
- (c) Granada, F
- (d) Genoa, L
- (e) Valencia, B

**Q21. Which person likes yellow and he is from which country?**

- (a) F, Italy
- (b) E, Spain
- (c) J, Spain
- (d) I, Italy
- (e) B, Italy

**Q22. How many persons belong from that country from where the person who likes teal belongs?**

- (a) Seven
- (b) Six
- (c) Eight
- (d) Five
- (e) Four

**Directions (23-25):** The five-judge bench of supreme court, headed by justice Ashok Bhushan, held that the law providing for quota to the Maratha community beyond 50% violated equality and that the state failed to show any extraordinary reason why Marathas should be considered as socially and economically backward class. The bench also upheld the validity of the 102nd constitutional amendment and ruled that the Centre alone has the power to determine socially & educationally backward classes (SEBCs). It underlined that states can't have a separate list of SEBCs and the power is only with the President to notify the list of SEBCs. In determination of SEBCs, the President shall be guided by the National Commission on Backward Classes.

**Q23. What course of action may be taken by Maharashtra government after supreme court held the law.**

- (I) Maharashtra government will urge to centre to consider Maratha as socially and economically backward class.
  - (II) Maharashtra government will support the central government by putting condition to consider this law.
  - (III) Maharashtra CM will meet with President of India to make Maratha as socially and economically backward class.
- (a) Only II
  - (b) Only I and III
  - (c) Only III
  - (d) All of three
  - (e) Only II and III

**Q24. Which of the following are not in line with the given statement?**

- (I) After the court judgement, Maratha community sit on dharna outside the CM house.
  - (II) Centre has decided to review the request made by Maharashtra government for Maratha community.
  - (III) Amid rise in covid cases, Maharashtra government has announced a 14 days lockdown in state.
- (a) Only I and II
  - (b) Only III
  - (c) Only I
  - (d) Only II and III
  - (e) None of them

**Q25. I. Mumbai Police arrested 15 people from all over the state and announced section 144 for 7 days.**

**II. Many violent activities taken place after dharna by Maratha community outside the CM and Governor house.**

Give answer

- (a) If Statement I is the cause and Statement II is its effect.
  - (b) If Statement II is the cause and Statement, I is its effect.
  - (c) If both the Statements I and II are independent causes.
  - (d) If both the Statements I and II are effects of independent causes.
  - (e) If both the Statement I and II are effects of some common causes.
-

**Directions (26-28): Study the following information carefully and answer the questions given below-**

Six members live in a family of three generation and born in different years from 2002 to 2022. Ages of the persons is calculated on the base year 2023.

Age of Q's spouse is a prime number. S is the son of O's son. Difference between the ages of oldest and youngest is 15 years which is equal to the sum of the ages of Q and S. N is the sister-in-law of the one who is 4 years younger to the oldest. The numbers of persons were born after R is same as before Q. M is married and the R's nephew. Difference between the ages of O's sibling and O's son is same as the age of Q's son. Ages of N and O is a multiple of 7. The number of male and female is equal. Sum of the ages of M and S is same as R's age. N is older to O.

**Q26.What is the age of the oldest person in the family?**

- (a) 21 years
- (b) 18 years
- (c) 20 years
- (d) 19 years
- (e) 17 years

**Q27.Who is Q's spouse?**

- (a) O
- (b) N
- (c) M
- (d) R
- (e) None of these

**Q28.Which of the following is not true?**

- (a) O's grandson was born in odd numbered year
- (b) Sum of the ages of O and Q is 2 less than the oldest one
- (c) R is older to O's daughter-in-law
- (d) M and Q are younger to O
- (e) N is the mother of the one who is 11 years old

**Directions (29-30): In a high-level meeting the Prime Minister took serious note of some reports about ventilators lying unutilised in storage in some states and directed that an immediate audit of installation and operation of ventilators provided by the central government be carried out. He added that refresher training for properly operating ventilators should be provided to healthcare workers, if necessary, the PMO said. He also asserted that localised containment strategies are the need of the hour, especially in states with high positivity rate in districts.**

**Q29. Which of the following can be hypothesized from the given statement?**

- I. It's an effect of social media and electronic media, PM has given order of audit.
  - II. Some ventilators will be found unutilized and not in operation in some states.
  - III. Small containment zones in the districts will help to control the positivity rates.
- (a) Only I and II
  - (b) Only I
  - (c) Only I and III
  - (d) Only II and III
  - (e) All of three
-

**Q30. What course of action should be taken by central government if ventilators are found unutilized and not in operation?**

- I. All the officers and authorities should be sentenced to life imprisonment who all are found guilty.
  - II. Proper investigation should be done and if there is lack of operational knowledge, a guided training should be given.
  - III. All the ventilators which had given to states but are utilized should be taken back.
- (a) Only II and III
  - (b) Only II
  - (c) Only III
  - (d) Only I and III
  - (e) None of them

**Directions (31-35): Study the following information carefully and answer the questions given below-**

Twenty persons work at different designations- Chairperson, President, CEO, ED, MD, COO, CFO, Vice president, GM, Director, Branch manager and Clerk. The designations are given in descending order such that chairperson is the senior most designation and clerk is the junior most designation. At least three but not more than four persons designated at same designation. Some designations are vacant.

J is two designations senior to L who is neither designated as Vice president nor designated as clerk. The number of designations junior to L is one less than the number of designations senior to B. C and G designated at the same designations. No one is designated between G and B who is not junior to C. M is designated at same designation with B but not with L. The just senior and just junior designations of G is vacant. Even number of persons are designated with B. No one is designated as junior to Q who is designated at same designation with L. No one designated between L and J. Only one designation is between O and Q. J is not junior to K. As many persons designated with M is same as Q. A, E and I are designated at the same designation. Odd number of persons are designated with N. A is senior to B but not just senior. N is four designations junior to A. D and F are designated at same designation but neither as Vice president nor as CEO. No one is designated as just junior and just senior to A. R and T are designated at same designation. S is junior to T. H is senior to P. Q and K have different designation. Same number of persons designated with D and G. T is not designated as vice president.

**Q31. At which designation A is designated?**

- (a) COO
- (b) MD
- (c) CEO
- (d) President
- (e) Chairman

**Q32. Which among the following group of persons designated at the same designation?**

- (a) T, D, O, K
  - (b) A, H, D, F
  - (c) S, D, G
  - (d) S, L, Q
  - (e) H, E, I
-



**Q33. Four of the following five are alike in a certain way and form a group. Who among the following person does not belong to the group?**

- (a) C
- (b) N
- (c) B
- (d) P
- (e) G

**Q34. How many persons are designated as junior to F?**

- (a) Eight
- (b) Six
- (c) Three
- (d) Either three or six
- (e) Can't be determined

**Q35. Which among the following statement(s) is/are true?**

- I. L is designated as branch manager
  - II. Even number of persons are designated between M and T
  - III. More than six designations are vacant
- (a) Both I and II
  - (b) Both II and III
  - (c) Only I
  - (d) Both I and III
  - (e) Only III

**Directions (36-40): Study the following information carefully and answer the questions given below-**

Eight persons sit in square shaped room in which two concentric circular tables inscribed. Before the card play, they sit at inner table facing the centre in which some of them like fruit while some of them like colour. W sits 2 places away from the one who likes Green. S sits 3<sup>rd</sup> to the left of the one who likes Yellow. T sits 3<sup>rd</sup> to the right of the one who likes Apple. The one who likes banana sits immediate left of P. The one who likes Kiwi sits 3<sup>rd</sup> to the right of U. R and the one who likes Mango are immediate neighbour. Q sits opposite the one who likes Banana. Q and T are immediate neighbour. U sits just left of the one who likes Purple. Q doesn't like Purple. P neither likes any fruit nor purple. W sits just right of the one who likes yellow. R does not sit 2<sup>nd</sup> to the right of V. T does not like white.

**After the card play, they interchanged their position (fruits and colours position remains same) according to the given condition below-**

1. If 1 comes in dice, then the person who rolls dice interchanges his position with the 4<sup>th</sup> right person.
  2. If 2 comes in dice, then the person who rolls dice interchanges his position with the 3<sup>rd</sup> left person.
  3. If 3 comes in dice, then the person who rolls dice shift his position just behind (outer circle) the one who sits 2<sup>nd</sup> to the right of him.
  4. If 4 comes in dice, then the person who rolls dice shift his position just behind (outer circle) the one who sits 3<sup>rd</sup> to the left of him.
  5. If 5 comes in dice, then the person who rolls dice interchanges his position with 2<sup>nd</sup> to the left person.
  6. If 6 comes in dice, then the person who rolls dice shift his position just behind him in square table.
-

After sitting, they roll dice and they get different numbers given below in the given serial order.

- (a) P gets 2
- (b) T gets 5
- (c) Q gets 3
- (d) S gets 4
- (e) W gets 5
- (f) S gets 6
- (g) U gets 4
- (h) V gets 1

**Q36. After the card play, who sits just opposite to the one who likes Purple?**

- (a) R
- (b) Q
- (c) The one who likes mango
- (d) T
- (e) W

**Q37. If the person who likes Mango gets a 2 in the dice roll, who will be his new immediate neighbour after the interchange?**

- (a) The one who likes yellow
- (b) R
- (c) V
- (d) The one who likes Kiwi
- (e) P

**Q38. How many persons sit between R and the one who likes yellow when counted from the left of R, after the card play?**

- (a) Two
- (b) More than four
- (c) Three
- (d) One
- (e) None

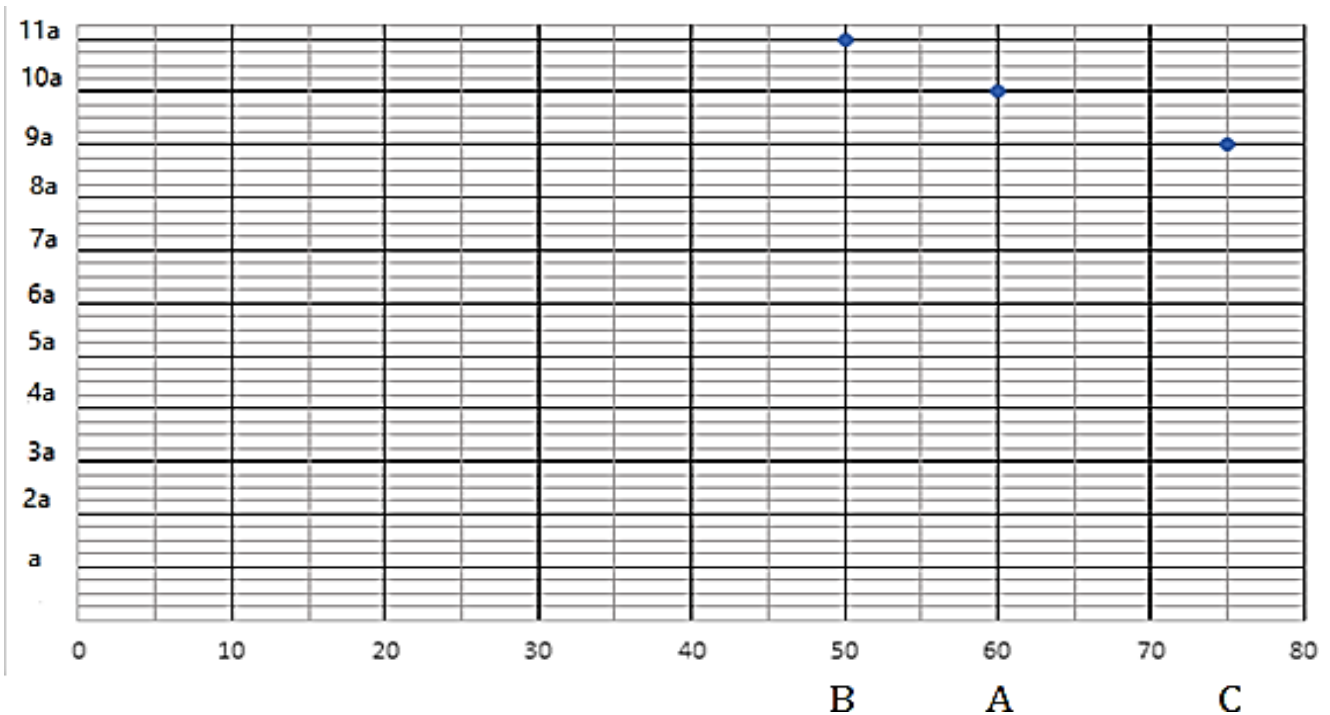
**Q39. How many persons sit in the outer circular table after interchange?**

- (a) Five
- (b) More than Five
- (c) Three
- (d) One
- (e) None of these

**Q40. After the interchange, who is sitting 2<sup>nd</sup> to the left of the person who likes Yellow?**

- (a) The one who likes green
  - (b) The one who likes banana
  - (c) The one who likes white
  - (d) The one who likes apple
  - (e) The one who likes purple
-

**Directions (41–42):** The scatter graph given below shows total number of three different cookies (Butter, Oatmeal and Sugar) baked by three different bakeries A, B and C on y-axis and percentage of sold cookies out of total backed cookies on x-axis. Read the graph carefully and answer the questions.



