

PRACTICE **MOCK**

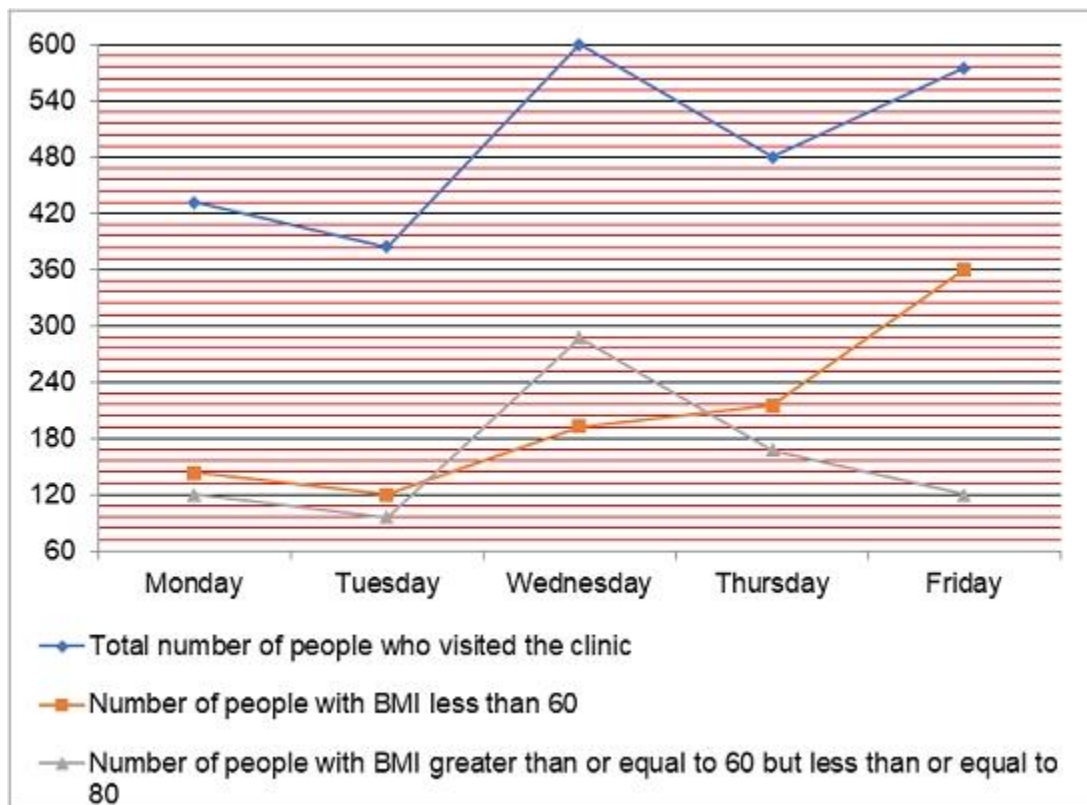
IBPS PO 2023 PREVIOUS YEAR PAPER WITH SOLUTIONS

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**IBPS PO
2023****Take a FREE Mock Test
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The given line graph shows the data regarding number of people who visited a clinic on five different days such that their BMI lie in three different ranges i.e. $BMI < 60$, $60 \leq BMI \leq 80$ and $BMI > 80$.



Question 1: Ratio of number of people with BMI less than 60 on Monday and Wednesday together to number of people with BMI greater than 80 on Friday is:

- A) 7:2
- B) 4:1
- C) 11:3
- D) 13:4
- E) None of these

Question 2: Total number of people who visited the clinic on Tuesday and Thursday together is how much percent more/less than total number of people with BMI greater than or equal to 60 but less than or equal to 80 on Monday and Friday together.

- A) 260%
- B) 225%
- C) 160%
- D) 240%
- E) None of these

Question 3: Average number of people with BMI greater than 80 on Tuesday and Wednesday together is:

- A) 144
- B) 164
- C) 124
- D) 154
- E) None of these

Question 4: Total number of people who visited the clinic on other day i.e. Saturday is 25% of the number of people who visited the clinic on Wednesday and Thursday together. Find the number of people who visited the clinic on Saturday.

- A) 450
- B) 270
- C) 220
- D) 490
- E) None of these

Question 5: Difference between number of people with BMI greater than 80 on Monday and Friday is?

- A) 72
- B) 52
- C) 62

D) 92

E) None of these

Question 6: What will come in place of the question mark (?) in the following series?
136, 142, 124, 154, ?.166

A) 102

B) 122

C) 118

D) 110

E) 112

Question 7: What will come in place of the question mark (?) in the following series?
432, ?, 443, 461, 454, 472

A) 450

B) 448

C) 452

D) 454

E) 446

Question 8: What will come in place of the question mark (?) in the following series?
98, 104, 97, ?, 94, 110

A) 112

B) 94

C) 108

D) 106

E) 102

Question 9: What will come in place of the question mark (?) in the following series?
48, 57, 82, 131, 212, ?

A) 337

B) 313

C) 323

D) 333

E) 343

Question 10: What will come in place of the question mark (?) in the following series?
4, 22, 136, 202, 292, ?

A) 360

B) 380

C) 372

D) 364

E) 370

Directions: Answer the questions based on the information given below.

A data is collected regarding number of workers working in two shifts (morning and evening) in five different companies. The table given below shows the total number of workers in the respective companies and percentage by which number of workers working in morning shift is more than that in the evening shift.

Total number of workers in a company = Number of workers working in morning shift + Number of workers working in evening shift

Companies	Total number of workers	Percentage by which number of workers working in morning shift is more than that in the evening shift
A	924	20%
B	1380	30%
C	816	12.5%
D	1040	(50/3)%
E	640	56%

Question 11: If total number of workers working in all five companies together is represented in a pie chart then difference between central angle made by number of workers working in company 'A' and 'E' is:

A) 21.3°

- B) 34.2°
- C) 8.1°
- D) 8.7°
- E) None of these

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Question 12: Ratio of number of workers working in morning shift in company 'A' to number of workers working in evening shift in company 'C'.

- A) 16:21
- B) 7:6
- C) 6:7
- D) 21:16
- E) None of these

Question 13: Total number of workers working in morning shift in companies 'D' and 'E' together is how much percent more than the number of workers working in evening shift in company 'B'.

- A) 56.78%
- B) 53.33%
- C) 58.33%
- D) 51.67%
- E) None of these

Question 14: Number of workers working in evening shift and morning shift in company 'F' are 75% more and 37.5% less than number of workers working in evening shift in company 'A' and morning shift in company 'C', respectively. Find total number of workers working in company 'F'.

- A) 1025
- B) 1005
- C) 1018

- D) 1225
- E) None of these

Question 15: Number of workers working in evening shift in company 'E' is how much percent of total number of workers working in evening shift in companies 'A', 'B' and 'D' together.

- A) 16.67%
- B) 14.28%
- C) 13.33%
- D) 18.18%
- E) None of these

Directions: Answer the questions based on the information given below.

The given data is about number of boys and girls in three coaches (A1, B1 and C1). The ratio of number of boys in A1 and B1 is 8:5. The number of boys in B1 is 80% of total number of people (boys + girls) in B1. Number of girls in C1 is 20% more than that in B1. The number of boys in C1 is 75% less than that in A1. Total number of people in A1 is 4 times of that in C1. Number of girls in A1 is 120.

Question 16: Find the difference between number of boys in A1 and number of girls in B1.

- A) 145
- B) 120
- C) 135
- D) 95
- E) 105

Question 17: Find the average number of boys in given three coaches.

- A) 100
- B) 120
- C) 135
- D) 80
- E) 105

Question 18: Total number of people in C1 is how much percent more/less than that in B1?

- A) 40%
- B) 60%
- C) 35%
- D) 60%
- E) 44%

Question 19: Find 40% of number of girls in A1 and B1, together.

- A) 45
- B) 58
- C) 64
- D) 72
- E) 50

Question 20: The ratio of total number of people in A1 and D1 is 7:5, respectively. If 45% of number of people (boys + girls) in D1 are boys then find the number of girls in D1.

- A) 150
- B) 100
- C) 140
- D) 110
- E) 90

Question 21: In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

I. $x^2 = 144$

II. $y^2 - 12y = 0$

- A) $x > y$
- B) $x < y$
- C) $x = y$ or the relationship cannot be established

D) $x \geq y$

E) $x \leq y$

Question 22: In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

I. $x^2 - 2x - 8 = 0$

II. $2y^2 + 13y + 21 = 0$

A) $x > y$

B) $x < y$

C) $x = y$ or the relationship cannot be established

D) $x \geq y$

E) $x \leq y$

Question 23: In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

I. $x^2 + 27x + 180 = 0$

II. $y^2 + 17y + 72 = 0$

A) $x > y$

B) $x < y$

C) $x = y$ or the relationship cannot be established

D) $x \geq y$

E) $x \leq y$

Question 24: In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

I. $x^2 + 11x + 28 = 0$

II. $y^2 + 6y + 8 = 0$

A) $x > y$

B) $x < y$

C) $x = y$ or the relationship cannot be established

D) $x \geq y$

E) $x \leq y$

Question 25: In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

I. $x^2 - 4x + 4 = 0$

II. $25y^2 - 55y + 28 = 0$

A) $x > y$

B) $x < y$

C) $x = y$ or the relationship cannot be established

D) $x \geq y$

E) $x \leq y$

Question 26: A mixture contains $(x + 40)$ litres of milk and rest water. If total quantity of mixture is $(2x + 40)$ litres and ratio of quantity of milk to water in the mixture is 3:2, then find the value of 'x'.

A) 80

B) 48

C) 100

D) 60

E) None of these

Question 27: 'A' and 'B' together can do a work in 40 days while 'B' and 'C' together can do the same work in 60 days. 'A' worked on it for 12 days, 'B' worked on it for 40 days and 'C' completed the remaining work in 56 days. Find the time taken by 'C' alone to complete the whole work.

A) 90 days

B) 120 days

C) 60 days

D) 75 days

E) None of these

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Question 28: A bag contains 'x' blue, 'x + 4' red and 'x + 12' green balls. Probability of drawing a red ball is $\frac{1}{13}$ more than probability of getting a blue ball. If two balls are drawn at random then probability of getting a red and a green ball is:

A) $\frac{157}{221}$

B) $\frac{64}{221}$

C) $\frac{32}{221}$

D) $\frac{128}{221}$

E) None of these

Question 29: A bag contains 20-paise coins, 50-paise coins and Re. 1 coins in the ratio of 185:49:9 respectively. If total amount present in the bag is Rs. 282, then find the number of 50-paise coins in the bag.

A) 196

B) 98

C) 392

D) 740

E) None of these

Question 30: 'A' and 'B' started a business by investing Rs. 4000 and Rs. 3000, respectively. After 5 months, 'A' withdrew 50% of his investment. If the annual profit share of 'A' is Rs. 3400 then find annual profit share of 'B'.

A) Rs. 8000

B) Rs. 4000

C) Rs. 3200

D) Rs. 3600

E) None of these

Question 31: To cover a distance of 162 km, a bus takes 45 minutes more than the time taken by a car to cover a distance of 216 km. If speed of car is 12 km/h more than the speed of bus, then find the distance travelled by the bus in 4 hours.

- A) 96 km
- B) 72 km
- C) 144 km
- D) 192 km
- E) None of these

Question 32: A certain sum of money invested at a certain rate give a compound interest of Rs. 2967 at the end of 2 years and the same money will give a simple interest of Rs. 6900 at the end of 5 years if invested at same rate of interest. Find the sum of money invested.

- A) Rs. 8400
- B) Rs. 9200
- C) Rs. 9000
- D) Rs. 9600
- E) None of these

Question 33: There are 250 students in a hostel. If the number of students is increased by 50, the total expense of the mess increased by Rs. 200 while the average expenditure per head decreases by Rs. 1. Find the original expenditure of the mess.

- A) Rs. 2500
- B) Rs. 2800
- C) Rs. 1600
- D) Rs. 2000
- E) None of these

Question 34: A seller marked a bulb 40% above its cost price (CP) and then sold it after a discount of 20%. Had he bought the bulb for Rs. 50 less and sold it for Rs. 20 more, then there would have been a profit of 50%. Find original CP of the bulb.

- A) Rs. 250
- B) Rs. 100

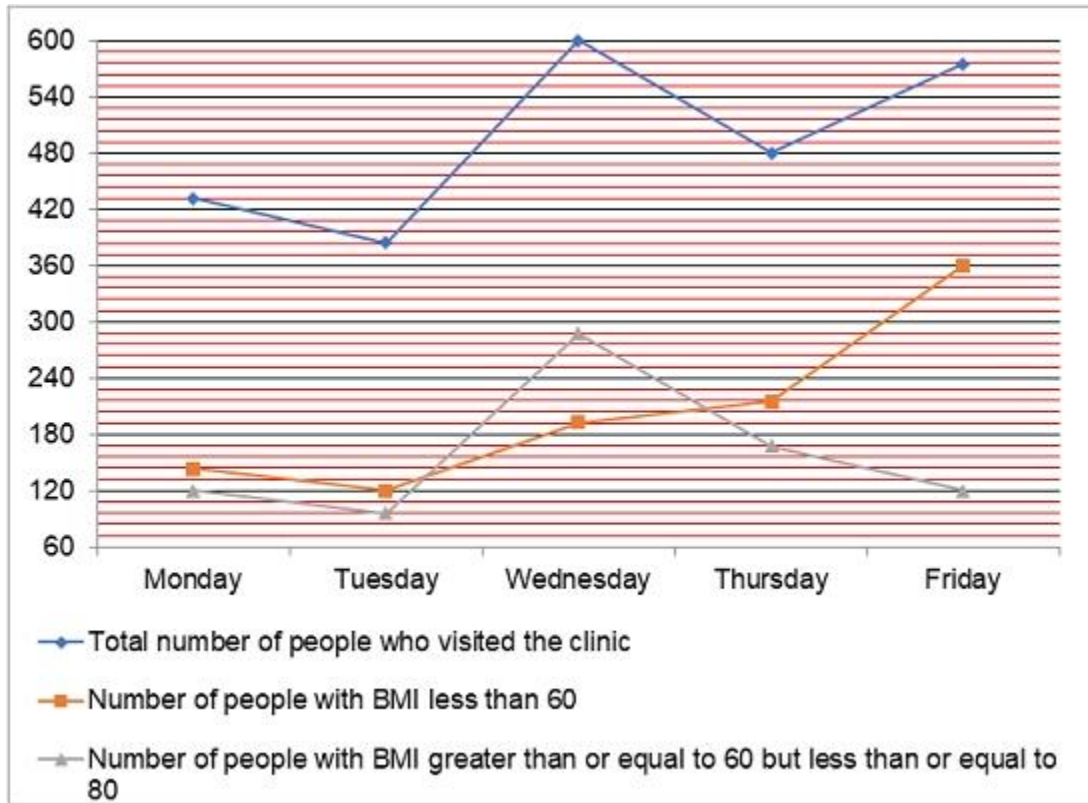
- C) Rs. 350
D) Rs. 200
E) None of these

Question 35: 6 years hence from now, the ratio of the ages of 'A' and 'B' will be 6:7. If the present age of 'B' is 20% more than that of 'A', then find the present age of 'B'.

- A) 30 years
B) 36 years
C) 32 years
D) 28 years
E) None of these

निर्देश: नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

दिया गया line graph पांच विभिन्न दिन पर एक क्लिनिक का दौरा करने वाले व्यक्तियों की संख्या के बारे में जानकारी दर्शाता है जहाँ उनका BMI तीन श्रेणी में है अर्थात् $BMI < 60$, $60 \leq BMI \leq 80$ और $BMI > 80$ ।



प्रश्न 1: Monday और Wednesday को 60 से कम BMI वाले व्यक्तियों की कुल संख्या और Friday को 80 से अधिक BMI वाले व्यक्तियों की संख्या का अनुपात कितना है:

- A) 7:2
- B) 4:1
- C) 11:3
- D) 13:4
- E) इनमें से कोई नहीं

प्रश्न 2: Tuesday और Thursday को क्लिनिक का दौरा करने वाले व्यक्तियों की कुल संख्या, Monday और Friday को 60 से अधिक या बराबर पर 80 से कम या बराबर BMI वाले व्यक्तियों की कुल संख्या से कितने प्रतिशत अधिक/कम है?

- A) 260%
- B) 225%
- C) 160%
- D) 240%
- E) इनमें से कोई नहीं

प्रश्न 3: Tuesday और Wednesday को 80 से अधिक BMI वाले व्यक्तियों की औसत संख्या कितनी है:

- A) 144
- B) 164
- C) 124
- D) 154
- E) इनमें से कोई नहीं

प्रश्न 4: किसी अन्य दिन यानि Saturday को क्लिनिक का दौरा करने वाले व्यक्तियों की कुल संख्या Wednesday और Thursday को क्लिनिक का दौरा करने वाले व्यक्तियों की संख्या का 25% है। Saturday को क्लिनिक का दौरा करने वाले व्यक्तियों की संख्या ज्ञात करें।

- A) 450
- B) 270
- C) 220
- D) 490

E) इनमें से कोई नहीं

प्रश्न 5: Monday और Friday को 80 से अधिक BMI वाले व्यक्तियों की संख्या के बीच का अंतर कितना है?

A) 72

B) 52

C) 62

D) 92

E) इनमें से कोई नहीं

प्रश्न 6: निम्नलिखित श्रृंखला में प्रश्न चिह्न (?) के स्थान पर क्या आएगा?

136, 142, 124, 154, ?.166

A) 102

B) 122

C) 118

D) 110

E) 112

प्रश्न 7: निम्नलिखित श्रृंखला में प्रश्न चिह्न (?) के स्थान पर क्या आएगा?

432, ?, 443, 461, 454, 472

A) 450

B) 448

C) 452

D) 454

E) 446

प्रश्न 8: निम्नलिखित श्रृंखला में प्रश्न चिह्न (?) के स्थान पर क्या आएगा?

98, 104, 97, ?, 94, 110

A) 112

B) 94

C) 108

D) 106

E) 102

प्रश्न 9: निम्नलिखित श्रृंखला में प्रश्न चिह्न (?) के स्थान पर क्या आएगा?

48, 57, 82, 131, 212, ?

A) 337

B) 313

C) 323

D) 333

E) 343

प्रश्न 10: निम्नलिखित श्रृंखला में प्रश्न चिह्न (?) के स्थान पर क्या आएगा?

4, 22, 136, 202, 292, ?

A) 360

B) 380

C) 372

D) 364

E) 370

निर्देश: नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

पांच अलग-अलग companies में दो shifts (morning और evening) में काम करने वाले श्रमिकों की संख्या के संबंध में एक डेटा एकत्र किया जाता है। नीचे दी गई तालिका में संबंधित companies में श्रमिकों की कुल संख्या और वह प्रतिशत दर्शाया गया है जिससे morning shift में काम करने वाले श्रमिकों की संख्या evening shift की तुलना में अधिक है।

एक company में श्रमिकों की कुल संख्या = morning shift में काम करने वाले श्रमिकों की संख्या + evening shift में काम करने वाले श्रमिकों की संख्या

Companies	Total number of workers	Percentage by which number of workers working in morning shift is more than that in the evening shift
A	924	20%
B	1380	30%
C	816	12.5%
D	1040	(50/3)%
E	640	56%

प्रश्न 11: यदि सभी पांच companies में काम करने वाले श्रमिकों की कुल संख्या को एक पाई चार्ट में दर्शाया जाता है, तो company 'A' और 'E' में काम करने वाले श्रमिकों की संख्या से निर्मित केंद्रीय कोण के बीच का अंतर कितना है?

- A) 21.3°
 B) 34.2°
 C) 8.1°
 D) 8.7°
 E) इनमें से कोई नहीं

प्रश्न 12: Company 'A' में morning shift में काम करने वाले श्रमिकों की संख्या और company 'C' में evening shift में काम करने वाले श्रमिकों की संख्या का अनुपात कितना है?

- A) 16:21
 B) 7:6
 C) 6:7
 D) 21:16
 E) इनमें से कोई नहीं

प्रश्न 13: Companies 'D' और 'E' में morning shift में काम करने वाले कर्मचारियों की कुल संख्या company 'B' में evening shift में काम करने वाले कर्मचारियों की संख्या से कितना प्रतिशत अधिक है।

- A) 56.78%
 B) 53.33%

- C) 58.33%
- D) 51.67%
- E) इनमें से कोई नहीं

प्रश्न 14: Company 'F' में evening shift और morning shift में काम करने वाले श्रमिकों की संख्या company 'A' में evening shift और company 'C' में morning shift में काम करने वाले श्रमिकों की संख्या से क्रमशः 75% अधिक और 37.5% कम है। Company 'F' में काम करने वाले श्रमिकों की कुल संख्या ज्ञात कीजिए।

- A) 1025
- B) 1005
- C) 1018
- D) 1225
- E) इनमें से कोई नहीं

प्रश्न 15: Company 'E' में evening shift में काम करने वाले श्रमिकों की संख्या, companies 'A', 'B' और 'D' में evening shift में काम करने वाले श्रमिकों की कुल संख्या का कितना प्रतिशत है।

- A) 16.67%
- B) 14.28%
- C) 13.33%
- D) 18.18%
- E) इनमें से कोई नहीं

निर्देश: नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

दी गई जानकारी तीन कोचों (A1, B1 और C1) में लड़कों और लड़कियों की संख्या के बारे में है। A1 और B1 में लड़कों की संख्या का अनुपात 8:5 है। B1 में लड़कों की संख्या B1 में कुल व्यक्तियों (लड़के + लड़कियों) का 80% है। C1 में लड़कियों की संख्या B1 की तुलना में 20% अधिक है। C1 में लड़कों की संख्या A1 की तुलना में 75% कम है। A1 में व्यक्तियों की कुल संख्या C1 की तुलना में 4 गुना है। A1 में लड़कियों की संख्या 120 है।

प्रश्न 16: A1 में लड़कों की संख्या और B1 में लड़कियों की संख्या के बीच का अंतर ज्ञात कीजिए।

- A) 145
- B) 120

C) 135

D) 95

E) 105

प्रश्न 17: दिए गए तीन कोचों में लड़कों की औसत संख्या ज्ञात कीजिए।

A) 100

B) 120

C) 135

D) 80

E) 105

प्रश्न 18: C1 में व्यक्तियों की कुल संख्या B1 की तुलना में कितने प्रतिशत अधिक/कम है?

A) 40%

B) 60%

C) 35%

D) 60%

E) 44%

प्रश्न 19: A1 और B1 में लड़कियों की संख्या का 40% ज्ञात कीजिए।

A) 45

B) 58

C) 64

D) 72

E) 50

प्रश्न 20: A1 और D1 में व्यक्तियों की कुल संख्या का अनुपात क्रमशः 7:5 है। यदि D1 में 45% व्यक्ति (लड़के + लड़कियां) लड़के हैं, तो D1 में लड़कियों की संख्या ज्ञात कीजिए।

A) 150

B) 100

C) 140

D) 110

E) 90

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प्रश्न 21: प्रश्न में, दो समीकरण I और II दिए गए हैं। आपको x और y के बीच सही संबंध स्थापित करने और सही विकल्प चुनने के लिए दोनों समीकरणों को हल करना होगा।

I. $x^2 = 144$

II. $y^2 - 12y = 0$

A) $x > y$

B) $x < y$

C) $x = y$ या सम्बन्ध स्थापित नहीं किया जा सकता

D) $x \geq y$

E) $x \leq y$

प्रश्न 22: प्रश्न में, दो समीकरण I और II दिए गए हैं। आपको x और y के बीच सही संबंध स्थापित करने और सही विकल्प चुनने के लिए दोनों समीकरणों को हल करना होगा।

I. $x^2 - 2x - 8 = 0$

II. $2y^2 + 13y + 21 = 0$

A) $x > y$

B) $x < y$

C) $x = y$ या सम्बन्ध स्थापित नहीं किया जा सकता

D) $x \geq y$

E) $x \leq y$

प्रश्न 23: प्रश्न में, दो समीकरण I और II दिए गए हैं। आपको x और y के बीच सही संबंध स्थापित करने और सही विकल्प चुनने के लिए दोनों समीकरणों को हल करना होगा।

I. $x^2 + 27x + 180 = 0$

II. $y^2 + 17y + 72 = 0$

A) $x > y$

B) $x < y$

C) $x = y$ या सम्बन्ध स्थापित नहीं किया जा सकता

D) $x \geq y$

E) $x \leq y$

प्रश्न 24: प्रश्न में, दो समीकरण I और II दिए गए हैं। आपको x और y के बीच सही संबंध स्थापित करने और सही विकल्प चुनने के लिए दोनों समीकरणों को हल करना होगा।

I. $x^2 + 11x + 28 = 0$

II. $y^2 + 6y + 8 = 0$

A) $x > y$

B) $x < y$

C) $x = y$ या सम्बन्ध स्थापित नहीं किया जा सकता

D) $x \geq y$

E) $x \leq y$

प्रश्न 25: प्रश्न में, दो समीकरण I और II दिए गए हैं। आपको x और y के बीच सही संबंध स्थापित करने और सही विकल्प चुनने के लिए दोनों समीकरणों को हल करना होगा।