**Note:** 'a' is the two-digit number whose unit digit is perfect cube of its tens digit.

**Q41.** If number of oatmeal sold by A is  $(2a - 6)$  and the number of butter cookies sold by A is less than oatmeal which is less than sugar cookies, then find the sum of maximum number of sugar cookies and minimum number of sugar cookies sold by A. (Note: Number of Butter cookies sold by A must be a perfect square)

- (a) 186
- (b) 188
- (c) 185
- (d) 196
- (e) 176

**Q42.** If the sum of oatmeal cookies and Butter baked by C is a perfect cube of the one-digit number and the number of Sugar cookies baked by A, B and C are square of two-digit consecutive natural number. A baked least number of Sugar cookies and C baked largest number of cookies, then find the number of oatmeal cookies baked all the bakers, if the ratio of oatmeal to butter cookies baked by A, B and C is in the ratio of 2: 1, 1: 3 and 1: 2 respectively.

- (a) 111
- (b) 102
- (c) 118
- (d) 123
- (e) 125

**Direction (43–44):** The table given below shows the information about five customers visited a store. All customers are awarded with reward points according to purchase they made. Read the table given below carefully and answer the questions given below.

Customers	Reward points	Discount offered
P	$x$	$(x - 10)\%$
Q	$0.8x + 3y$	$(y + 10)\%$
R	$4x - 5y$	$0.4x\%$
S	$2.5y$	2300 Rs
T	$2x + 5y$	$1.5y\%$

**Note – (i)** Customer awarded rewards points according to the amount spent on store

**i.e.,** When price amount < 5000 Rs, then reward point = 50

When price amount between (5000 – 10000) Rs, then reward point = 100

When price amount > 10000 Rs, then reward amount = 200

**(ii)** Final amount on the bill = Original price – discount

**(iii)** Per reward point = Re 1

**(iv)** Reward given on original price and non-member reward points is given on final amount.

**(v)** Q, R and T each has membership of the store, while P and S do not have membership of store.

**(vi)** Reward points received by R is 50% of the total rewards points received by T.

**Q43. Q purchased article A from the store and after availing he received reward points, he paid Rs 12500 to the store. T purchased article B from the store and after availing he received reward points, he paid Rs 4700 to the store. Find the difference between original price of articles A and B.**

- (a) 10000 Rs
- (b) 11000 Rs
- (c) 13000 Rs
- (d) 9000 Rs
- (e) 7000 Rs

**Q44. Find which of the following statement/s is or are can be true.**

**I.** Rs 7200 could be the original price of an article for S.

**II.** Reward amount received by P is equal to average reward amount received by Q and R.

- (a) None of these
- (b) Only II
- (c) Only I
- (d) Both I and II
- (e) Can't be determined

**Q45. Which of the combination of column (I) is correct for obtaining both statement in column (II) is correct.**

Column I	Column II
1. Profit of A and B are equal and profit of C is greater than profit of D. investment period of A and C are equal.	I) Both A and B either invested for 6 months or 9 months.
2. Investment of C is double the investment of A and $10/9$ of the investment of D	II) Investment of B is Rs.5000.
3. Profit of B is 6000	
4. Total profit is less or equal to Rs 15000	

**Note: (i)** Maximum time period of investment is 12 months.

**(ii)** Profit share of D is 4500 and he invested for 12 months.

**(iii)** The time period/investment done by all four is integer.

- (a) 1, 2
- (b) 1, 2, 3
- (c) 1,2,4
- (d) 3, 4
- (e) 1,3

**Direction (46–49).** There are two series I and II given below. Both series containing wrong term and both the series follow different patterns. Solve the series and answer the following questions given below.

**Series I:** a, b+5, c+8, 87, 412, 2185, 13326

**Series II:** b+4, c + 8, 36, a + 50, 79, 111, 152

**Note – (i)**  $10bx^2 - (21 - a)x + 3 = 0$ , roots of the equation  $z/10$  and  $y/20$  (where  $z/10 > y/20$ ).

**(ii)** any multiple of y give a number with unit digit zero.

**(iii)**  $c - z = 9$  and LCM of z and 5 is 15.

**Q46. Find the LCM of y, z and c.**

- (a) 60
- (b) 10
- (c) 15
- (d) 25
- (e) 20

**Q47. Find the difference between wrong term of series II and correct term of series I in place of wrong term.**

- (a) Odd number
- (b) Prime number
- (c) Composite number
- (d) Even number
- (e) Both (d) and (c)

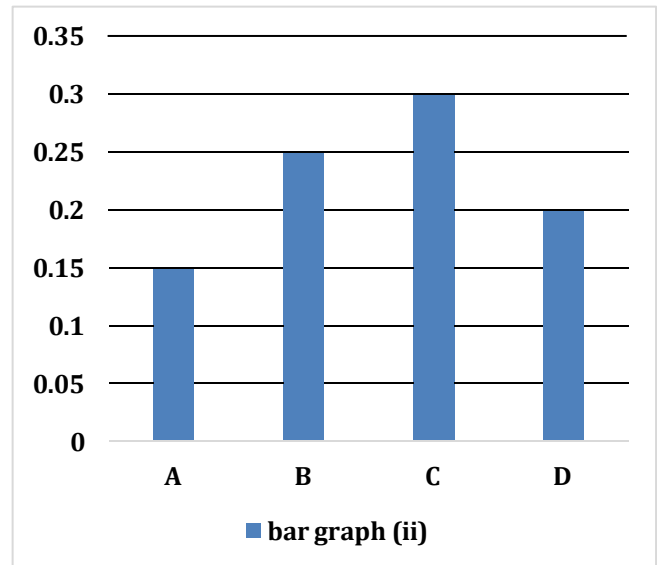
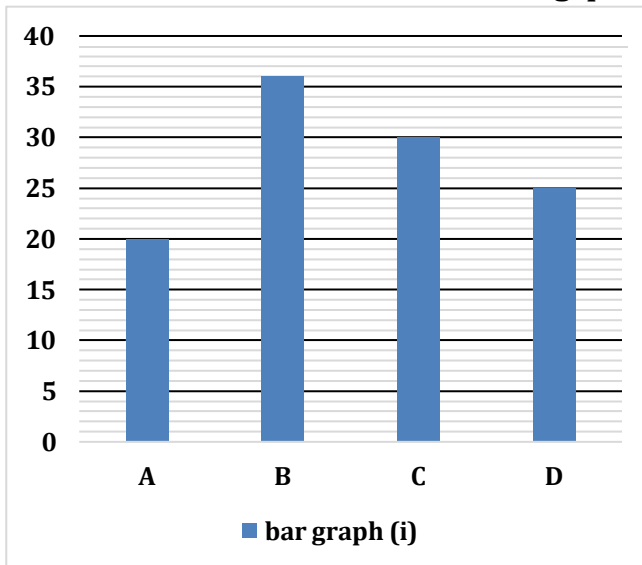
**Q48. If wrong term of series I is subtracted from 25, then find the resultant term.**

- (a) 60
- (b) 10
- (c) 15
- (d) 25
- (e) 18

**Q49. If a new series starting from z follows same logic as series I, then find the third term.**

- (a) 6
  - (b) 16
  - (c) 15
  - (d) 25
  - (e) 20
-

**Direction (50 – 54):** Bar graph (i) shows the number of total balls of three different colors (Red + Blue + Green) in four different (A, B, C & D) bags and bar graph (ii) shows the probability of picking a red ball from each of bag's A and C and probability of picking a green ball from each of bag's B and D. Read the data and answer the following questions.



**Q50.** Blue balls in bag A are 2 more than the number of green balls in bag B. Find the probability of picking two green balls from bag A.

- (a) 0.6
- (b) 0.1
- (c)  $\frac{3}{19}$
- (d)  $\frac{3}{38}$
- (e)  $\frac{3}{20}$

**Q51.** Blue balls in C are 20% more than green balls in D. Find the sum of probability of picking one green balls from bag C and one green balls in B.

- (a) 0.60
- (b) 0.75
- (c) 0.15
- (d) 0.25
- (e) 0.20

**Q52.** In bag X, the number of red balls is the lowest prime number and number of green balls is the highest one-digit number. If the probability of picking one blue ball from bag X is three time that of picking red balls from bag A, then find the blue balls in X. (Note: only three types of balls in bag X)

- (a) 5
- (b) 10
- (c) 15
- (d) 9
- (e) 20

**Q53. If the number of blue balls is perfect cube and green balls in bag A is perfect square, then what can be the value of green balls in bag A. (Blue balls < green balls)**

- (a) 6
- (b) 10
- (c) 15
- (d) 25
- (e) 16

**Q54. Sum of green balls in all the bags is 30 and green balls in C is 4 more than that of in A. Find the difference between total blue balls in A and C.**

- (a) 22
- (b) 12
- (c) 15
- (d) 24
- (e) 20

**Q55. The age of four sister is in a series of consecutive composite number. The age of the oldest sister is multiple of 25 & less than 100 while the age of second youngest sister eight years ago is  $2^x$  where x is a positive integer. Find the age (in years) of youngest sister after seven years.**

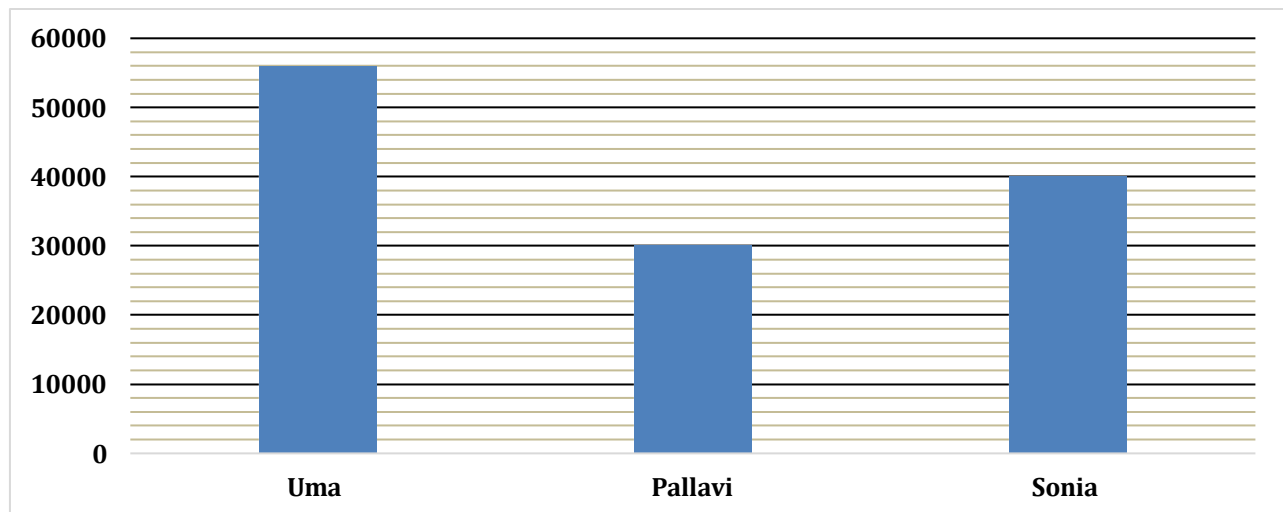
- (a) 77
- (b) 79
- (c) 80
- (d) 53
- (e) 28