I. $x^2 - 4x + 4 = 0$

II. $25y^2 - 55y + 28 = 0$

A) $x > y$

B) $x < y$

C) $x = y$ या सम्बन्ध स्थापित नहीं किया जा सकता

D) $x \geq y$

E) $x \leq y$

प्रश्न 26: एक मिश्रण में $(x + 40)$ litres दूध और शेष पानी है। यदि मिश्रण की कुल मात्रा $(2x + 40)$ litres है और मिश्रण में दूध और पानी की मात्रा का अनुपात 3:2 है, तो 'x' का मान ज्ञात करें।

A) 80

B) 48

C) 100

D) 60

E) इनमें से कोई नहीं

प्रश्न 27: 'A' और 'B' मिलकर एक काम को 40 दिनों में पूरा कर सकते हैं जबकि 'B' और 'C' मिलकर उसी काम को 60 दिनों में पूरा कर सकते हैं। यदि 'A' उस पर 12 दिनों तक काम करता है, 'B' उस पर 40 दिनों तक काम करता है और 'C' शेष काम को 56 दिनों में समाप्त करता है तो अकेले 'C' द्वारा पूरे काम को समाप्त करने में लिया गया समय ज्ञात कीजिए।

A) 90 days

B) 120 days

C) 60 days

D) 75 days

E) इनमें से कोई नहीं

प्रश्न 28: एक बैग में 'x' blue, 'x + 4' red और 'x + 12' green balls हैं। एक red ball निकालने की प्रायिकता एक blue ball निकालने की प्रायिकता से $\frac{1}{13}$ अधिक है। यदि यादृच्छिक रूप से दो balls निकाली जाती हैं, तो एक red और एक green ball निकालने की प्रायिकता कितनी है:

A) $\frac{157}{221}$ B) $\frac{64}{221}$ C) $\frac{32}{221}$ D) $\frac{128}{221}$

E) इनमें से कोई नहीं

प्रश्न 29: एक बैग में 20 पैसे के सिक्के, 50 पैसे के सिक्के और Re. 1 सिक्के क्रमशः 185:49:9 के अनुपात में हैं। यदि बैग में मौजूद कुल राशि Rs. 282 है, तो थैले में 50 पैसे के सिक्कों की संख्या ज्ञात कीजिए।

- A) 196
- B) 98
- C) 392
- D) 740
- E) इनमें से कोई नहीं

प्रश्न 30: A और B ने क्रमशः Rs. 4000 और Rs. 3000 का निवेश कर एक कारोबार शुरू किया | 5 महीने बाद, 'A' ने अपनी निवेश में से 50% की निकासी की | यदि 'A' का वार्षिक लाभ Rs. 3400 है तो 'B' का वार्षिक लाभ ज्ञात करें |

- A) Rs. 8000
- B) Rs. 4000
- C) Rs. 3200
- D) Rs. 3600
- E) इनमें से कोई नहीं

प्रश्न 31: 162 km की दूरी तय करने के लिए एक बस द्वारा लिया गया समय, 216 km की दूरी तय करने में कार द्वारा लिए गए समय से 45 minutes अधिक है। यदि कार की गति बस की गति से 12 km/h अधिक है, तो बस द्वारा 4 hours में तय की गई दूरी ज्ञात कीजिए।

- A) 96 km
- B) 72 km
- C) 144 km
- D) 192 km
- E) इनमें से कोई नहीं

प्रश्न 32: एक निश्चित दर पर निवेश की गयी कुछ राशि दो वर्ष के अंत में Rs. 2967 का चक्रवृद्धि ब्याज देती है और वही राशि पांच वर्ष के अंत में Rs. 6900 साधारण ब्याज प्रदान करती है यदि ब्याज की समान दर पर निवेश किया जाता है। निवेश की गई राशि कितनी है?

- A) Rs. 8400
- B) Rs. 9200

- C) Rs. 9000
- D) Rs. 9600
- E) इनमें से कोई नहीं

प्रश्न 33: एक छात्रावास में 250 छात्र हैं। यदि छात्रों की संख्या में 50 की वृद्धि की जाती है, तो मेस के कुल खर्च में Rs. 200 की वृद्धि होती है जबकि प्रति व्यक्ति औसत व्यय 1 से कम हो जाता है। मेस का वास्तविक व्यय ज्ञात कीजिए?

- A) Rs. 2500
- B) Rs. 2800
- C) Rs. 1600
- D) Rs. 2000
- E) इनमें से कोई नहीं

प्रश्न 34: एक दुकानदार एक bulb को क्रय मूल्य से 40% अधिक अंकित करता है और फिर 20% की छूट देकर उसे बेच देता है। यदि उसने bulb को Rs. 50 कम में खरीदा होता और इसे Rs. 20 अधिक में बेच दिया तो उसे 50% का लाभ होता। Bulb का वास्तविक क्रय मूल्य ज्ञात कीजिए।

- A) Rs. 250
- B) Rs. 100
- C) Rs. 350
- D) Rs. 200
- E) इनमें से कोई नहीं

प्रश्न 35: अभी से 6 वर्ष बाद, 'A' और 'B' की आयु का अनुपात क्रमशः 6:7 होगा। यदि 'B' की वर्तमान आयु 'A' की वर्तमान आयु से 20% अधिक है तो 'B' की वर्तमान आयु ज्ञात कीजिए।

- A) 30 years
- B) 36 years
- C) 32 years
- D) 28 years
- E) इनमें से कोई नहीं

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1) - A)	2) - A)	3) - A)	4) - B)	5) - A)	6) - E)
7) - A)	8) - D)	9) - D)	10) - E)	11) - A)	12) - D)
13) - C)	14) - B)	15) - A)	16) - C)	17) - A)	18) - E)
19) - B)	20) - D)	21) - C)	22) - A)	23) - B)	24) - E)
25) - A)	26) - A)	27) - B)	28) - B)	29) - A)	30) - D)
31) - A)	32) - B)	33) - A)	34) - A)	35) - B)	

Solution 1: A)

Days	Total number of people who visited the clinic	Number of people with BMI less than 60	Number of people with BMI greater than or equal to 60 but less than or equal to 80	Number of people with BMI greater than 80
Monday	432	144	120	$432 - 144 - 120 = 168$
Tuesday	384	120	96	$384 - 120 - 96 = 168$
Wednesday	600	192	288	$600 - 192 - 288 = 120$
Thursday	480	216	168	$480 - 216 - 168 = 96$
Friday	576	360	120	$576 - 360 - 120 = 96$

Desired Ratio = $(144 + 192):96 = 336:96 = 7:2$

Hence, option a.

Solution 2: A)

Total number of people who visited the clinic on Tuesday and Thursday together = $384 + 480 = 864$

Total number of people with BMI greater than or equal to 60 but less than or equal to 80 on Monday and Friday together = $120 + 120 = 240$

Desired Percentage = $[(864 - 240)/240] \times 100 = 260\%$

Hence, option a.

Solution 3: A)

Desired Average = $(168 + 120)/2 = 144$

Hence, option a.

Solution 4: B)

Total number of people who visited the hospital on Saturday = $0.25 \times (600 + 480) = 270$

Hence, option b.

Solution 5: A)

Desired difference = $168 - 96 = 72$

Hence, option a.

Solution 6: E)

$136 + 6 \times 1 = 142$

$142 - 6 \times 3 = 124$

$124 + 6 \times 5 = 154$

$154 - 6 \times 7 = 112$

$112 + 6 \times 9 = 166$

Hence, option e.

Solution 7: A)

$432 + 18 = 450$

$450 - 7 = 443$

$$443 + 18 = 461$$

$$461 - 7 = 454$$

$$454 + 18 = 472$$

Hence, option a.

Solution 8: D)

Hence, option d.

Solution 9: D)

$$48 + 3^2 = 57$$

$$57 + 5^2 = 82$$

$$82 + 7^2 = 131$$

$$131 + 9^2 = 212$$

$$212 + 11^2 = 333$$

Hence, option d.

Solution 10: E)

Hence, option e.

Solution 11: A)

For Company A:

Let, Number of workers working in evening shift be 'x'

So, Number of workers working in morning shift = '1.2x'

Therefore, $x + 1.2x = 924$

Or, $2.2x = 924$

$$\text{Or, } x = 924/2.2 = 420$$

Number of workers working in evening shift = 420

And, Number of workers working in morning shift = 504

Similarly,

Companies	Number of workers working in evening shift	Number of workers working in morning shift
A	420	504
B	$1380/2.30 = 600$	$1380 - 600 = 780$
C	$816/2.125 = 384$	$816 - 384 = 432$
D	$(6/13) \times 1040 = 480$	$1040 - 480 = 560$
E	$640/2.56 = 250$	$640 - 250 = 390$

Total number of workers working in all five companies together = $924 + 1380 + 816 + 1040 + 640 = 4800$

$$\text{Desired difference} = [(924 - 640)/4800] \times 360 = 21.3^\circ$$

Hence, option a.

Solution 12: D)

$$\text{Desired ratio} = 504:384 = 21:16$$

Hence, option d.

Solution 13: C)

Total number of workers working in morning shift in company 'D' and 'E' together = $560 + 390 = 950$

$$\text{Desired Percentage} = [(950 - 600)/600] \times 100 = 58.33\%$$

Hence, option c.

Solution 14: B)

Total number of workers working in company 'F' = $1.75 \times 420 + 0.625 \times 432 = 1005$

Hence, option b.

Solution 15: A)

$$\text{Desired Percentage} = \{250/(420 + 600 + 480)\} \times 100 = (250/1500) \times 100 = 16.67\%$$

Hence, option a.

Solution 16: C)

Let the number of boys in A1 and B1 be $8x$ and $5x$, respectively

$$\text{Total number of people in B1} = 5x/0.8 = 6.25x$$

$$\text{Number of girls in B1} = 6.25x - 5x = 1.25x$$

$$\text{Number of girls in C1} = 1.2 \times 1.25x = 1.5x$$

$$\text{Number of boys in C1} = 0.25 \times 8x = 2x$$

$$\text{Total number of people in C1} = 2x + 1.5x = 3.5x$$

$$\text{Total number of people in A1} = 4 \times 3.5x = 14x$$

$$\text{Number of girls in A1} = 14x - 8x = 6x$$

$$\text{Therefore, } 6x = 120$$

$$\text{Or, } x = 20$$

Therefore,

Coach	Number of boys	Number of girls	Total number of people
A1	$8x = 160$	$6x = 120$	$14x = 280$
B1	$5x = 100$	$1.25x = 25$	$6.25x = 125$
C1	$2x = 40$	$1.5x = 30$	$3.5x = 70$

$$\text{Required difference} = 160 - 25 = 135$$

Hence, option c.

Solution 17: A)

$$\text{Required average} = (160 + 40 + 100)/3 = 100$$

Hence, option a.

Solution 18: E)

$$\text{Required percentage} = \{(125 - 70)/125\} \times 100 = 44\%$$

Hence, option e.

Solution 19: B)

$$\text{Required number of girls} = 0.4 \times (120 + 25) = 58$$

Hence, option b.

Solution 20: D)

$$\text{Total number of people in D1} = 280 \times (5/7) = 200$$

$$\text{Number of girls in D1} = 0.55 \times 200 = 110$$

Hence, option d.

Solution 21: C)

From I:

$$x^2 = 144$$

$$x = -12, 12$$

From II:

$$y^2 - 12y = 0$$

$$y(y - 12) = 0$$

$$y = 0, 12$$

X	Relation	y
-12	<	0
-12	<	12
12	>	0
12	=	12

So, the relationship between x and y cannot be established.

Hence, option c.

Solution 22: A)

From I:

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

$$x^2 + 2x - 4x - 8 = 0$$

$$x(x + 2) - 4(x + 2) = 0$$

$$(x + 2)(x - 4) = 0$$

$$x = -2, 4$$

From II:

$$2y^2 + 13y + 21 = 0$$

$$2y^2 + 6y + 7y + 21 = 0$$

$$2y(y + 3) + 7(y + 3) = 0$$

$$(2y + 7)(y + 3) = 0$$

$$y = -3, -7/2$$

x	Relation	y
-2	>	-3
-2	>	-7/2
4	>	-3
4	>	-7/2

So, $x > y$

Hence, option a.

Solution 23: B)

From I:

$$x^2 + 27x + 180 = 0$$

$$x^2 + 12x + 15x + 180 = 0$$

$$x(x + 12) + 15(x + 12) = 0$$

$$(x + 12)(x + 15) = 0$$

$$x = -12, -15$$

From II:

$$y^2 + 17y + 72 = 0$$

$$y^2 + 8y + 9y + 72 = 0$$

$$y(y + 8) + 9(y + 8) = 0$$

$$(y + 8)(y + 9) = 0$$

$$y = -8, -9$$

X	Relation	y
-12	<	-8
-12	<	-9
-15	<	-8
-15	<	-9

So, $x < y$

Hence, option b.

Solution 24: E)

From I:

$$x^2 + 11x + 28 = 0$$

$$x^2 + 7x + 4x + 28 = 0$$

$$x(x + 7) + 4(x + 7) = 0$$

$$(x + 7)(x + 4) = 0$$

$$x = -7, -4$$

From II:

$$y^2 + 6y + 8 = 0$$

$$y^2 + 4y + 2y + 8 = 0$$

$$y(y + 4) + 2(y + 4) = 0$$

$$(y + 4)(y + 2) = 0$$

$$y = -4, -2$$

X	Relation	y
-7	<	-4

-7	<	-2
-4	=	-4
-4	<	-2

So, $x \leq y$

Hence, option e.

Solution 25: A)

From I:

$$x^2 - 4x + 4 = 0$$

$$x^2 - 2x - 2x + 4 = 0$$

$$x(x - 2) - 2(x - 2) = 0$$

$$(x - 2)(x - 2) = 0$$

$$x = 2, 2$$

From II:

$$25y^2 - 55y + 28 = 0$$

$$25y^2 - 35y - 20y + 28 = 0$$

$$5y(5y - 7) - 4(5y - 7) = 0$$

$$(5y - 4)(5y - 7) = 0$$

$$y = 4/5, 7/5$$

X	Relation	y
2	>	4/5
2	>	7/5

So, $x > y$

Hence, option a.

Solution 26: A)

Quantity of water in the mixture = $2x + 40 - (x + 40) = x$ litres

According to the question,

$$\{(x + 40)/x\} = 3/2$$

$$\text{Or, } 2x + 80 = 3x$$

$$\text{Or, } x = 80$$

Hence, option a.

Solution 27: B)

Let total work be 120 units

$$\text{Efficiency of (A + B) = } 120/40 = 3 \text{ units/day}$$

$$\text{Efficiency of (B + C) = } 120/60 = 2 \text{ unit/day}$$

$$\text{Amount of work done by (A + B) in 12 days = } 12 \times 3 = 36 \text{ units}$$

$$\text{Amount of work done by (B + C) in 28 days = } 28 \times 2 = 56 \text{ units}$$

$$\text{Remaining work = } 120 - 36 - 56 = 28 \text{ units}$$

$$\text{Therefore, efficiency of 'C' = } 28/28 = 1 \text{ unit/day}$$

$$\text{So time taken by 'C' alone to complete the work = } 120 \text{ days}$$

Hence, option b.

Solution 28: B)

$$\text{Total number of balls in the bag = } x + x + 4 + x + 12 = 3x + 16$$

According to question;

$$\{(x + 4)/(3x + 16)\} - \{x/(3x + 16)\} = 1/13$$

$$\text{Or, } 4/(3x + 16) = 1/13$$

$$\text{Or, } 3x + 16 = 52$$

$$\text{Or, } 3x = 36$$

$$\text{Or, } x = 12$$

$$\text{Number of red balls = } 12 + 4 = 16$$

$$\text{Number of green balls = } 12 + 12 = 24$$

Total number of balls = $3 \times 12 + 16 = 52$

Desired probability = $\frac{{}^{16}C_1 \times {}^{24}C_1}{{}^{52}C_2} = \frac{(16 \times 24 \times 2)}{(52 \times 51)} = \frac{64}{221}$

Hence, option b.

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Solution 29: A)

Since, ratio of 20-paise, 50-paise and Re. 1 coins in the bag = 185:49:9

So, ratio of amount present in the form of 20-paise, 50-paise and Re. 1 coins = $(185/5):(49/2):(9/1)$
= $37:(49/2):9 = 74:49:18$

Let amount present in the form of 20-paise, 50-paise and Re. 1 coins be Rs. 74x, Rs. 49x and Rs. 18x respectively

So, $74x + 49x + 18x = 282$

Or, $141x = 282$

Or, $x = 2$

Amount present in the form of 50-paise coins = $49 \times 2 = \text{Rs. } 98$

So, number of 50-paise coins = $98 \times 2 = 196$

Hence, option a.

Solution 30: D)

Ratio of profit share of 'A' to 'B'

= $\{(4000 \times 5) + (0.5 \times 4000 \times 7)\}:(3000 \times 12) = 17:18$

Therefore, profit share of 'B' = $3400 \times (18/17) = \text{Rs. } 3600$

Hence, option d.

Solution 31: A)

Let speed of bus is 'x' km/h

So, speed of car = 'x+ 12' km/h

According to question;

$$\{162/x\} - \{216/(x + 12)\} = 45/60 = 3/4$$

$$\text{Or, } 54/x - \{72/(x + 12)\} = 1/4$$

$$\text{Or, } 4 \times \{54(x + 12) - 72x\} = x(x + 12)$$

$$\text{Or, } 216x + 2592 - 288x = x^2 + 12x$$

$$\text{Or, } x^2 + 84x - 2592 = 0$$

$$\text{Or, } x^2 + 108x - 24x - 2592 = 0$$

$$\text{Or, } x(x + 108) - 24(x + 108) = 0$$

$$\text{Or, } (x - 24)(x + 108) = 0$$

$$\text{Or, } x = 24 \text{ or } x = -108$$

So, speed of bus = 24 km/h

Desired distance = $24 \times 4 = 96$ km.

Hence, option a.

Solution 32: B)

Let principal amount is Rs. 'P'

Simple interest for 1 year = $6900/5 = \text{Rs. } 1380$

Simple interest for 2 years = $1380 \times 2 = \text{Rs. } 2760$

Difference between compound Interest and Simple Interest for 2 years = $2967 - 2760 = \text{Rs. } 207$

Desired interest = $(207/1380) \times 100 = 15\%$

So, $P = 1380/0.15 = \text{Rs. } 9200$

Hence, option b.

Solution 33: A)

Let the average expenditure of the mess be Rs. x

According to the question,

$$\{(250x + 200)/(250 + 50)\} = (x - 1)$$

$$\text{Or, } 250x + 200 = 300x - 300$$

$$\text{Or, } 50x = 500$$

$$\text{Or, } x = 10$$

Therefore, original expenditure of the mess = $250x = \text{Rs. } 2500$

Hence, option a.

Solution 34: A)

Let the cost price of the article be Rs. x

Therefore, marked price of the article = Rs. $1.4x$

Selling price of the article = $0.8 \times 1.4x = \text{Rs. } 1.12x$

According to the question,

New cost price of the article = Rs. $(x - 50)$

New selling price of the article = Rs. $(1.12x + 20)$

Therefore,

$$1.5(x - 50) = 1.12x + 20$$

$$\text{Or, } 1.5x - 75 = 1.12x + 20$$

$$\text{Or, } 0.38x = 95$$

$$\text{Or, } x = 95/0.38 = 250$$

Therefore, CP of the bulb = Rs. 250

Hence, option a.

Solution 35: B)

Let the present age of 'A' be ' x ' years

Therefore, present age of 'B' = $1.2x$ years

According to the question,

$$\{(1.2x + 6)/(x + 6)\} = 7/6$$

$$\text{Or, } 7.2x + 36 = 7x + 42$$

$$\text{Or, } 0.2x = 6$$

$$\text{Or, } x = 30$$

Therefore, present age of 'B' = $1.2x = 36$ years

Hence, option b.

IBPS PO Prelims English Language

Question 1: In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If the sentence is free from error, select 'No Error'

Scientists are saying that (A)/ our dependence on smartphones (B)/ to remember important information (C)/ could be harmed our memories. (D)

- A) A
- B) B
- C) C
- D) D
- E) No error

Question 2: In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If the sentence is free from error, select 'No Error'

Gen Z has often been called (A)/ the irresponsible generation, one that will choose (B)/ fun on fortitude but the pandemic (C)/ has birthed a whole new army of Indian Gen Z entrepreneurs.(D)

- A) A
- B) B
- C) C

D) D

E) No error

Question 3: In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If the sentence is free from error, select 'No Error'

In today's age of mass production and consumption, (A)/ buyers are on the hunt for something (B)/ unique that cannot be bought off (C)/ the racks off fast fashion outlets. (D)

A) A

B) B

C) C

D) D

E) No error

Question 4: In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If the sentence is free from error, select 'No Error'

Eighty-three percent of people polled (A)/ by the ITRC said they were unable (B)/ to rent in an apartment or find (C)/ housing as a result of identity theft. (D)

A) A

B) B

C) C

D) D

E) No error

Question 5: In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If the sentence is free from error, select 'No Error'

Climate change is an intensifying reality (A)/ for the marine species that (B)/ live near Vancouver and the people (C)/ who depends on them. (D)

A) A

- B) B
- C) C
- D) D
- E) No error

Question 6: In the question below, a sentence is given with four words highlighted in bold. One of these four words may either be wrongly spelled or inappropriate in the context of the sentence. Find out the word, which is wrongly spelled or inappropriate, if any. If all the four words are correctly spelled and appropriate in the context of the sentence, mark (E) as your answer.

Though the **existence** of dinosaurs at the poles has been discussed for decades, we have never collected **definitive** evidence that they **inhibited** these areas during **prolonged** periods of freezing temperatures.

- A) existence
- B) definitive
- C) inhibited
- D) prolonged
- E) No improvement

Question 7: In the question below, a sentence is given with four words highlighted in bold. One of these four words may either be wrongly spelled or inappropriate in the context of the sentence. Find out the word, which is wrongly spelled or inappropriate, if any. If all the four words are correctly spelled and appropriate in the context of the sentence, mark (E) as your answer.

An **entrepreneur** with no **empathy** for her customers is **unlikely** to understand what goods and services her customers want and will not stay in business for **long**.

- A) entrepreneur
- B) empathy
- C) unlikely
- D) long
- E) Non improvement

Question 8: In the question given below, a sentence is given with one blank, followed by five options, each having a word which may or may not fit in the blank. From the given options, choose the one that gives the correct word that fits in the blank.

In Tanzania, where myths and superstition _____ people with albinism, karate classes are boosting their confidence.

- A) alleviate
- B) enshrine
- C) anticipate
- D) endanger
- E) eschew

Question 9: In the question given below, a sentence is given with one blank, followed by five options, each having a word which may or may not fit in the blank. From the given options, choose the one that gives the correct word that fits in the blank.

Whether you, yourself, live in just one of an endless _____ of alternate universes is a topic of actual debate among physicists.

- A) accrue
- B) array
- C) alley
- D) allay
- E) astray

Question 10: In the question given below, a sentence is given with one blank, followed by five options, each having a word which may or may not fit in the blank. From the given options, choose the one that gives the correct word that fits in the blank.

_____ of cold depends not only on temperature, but also on wind and humidity.

- A) perseverance
- B) persuasion
- C) presumption

D) predilection

E) perception

Question 11: In the question given below, a sentence is given with one blank, followed by five options, each having a word which may or may not fit in the blank. From the given options, choose the one that gives the correct word that fits in the blank.

_____ human activity has reduced both cultural and biological diversity.

A) foreboding

B) prudent

C) frantic

D) palliative

E) recourse

Question 12: In the question given below, a sentence is given with one blank, followed by five options, each having a word which may or may not fit in the blank. From the given options, choose the one that gives the correct word that fits in the blank.

Recently, the Reserve Bank of India announced measures to boost inflows of foreign exchange and to _____ the slide of the rupee.

A) stem

B) strive

C) startle

D) extoll

E) confer

Question 13: In the question below, a sentence is given with four words numbered and highlighted in bold. From the options, choose the pair of words that should be interchanged in order to make the sentence grammatically and meaningfully correct.

If your mind **(A) boosts** into **(B) conjuring** when your head hits the pillow, **(C) overdrive** mountains from molehills, no wonder you have **(D) difficulty** getting to sleep.

A) A-B

- B) A-C
- C) B-D
- D) B-C
- E) No rearrangement required

Question 14: In the question below, a sentence is given with four words numbered and highlighted in bold. From the options, choose the pair of words that should be interchanged in order to make the sentence grammatically and meaningfully correct.

An enormous volcanic eruption **(A) altered** huge amounts of gases that geologists suspect **(B) spewed** the global climate and **(C) led** to the extinction of nearly 80 percent of life on the planet though the dinosaurs somehow survived and later **(D) thrived**.

- A) A-B
- B) A-C
- C) B-C
- D) B-D
- E) No rearrangement required.

Question 15: In the question below, a sentence is given with four words numbered and highlighted in bold. From the options, choose the pair of words that should be interchanged in order to make the sentence grammatically and meaningfully correct.

The **(A) ancient** Mayan ancestors **(B) adding** the cocoa fruit and mixed it with water or wine, **(C) pounded** all manner of spices such as cinnamon, vanilla and even red pepper to the **(D) viscous** mixture.

- A) A-B
- B) B-C
- C) C-D
- D) A-D
- E) No rearrangement required

Question 16: In the question below, a sentence is given with four words numbered and highlighted in bold. From the options, choose the pair of words that should be interchanged in order to make the sentence grammatically and meaningfully correct.