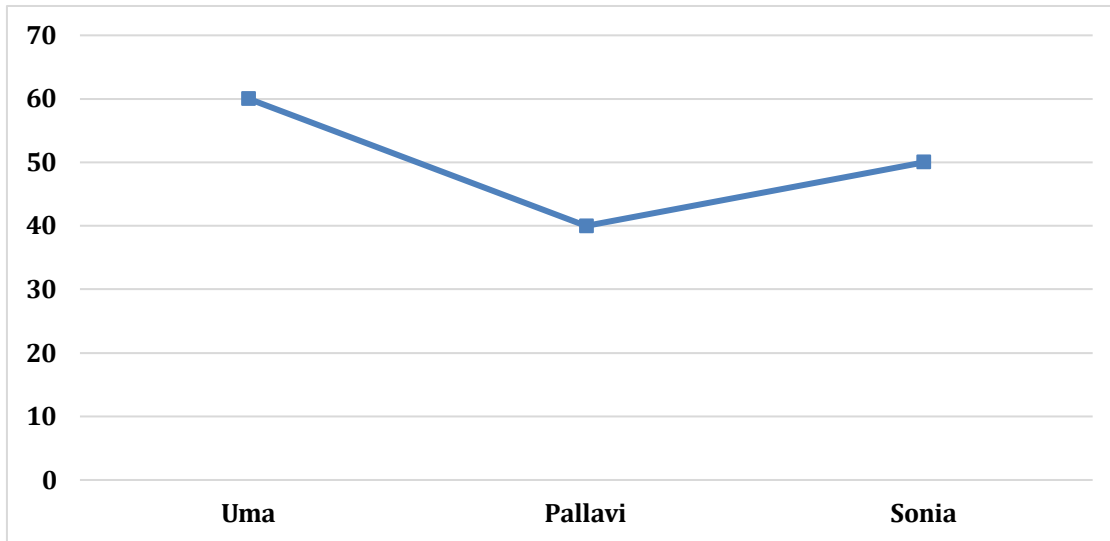
**Direction (56 – 60): Read the data and answer the following questions.**

The bar graph shows the monthly income of Uma, Pallavi and Sonia and line graph shows the percentage of monthly expenditure of these people. Each of them deposits their saving in a bank on which they get awarded with a credit card (silver and platinum) of the bank.

**In silver credit card** – deposit amount is less than Rs 21000, credit limit is sum of half of the salary and 5% of the saving while late payment is 5% of the amount due.

**In platinum credit card** – deposit amount is more than Rs 21000, credit limit is sum of  $\frac{3}{4}$ th of the salary and 25% of the saving while late payment is 3% of the amount due.





**Note - (i)** Amount payable to bank = cash withdrawn + expense from credit limit + late payment of 5% if applicable.  
**(ii)** Cashback of 5% is given on any transaction except cash withdrawal.  
**(iii)** The payment done in any month should be cleared in the immediate month if not then penalty should be given.

**Q56. Sonia bought a cycle costing  $\frac{3}{7}$ th of credit limit and has delayed the payment by a month. Find the amount payable to bank (in Rs)?**

- (a) 8977
- (b) 8977.5
- (c) None of these
- (d) 8525
- (e) 8520.5

**Q57. Uma bought a gold ring costing 10% of credit limit, spend 15% of credit limit on shopping, withdrew cash of 8000. Find the difference between her savings and the amount payable to the bank.**

- (a) Rs.3095
- (b) Rs. 3010
- (c) Rs.3015
- (d) Rs.3025
- (e) Rs.3020

**Q58. Salary of Aayush is 20% more than that of Pallavi and he spend 30% of income. If he spends all his credit limit on shopping, then find the cash back he gets (in Rs).**

- (a) 1660
- (b) 1556
- (c) 1665
- (d) 1225
- (e) 1220



**Q59. Find the difference between credit limit of Uma and Pallavi (in Rs).**

- (a) 49000
- (b) 10000
- (c) 47150
- (d) 47600
- (e) None of these

**Q60. Pallavi withdrew 10% cash for house rent, 20% on shopping. Find the amount payable by Pallavi to bank (in Rs).**

- (a) 4660
- (b) 4622
- (c) 4611
- (d) 4625
- (e) 4620

**Direction (61–62): There are three equations I, II and III given below. Solve these three equations and answer the questions given below.**

**Equation I.**  $3x^2y - \left(\frac{5}{2}\right)x - \left(\frac{1}{3}\right)y + 2^n + 1 = 0$

**Equation II.**  $-2x, y + \left(\frac{1}{A}\right)x + \left(\frac{-4}{3}\right)y - 10 = 0$

**Equation III.**  $x^2y - Ax + y - P = 0$

**Note – (i)** Equation I + Equation II = Equation III

**(ii)** 'n' is the smallest whole number, while A and P are the integer.

**Q61. If  $y = 1.4$  in equation III, then which of the following is the root of the equation?**

- (a) 7,11
- (b) -21, 11
- (c) 8,9
- (d) None of these
- (e) 11,21

**Q62. Which of the statement/s is/are true?**

1. A is a prime number
2. A is one of the factors of P
3. Product of A and 15 = 32

- (a) Only 1 and 3
- (b) Only 2
- (c) Only 2 and 3
- (d) Only 1 and 2
- (e) None of these

**Q63. A cube is cut into 8 pieces equal pieces and nine identical circles of maximum radius drawn on one face of each piece of cube. The sum of diameter of two circles is 8 unit. Find one third of maximum volume of cylinder that can be fit in the initial cube.**

- (a) none of these
- (b)  $120\pi$
- (c)  $320\pi$
- (d)  $1152\pi$
- (e)  $1145\pi$

**Q64. Boat A covers  $z$  km upstream distance in nine hours. Boat B's upstream speed is equal to downstream speed of boat A and covers  $m$  km downstream in one hour. The speed of B in still water is  $(m - 4)$  km/hr and speed of boat A in still water is 8 km/hr. find the relation between  $z$  and  $m$ .**

- (i)  $z:m = 9:5$
- (ii)  $m + z = \text{even number}$
- (iii)  $z < m$
- (a) Both (i) and (iii)
- (b) Only (i)
- (c) Only (ii) and (i)
- (d) All incorrect
- (e) All are correct

**Direction (65 – 68): Read the information and answer the following questions.**

There are three classes A, B and C consisting girls and boys. Two teams P and Q are formed. Team P consist of students who plays hockey and team Q who plays football. Each student participated only in one game. The boys in A are  $x$  more than the girls. Total girls in B are  $x$  and boys are 20 than that of girls.

The boys and girls in C are 20% more than that of boys and girls in B respectively.

Boys in P is 13 less than that of girls, which is 60% of the combination of girls in two classes (except A and C). Ratio of girls in team P to team Q is 3:4.

Boys in P is 50% of the combination of boys of two classes (except A and B).

**Q65. 20% girls in class C got injured and 25% of them are in team P, then find the girls who are not injured in team Q.**

- (a) 111
- (b) 112
- (c) 110
- (d) 113
- (e) 115

**Q66. Find the average number of girls in both the teams.**

- (a) 111
- (b) 112
- (c) 110
- (d) 105
- (e) 115

**Q67. Find the difference between girls and boys in both the teams.**

- (a) 91
- (b) 92
- (c) 94
- (d) 93
- (e) 95

**Q68. In team P 30% of girls joined team Q and from team Q 10% of the girls joined team P. Girls in team Q is what percentage of girls in team P.**

- (a) 180%
- (b) 130%
- (c) 110%
- (d) 125%
- (e) 115%

**Q69. If  $a^b b^a (c^d + d^c) = c^d d^c (a^b + b^a)$ , then which of the following statement is /are correct (a/b/c/d  $\neq 0$ ).**

1.  $\frac{1}{ba} + \frac{1}{ab} = \frac{1}{cd} + \frac{1}{dc}$
  2. If  $a^b - d^c = 0$ , then  $c^d$  must be equal to  $b^a$ , for all real values of a, b, c & d.
  3. Given  $c \neq 0$ , then  $a^b + b^a = 1$ , given d is a non-zero number.
- (a) Only 1
  - (b) Only 2
  - (c) Only 1 & 3
  - (d) Only 3
  - (e) None of above

**Q70. Ankur whose speed is  $< 4$  m/s travels along a rectangular path. The diagonal length of the park is  $5\sqrt{13}$  meter. He reaches from one point of diagonal to another in 5 seconds. Find the bigger dimension of the rectangle.**

- (a) 18 meters
- (b) 10 meters
- (c) 20 meters
- (d) 22 meters
- (e) 24 meters

**Directions (121-132): Read the following passage and answer the given questions. Certain words are highlighted to answer some of the questions.**

The fashion industry, a dynamic **rigid (A)** that constantly reinvents itself, has undergone a **remarkable(B)** transformation over the years. From the **realm (C)** standards of the past to the inclusive and diverse landscape we witness today, the evolution of fashion reflects broader societal changes.

In the early days, fashion was synonymous with **exclusivity (D)**. Trends were dictated by a select few, and diversity was often **overlooked (F)**. However, in the contemporary era, the fashion landscape has **quite (G)** shifted. Gone are the days of rigid conformity; today's fashion celebrates diversity in all its forms.

One notable **advancement (H)** is the dismantling of racial barriers. The industry has moved towards representing a spectrum of ethnicities, promoting inclusivity on the runway and in advertising campaigns. This shift has not only given a platform to previously **marginalized (I)** voices but has also enriched fashion with a kaleidoscope of cultural influences.

Body positivity is another stride forward. Earlier, **restrictive (J)** beauty standards **perpetuated (K)** body shaming, leaving many feeling excluded. Today, the fashion industry champions inclusivity by featuring models of all shapes and sizes. This change not only promotes self-love but also resonates with a broader audience, fostering a sense of belonging.

The scope of the fashion industry has expanded exponentially as it embraces diversity and **inclusivity(L)**. Brands that champion these values **resonate (M)** more deeply with consumers who seek authenticity and representation. As societal norms evolve, the fashion industry stands at the forefront, reflecting and influencing the narrative of acceptance, ultimately making fashion a powerful tool for social change.

**Q121. According to the passage which of the following pair of words is the synonym of each other?**

**Column (A)**

- (i) rigid
- (ii) perpetuated
- (iii) resonate

**Column (B)**

- (iv) restrictive
- (v) marginalized
- (vi) inclusivity

- (a) i-iv
- (b) ii-v
- (c) iii-vi
- (d) i-vi
- (e) ii-iv

**Q122. Which of the following word should replace the highlighted word “quite” (G) given in the passage?**

- (a) unnoticeably
- (b) rather
- (c) awfully
- (d) selectively
- (e) superficially

**Q123. Rearrange the word (A) (B) (C) as highlighted in the passage in the right sequence.**

- (a) BAC
- (b) ACB
- (c) CAB
- (d) CBA
- (e) No rearrangement required

**Q124. Among the following, which of the following pair of words is the antonym of each other?**

**Column (A)**

- (i) realm
- (ii) remarkable
- (iii) rigid

**Column (B)**

- (iv) perpetuate
- (v) resonate
- (vi) marginalized

- (a) i-iv
- (b) ii-vi
- (c) iii-vi
- (d) i-v
- (e) ii-iv

**Q125. In what ways has the fashion industry facilitated the connection between brands and their customers?**

- (a) Brands offer fashionable products, fostering trust and confidence among customers.
- (b) Brand loyalty is established when customers remain devoted to a brand, irrespective of the introduction of new fashionable products.
- (c) Brands contribute to promoting the idea of self-acceptance among customers, encouraging them to stay true to themselves without succumbing to brand influence.
- (d) Brands utilize fashion as a means of connecting with their customers by embodying the principles of authenticity and representation.
- (e) None of these

**Q126. How might the embrace of diversity and inclusivity by fashion brands contribute to a broader societal shift in values?**

- (I) Fashion brands can influence societal attitudes toward acceptance of differences.
  - (II) Fashion brands challenge traditional norms and reinforce a broader definition of beauty and acceptance.
  - (III) Fashion brands contribute to societal change by promoting exclusive beauty standards.
  - (IV) Consumers may feel empowered when they see themselves represented in fashion industry.
- (a) Only (I)
  - (b) Both (I) and (II)
  - (c) Only (III)
  - (d) Only (I),(II) and (IV)
  - (e) All (I), (II), (III) and (IV)

**Q127. What is the tone of the passage?**

- (a) analytical
- (b) regressive
- (c) satire
- (d) didactic
- (e) empowering

**Directions (128-132):** In the following questions, there are three columns, and each column contains three phrases. Choose one phrase from each column to create a sentence that is both grammatically correct and contextually coherent.