The **(A) enhanced (B) crevices** of puffer fish allows them to turn quickly when chasing small prey, or to pick up **(C) fallen** pieces of food in narrow **(D) manoeuvrability**.

- A) A-B
- B) A-C
- C) B-D
- D) C-D
- E) No rearrangement required

Question 17: In the question below, a sentence is given with four words numbered and highlighted in bold. From the options, choose the pair of words that should be interchanged in order to make the sentence grammatically and meaningfully correct.

Archimedes **(A) bequeathed** a sculpture of the sphere **(B) inscribed** in the cylinder to be placed on his tomb, which was **(C) cited** by Cicero, who **(D) visited** Syracuse two centuries later.

- A) A-B
- B) A-C
- C) B-C
- D) A-D
- E) No rearrangement required

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PRACTICE **MOCK**

Directions: Read the following passage carefully and answer the questions that follow.

Researchers led by those from the National Centre of Biological Sciences, Tata Institute of Fundamental Research, Bengaluru (NCBSTIFR), have found a new pathway that regulates nitrate absorption in plants.

The gene MADS27, which regulates nitrate absorption, root development and stress tolerance, is activated by the microRNA, miR444, therefore offers a way to control these properties of the plant.

The researchers studied this mechanism in both rice (monocot) and tobacco (dicot) plants.

Nitrogen is one of the most important macronutrients needed for development of a plant. It is a part of chlorophyll, amino acids and nucleic acids, among others. It is mostly sourced from the soil where it is mainly absorbed in the form of nitrates and ammonium by the roots. Nitrates also play a role in controlling genome wide gene expression that in turn regulates root system architecture, flowering time, leaf development, etc. Thus, while a lot of action takes place in the roots to absorb and convert nitrogen into useful nitrates, the absorbed nitrates in turn regulate plant development apart from being useful as a macronutrient. So, the presence of nitrates is important for plant development and also for grain production.

However, the overuse of nitrates in fertilisers, for instance, can lead to the dumping of nitrates in the soil which leads to accumulation of nitrates in water and soil. This accumulation adds to soil and water pollution and increased contribution to greenhouse gases. To avoid this, there should be optimal use of nitrates. Also, since the whole process of nitrate absorption takes place in the roots, a well developed root system is needed for this to take place **optimally**. At one level, it is known that the hormone auxin is responsible for well developed roots across all plants.

A number of genes are known to help with auxin production, improved nitrate transport and assimilation in plants. In addition to this, several gene regulatory switches that regulate nitrate absorption and root development, such as the microRNA, miR444, are known in monocot plants, such as rice. The microRNA 'miR444' is specific to monocots. When this is not made, its target, MADS27, is produced in higher abundance, which in turn improves biosynthesis and transport of the hormone auxin, which is key for root development and its branching. This regulatory miR444 switch is known to turn off at least five genes called MADS box transcription of genes. The speciality of the MADS box transcription factors is that they function like switch boxes of their own. They bind to their favourite specific DNA sequences and they switch the neighbouring genes "on."

The researchers have studied a target gene of miR444 called MADS27, a transcription factor which hasn't been studied well before. They have found that this transcription factor has a three pronged effect on the plant. First, it regulates nitrate absorption by switching "on" proteins involved in this process. Second, it leads to better development of the roots by regulating auxin hormone production and transport. Finally, and somewhat surprisingly to the researchers, it helps in the abiotic stress tolerance by keeping the main stress player proteins "on". Wanting to test this in dicot plants as well, the researchers carried out the study on tobacco plants as well. According to the researchers, the gene MADS27 appears to be an excellent candidate to modify, in order to develop nitrogen use efficiency, which is something that helps the plant absorb more nitrates, and to engineer a biotic stress tolerance. Tinkering MADS27 expression by genome

editing is the next step, so that the modified plants are acceptable to use directly. The larger goal of this study is to understand how epigenetics plays a role in regulating expression of such important genes.

Question 18: As per the passage, what is the function of miR444?

1. It provides a way for plants to perform nitrogen fixation.
2. It activates the gene MADS27.
3. It offers a way to control nitrate absorption, root development and stress tolerance.

A) Only 1

B) Only 2

C) Only 1 and 2

D) Only 2 and 3

E) All 1, 2 and 3

Question 19: As per the passage, which of the following is NOT an advantage of nitrogen in the development of plants?

- A) It controls genome wide gene expression.
- B) It is a part of chlorophyll, amino acids and nucleic acids, among others.
- C) It is important for grain production.
- D) It indirectly regulates root system architecture, flowering time, leaf development, etc.
- E) None of the above.

Question 20: As per the passage, what happens if miR444 is not produced?

1. It improves biosynthesis and transport of the hormone auxin.
2. It reduces gene expression.
3. MADS27 is produced in abundance.

A) Only 1

B) Only 3

- C) Only 1 and 2
- D) Only 1 and 3
- E) All 1, 2 and 3

Question 21: What is the primary goal behind the study of MADS27?

- A) To develop nitrogen use efficiency
- B) To understand how epigenetics plays a role in regulating expression of such important genes
- C) To take genome editing to the next step
- D) To explore how miR444 can evolve as the next generation gene editing tool
- E) None of the above

Question 22: Which of the following will be a suitable title for this passage?

- A) Study of transcription factors
- B) New pathway to regulate nitrogen absorption in plants
- C) Drawbacks of the use of nitrates in fertiliser
- D) Role of nitrates in plants
- E) None of the above

Question 23: Which of the following is responsible for well developed roots across all plants?

- A) microRNA
- B) Nitrate
- C) MADS27
- D) miR444
- E) None of the above

Question 24: Which of the following is opposite in meaning to the word '**optimally**' as used in the passage?

- A) ideally

- B) flawlessly
- C) impeccably
- D) immaculately
- E) inadequately

Question 25: In the question given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

the organism's pragmatic attempt (A)/ to get maximum grip on (B) imagination is part of (C)/ its changing environment (D)

- A) ADBC
- B) BCAD
- C) CABD
- D) DABC
- E) No rearrangement required

Question 26: In the question given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

that we can achieve our collective goals (A)/ so as to pick ourselves off (B)/ the sofa to work together (C) each of us needs to believe (D)

- A) ADBC
- B) BCAD
- C) DBAC
- D) DABC
- E) No rearrangement required

Question 27: In the question given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

the theory that the acquisition of the mitochondrion (A)/ some don't see a reason to abandon (B)/ the rapid evolution of eukaryotes (C)/ was the spark that ignited (D)

- A) ADCB
- B) BCDA
- C) BADC
- D) ADBC
- E) No rearrangement required

Question 28: In the question given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

when researchers took advantage of today's cheap gene (A) / the mystery genes turned up in the last decade (B)/ sequencing technology to explore the genomes (C)/ of a wide range of eukaryotes (D)

- A) ACDB
- B) BCAD
- C) BACD
- D) ACBD
- E) No rearrangement required

Question 29: In the question given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

communicating with each other over large distances (A)/ is different from all the other organs (B)/ is that its function is mediated through cells (C)/ the thing about the brain that (D)

- A) DACB
- B) DBCA
- C) ABCD
- D) DCAB
- E) No rearrangement required

Question 30: In the question given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

communicating with each other over large distances (A)/ is different from all the other organs (B)/ is that its function is mediated through cells (C)/ the thing about the brain that (D)

- A) DACB
- B) DBCA
- C) ABCD
- D) DCAB
- E) No rearrangement required

ANSWER KEYS and SOLUTIONS:

1) - D)	2) - C)	3) - D)	4) - C)	5) - D)	6) - C)
7) - A)	8) - D)	9) - B)	10) - E)	11) - C)	12) - A)
13) - D)	14) - A)	15) - B)	16) - C)	17) - E)	18) - D)
19) - E)	20) - D)	21) - B)	22) - B)	23) - E)	24) - E)
25) - C)	26) - D)	27) - C)	28) - C)	29) - B)	

Solution 1: D)

In D, replace second form verb HARMED with present continuous form verb HARMING to fit in COULD + BE + VERB construction.

Solution 2: C)

In C, replace the preposition ON with OVER as the latter indicates something being given preference above something else (in this case, fun being preference in place of fortitude). Thus, C is the right answer.

Solution 3: D)

In D, replace the preposition OFF with OF as the former indicates someone/something is away from something while the latter indicates a relationship between two things (in this case, it refers to racks belonging to fast fashion outlets). Thus, D is the right answer.

Solution 4: C)

In C, remove the preposition IN after RENT as RENT means to hire; the use of IN here is redundant. Thus, C is the right answer.

Solution 5: D)

In D, replace the third person singular verb DEPENDS with base form verb DEPEND to agree with the plural subject THE PEOPLE. Thus, D is the right answer.

Solution 6: C)

The sentence talks about the lack of evidence regarding whether the dinosaurs lived at the poles. Replace INHIBITED (prevented) with INHABITED (lived). Thus, C is the right answer.

Solution 7: A)

The sentence discusses what a business person with no empathy is supposed to do. A is incorrectly spelled; the correct spelling of the word is ENTREPRENEUR. Thus, A is the right answer.

Solution 8: D)

We need a verb to link the subject MYTHS AND SUPERSTITION with the object PEOPLE. The sentence talks about karate classes helping the people diagnosed with albinism in Tanzania in contrast to myths and superstitions which place them in danger. ENDANGER (put at risk) will fit here, which makes D the right answer.

Alleviate - reduce the intensity of something. Enshrine - place in an appropriate place. Anticipate - wait excitedly. Eschew - avoid.

Solution 9: B)

We need a noun to be modified by the adjective ENDLESS. The sentence talks about a debate among physicists regarding whether we live in one of an infinite number of alternate universes. ARRAY (number of things considered as one) will fit here contextually, which makes B the right answer.

Accrue (verb) - increase in amount. Alley - a passageway. Allay (verb) - reduce. Astray (adjective) - wrong or faulty.

Solution 10: E)

We need a noun to form the subject of the verb DEPENDS. The sentence tells us that the feeling of cold depends on temperature, wind and humidity. PERCEPTION (ability to understand something) will fit here contextually. Thus, E is the right answer.

Perseverance - persistence. Persuasion - act of influencing. Presumption - assumption. Predilection - habitual attraction.

Solution 11: C)

We need an adjective to modify the noun ACTIVITY. The sentence tells us that too much human activity has reduced both cultural and biological diversity. FRANTIC (excessive activity) will fit here, which makes C the right answer.

Foreboding - feeling that something bad will happen. Prudent - showing thought for the future. Palliative - calming. Recourse (noun) - option.

Solution 12: A)

We need a verb in base form to fit in TO + VERB infinitive construction. The sentence talks about RBI having announced measures to boost inflows of foreign exchange and stop the sliding of the rupee. STEM (to stop the progress of something) will fit here, which makes A the right answer.

Strive - try hard. Startle - surprise. Extoll - praise. Confer - give ownership.

Solution 13: D)

The sentence tells us that if our mind boosts (gets pushed) into overdrive (a state of great activity) when our head hits the pillow, conjuring (bringing to mind) different images, then we have difficulty (problem) getting to sleep. We need to interchange the nouns CONJURING and OVERDRIVE as we need a noun (OVERDRIVE) to follow the preposition INTO and a present participle form verb (CONJURING) to join the two clauses. Thus, D is the right answer.

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The sentence tells us that according to geologists speculations, an enormous volcanic eruption spewed (flew out in great quantities) huge amounts of gases that altered (changed) the global climate and led to (drove) the extinction of the majority of life on Earth though the dinosaurs thrived (grew vigorously). We need to interchange the second form verbs ALTERED and SPEWED as the sentence talks about huge amounts of gases flowing out of the volcanic eruptions resulting in climate change. Thus, A is the right answer.

Solution 15: B)

The sentence tells us that the ancient (old) Mayan ancestors (pounded) ground the cocoa fruit and mixed it with water or wine, adding (joining together) all types of spices to the viscous (non-flowy) mixture. We need to interchange the present continuous form verb ADDING with second form verb POUNDED as we need a second form verb (POUNDED) so that it is parallel in form with MIXED and a present participle form verb (ADDING) to link the two clauses. Thus, B is the right answer.

Solution 16: C)

The sentence tells us that the enhanced (boosted) manoeuvrability (ability to do something skilfully) of puffer fish allows them to turn quickly when chasing small prey, or to pick up fallen (dropped) pieces of food in narrow crevices (cracks). We need to interchange the nouns CREVICES and MANOEUVRABILITY as the sentence talks about the puffer fish skill in narrow cracks. Thus, C is the right answer.

Solution 17: E)

The sentence tells us that Archimedes bequeathed (willed) a sculpture of the sphere inscribed (engraved) in the cylinder to be placed on his tomb which was cited (mentioned) by Cicero, who visited (called upon) Syracuse a few centuries later. All the words are grammatically and contextually apt, which makes E the right answer.

Solution 18: D)

(d) is the right answer. Refer to the lines: *"The gene MADS27, which regulates nitrate absorption, root development and stress tolerance, is activated by the microRNA, miR444, therefore offers a way to control these properties of the plant."* It is explicitly stated in the above lines that miR444

activates MADS27 which regulates nitrate absorption, root development and stress tolerance.

1 is incorrect as it has not been mentioned in the passage.

Solution 19: E)

(e) is the right answer. All the given options are advantages of nitrogen in the development of plants.

(a) is incorrect. Refer to the lines: *"Nitrates also play a role in controlling genome wide gene expression."*

(b) is incorrect. Refer to the lines: *"It is a part of chlorophyll, amino acids and nucleic acids, among others."*

(c) is incorrect. Refer to the lines: *"So, the presence of nitrates is important for plant development and also for grain production."*

(d) is incorrect. Refer to the lines: *"Nitrates also play a role in controlling genome wide gene expression that in turn regulates root system architecture, flowering time, leaf development, etc."*

Solution 20: D)

(d) is the right answer. Refer to the lines: *“When this is not made, its target, MADS27, is produced in higher abundance, which in turn improves biosynthesis and transport of the hormone auxin, which is key for root development and its branching.”*

2 is incorrect in context to the given question.

Solution 21: B)

(b) is the right answer. Refer to the lines: *“The researchers have studied a target gene of miR444 called MADS27, a transcription factor which hasn’t been studied well before.”* and *“The larger goal of this study is to understand how epigenetics plays a role in regulating expression of such important genes.”*

None of the other options are correct as per the passage.

Solution 22: B)

(b) is the right answer. The passage throws light on the new pathway, miR444, that plays a role in absorption of nitrogen in plants and how this study can further help us in understanding the role of epigenetics in regulating expression of important genes.

(a) is incorrect as the passage does not focus on transcription factors.

(c) is incorrect. Although drawbacks have been mentioned, the passage does not revolve around them.

(d) is incorrect as it only forms a part of the passage.

Solution 23: E)

(e) is the right answer. Refer to the lines: *“At one level, it is known that the hormone auxin is responsible for well developed roots across all plants.”* It is explicitly stated in the above lines that the hormone auxin is responsible for well developed roots across plants.

Solution 24: E)

(e) is the right answer. OPTIMALLY means desirably. INADEQUATELY (undesirably; insufficiently) will be its antonym.

Ideally - perfectly. Flawlessly - having no flaws. Impeccably - without any error. Immaculately - having no flaws.

Solution 25: C)

(c) is the right answer. CABD is the correct sequence. C begins the passage by establishing the subject - IMAGINATION. It talks about imagination being a part of something. A follows by telling

us that it is a part of the organism's practical attempt. B comes next as it talks about the benefit of imagination - to get maximum hold on something. D concludes the sentence by mentioning that something - its changing environment.

Solution 26: D)

(d) is the right answer. DABC is the correct sequence. D begins the sentence by telling us that every one of us needs to believe in something. A follows by telling us what - we can achieve our collective goals. BC follows as a pair by mentioning why it is necessary: to get up from the sofa and work together.

Solution 27: C)

(c) is the right answer. BADC is the correct sequence. B begins the sentence by telling us that some people don't see a reason to abandon something. AD follow as a pair. A mentions what that thing is - a theory regarding the acquisition of the mitochondrion. D follows with the verb stem and tells us how the acquisition of the mitochondrion triggered something. C elaborates on what was started - rapid evolution of eukaryotes.

Solution 28: C)

(c) is the right answer. BACD is the correct sequence. B begins the sentence by establishing the subject - MYSTERY GENES. It tells us when the mystery genes showed up - in the last decade. AC follow as a pair by mentioning that it showed up when researchers took advantage of today's cheap gene sequencing technology. D follows C. It elaborates on that technology - it explores the genomes of a wide range of eukaryotes.

Solution 29: B)

(b) is the right answer. DBCA is the correct sequence. D begins the sentence by introducing the topic subject - BRAIN. B comes next by telling us that it is different from the other organs. CA follow as a pair by elaborating on that difference. C tells us its function occurs through cells. A concludes the sentence by adding a detail about those cells - they communicate with each other over large distances.

Solution 30: B)

(b) is the right answer. DBCA is the correct sequence. D begins the sentence by introducing the topic subject - BRAIN. B comes next by telling us that it is different from the other organs. CA follow as a pair by elaborating on that difference. C tells us its function occurs through cells. A concludes the sentence by adding a detail about those cells - they communicate with each other over large distances.

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IBPS PO Prelims Reasoning

Question 1: In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

Statements:

A few seven is four

No four is six

All six is five

Conclusions:

I. Some five is not four

II. Some seven is not six

A) Only conclusion II follows

B) Both conclusion I and conclusion II follow

C) Neither conclusion I nor conclusion II follows

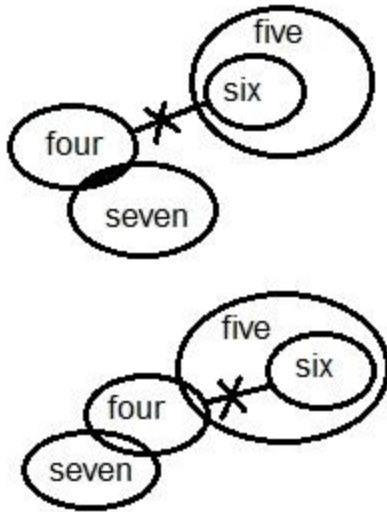
D) Only conclusion I follows

E) None of the above

Answer: B)

Solution:

Following figure can be formed:



From the figure, both conclusion I and conclusion II follow.

Hence, option b.

Question 2: In the question below there are three statements followed by three conclusions I, II and III. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

Statements:

At least some boot are shoot.

No shoot is doom.

All doom are boom.

Conclusions:

I. Some boot are boom.

II. Some boom are doom.

III. At least some shoot are boom.

A) Both conclusion I and conclusion II follow.

B) Only conclusion III follows

C) Neither conclusion I nor conclusion II follows

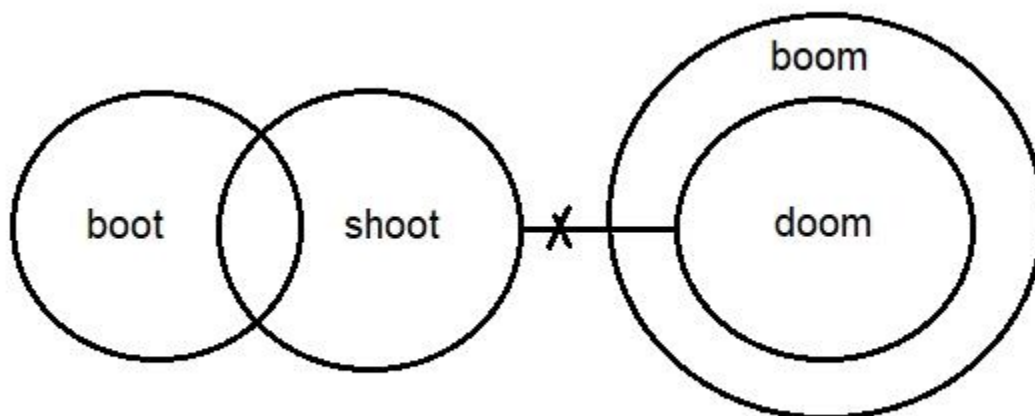
D) Only conclusion II follows

E) All conclusions I, II and III follow

Answer: D)

Solution:

Following figure can be formed:



From the figure, only conclusion II follows.

Hence, option d.

Question 3: In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

Statements:

Only few fish are crab.

Some crab are whale.

No whale is shark.

Conclusions:

I. Some fish are shark.

II. All fish are crab.

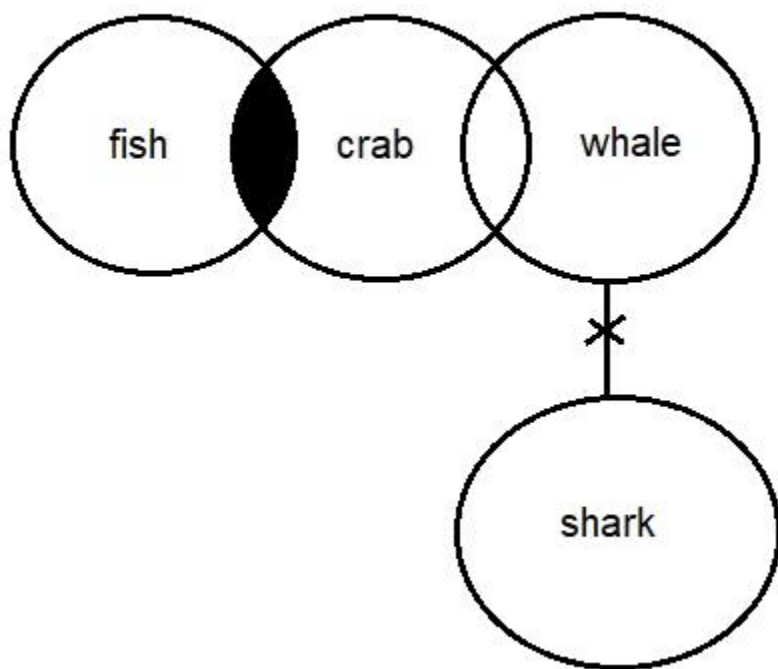
A) Only conclusion I follows

- B) Both the conclusions I and II follow
- C) Neither conclusion I nor II follows
- D) Only conclusion II follows
- E) Either conclusion I or II follows

Answer: C)

Solution:

Following figure can be drawn from the statements,



As, only few fish are crab i.e. there would some fish which cannot be crab. Therefore, all fish being crab is not possible.

So, neither conclusion I nor II follows.

Hence option c.

Question 4: In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

Statements:

No F is S.

A few S are P.

Every P is A.

Conclusions:

I. A few A are not F.

II. Some S are A.

A) Only conclusion II follows

B) None of these

C) Neither conclusion I nor conclusion II follows

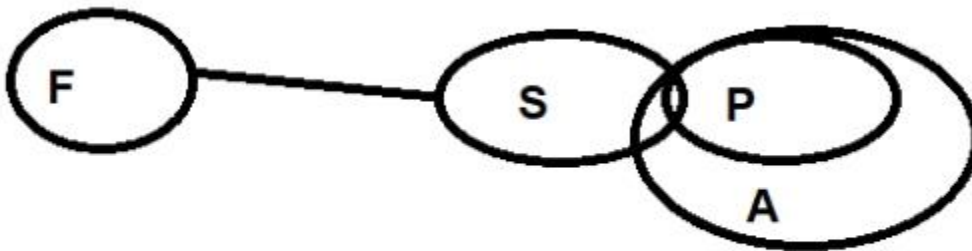
D) Only conclusion I follows

E) Both conclusion I and conclusion II follow.

Answer: E)

Solution:

Following figure can be formed:



From the figure, both conclusions I and II follow.

Hence, option e.

Directions(5-9): Answer the following questions based on the information given below:

Seven persons, Yashi, Lisa, Mehak, Jia, Kiran, Adarsh and Neha live on seven storey building, where the bottommost floor is 1 and the floor above is 2 and so on. Each of them likes different phones, Realme, Asus, Nokia, HTC, Vivo, Apple and Oppo.

Three persons live between Jia and the person, who likes Apple. Lisa lives just above the person, who likes Apple. Two persons live between Lisa and Mehak, who likes Nokia. One person lives between Mehak and Kiran. Person, who likes Oppo, lives just above the person, who likes Asus. Neha lives below Jia but not adjacent to Kiran. Person, who lives on the topmost floor, likes Realme. Yashi lives above Adarsh. Person, who likes HTC, lives above floor number 4. Adarsh doesn't like Vivo.

Common Solution:

Starting point: Start placing Jia and the person, who likes Apple, either Jia lives above or below the person, who likes Apple.

Clues: Lisa lives just above the person, who likes Apple. Two persons live between Lisa and Mehak, who likes Nokia. One person lives between Mehak and Kiran. Person, who likes Oppo live just above the person, who likes Asus. Neha lives below Jia but not adjacent to Kiran. Yashi lives above Adarsh.

Inference: Person, who lives on the topmost floor, likes Realme, i.e. either Lisa or Jia. Either Mehak or Neha lives on the bottommost floor.

Person, who likes HTC lives above floor number 4.

Case 1: When Jia lives above the person, who likes Apple. Adarsh doesn't like Vivo, so this case is not possible.

Floors	Persons	Phones
7	Jia	Realme
6	Yashi/Neha	HTC
5	Neha/Yashi	Oppo
4	Lisa	Asus
3	Kiran	Apple
2	Adarsh	Vivo
1	Mehak	Nokia

Case 2: When Jia lives below the person, who likes Apple.