**Q128. COLUMN (I)**

- (A) The sun dipped below the horizon,
- (B) The ineffable intricacies of quantum mechanics challenge
- (C) His erudite discourse on esoteric philosophical

**COLUMN (II)**

- (D) casting a warm sunlight
- (E) even the most astute physicists
- (F) beneath the azure sky,

**COLUMN (III)**

- (G) cutting-edge features and a sleek design
- (H) with the labyrinthine complexities of abstract thought.
- (I) pushing the boundaries of comprehension

- (a) A-D-G
- (b) B-E-I
- (c) C-E-H
- (d) A-F-G
- (e) C-D-I

**Q129. COLUMN (I)**

- (A) The protagonist, adorned in an eclectic ensemble,
- (B) Vendors hawked their wares
- (C) The aromatic fragrance of blooming jasmine

**COLUMN (II)**

- (D) navigated the bustling city streets
- (E) the suspense in the room heightened
- (F) expounded upon the intricacies

**COLUMN (III)**

- (G) with an air of nonchalant sophistication.
- (H) of quantum entanglement
- (I) with each passing moment.

- (a) A-D-G
- (b) B-F-I
- (c) C-E-H
- (d) A-F-G
- (e) C-D-I

**Q130. COLUMN (I)**

- (A) Time, an elusive concept,
- (B) The venerable professor,
- (C) Amidst the tumultuous storm,

**COLUMN (II)**

- (D) the resolute captain steered the ship through
- (E) its luminous beam cutting through the velvety darkness.
- (F) with its arcane symbols and cryptic language,

**COLUMN (III)**

- (G) a profound connection to the artist's soul.
- (H) to even the most seasoned codebreakers.
- (I) turbulent waters with unwavering determination.
- (a) A-D-G
- (b) B-F-I
- (c) C-E-H
- (d) A-F-G
- (e) C-D-I

**Q131. COLUMN (I)**

- (A) The clandestine meeting unfolded in the dimly lit alley,
- (B) The intrepid explorer navigated treacherous terrain,
- (C) The celestial bodies, suspended in the vast cosmos,

**COLUMN (II)**

- (D) seemed to narrate an ancient tale
- (E) the scent of aged leather and parchment
- (F) conquering obstacles that tested the limits of

**COLUMN (III)**

- (G) adorned the ground like nature's confetti
- (H) immersed in complex calculations
- (I) human endurance and resilience.
- (a) A-D-G
- (b) B-F-I
- (c) C-E-H
- (d) A-F-G
- (e) C-D-I

**Q132. COLUMN (I)**

- (A) In the laboratory, the scientist conducted experiments
- (B) The avian migration painted the sky
- (C) The poet's verses, like a lyrical cascade on the

**COLUMN (II)**

- (D) echoed through the moonlit courtyard,
- (E) a rain-soaked street sparked a
- (F) that unraveled the mysteries of the microscopic world,

**COLUMN (III)**

- (G) pushing the boundaries of human understanding.
- (H) point where mysticism and astronomy intertwined.
- (I) that resonated with the human experience
- (a) A-D-G
- (b) B-F-I
- (c) C-E-H
- (d) A-F-G
- (e) C-D-I

**Directions (133-136):** In the following questions, each set presents two sentences with two blanks. Select the most appropriate pair from the options provided to complete both the sentences and ensure coherence.

**Q133.** (I) As she delved into the \_\_\_\_\_ details of the ancient manuscript, she remained \_\_\_\_\_ to the passage of time, enraptured by the mysteries unfolding before her.

(II) Lost in the \_\_\_\_\_ labyrinth of his thoughts, he remained \_\_\_\_\_ to the bustling city around him, contemplating the enigma of his own existence.

- (a) inundated, constructive
- (b) intricate, oblivious
- (c) serendipitous, resilient
- (d) deliberate, hesitant
- (e) astute, prolific

**Q134.** (I) The mountaineers, well aware of the \_\_\_\_\_ conditions awaiting them, \_\_\_\_\_ planned each step and took every precaution to navigate the treacherous ascent.

(II) The \_\_\_\_\_ waste disposal team \_\_\_\_\_ executed their plan, emphasizing every precaution to prevent environmental contamination.

- (a) hazardous, meticulously
- (b) adventure, carefully
- (c) toxic, tragically
- (d) conservative, reluctantly
- (e) palpable, ubiquitously

**Q135.** (I) As the crisis unfolded, emergency responders \_\_\_\_\_ the chaotic scene with a \_\_\_\_\_ effort, swiftly deploying resources to provide aid and restore order.

(II) During the complex surgery, the medical team meticulously \_\_\_\_\_ through the delicate procedure, each member playing a crucial role in a well \_\_\_\_\_ ballet of expertise.

- (a) constructed, fortified
- (b) captivated, malicious
- (c) navigated, coordinated
- (d) salient, collaborated
- (e) disparaged, placid

**Q136.** (I) In the negotiation, specific clauses were meticulously \_\_\_\_\_ to ensure that no party involved would be \_\_\_\_\_ from their agreed-upon responsibilities.

(II) The law clearly \_\_\_\_\_ the conditions under which businesses could be \_\_\_\_\_ from certain tax obligations, providing a framework for compliance.

- (a) detailed, accepted
- (b) perplexed, evolved
- (c) hinged, obfuscated
- (d) connected, cogitated
- (e) articulated, exempted



**Directions (137-143): Rearrange the following sentences and answer the questions below. Statement (D) is the sixth sentence of the coherent sequence.**

(A) However, its popularity comes at a cost to health. The allure of quick and accessible meals often masks the nutritional drawbacks **that** are associated with excessive consumption of fast food.

(B) Fast food, a ubiquitous element of modern life, has become a convenient option for those with busy schedules.

(C) Loaded with high levels of saturated fats, sugars, and sodium, these meals contribute to the rising rates of obesity and various lifestyle-related diseases.

**(D) Striking a balance between convenience and nutrition remains a challenge in the face of the pervasive influence of fast food on contemporary diets.**

(E) Additionally, the environmental impact of fast food production, characterized by excessive packaging and waste, adds to the broader concerns associated with this dietary choice.

(F) Thus, the convenience that fast food offers may save time, but it often \_\_\_\_\_ the long-term health of individuals.

**Q137. Which of the following sentence is the FIRST sentence after the rearrangement?**

- (a) A
- (b) B
- (c) C
- (d) E
- (e) F

**Q138. Which of the following sentence is the THIRD sentence after the rearrangement?**

- (a) A
- (b) B
- (c) C
- (d) E
- (e) F

**Q139. Which of the following sentence is the SECOND sentence after the rearrangement?**

- (a) A
- (b) B
- (c) C
- (d) E
- (e) F

**Q140. Which of the following word should correctly replace the highlighted word given in sentence (A)?**

- (a) which
- (b) who
- (c) whose
- (d) them
- (e) whom

**Q141. Which of the following sentence is the FIFTH sentence after the rearrangement?**

- (a) A
- (b) B
- (c) C
- (d) E
- (e) F

**Q142. Which of the following sentence is the FOURTH sentence after the rearrangement?**

- (a) A
- (b) B
- (c) C
- (d) E
- (e) F

**Q143. Which of the following word should fill the blank given in sentence (F)?**

- (a) propagates
- (b) sacrifices
- (c) objectifies
- (d) surpass
- (e) capitulates

**Directions (144-149): Read the following passage and answer the given questions.**

In the intricate tapestry of the Middle East's economic landscape, countries face enduring challenges, and Portugal's ministerial predicament sheds light on the shortcomings of past economic philosophies. Two ministers, Maria Silva and João Rodrigues, grapple with distinct and now seemingly inadequate approaches, reflecting a negative tone in the quest to revive the economy.

Maria Silva, advocating a meticulous, methodical approach, once celebrated for its practicality, finds her strategies faltering in the face of evolving challenges. Studying the highs and lows of the economy and addressing root causes was once considered a robust strategy.

On the opposing front, João Rodrigues champions an immediate solution – the infusion of cash and monetary resources into the economy. This Keynesian approach, effective in the past, now reveals its flaws in the contemporary economic landscape. Rapid cash injections, while providing a quick fix, risk contributing to inflation and fail to address the deep-seated, structural issues at the heart of the economic challenges.

These once-successful policies from the 1980s are now proving inadequate in the current scenario. The failure of Silva's methodical approach lies in its inability to swiftly adapt to the rapid changes and interconnectedness characterizing today's global economy. Conversely, Rodrigues' cash infusion strategy, while providing short-term relief, lacks the foresight needed to address the intricate challenges that have evolved over time.

The inadequacy of these policies in today's scenario underscores the necessity for innovative, adaptive strategies that account for the complexities of modern economies. Globalization, technological advancements, and shifting geopolitical landscapes demand a departure from historical approaches. The difficulty in reviving the Middle East's economy serves as a cautionary tale, emphasizing the imperative for forward-thinking policies that can navigate the intricacies of the contemporary economic environment.

**Q144. Why does Maria Silva's methodical approach face challenges in the contemporary economic landscape, according to the passage?**

- (a) Owing to its unparalleled capacity to navigate the intricacies of the contemporary economic environment.
- (b) As it achieved success in the 1980s, Maria Silva was overly confident about its effectiveness.
- (c) Because it lacks the agility to quickly adjust to the dynamic changes and interconnected nature of today's global economy
- (d) Since João Rodrigues was adopting a Keynesian approach, it impeded the success of Maria Silva's approach.
- (e) Due to Maria Silva's failure to analyze the intricacies of this approach.

**Q145. What is the essential necessity in contemporary economies for formulating financial policies?**

- (I) A reliance on archaic and unyielding approaches is key to successfully navigating the complexities of modern economies.
  - (II) It is necessary to understand the dynamic global economy and technological advancements and shifting geopolitical landscapes.
  - (III) The capability to create innovative and flexible strategies that consider the intricacies of present-day economies.
- (a) only (I)
  - (b) Both (I) and (II)
  - (c) Both (II) and (III)
  - (d) Only (III)
  - (e) All (I), (II) and (III)

**Q146. In Rodrigues' approach, how can a trade-off be achieved between providing immediate relief and ensuring long-term effectiveness?**

- (a) Rodrigues' strategy should focus exclusively on offering short-term relief and not be employed for long-term resolution.
- (b) Injecting cash into the system to revitalize it on an international scale.
- (c) Anticipating forthcoming changes and revolutions in the global economy.
- (d) By prioritizing short-term gains, Rodrigues' approach supported long term goals
- (e) The information given in the passage is not enough to answer the question.

**Q147. Which of the following statements is INCORRECT concerning João Rodrigues' approach?**

- (I) Rapid cash injections attempt to resolve the fundamental, structural issues at the core of the economic challenges.
  - (II) While this Keynesian approach demonstrated effectiveness in earlier times, it exposes its shortcomings in the present economic context.
  - (III) João Rodrigues provided only temporary relief to the economy.
- (a) Only (I)
  - (b) Both (II) and (III)
  - (c) Only (II)
  - (d) Only (III)
  - (e) All (I), (II) and (III)

**Q148. How would you characterize the resemblance between the approaches of Maria Silva and João Rodrigues?**

- (a) Both strategies were devised in rejuvenating the economy in the 1980s.
- (b) Both approaches failed to account for the intricacies of the modern economy.
- (c) Both methods leverage the financial resources of the nation.
- (d) Both (a) and (b)
- (e) All (a) (b) and (c)

**Q149. As per the passage, which of the following statements is accurate?**

- (I) The inadequacy of historical policies accentuates the imperative for avant-garde strategies adept at navigating the intricacies of modern economies.
  - (II) Rodrigues' cash infusion strategy adeptly confronts the intricate challenges that have evolved over time.
  - (III) Both the methodologies of Maria Silva and João Rodrigues efficaciously revitalized the economy during the 1980s.
- (a) Only (I)
  - (b) Both (II) and (III)
  - (c) Only (II)
  - (d) Only (III)
  - (e) All (I), (II) and (III)

**Directions (150-151): Given below the sentences each of which has been divided into four parts Each of the questions is then followed by the five options which give the sequence of the rearranged parts. You must choose the option which gives the correct sequence of the parts. If the sentence is already arranged in the correct sequence or the correct sequence doesn't match with any of the given sequence, mark option " No arrangement required " as your answer.**

- Q150.** (A) the pervasive degradation of the environment,  
(B) global cooperation in fostering sustainable practices  
(C) poses an existential threat that necessitates  
(D) exacerbated by industrial pollutants and deforestation,
- (a) BACD
  - (b) ACBD
  - (c) CBAD
  - (d) ADCB
  - (e) No rearrangement required

- Q151.** (A) underscoring the importance of designing communities that  
(B) the intricate interplay between urban planning and public health  
(C) becomes evident in the prevalence of "food deserts,"  
(D) facilitate access to nutritious options for all residents
- (a) BACD
  - (b) ACBD
  - (c) BCAD
  - (d) ADCB
  - (e) No rearrangement required

**Directions (152-153):** The following questions consist of four sentences. Some of these may or may not contain grammatical error. Choose the option which denotes the sentence(s) that has/have grammatical error(s). If all the given sentences are correct, choose "All are correct" as your answer.

- Q152.** (A) Despite of facing challenges, she persevered and achieved success in her chosen field.  
(B) The scientific community continues to explore innovative solutions to address environmental issues.  
(C) Learning a new language can be both challenging or rewarding, requiring consistent practice and dedication.  
(D) The novel's intricate plot kept readers engaged from beginning to end.
- (a) Only (A)  
(b) Both (B) and (C)  
(c) Only (A) and (C)  
(d) Only (A), (B) and (D)  
(e) All (A), (B), (C) and (D)

- Q153.** (A) The team collaborated seamlessly to develop a comprehensive strategy for the upcoming project.  
(B) In today's fast-paced world, effective time management is crucial for maintaining a healthy work-life balance.  
(C) Several factors, including climate, geography, and culture, play a significant role in shaping a region's identity.  
(D) The collection of rare stamps, along with a few vintage coins, were displayed in a glass case.
- (a) Only (A)  
(b) Only (D)  
(c) Only (A) and (D)  
(d) Only (A), (B) and (D)  
(e) All (A), (B), (C) and (D)

**Directions (154-155):** In each of the questions given below five words are given in bold. These words may or may not be in their correct position. Following each sentence four sequences are provided. Select the sequence of the words which will make the given sentence contextually meaningful. If the words are correct at their current position then choose 'no rearrangement required' as your answer.

- Q154.** The **unprecedented** (A) of technology in education, while offering **integration** (B) opportunities for learning, demands a **nuanced** (C) approach to address concerns such as **exacerbation** (D) issues and the potential **privacy** (E) of educational inequalities.
- (a) BCEDA  
(b) CBAED  
(c) BACED  
(d) DCAEB  
(e) No rearrangement required

**Q155.** The **underscores (A)** nature of the economy, **marked (B)** by fluctuations in GDP, employment rates, and consumer spending, **influence (C)** the **cyclical (D)** web of factors that **intricate (E)** the financial well-being of nations.

- (a) DBAEC
- (b) EDCBA
- (c) BAECD
- (d) CDEAB
- (e) No rearrangement required

## Solutions

**Solutions (1-5):**

	Papaya B(-)	Mango L(-)	Orange M(-)	Cherry R(-)	Apple C(-)	
Row 1						C(-) == T(+)
						B(-) == S(+)
Row 2						M(-) == U(+)
	E(+) Tulip	T(+) Rose	K(+) Orchid	S(+) Lily	U(+) Daisy	L(-) == E(+)
						R(-) == K(+)

**S1. Ans.(c)**

**Sol.** The one who likes cherry is the wife of K.

**S2. Ans.(d)**

**Sol.** U's wife likes orange

**S3. Ans.(b)**

**Sol.** T sits second to the left of the one who likes Lily.

**S4. Ans.(a)**

**Sol.** The person who faces S's wife likes Tulip.

**S5. Ans.(b)**

**Sol.** The one who faces R's husband sits at exactly middle of row 1.

**S6. Ans.(c)**

**Sol.** Word form after arrangement: POWERFUL

Meaningful words formed by E, R, U and L are RULE, LURE

**S7. Ans.(b)** Action I is not appropriate because it is too harsh as a course of action. Action II is appropriate in order to maintain discipline.

**S8. Ans.(e)** When the government takes such action it is necessary that people are made aware of the consequences they would face if they do not obey the directives. Hence II follows. I is obvious.

**Solutions (9-13):** Final arrangement:

Months	Days	Dates	Persons
June	Monday	24	N
	Tuesday	25	Q
	Wednesday	26	J
	Thursday	27	R
	Friday	28	Vacant
	Saturday	29	P
	Sunday	30	Vacant
July	Monday	1	M
	Tuesday	2	I
	Wednesday	3	Vacant
	Thursday	4	L
	Friday	5	K
	Saturday	6	Vacant
	Sunday	7	O

**S9. Ans.(d)**

**S10. Ans.(c)**

**S11. Ans.(b)**

**S12. Ans.(a)**

**S13. Ans.(d)**

**Solutions (14-17):** Logic- One word and one number are arranged in each step.

Words – Words are arranged in dictionary order at right end. If the last 4 letter make meaningful word then previous word is replaced with the meaningful word in each step. If the last 4 letter doesn't make any meaningful word then replace the place with blank.

Numbers – Numbers are arranged at left end in descending order. Prime number multiply by 3 and non-prime number multiply by 2.

**Input: 41 countries 19 humanity 28 breached 46 fuels 51 36 collectively particular**

Step I: 102 41 countries 19 humanity 28 46 fuels 36 collectively particular ' ' ,

Step II: 92 102 41 countries 19 humanity 28 fuels 36 particular '-----' '-----'

Step III: 123 92 102 19 humanity 28 fuels 36 particular '-----' ' rise

Step IV: 72 123 92 102 19 humanity 28 particular '-----' ' ' rise slue

Step V: 56 72 123 92 102 19 particular '-----' ' rise slue tiny

Step VI: 57 56 72 123 92 102 ‘-----’ ‘-----’ rise slue tiny ‘     ’

**S14. Ans.(b)**

**S15. Ans.(c)**

**S16. Ans.(d)**

**S17. Ans.(e)**

**Solutions (18-22):**

Italy		Spain	
Valencia	Granada	Verona	Genoa
D – Pink	F – Teal	G – Olive	K – Red
L – Maroon	A – black	H – Green	C – White
I – Grey	B – yellow		E – Cyan
			J – Blue

**S18. Ans.(c)**

**Sol.** Ratio of Italy: Spain= 1:1

**S19. Ans.(d)**

**Sol.** I belongs to Valencia and likes Grey.

**S20. Ans.(b)**

**Sol.** The one cyan belong to Genoa and lives with J.

**S21. Ans.(e)**

**Sol.** B likes yellow and he is from Italy.

**S22. Ans.(b)**

**Sol.** Six persons belong from that country from where the person who likes teal belongs.

**S23. Ans.(b)** There are two possible ways to make Maratha as socially and economically backward class. First is to urge centre and request President of India. So, both course of action can be taken by Maharashtra government. But supporting centre or not, this condition are not discussed in statement or whether Centre or state is of same party or different, these things are not clear in statement.

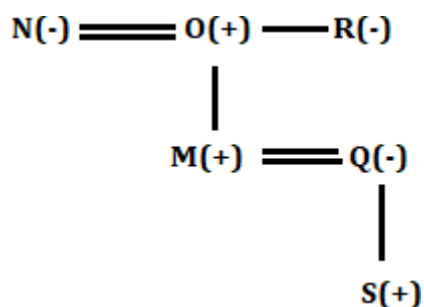
**S24. Ans.(b)** Only III are not in line with the issue in given statement and both statement I and II are in line as statement I is effect after judgement and statement II is about request made by state government.

**S25. Ans.(b)** Statement II is the cause and Statement, I is its effect. After violent activities, Police has arrested and taken decision for section 144 all over the state.

**Solutions (26-28):**

Year	Age	Person
2002	21	N
2006	17	R
2009	14	O
2012	11	M
2014	9	Q
2017	6	S





**S26. Ans.(a)**

**S27. Ans.(c)**

**S28. Ans.(b)**

**S29. Ans.(e)** It has been mentioned in the statement that Prime Minister took serious note of some reports about ventilators. If Audit has to be carried out after report has been shown about unutilized ventilators, then it can be assumed that some will be found not in use and unutilized. And it has been also mentioned that local containment zone is the need of hour.

**S30. Ans.(b)** Life Imprisonment is an extreme course of action but proper investigation should be done. And taking ventilator back is not the right solution of the problem.

**Solutions (31-35):** Final arrangement:

Designations	Persons
Chairman	A,E,I
President	Vacant
CEO	B,H,M
ED	Vacant
MD	C,G,N,P
COO	Vacant
CFO	D,F,R,T
Vice president	Vacant
GM	J,K,O
Director	Vacant
Branch manager	L,Q,S
Clerk	Vacant

**S31. Ans.(e)**

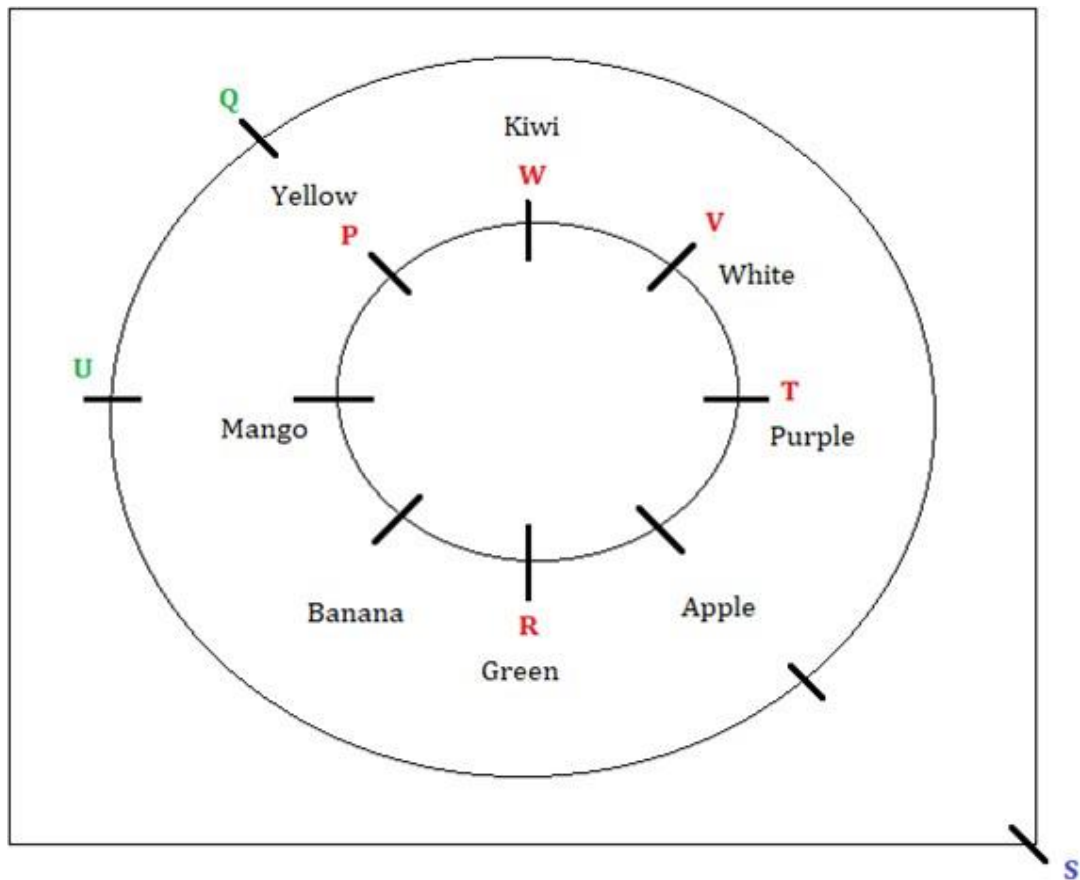
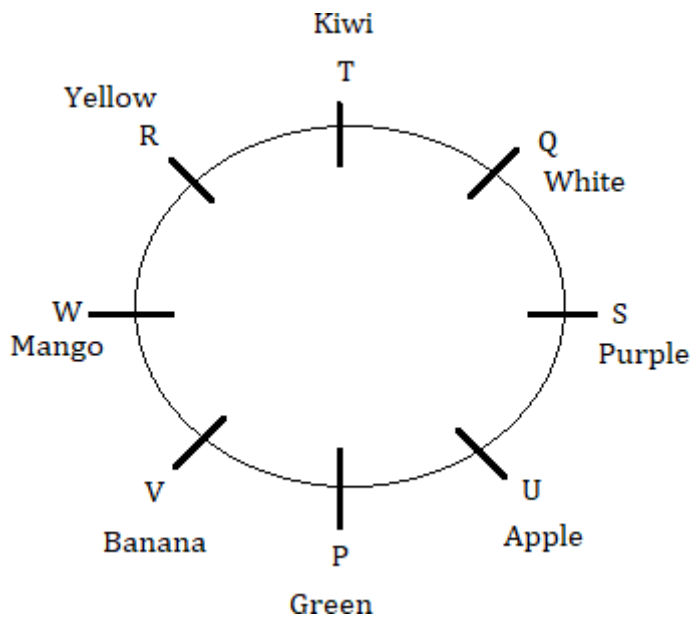
**S32. Ans.(d)**