The final arrangement is as follows:

Floors	Persons	Phones
7	Lisa	Realme

6	Kiran	Apple
5	Yashi	HTC
4	Mehak	Nokia
3	Adarsh	Oppo
2	Jia	Asus
1	Neha	Vivo

Question 5: Find the odd one out.

- A) Lisa
- B) Yashi
- C) Neha
- D) Mehak
- E) Adarsh

Answer: D)

Solution:

All of them live on odd numbered floor, except Mehak.

Hence, option d.

Question 6: How many persons live below Yashi?

- A) 5
- B) 3
- C) 4
- D) 2
- E) None of the above

Answer: C)

Solution:

4 persons live below Yashi.

Hence, option c.

Question 7: How many persons live between Lisa and Jia?

- A) 3
- B) 2
- C) 4
- D) Cannot be determined
- E) None of the above

Answer: C)

Solution:

4 persons live between Lisa and Jia.

Hence, option c.

Question 8: _____ likes Asus phone.

- A) Jia
- B) Adarsh
- C) Neha
- D) None of the above
- E) Lisa

Answer: A)

Solution:

Jia likes Asus phone.

Hence, option a.

Question 9: _____ lives just below person, who likes Vivo.

- A) Kiran
- B) Jia
- C) Lisa
- D) Neha
- E) None of the above

Answer: E)

Solution:

No-one lives below Neha, who likes Vivo.

Hence, option e.

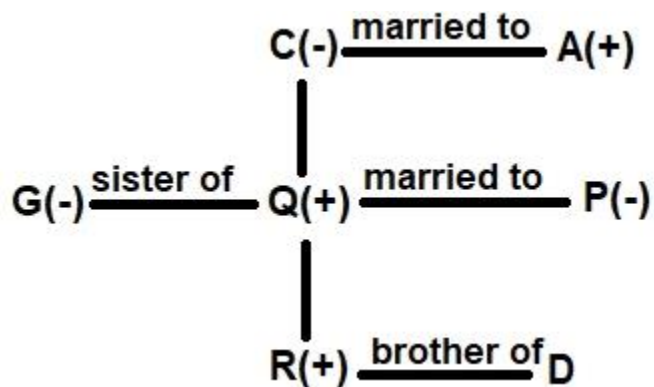
Directions(10-12): Answer the questions based on the information given below.

In a family of three generations, there are seven members and two married couples. A has two children and both are not of the same gender. R is nephew of G. D is the child of Q, who is son of C. P is sister-in-law of G. P has no siblings. A is the father of G. No single person is a parent in the family.

Common Solution:

A has 2 children and A is the father of G. R is the nephew of G. P is the sister-in-law of G which means P is married to G's brother which means G is the female as both the children of A are not of same gender.

Family tree:



Question 10: How is G related to sibling of R?

- A) Uncle
- B) Maternal Uncle
- C) Paternal Aunt
- D) Father
- E) Maternal Aunt

Answer: C)

Solution:

G is the paternal aunt of D, who is the sibling of R.

Hence, option c.

Question 11: If D is the sister of R then how is D related to A?

- A) Granddaughter
- B) Daughter in law
- C) Sister
- D) Daughter
- E) Can't be determined

Answer: A)

Solution:

So, if D is the sister of R then D must be granddaughter of A.

Hence, option a.

Question 12: If Z is married to G then how is Z related to the father-in-law of P?

- A) Son
- B) Grandson
- C) Son in law
- D) Brother
- E) Brother-in-law

Answer: C)

Solution:

G is the daughter of father-in-law of P, so, Z must be the son-in-law of father-in-law of P.

Hence, option c.

Directions(13-17): Answer the questions based on the information given below.

Eight persons M, N, O, P, Q, R, S and T sit in a row such that four of them face south while rest face north. Not more than two adjacent persons face in same direction.

Note: To distinguish between the left and right ends of the row, take the ends as per the north direction but it doesn't necessarily mean that the persons at ends are facing the North.

One person sits between M and N, who is not adjacent to P. M sits third to the left of P, who is 2nd person from one of the extreme ends. R and Q sit immediate left of each other. T sits second to the right of O, who is not at any extreme ends. S faces south. Persons at extreme ends do not face in same direction. T and Q face in same direction.

Common Solution:

Starting Point: Here, we can start with P, M and O in order to form two cases.

Clues:

- 1.) M sits third to the left of P, who is 2nd person from one of the extreme ends.
- 2.) One person sits between M and N, who is not adjacent to P.

Inference:

So, we have two cases as shown below,

Case 1: P faces south:

	P(South)			M		N	
--	----------	--	--	---	--	---	--

Case 2: P faces north:

	N		M			P(North)	
--	---	--	---	--	--	----------	--

Clues:

- 3.) R and Q sit immediate left of each other.
- 4.) T sits second to the right of O, who is not at any extreme ends.

Inference:

So, in case 1, person at extreme left end faces north and in case 2, person at extreme right end faces south.

Case 1: P faces South:

(North)	P(South)	R/Q(South)	Q/R(North)	M(South)	O(North)	N	T
---------	----------	------------	------------	----------	----------	---	---

Case 2: P faces North:

T	N	O(South)	M(North)	R/Q(South)	Q/R(North)	P(North)	(South)
---	---	----------	----------	------------	------------	----------	---------

Clues:

- 5.) S faces south.
- 6.) Persons at extreme ends do not face in same direction.
- 7.) T and Q face in same direction.

Inference:

From (5), case 1 must be rejected. From (6), T and N must face in north and south direction respectively. From (7), R sits immediate right of M.

The final seating arrangement is given below:

T(North)	N(South)	O(South)	M(North)	R(South)	Q(North)	P(North)	S(South)
----------	----------	----------	----------	----------	----------	----------	----------

Question 13: How many persons sit to the right of R?

- A) Six
- B) Two
- C) One
- D) Four
- E) Three

Answer: D)

Solution:

Four persons sit to the right of R.

Hence, option d.

Question 14: Find the odd one out.

- A) T
- B) S
- C) M
- D) P
- E) Q

Answer: B)

Solution:

All face north direction except S.

Hence, option b.

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Question 15: Who among the following sits second to the left of P?

A) T

B) N

C) R

D) S

E) Q

Answer: C)

Solution:

R sits second to the left of P.

Hence, option c.

Question 16: ___ sits second to the right of Q.

A) M

B) O

C) P

D) T

E) S

Answer: E)

Solution:

S sits second to the right of Q.

Hence, option e.

Question 17: Who sits immediate right of O?

A) N

B) T

C) M

D) R

E) Q

Answer: A)

Solution:

N sits immediate right of O.

Hence, option a.

Question 18: In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is /are definitely true and then give your answer accordingly.

Statements: $A < B \leq F$; $A > L > V$; $R \geq B$; $V < C$

Conclusions:

I. $R > L$

II. $C > A$

III. $F > V$

A) Only conclusion III is true.

B) All conclusions I, II and III are false.

C) Only conclusions I and III are true.

D) Only conclusion I is true.

E) Only conclusions I and II are true.

Answer: C)

Solution:

Given statements: $A < B \leq F$; $A > L > V$; $R \geq B$; $V < C$

On combining, we get

$R \geq B > A > L > V < C$; $F \geq B > A > L > V$

Conclusions:

I. $R > L$: True (As $R \geq B > A > L$, so, $R > L$)

II. $C > A$: False (As $A > L > V < C$, relation between C and A can't be determined)

III. $F > V$: True (As $F \geq B > A > L > V$, so, $F > V$)

Only conclusion I and III are true.

Hence, option c.

Question 19: In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is /are definitely true and then give your answer accordingly. **The numbers are also taken as elements.**

Statements: $2 > X \geq A$; $Y \leq L < 2$; $E > A \geq J$

Conclusions:

I. $2 > E$

II. $L < A$

III. $J < 2$

A) Only conclusion III is true.

B) All conclusions I, II and III are false.

C) Only conclusions I and III are true.

D) Only conclusion I is true.

E) Only conclusions I and II are true.

Answer: A)

Solution:

Given statements: $2 > X \geq A$; $Y \leq L < 2$; $E > A \geq J$

On combining, we get

$Y \leq L < 2 > X \geq A \geq J$; $E > A \leq X < 2$

Conclusions:

I. $2 > E$: False (As $E > A \leq X < 2$, relation between 2 and E can't be determined)

II. $L < A$: False (As $L < 2 > X \geq A$, relation between L and A can't be determined)

III. $J < 2$: True (As $2 > X \geq A \geq J$, so $J < 2$)

Only conclusion III is true.

Hence, option a.

Question 20: In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is /are definitely true and then give your answer accordingly.

Statements: $G > R \geq D < M$; $B \geq L > D$; $C < G$

Conclusions:

I. $B > R$

II. $C < M$

III. $G > D$

A) Only conclusion I is true

B) Only conclusions I and II are true

C) Only conclusion III is true

D) All conclusions I, II and III are false

E) Only conclusions II and III are true

Answer: C)

Solution:

Given statements: $G > R \geq D < M$; $B \geq L > D$; $C < G$

On combining, we get

$$B \geq L > D \leq R < G > C; C < G > R \geq D < M$$

Conclusions:

I. $B > R$: False (As $B \geq L > D \leq R$, relation between B and R can't be determined)

II. $C < M$: False (As $C < G > R \geq D < M$, relation between C and M can't be determined)

III. $G > D$: True (As $D \leq R < G$, so $G > D$)

Only conclusion III is true.

Hence, option c.

Question 21: In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is /are definitely true and then give your answer accordingly.

Statements: $C > R \geq D$; $L < C \geq P$; $M < D > O$

Conclusions:

I. $M < C$

II. $O < R$

III. $P < D$

A) Only conclusion I is true

B) Only conclusions I and II are true

C) Only conclusion II is true

D) All conclusions I, II and III are false

E) Only conclusions II and III are true

Answer: B)

Solution:

Given statements: $C > R \geq D$; $L < C \geq P$; $M < D > O$

On combining, we get

$P \leq C > R \geq D > M; O < D \leq R < C$

Conclusions:

I. $M < C$: True (As $C > R \geq D > M$, so, $M < C$)

II. $O < R$: True (As $O < D \leq R$, so, $O < R$)

III. $P < D$: False (As $P \leq C > R \geq D$, relation between P and D can't be determined)

Only conclusions I and II are true.

Hence, option b.

Question 22: If it is possible to make a meaningful English word from the 1st, 3rd, 5th and 8th letter of the word **PERPETUAL**, using all the letters only once then which letter will be 3rd letter of the word so formed from the left end? If no meaningful English word can be formed then mark your answer as (Y). If more than one meaningful English word can be formed then mark your answer as (X).

A) P

B) E

C) A

D) Y

E) X

Answer: E)

Solution:

Given word:

PERPETUAL

The 1st, 3rd, 5th and 8th letters are P, R, E and A.

The meaningful English word formed will be PEAR, REAP, PARE, etc.

So, the answer will be (X).

Hence, option e.

Question 23: How many pair of letters are there in the word 'TOLERANCE' which have as many letters between them as in the English alphabetical series (both forward and backward direction).

- A) 1
- B) 4
- C) 2
- D) 3
- E) 5

Answer: D)

Solution:

Given word 'TOLERANCE'

There are 3 such pairs which have as many letters between them as in the English alphabetical series i.e., OR, AC and NT.

Hence, option d.

Question 24: Four of the following five are related to each other in some way and thus formed a group. Choose the one which does not belong to that group?

- A) DHLO
- B) CGKN
- C) PTXY
- D) NRVY
- E) GKOR

Answer: C)

Solution:

Given options,

a.) DHLO - $D + 4 = H + 4 = L + 3 = O$

b.) CGKN - $C + 4 = G + 4 = K + 3 = N$

c.) $PTXY - P + 4 = T + 4 = X + 1 = Y$

d.) $NRVY - N + 4 = R + 4 = V + 3 = Y$

e.) $GKOR - G + 4 = K + 4 = O + 3 = R$

Hence, option c.

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Directions(25-29): Answer the questions based on the information given below.

Six persons, A, B, C, D, E and F are sitting around a circular table. Each of them is facing the centre. Each of them is of different age(in years) among 14, 16, 15, 21, 23 and 25.

Two persons are sitting between D and the person, whose age is in a prime number. A is sitting immediate left of C, who is the eldest person. A is 5 years elder than D. Two persons are sitting between A and B. E and F are not sitting adjacent to each other. F is younger than B.

Common Solution:

Starting point: Start placing D and the person, who is 23 years old.

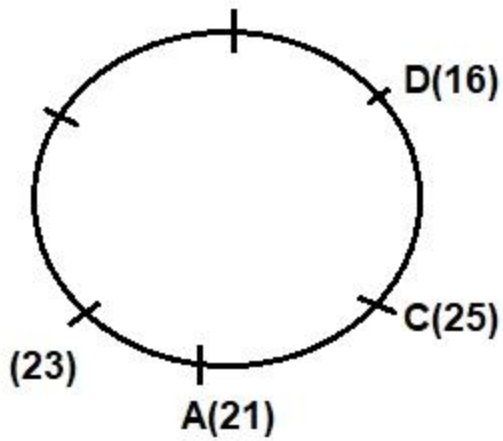
Clues:

1. Two persons are sitting between D and the person, whose age is in a prime number.
2. A is sitting immediate left of C, who is the eldest person.
3. A is 5 years elder than D.