**S33. Ans.(c)**

**S34. Ans.(b)**

**S35. Ans.(a)**

**Solutions (36-40):**



**S36. Ans.(c)**

**S37. Ans.(d)**

**S38. Ans.(a)**

**S39. Ans.(e)**

**S40. Ans.(c)**

**Solutions (41-42):** As, we know, a is the two-digit number whose unit digit is the perfect cube of the tens digit

So, the tens digit can be either 1 or 2

If tens digit is 1 then  $a = 11$

If tens digit is 2 then  $a = 28$

If,  $a = 11$

Total number of cookies baked by A = 110

Total number of cookies baked by B = 121

Total number of cookies baked by C = 99

Total number of cookies sold by A =  $110 \times \frac{60}{100} = 66$

Total number of cookies sold by B =  $121 \times \frac{1}{2} = 60.5$  (Not possible)

Hence a can't be 11

So,  $a = 28$

Total number of cookies baked by A = 280

Total number of cookies baked by B = 308

Total number of cookies baked by C = 252

Total number of cookies sold by A =  $280 \times \frac{60}{100} = 168$

Total number of cookies sold by B =  $308 \times \frac{50}{100} = 154$

Total number of cookies sold by C =  $252 \times \frac{75}{100} = 189$

Total number of cookies unsold by A =  $280 - 168 = 112$

Total number of cookies unsold by B =  $308 - 154 = 154$

Total number of cookies unsold by C =  $252 - 189 = 63$

#### **S41. Ans.(a)**

**Sol.** Total number of oatmeal sold by A =  $2 \times 28 - 6 = 50$

Total number of butter cookies sold by A can be 1, 4, 9, 16, 25 and 49

For maximum number of Sugar cookies

Butter cookies must be minimum i.e., = 1

So, Maximum number of Sugar cookies =  $168 - 50 - 1 = 117$

For minimum number of Sugar cookies

Butter cookies must be maximum

So,

Minimum number of Sugar cookies =  $168 - 50 - 49 = 69$

Required Sum =  $117 + 69 = 186$

#### **S42. Ans.(a)**

**Sol.** Number of sugar cookies baked by A, B and C can be  $(10^2, 11^2, 12^2)$ ;  $(11^2, 12^2, 13^2)$ ;  $(12^2, 13^2, 14^2)$ ; and  $(13^2, 14^2, 15^2)$ ;

But as we move further

Total number of Sugar cookies baked by C becomes more than total number of cookies baked which is not possible

Now,

For  $(10^2, 11^2, 12^2)$ ;

Number of sugar cookies baked by C = 144

sum of oatmeal cookies and Butter baked by C =  $252 - 144 = 108$  (Not possible)

As sum of oatmeal cookies and Butter baked by C is a perfect cube of the one-digit number

For  $(11^2, 12^2, 13^2)$ ;

Number of sugar cookies baked by C = 169

sum of oatmeal cookies and Butter baked by C =  $252 - 169 = 83$  (Not possible)

As sum of oatmeal cookies and Butter baked by C is a perfect cube of the one-digit number

For  $(12^2, 13^2, 14^2)$ ;

Number of sugar cookies baked by C = 196

sum of oatmeal cookies and Butter baked by C =  $252 - 196 = 56$  (Not possible)

As sum of oatmeal cookies and Butter baked by C is a perfect cube of the one-digit number

For  $(13^2, 14^2, 15^2)$

Number of sugar cookies baked by C = 225

sum of oatmeal cookies and Butter baked by C =  $252 - 225 = 27$

Number of sugar cookies baked by A = 169

sum of oatmeal cookies and Butter baked by A =  $280 - 169 = 111$

Number of sugar cookies baked by B = 196

sum of oatmeal cookies and Butter baked by B =  $308 - 196 = 112$

Required Sum =  $111 \times \frac{2}{3} + 112 \times \frac{1}{4} + 27 \times \frac{1}{3} = 74 + 28 + 9 = 111$

**Solutions (43-44): Given**, Reward points received by R is 50% of the total rewards points received by T

ATQ-  $2(4x - 5y) = (2x + 5y)$

$8x - 10y = 2x + 5y$

$6x = 15y$

$x = 2.5y$

So, reward points of R =  $4 \times 2.5y - 5y = 5y$

And, reward points of T =  $2 \times 2.5y + 5y = 10y$

**Given**, reward point can be 50, 100 and 200

When we take  $5y = 200$

$y = 40$

And  $10y = 400$  which can't be possible so

$y$  can't be 40

When we take  $5y = 100$

$y = 20$

and  $10y = 200$  which is possible

$x = 2.5 \times 20 = 50$

When we take  $5y = 50$

$y = 10$  (can't be possible because possible reward points are 50, 100, 200)

But when we take  $y = 10$ , then total reward point of S will be 25 which is not possible

and  $10y = 100$

$x = 2.5 \times 10 = 25$  not possible (because total reward point of P will be 25 which is not possible)

So,  $y = 20$

And  $x = 50$

Customers	Reward points	Discount offered
<b>P</b>	<b>50</b>	$(50 - 10)\% = 40\%$
<b>Q</b>	$(0.8 \times 50 + 3 \times 20) = \mathbf{100}$	$(20 + 10)\% = 30\%$
<b>R</b>	$4 \times 50 - 5 \times 20 = \mathbf{100}$	$(0.4 \times 50)\% = 20\%$
<b>S</b>	$2.5 \times 20 = \mathbf{50}$	2300 Rs
<b>T</b>	$2 \times 50 + 5 \times 20 = \mathbf{200}$	$1.5 \times 20\% = 30\%$

#### S43. Ans.(b)

**Sol.** Total reward points received by Q= 100

So, total selling price of the article A = 12500 + 100 = 12600 Rs

Marked price of article A =  $12600 \times \frac{100}{70} = 18000$  Rs

Total reward points received by T= 200

So, total selling price of the article B = 4700 + 200 = 4900 Rs

Marked price of article B =  $4900 \times \frac{100}{70} = 7000$  Rs

Required difference = 18000 - 7000 = 11000 Rs

#### S44. Ans.(c)

**Sol. For I.** original price - 2300 < 5000

$(7200 - 50) - 2300 < 5000$

$4850 < 5000$  (true)

**For II.** reward amount received by P = 50 Rs

Reward amount received by Q and R = 200 Rs

$\frac{200}{2} \neq 50$  (not true)

#### S45. Ans.(e)

**Sol. From option (a)**

Investment of C = 200x

Investment of A = 100x

Investment of D = 180x

$180x \times 12 > 200x \times 6$  Or  $200x \times 9$

Option (a) is incorrect because profit of C is less than that of D.

Combination of 1 and 2 is wrong.

**From option (d)**

We cannot find anything.

**From option (e)**

Profit of A/B = 6000

Investment of B/A = 5000 (time period of B/A is same i.e., t)

On comparing A and D, investment of D should be an integer

Let investment of D be Rs d

$$\frac{\text{Profit}(A)}{\text{Profit}(D)} = \frac{6000}{4500} = \frac{5000 \times t}{d \times 12}$$

$$d = \frac{625t}{2}$$

So, 't' will be 6 because if we put t = 9, d will not be an integer.

Hence, 1, 3 satisfy the given conditions.

**Solutions (46 – 49):** LCM of z and 5 is 15

So, z = either 3 or 15.

If **z = 3**

**12 = c**

$$\frac{3}{10} \times \frac{y}{20} = \frac{3}{10b}$$

$$by = 20$$

Possible value of b and y

**10 = y, b = 2**

Root of equation = 0.3, 0.5

Put in the equation given question

We get **a = 5**

If **z = 15**

$$24 = c$$

$$\frac{15}{10} \times \frac{y}{20} = \frac{3}{10b}$$

$$by = 4 \text{ (any multiple of y cannot give a number with unit digit zero)}$$

**Series I.** a, b+5, c+8, 87, 412, 2185, 13326

5, 7, 20, 87, 412, 2185, 13326

Correct series =

$$5 \times 1 + 1 = 6$$

$$6 \times 2 + 8 = 20$$

$$20 \times 3 + 27 = 87$$

$$87 \times 4 + 64 = 412$$

$$412 \times 5 + 125 = 2185$$

$$2185 \times 6 + 216 = 13326$$

Wrong term = 7

$$7 - 5 = b$$

**2 = b**

**Series II.** b+4, c + 8, 36, a + 50, 79, 111, 152

6    20    36    55    79    111    **155**

14    16    19    24    32    44

2    3    5    8    12

1    2    3    4

**20 = y, b = 1**

Root of equation = 0.3, 1

Put in the equation given question

We get a = 8.

From above we know the correct series, value of a = 5 and wrong term is 7.

So, we do not have to check this case.

**S46. Ans.(a)**

**Sol.** LCM of y= 10, z = 3, and c = 12.

Answer = 60

**S47. Ans.(e)****Sol.** Wrong term of series II = 152

Correct term of series I = 6

Required difference = 146

**S48. Ans.(e)****Sol.** Resultant term =  $25 - 7 = 18$ **S49. Ans.(b)****Sol.** As we know  $z = 3$ 

$$3 \times 1 + 1 = 4$$

$$4 \times 2 + 8 = \mathbf{16}$$

**Solutions (50 - 54):**

$$\text{Red balls in A} = \frac{15 \times 20}{100} = 3$$

$$\text{Red balls in C} = \frac{3 \times 30}{10} = 9$$

$$\text{Green balls in B} = \frac{25 \times 36}{100} = 9$$

$$\text{Green balls in D} = \frac{2 \times 25}{10} = 5$$

**S50. Ans.(d)****Sol.** Blue balls in A =  $2 + 9 = 11$ 

$$\text{Green balls} = 20 - 11 - 3 = 6$$

$$\text{Required probability} = \frac{6 \times 5}{20 \times 19} = \frac{3}{38}$$

**S51. Ans.(b)****Sol.** Blue balls in C = 120% of 5 = 6

$$\text{Green balls in C} = 30 - 9 - 6 = 15$$

$$\text{Required probability} = \frac{15}{30} + \frac{9}{36} = \frac{1}{2} + \frac{1}{4} = 0.75$$

**S52. Ans.(d)****Sol.** Let blue balls in D be  $b$ .

ATQ,

$$3 \times \frac{3}{20} = \frac{b}{b+9+2}$$

$$b = 9$$

**S53. Ans.(e)****Sol.** Total balls in A = 20

Red balls in A = 3

Blue + green = 17

Cubes which are less than 17 = 1, 8

Blue = 1, then green = 16

**S54. Ans.(a)****Sol.** Green balls in A be x

$$x + x + 4 + 9 + 5 = 30$$

$$2x = 12$$

$$6 = x$$

$$\text{Blue balls in A} = 20 - 3 - 6 = 11$$

$$\text{Blue balls in C} = 30 - 9 - 10 = 11$$

Required answer = 22

**S55. Ans.(a)****Sol.** Composite number – number has more than two factors. $2^x + 8$  = present age of second youngest sister. $2^x$  can be 2, 4, 8, 16, 32, 64

So, present age of second youngest = 10, 12, 16, 24, 40, 72

We know that age of oldest sister is multiple of 25

Age of oldest sister = 25, 50, 75

Age of sister (from youngest to oldest) – (i) 21, 22, 24, 25

(ii) 46, 48, 49, 50

(iii) 70, 72, 74, 75

**S56. Ans.(b)****Sol.** Saving of Sonia = 50% of 40000 = 20000 (silver card)

$$\text{Credit limit} = 40000 \times \frac{1}{2} + \frac{5}{100} \times 20000 = 20000 + 1000 = 21000$$

$$\text{Amount spend by her on cycle} = \frac{3}{7} \times 21000 = 9000$$

$$\text{Cashback get by Sonia} = 9000 \times \frac{5}{100} = 450$$

$$\text{Penalty paid by Sonia} = (9000 - 450) \times \frac{5}{100} = 427.5$$

$$\text{Required answer} = 9000 - 450 + 427.5 = \text{Rs } 8977.5$$

**S57. Ans.(a)****Sol.** Saving of Uma = 40% of 56000 = 22400

$$\text{Credit limit} = 56000 \times \frac{3}{4} + \frac{25}{100} \times 22400 = 42000 + 5600 = 47600$$

$$\text{Amount payable to bank} = 8000 + \frac{25}{100} \times 47600 \times \frac{95}{100} = 8000 + 11305 = \text{Rs. } 19305$$

$$\text{Required answer} = 22400 - 19305 = \text{Rs } 3095$$



**S58. Ans.(c)**

**Sol.** Salary of Aayush = 120% of 30,000 = 36,000

Saving of Aayush = 70% of 36,000 = 25200 (platinum card)

Credit limit =  $36000 \times \frac{3}{4} + \frac{25}{100} \times 25200 = 27000 + 6300 = 33300$

Cash back he gets =  $\frac{5}{100} \times 33300 = \text{Rs } 1665$

**S59. Ans.(e)****Sol.** Saving of Uma = 40% of 56000 = 22400

$$\text{Credit limit} = 56000 \times \frac{3}{4} + \frac{25}{100} \times 22400 = 42000 + 5600 = 47600$$

Saving of Pallavi = 60% of 30000 = 18000

$$\text{Credit limit of Pallavi} = 30000 \times \frac{1}{2} + \frac{5}{100} \times 18000 = 15000 + 900 = 15900$$

Required difference = Rs 31700

**S60. Ans.(c)****Sol.** Saving of Pallavi = 60% of 30000 = 18000

$$\text{Credit limit of Pallavi} = 30000 \times \frac{1}{2} + \frac{5}{100} \times 18000 = 15000 + 900 = 15900$$

$$\text{Amount payable} = 15900 \times \frac{10}{100} + 15900 \times \frac{20}{100} \times \frac{95}{100} = 1590 + 3021 = \text{Rs } 4611$$

**Solutions (61 - 62):**

Adding (I) &amp; (II) = (III)

We get

$$\left(\frac{1}{A} - \frac{5}{2}\right)x + y + 1 + 1 - 10 = -Ax + y - P \quad (\text{n is 0 so } 2^n = 1)$$

Comparing the coefficient

$$\left(\frac{1}{A} - \frac{5}{2}\right) = -A$$

$$\left(\frac{1}{A} + A\right) = 2 + \frac{1}{2}$$

So, **A = 2**

$$-8 = -P$$

**P = 8****S61. Ans.(d)****Sol.**  $x^2y - Ax + y - P = 0$  (put  $y = 1.4$ ,  $P = 8$ ,  $A = 2$ )

$$1.4x^2 - 2x + 1.4 - 8 = 0$$

$$1.4x^2 - 2x - 6.6 = 0$$

$$7x^2 - 10x - 33 = 0$$

$$x = 3, -\frac{11}{7}$$

**S62. Ans.(d)****Sol.**  $A = 2$ **S63. Ans.(d)****Sol.** Let the side be  $2x$  unit of largest cube.Each side of smaller cube =  $x$ 

Nine circles on each face

Let the diameter of each circle be 'd' unit.

$$\text{So, } x = 3d$$

$$\text{And } 2d = 8$$

$$4 = d, x = 12$$

Height of the cylinder = 24 units

Radius of the cylinder = 12 units

Volume =  $\pi \times 12^2 \times 24 = 3456\pi$

Required answer =  $1152\pi$  unit

**S64. Ans.(c)**

**Sol.** Let the speed of boat B be  $b$  km/hr.

Speed of stream =  $y$  km/hr

ATQ,

$$\frac{z}{8-y} = 9 \dots (i)$$

$$b - y = 8 + y$$

$$b - 8 = 2y \dots (ii)$$

$$\frac{m}{b+y} = 1$$

$$m = b + y \dots (iii)$$

$$b = m - 4$$

$$m = b + 4 \dots (iv)$$

Solving (iii) & (iv)

$$4 = y \dots (v)$$

From (v) and (ii)

$$16 = b, m = 20, z = 36$$

**Solutions (65 - 68):**

Let Girls in A be  $a$ .

**Girls    Boys**

**A**    $a$        $x+a$

**B**    $x$        $x+20$

**C**    $1.2(x)$      $1.2(x+20)$

Boys in P = girls in P - 13

**Case I-** Girls in P (A+B) = 60% of  $(a + x) = \frac{3}{5}(a + x)$

Boys in P (A+C) = 50% of  $(2.2x+a+24)$

Girls in Q =  $\frac{4}{5}(a + x)$

ATQ,

$$a + x + 1.2x - \left(\frac{3}{5}(a + x)\right) = \frac{4}{5}(a + x)$$

$$a + x + 1.2x = \frac{7}{5}(a + x)$$

$$5a + 11x = 7a + 7x$$

$$a = 2x$$

$$50\% \text{ of } (2.2x+a+20) = \frac{3}{5}(a + x) - 13$$

$$\frac{21x}{10} + 12 = \frac{9x}{5} - 13 \text{ (comes negative value)}$$

**Case II-** Boys in P (B+C) = 50% of  $(2.2x+44)$

$$50\% \text{ of } (2.2x+44) = \frac{3}{5}(a + x) - 13$$

$$\frac{11x}{10} + 22 = \frac{9x}{5} - 13$$

$$x = 50 \text{ so, } a = 100$$

Classes	Girls	Boys
A	100	150
B	50	70
C	60	84
Total	210	304

Team	Girls	Boys
P	90	77
Q	120	227
Total	210	304

### S65. Ans.(a)

**Sol.** Total girls injured = 20% of 60 = 12

Team P injured girls = 25% of 12 = 3

Team Q injured girls = 12 - 3 = 9

Girls not injured in Q = 120 - 9 = 111

### S66. Ans.(d)

**Sol.** Required average =  $\frac{210}{2} = 105$

### S67. Ans.(c)

**Sol.** Required difference = 304 - 210 = 94

### S68. Ans.(a)

**Sol.** Team Q =  $\frac{30}{100} \times 90 + 120 - \frac{10}{100} \times 120 = 27 + 120 - 12 = 135$

Team P =  $90 - \frac{30}{100} \times 90 + \frac{10}{100} \times 120 = 90 - 27 + 12 = 75$

Required percentage =  $\frac{135}{75} \times 100 = 180\%$

### S69. Ans.(e)

**Sol.**

$$1. \frac{a^b + b^a}{a^b b^a} = \frac{c^d + d^c}{c^d d^c}$$

$$\frac{1}{a^b} + \frac{1}{b^a} = \frac{1}{c^d} + \frac{1}{d^c} \text{ (true)}$$

2. if  $a^b - d^c = 0$ , then  $a^b = d^c$

$$\frac{1}{a^b} + \frac{1}{b^a} = \frac{1}{c^d} + \frac{1}{d^c}$$

$$\frac{1}{a^b} + \frac{1}{b^a} = \frac{1}{c^d} + \frac{1}{a^b}$$

$$\frac{1}{b^a} = \frac{1}{c^d}$$

$$b^a = c^d \text{ (true)}$$

3. 0 to the power of anything else is 0.

$$\frac{1}{c^d} = \frac{1}{0} = \text{infinity}$$

Infinity + anything = infinity

So, statement is wrong.

**S70. Ans.(a)**

**Sol.** Let the length of the rectangle be  $l$  m.

$$\text{Breadth} = \sqrt{25 \times 13 - l^2}$$

ATQ,

He is travelling from rectangular path.

$$\frac{l + \sqrt{25 \times 13 - l^2}}{5} < 4$$

By hit and trail, only option (a) is correct option

**S121. Ans.(a)**

**Sol.** The word "rigid" (i) in column (A) is synonymous with "restrictive" (iv) in column (B).

Column (A):

(i) Rigid: Stiff, unyielding, not flexible. In the context of the passage, it refers to the inflexible or strict nature of the fashion industry in the past.

(ii) Perpetuated: Continued or prolonged. In the passage, it is used in connection with beauty standards that have been continued or sustained, specifically those contributing to body shaming.

(iii) Realm: A particular field of activity or experience. In the passage, it refers to the standards within the fashion industry in the past.

Column (B):

(iv) Restrictive: Imposing limitations or restrictions. In the context of the passage, it is used in relation to beauty standards that limited or restricted certain body types.

(v) Marginalized: Pushed to the edges or sidelines, treated as insignificant or less important. In the passage, it refers to voices that were previously overlooked or not given much importance.

(vi) Inclusivity: Embracing diversity and ensuring that everyone feels valued and included. In the passage, it signifies the shift towards a more inclusive fashion industry.

Now, let's match the synonyms:

The word "rigid" (i) in column (A) is synonymous with "restrictive" (iv) in column (B).

The word "perpetuated" (ii) in column (A) is not synonymous with any word in column (B).

The word "realm" (iii) in column (A) is not synonymous with any word in column (B).

**S122. Ans.(b)**

**Sol.** The word that should replace the highlighted word "quite" (G) in the passage is:

(b) **rather**

Here are the meanings of the provided words:

(a) **unnoticeably**: In a way that is not easily observed or perceived; without attracting attention.

(b) **rather**: To a certain extent or degree; used to indicate preference or choice; in this context, it implies a more significant shift in the fashion landscape.

(c) **awfully**: In a manner that causes discomfort or distress; very; often used informally to express a high degree of something negative.

(d) **selectively**: In a manner characterized by careful choice or discrimination; choosing or picking certain things over others.

(e) **superficially**: In a way that is concerned only with surface aspects or without depth; on the surface but lacking in depth or thoroughness.

**S123. Ans.(d)**

**Sol.** The correct rearrangement of the highlighted words (A) (B) (C) in the passage is:  
(d) CBA

**S124. Ans.(b)**

**Sol.** The word "marginalized" (vi) in column (B) is antonymous with "remarkable" (ii) in column (A).

let's go through the pairs of words and their meanings:

Column (A):

(i) Realm: A particular field of activity or experience. In the context of the passage, it refers to the standards within the fashion industry in the past.

(ii) Remarkable: Worthy of attention or extraordinary. In the context of the passage, it is used to describe the transformation undergone by the fashion industry.

(iii) Rigid: Stiff, unyielding, not flexible. In the context of the passage, it refers to the inflexible or strict nature of the fashion industry in the past.

Column (B):

(iv) Perpetuate: To continue or prolong. In the passage, it is used in connection with beauty standards that have been continued or sustained, specifically those contributing to body shaming.

(v) Resonate: To evoke a strong feeling or response; to be significant or meaningful. In the passage, it signifies a deep connection with consumers who seek authenticity and representation in the fashion industry.