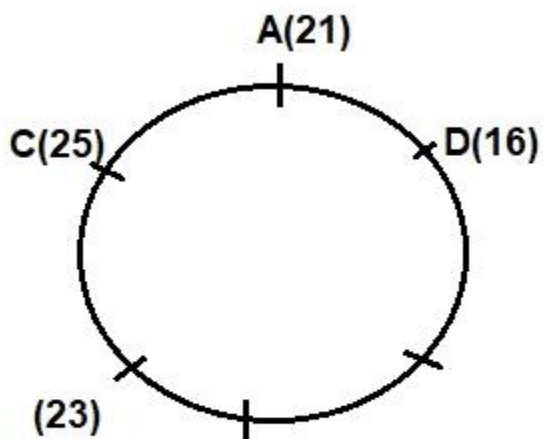
Inference:

From 3, A and D are 21 and 16 years old. From 2, A is sitting either 2nd to the left or immediate right of D.

Case 1: When A is sitting 2nd to the left of D.



Case 2: When A is sitting immediately right of D.

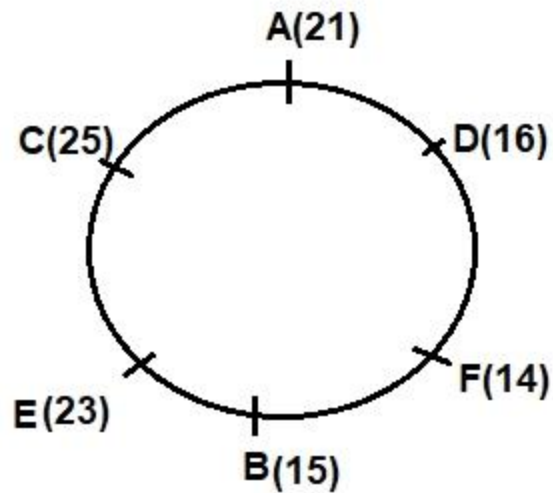


Clues:

1. Two persons are sitting between A and B.
2. E and F are not sitting adjacent to each other.
3. F is younger than B.

Inference: From 1 and 2, case 1 is rejected, as we cannot place E and F in case 1.

The final arrangement is as follows:



Question 25: How many persons are sitting between E and D, when counted from the left of E?

- A) 5
- B) 2
- C) 1
- D) 4
- E) None of the above

Answer: B)

Solution:

Two persons are sitting between E and D.

Hence, option b.

Question 26: ____ is sitting adjacent to B.

- A) A
- B) C
- C) E
- D) D
- E) None of the above

Answer: C)

Solution:

E is sitting adjacent to B.

Hence, option c.

Question 27: Find the odd one out.

A) A, B

B) E, D

C) C, F

D) D, B

E) E, C

Answer: E)

Solution:

Only E and C are sitting adjacent to each other.

Hence option e.

Question 28: What is the sum of the ages of F and D?

A) 30 years

B) 31 years

C) 32 years

D) 48 years

E) 37 years

Answer: A)

Solution:

The sum of the ages of F and D is 30 years.

Hence, option a.

Question 29: ___ is sitting 2nd to the left of A.

- A) F
- B) E
- C) Person, who is 15 years old
- D) Person, who is 16 years old.
- E) None of the above

Answer: A)

Solution:

F is sitting 2nd to the left of A.

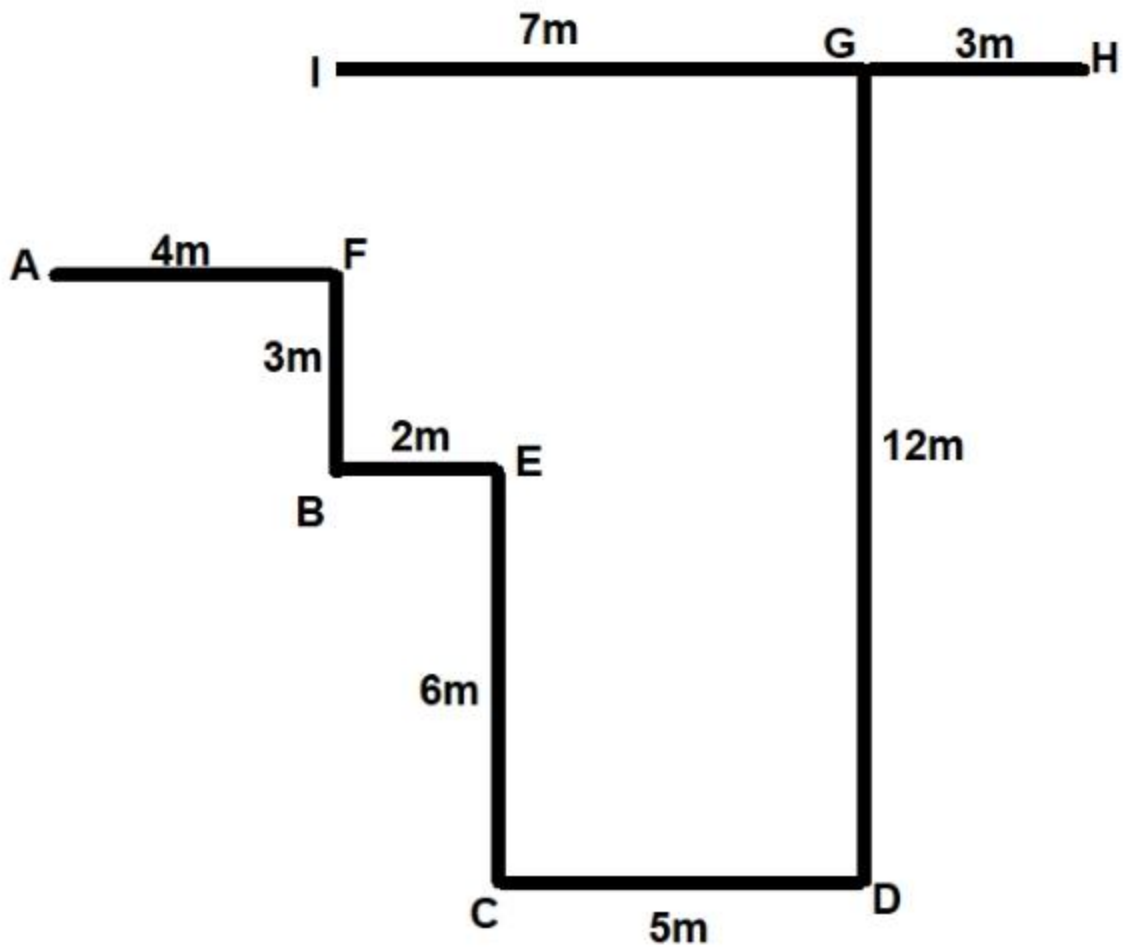
Hence, option a.

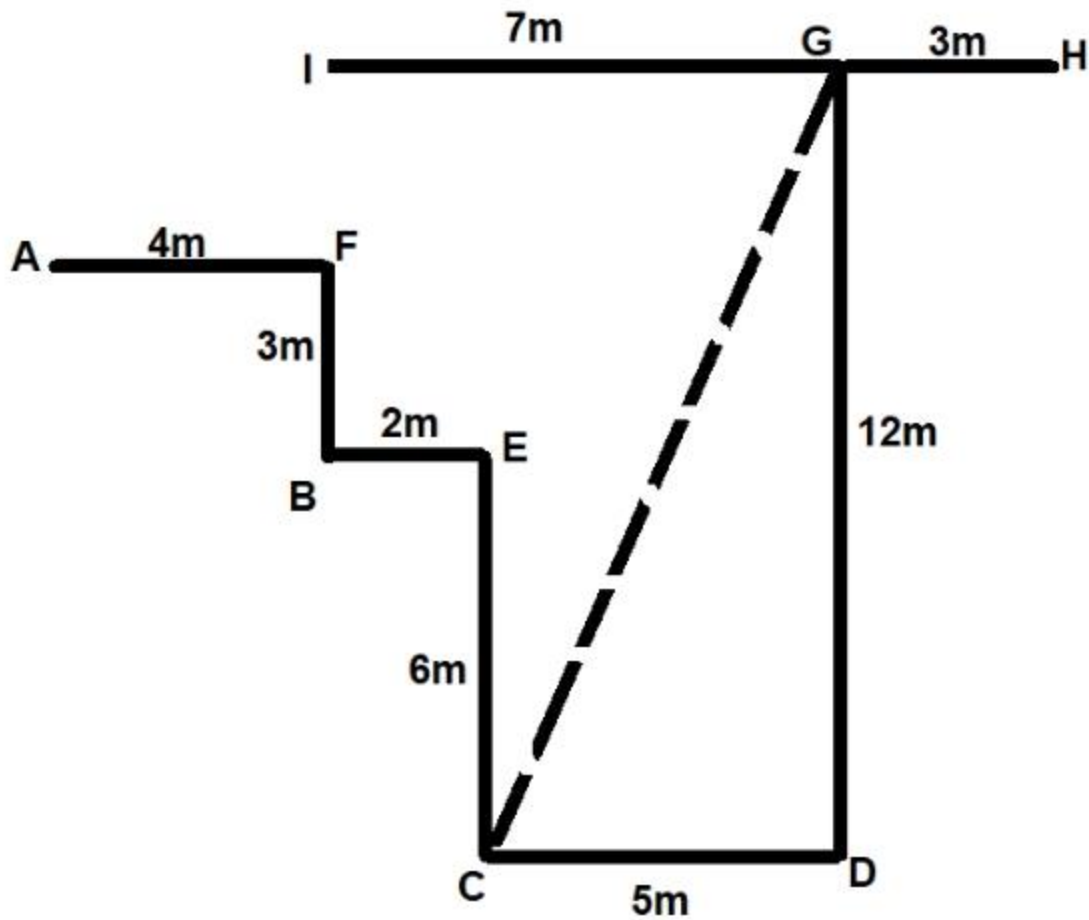
Directions(30-32): Answer the questions based on the information given below:

Nine objects, A-I are placed at some distance from each other. I is placed 7m west to G, which is placed 12m north to D, which is placed 5m east to C, which is placed 6m south to E. H is placed 3m east to G. A is placed 4m west to F, which is 3m north to B, which is 2m west to E.

Common Solution:

The final arrangement is as follows:





Question 30: What is the shortest distance between G and C?

- A) 15m
- B) 13m
- C) 17m
- D) 16m
- E) None of the above

Answer: B)

Solution:

The shortest distance between G and C

$$= \sqrt{(12)^2 + (5)^2} \text{m}$$

$$= \sqrt{169} \text{m}$$

= 13m

Hence, option b.

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Question 31: What is the direction of D with respect to A?

- A) North east
- B) South east
- C) North west
- D) South west
- E) None of the above

Answer: B)

Solution:

D is to the south east of A.

Hence, option b.

Question 32: What is the direction B with respect to H?

- A) East
- B) North west
- C) West
- D) South west
- E) None of the above

Answer: D)

Solution:

B is to the south west of H.

Hence, option d.

Directions(33-35): Answer the questions based on the information given below:

Nine persons, P, Q, R, S, T, U, V, W and X score different marks in a test. Only two persons score more than R. P scores more than S, who scores more than V and T. Only U scores less than X. W scores more than Q. P doesn't score the highest marks. Q doesn't score less than S. V doesn't score 3rd lowest marks.

Common Solution:

Clues:

Only two persons score more than R. P scores more than S, who scores more than V and T. Only U scores less than X. W scores more than Q. P doesn't score the highest marks. Q doesn't score less than S. V doesn't score 3rd lowest marks.

Inference:

R scores 3rd highest marks. U scores the lowest marks. T scores the 3rd lowest marks. W scores the highest marks.

The final arrangement is as follows:

$W > P/Q > R > Q/P > S > V > T > X > U$

Question 33: _____ scores 2nd highest marks.

- A) P
- B) Can't be determined
- C) Q
- D) S
- E) None of the above

Answer: B)

Solution:

Either P or Q score 2nd highest marks.

Hence, option b.

Question 34: How many persons score more marks than V?

- A) 1

- B) 5
- C) 4
- D) 3
- E) None of the above

Answer: B)

Solution:

5 persons score more marks than V.

Hence, option b.

Question 35: How many persons score less than W?

- A) Two
- B) Eight
- C) Three
- D) Can't be determined
- E) None of the above

Answer: B)

Solution:

Eight persons score less than W.

Hence, option b.

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