(vi) Marginalized: Pushed to the edges or sidelines, treated as insignificant or less important. In the passage, it refers to voices that were previously overlooked or not given much importance.

**S125. Ans.(d)**

**Sol.** Refer to the lines, **"Brands that champion these values resonate (M) more deeply with consumers who seek authenticity and representation"**

The option (d) **"Brands utilize fashion as a means of connecting with their customers by embodying the principles of authenticity and representation"** is explaining how the fashion industry facilitates a connection between brands and customers.

**S126. Ans.(d)**

**Sol.** Explanation:

(I) **Fashion brands can influence societal attitudes toward acceptance of differences:** This statement aligns with the idea that the embrace of diversity and inclusivity by fashion brands can impact societal attitudes, fostering acceptance of differences.

(II) **Fashion brands challenge traditional norms and reinforce a broader definition of beauty and acceptance:** This statement highlights how the fashion industry, by embracing diversity, challenges traditional norms and contributes to a broader definition of beauty and acceptance.

(III) **Fashion brands contribute to societal change by promoting exclusive beauty standards:** This statement is incorrect as it contradicts the passage, which emphasizes the move away from exclusive beauty standards.

(IV) **Consumers may feel empowered when they see themselves represented in the fashion industry:** This statement is consistent with the passage's notion that representation in the fashion industry can empower individuals.

**S127. Ans.(e)**

**Sol.** The tone of the passage is:

(e) **empowering**

Explanation:

The passage carries a positive and empowering tone as it discusses the positive transformations in the fashion industry, such as embracing diversity, dismantling racial barriers, promoting body positivity, and becoming a powerful tool for social change. The overall message is one of progress, inclusivity, and empowerment.

**S128. Ans.(b)**

**Sol.** The correct combination is B-E-I.

**The ineffable intricacies of quantum mechanics challenge even the most astute physicists, pushing the boundaries of comprehension.**

This sentence effectively communicates the idea that quantum mechanics is highly complex and presents a significant challenge to even the most knowledgeable physicists.

**S129. Ans.(a)**

**Sol.** The correct combination is: A-D-G

The protagonist, adorned in an eclectic ensemble, navigated the bustling city streets with an air of nonchalant sophistication.

**S130. Ans.(e)**

**Sol.** The correct combination is: C-D-I.

Amidst the tumultuous storm, the resolute captain steered the ship through turbulent waters with unwavering determination.

**S131. Ans.(b)**

**Sol.** The correct combination is: B-F-I.

The intrepid explorer navigated treacherous terrain, conquering obstacles that tested the limits of human endurance and resilience.

**S132. Ans.(d)**

**Sol.** The correct combination is: A-F-G

In the laboratory, the scientist conducted experiments that unraveled the mysteries of the microscopic world, pushing the boundaries of human understanding.

**S133. Ans.(b)**

**Sol.** The most suitable pair is “**intricate, oblivious**”.

Brief meanings:

Intricate: Complicated or detailed.

Oblivious: Unaware or unconscious of what is happening.

Enraptured: Filled with great pleasure or delight.

Labyrinth: A complex and confusing arrangement or course of affairs.

Contemplating: Thinking deeply or carefully about something.

**S134. Ans.(a)**

**Sol.** The most suitable pair is “**hazardous, meticulously**”

Hazardous: Involving risk or danger; potentially harmful or unsafe.

Meticulously: In a way that shows great attention to detail; very carefully and precisely.

**S135. Ans.(c)**

**Sol.** The most suitable pair is “**navigated, coordinated**”.

Navigated: To move through or manage a situation, especially one that is complex or challenging.

Coordinated: Well-organized and planned; working together harmoniously.

**S136. Ans.(e)**

**Sol.** The most suitable pair is “**articulated, exempted**”

Articulate: To express an idea or feeling clearly in words.

Exempted: Freed or excused from a certain duty or requirement.

**S137. Ans.(b)**

**Sol.** The correct sequence is BACFED.

The sentence "B" introduces the topic by stating that fast food has become a convenient option for individuals with busy schedules. It sets the stage for the discussion on the drawbacks and consequences of the popularity of fast food.

**S138. Ans.(c)**

**Sol.** The correct sequence is BACFED.

The third sentence after the rearrangement is:(C)

This sentence expands on the discussion about fast food by highlighting its nutritional drawbacks and the negative impact it has on health.

**S139. Ans.(a)**

**Sol.** The correct sequence is BACFED.

The second sentence after the rearrangement is: (a) A

This sentence follows the introduction in sentence (B) and presents the downside of the popularity of fast food, emphasizing the hidden nutritional drawbacks associated with its excessive consumption.

**S140. Ans.(a)**

**Sol.** The most suitable to replace “that” is “**which**”.

Explanation

(b) **who** - Incorrect. "Who" is used when referring to people, and in this context, we are discussing the allure of meals for individuals.

(c) **whose** - Incorrect. "Whose" is a possessive pronoun and is used to show possession, which is not the intended meaning in this sentence.

(d) **them** - Incorrect. "Them" is a pronoun for people, but it does not serve the same grammatical function as "which" in the context of the sentence.

(e) **whom** - Incorrect. "Whom" is an object pronoun used in formal English, typically as an object of a verb or preposition, and it doesn't fit well in this context.



**S141. Ans.(d)**

**Sol.** The correct sequence is BACFED.

The fifth sentence in this arrangement is sentence (E). This sentence discusses the environmental impact of fast food production, highlighting concerns related to excessive packaging and waste. It adds an additional layer to the negative aspects associated with the consumption of fast food, emphasizing broader environmental concerns.

**S142. Ans.(e)**

**Sol.** The correct sequence is BACFED.

The fourth sentence in this arrangement is sentence (F). This sentence emphasizes that while fast food offers convenience and time savings, it often poses a risk to the long-term health of individuals. It serves to underscore the negative health implications associated with the convenience of fast food.

**S143. Ans.(b)**

**Sol.** In sentence (F), the word that should fill the blank is: (b) **sacrifices**

So, the completed sentence would be: "Thus, the convenience that fast food offers may save time, but it often jeopardizes the long-term health of individuals."

**S144. Ans.(c)**

**Sol.** Refer, to the lines, **"The failure of Silva's methodical approach lies in its inability to swiftly adapt to the rapid changes and interconnectedness characterizing today's global economy."**

The correct answer is:

(c) Because it lacks the agility to quickly adjust to the dynamic changes and interconnected nature of today's global economy.

Explanation:

The passage highlights that Maria Silva's methodical approach faces challenges in the contemporary economic landscape because of its inability to swiftly adapt to the rapid changes and interconnectedness characterizing today's global economy. The methodical approach, once celebrated for its practicality, is now deemed inadequate in addressing the evolving challenges and complexities of the modern economic environment. Option (c) accurately reflects this explanation from the passage.

**S145. Ans.(c)**

**Sol.** Both the statements (II) and (III) are correct.

Refer to the lines, **"The inadequacy of these policies in today's scenario underscores the necessity for innovative, adaptive strategies that account for the complexities of modern economies. Globalization, technological advancements, and shifting geopolitical landscapes demand a departure from historical approaches"**

Option (II) correctly reflects the necessity mentioned in the passage – understanding the dynamic global economy, technological advancements, and shifting geopolitical landscapes. Option (III) accurately represents the idea of creating innovative and flexible strategies that consider the intricacies of present-day economies, as stated in the passage.

**S146. Ans.(e)**

**Sol.** The passage doesn't explicitly state how Rodrigues' approach achieves a trade-off between providing immediate relief and ensuring long-term effectiveness. Therefore, the information given in the passage is not sufficient to definitively answer the question.

**S147. Ans.(a)**

**Sol.** The statement that is INCORRECT concerning João Rodrigues' approach is:

(I) Rapid cash injections attempt to resolve the fundamental, structural issues at the core of the economic challenges.

The correct statement should reflect that rapid cash injections, according to the passage, provide short-term relief but may not effectively address the deep-seated, structural issues at the heart of the economic challenges. Therefore, option (a) "Only (I)" is incorrect.

**S148. Ans.(b)**

**Sol.** Refer to the lines, **"The failure of Silva's methodical approach lies in its inability to swiftly adapt to the rapid changes and interconnectedness characterizing today's global economy."**

his line suggests that Maria Silva's approach, which was once practical and celebrated, is now considered unsuccessful. The failure is attributed to the inability of her methodical approach to quickly adapt to the fast-paced changes and the interconnected nature of the present-day global economy.

**"The inadequacy of these policies in today's scenario underscores the necessity for innovative, adaptive strategies that account for the complexities of modern economies."**

This line reinforces the idea that the policies, including both Maria Silva's methodical approach and João Rodrigues' cash infusion strategy, are inadequate for the current economic conditions. It stresses the need for innovative and adaptive strategies that can address the complexities of modern economies.

The passage mentions that these once-successful policies from the 1980s (referring to both Silva's and Rodrigues' approaches) are now proving inadequate in the current scenario, highlighting the failure of these approaches to adapt to the rapid changes and interconnectedness characterizing today's global economy.

**S149. Ans.(a)**

**Sol.** The accurate statement as per the passage is: (a) Only (I)

(I) The inadequacy of historical policies accentuates the imperative for avant-garde strategies adept at navigating the intricacies of modern economies.

The passage suggests that historical policies (referring to both Silva's and Rodrigues' approaches from the 1980s) are now inadequate in the current economic scenario. This supports the idea that there is a need for innovative and adaptive strategies to navigate modern complexities.

(II) Rodrigues' cash infusion strategy adeptly confronts the intricate challenges that have evolved over time.

This statement is not accurate. The passage highlights the drawbacks of Rodrigues' cash infusion strategy, noting that while it provides short-term relief, it may lack the foresight to address the deep-seated, structural issues at the heart of economic challenges.

(III) Both the methodologies of Maria Silva and João Rodrigues efficaciously revitalized the economy during the 1980s.

The passage does not suggest that both methodologies efficaciously revitalized the economy during the 1980s. Instead, it states that the once-successful policies from the 1980s are now proving inadequate in the current scenario.

Therefore, the accurate statement is (I) Only. The inadequacy of historical policies emphasizes the need for innovative strategies in the modern economic landscape.

**S150. Ans.(d)**

**Sol.** The correct sequence is ADCB.

The pervasive degradation of the environment, exacerbated by industrial pollutants and deforestation, poses an existential threat that necessitates global cooperation in fostering sustainable practices.

**S151. Ans.(c)**

**Sol.** The correct sequence is BCAD.

The intricate interplay between urban planning and public health becomes evident in the prevalence of "food deserts," underscoring the importance of designing communities that facilitate access to nutritious options for all residents.

**S152. Ans.(c)**

**Sol.** Sentences (A) and (C) have grammatical errors.

(A) "**Despite of facing challenges, she persevered and achieved success in her chosen field.**"

The correct phrase is "Despite facing challenges" instead of "Despite of facing challenges." The preposition "of" is unnecessary after "Despite."

(C) "**Learning a new language can be both challenging or rewarding, requiring consistent practice and dedication.**"

The correct conjunction to use when presenting two contrasting ideas is "and" instead of "or." Therefore, it should be "both challenging and rewarding" instead of "both challenging or rewarding."

The corrected sentences are:

(A) "Despite facing challenges, she persevered and achieved success in her chosen field."

(C) "Learning a new language can be both challenging and rewarding, requiring consistent practice and dedication."

**S153. Ans.(b)**

**Sol.** Only sentence (D) has grammatical error.

In sentence (D), The subject "collection" is singular, so it should be "was" instead of "were." The corrected sentence is, "The collection of rare stamps, along with a few vintage coins, **was** displayed in a glass case."

**S154. Ans.(c)**

**Sol.** The correct sequence is BACED.

The **integration (B)** of technology in education, while offering **unprecedented (A)** opportunities for learning, demands a **nuanced (C)** approach to address concerns such as **privacy (E)** issues and the potential **exacerbation (D)** of educational inequalities.

**S155. Ans.(a)**

**Sol.** The correct sequence is DBAEC.

The **cyclical (D)** nature of the economy, **marked (B)** by fluctuations in GDP, employment rates, and consumer spending, **underscores (A)** the **intricate (E)** web of factors that **influence (C)** the financial well-being of nations.