Smart, Structured & Syllabus-Aligned Content

RICE EDUCATION



PYQs

BANKING EXAMS

IBPS PO Prelims 2025

PREVIOUS YEAR QUESTIONS

IBPS PO Prelims 2025 Memory Based Paper

23rd August 2025 (1st Shift)

Reasoning Ability (Q1 - Q35)

Directions (1-3): Read the given instructions carefully and answer the related questions:
A certain number of persons are sitting in a row facing north.
Three persons sit between A and B. C sits second to the right of B. D sits fifth to the left of C. Two persons sit between D and E. The number of persons sit between D and C is one more than the number of persons sit between D and F. No one sits to the left of F. The position of A with respect to F is same as the position of C with respect to G. As many persons sit to the left of F as to the right of C.
[Arrangement from left to right: F, E, A, D, _, G, B, _, C (Total 10 persons)]

Q1. How many persons sit between E and G?

(a) One
(b) Two
(c) Three
(d) Four
(e) More than four

Answer: (d)

Explanation: Between E (position 2) and G (position 6), there are three/four persons (A, D, blank, G). Per answer key: (d) Four.

Q2. Who among the following sits third to the left of G?

(a) B
(b) E
(c) A
(d) C
(e) D

Answer: (c)

Explanation: G is at position 6; third to the left of G is A (at position 3).

Q3. How many persons sit in the row?

(a) 9
(b) 13
(c) 12
(d) None of the given options
(e) 10

Answer: (e)

Explanation: There are a total of 10 persons in the linear row.

Q4. How many meaningful words can be formed from the 3rd, 5th, 8th and 12th letter from the left end of the word FERMENTATION? If no word is formed, then mark the answer as @ and if more than three words are formed, then mark the answer as #, else choose the correct answer from given options.

(a) 1
(b) 2
(c) 3
(d) #
(e) @

Answer: (b)

Explanation: The letters are R (3rd), E (5th), A (8th), and N (12th). The meaningful English words formed are 'EARN' and 'NEAR' (Total 2 words).

Q5. How many pairs of digits can be formed in the number '73915243', which have the same number of digits between them as in the number series (both forward and backward direction)?

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

Answer: (d)

Explanation: There are more than three such pairs: (1, 2), (3, 5), (7, 9), (3, 4), etc.

Directions (6-8): Study the information carefully and answer the questions given below.
Eight persons A, B, C, D, E, F, G and H are members of a three-generation family, with no single parent.
G is the daughter-in-law of D. B has no daughter. H is the aunt of A. G is the sister-in-law of C. C is a married member of the family. B is the grandfather of A. C and A are of opposite gender. E is the brother of F and has no child.
[Family Tree: Generation 1: D(-) married to B(+); Generation 2: Sons are E(+), F(+)[married to G(-)], and C(+)[married to H(-)]; Generation 3: Daughter A(-)]

Q6. How is G related to E?

(a) Wife
(b) Sister
(c) Sister-in-law
(d) Mother
(e) Can't be determined

Answer: (c)

Explanation: G is married to E's brother F, so G is the sister-in-law of E.

Q7. How many male members are there in the family?

(a) Two
(b) Three
(c) Five
(d) Four
(e) None of these

Answer: (d)

Explanation: The male members are B, E, F, and C (Total 4 males).

Q8. Who among the following is the mother of E?

(a) H
(b) A
(c) D
(d) C
(e) Can't be determined

Answer: (c)

Explanation: D is the grandmother/mother of Generation 2 (E, F, C), so D is the mother of E.

Directions (9-11): Relationship between elements in statements and conclusions:
(a) If only conclusion I is true
(b) If only conclusion II is true
(c) If either conclusion I or II is true
(d) If both conclusions I and II are true
(e) If neither conclusion I nor II is true

Q9. Statements: O > S = G ≤ R ≥ K; L ≤ R = P; T < J = P
Conclusions:
I. S < L
II. J ≥ G

(a) If only conclusion I is true
(b) If only conclusion II is true
(c) If either conclusion I or II is true
(d) If both conclusions I and II are true
(e) If neither conclusion I nor II is true

Answer: (b)

Explanation: I. S = G ≤ R and L ≤ R => relationship between S and L cannot be established (False).
II. J = P = R ≥ G => J ≥ G is definitely true. Only conclusion II is true.

Q10. Statements: Q ≤ M > D > E = T; F = G ≥ H < C < T ≥ A
Conclusions:

I. A ≤ M
II. F > Q

(a) If only conclusion I is true
(b) If only conclusion II is true
(c) If either conclusion I or II is true
(d) If both conclusions I and II are true
(e) If neither conclusion I nor II is true

Answer: (e)

Explanation: I. M > D > E = T ≥ A => M > A, so A ≤ M is false.
II. No direct definite relation between F and Q. Neither conclusion I nor II is true.

Q11. Statements: Z = X < Y > O ≤ W; P ≥ Q = R < S > W
Conclusions:
I. X > R
II. Z ≤ Q

(a) If only conclusion I is true
(b) If only conclusion II is true
(c) If either conclusion I or II is true
(d) If both conclusions I and II are true
(e) If neither conclusion I nor II is true

Answer: (c)

Explanation: Since Z = X and Q = R, conclusions are X > R and X ≤ R, which form a complementary pair. Either conclusion I or II is true.

Directions (12-16): Six persons - A, B, C, D, E and F - were born in April, July, and September on 9th and 26th. Each likes a different colour.
[Arrangement:
• 9th April: D - Yellow
• 26th April: F - White
• 9th July: A - Pink
• 26th July: E - Green
• 9th September: C - Red
• 26th September: B - Blue]

Month	Date	Person	Colour
April	9th	D	Yellow
April	26th	F	White
July	9th	A	Pink
July	26th	E	Green
September	9th	C	Red
September	26th	B	Blue

Q12. Who among the following was born on 9th July?

(a) C

(b) The one who likes green color

(c) F

(d) The one who likes pink color

(e) D

Answer: (d)

Explanation: A was born on 9th July and likes pink colour.

Q13. Which among the following pairs is correct?

(a) B - Green, 26th September

(b) C - Red, 26th July

(c) F - White, 26th April

(d) E - Green, 26th April

(e) D - Yellow, 9th September

Answer: (c)

Explanation: F was born on 26th April and likes White.

Q14. How many persons were born between F and the one who likes blue color?

(a) Four

(b) Two

(c) One

(d) None

(e) Three

Answer: (e)

Explanation: Between F (26th April) and B (26th September), three persons were born: A, E, C.

Q15. Who among the following likes white color?

(a) The one who was born four persons before B

(b) C

(c) A

(d) The one who was born on 26th September

(e) None of these

Answer: (a)

Explanation: F likes white and was born on 26th April, which is 4 persons before B.

Q16. Which of the following statements is/are incorrect?
I. C was born before D.

II. No person was born between F and the one who likes pink color.
III. E was born in the month having odd number of days and likes green color.

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

Answer: (b)

Explanation: Statement I is incorrect because C was born in September, after D in April. Statements II and III are correct.

Directions (17-21): Six persons bought six different cars one after another:
[Purchasing Order from 1st to 6th:
1. E - Sedan
2. A - Limousine
3. D - Hatchback
4. F - Coupe
5. C - Convertible
6. B - SUV]

Q17. Who among the following bought the Limousine?

(a) E
(b) B
(c) C
(d) D
(e) A

Answer: (e)

Explanation: A bought the Limousine.

Q18. Who bought the car three persons after that person who bought the car immediately before D?

(a) C
(b) B
(c) F
(d) A
(e) None of these

Answer: (a)

Explanation: The person immediately before D is A (2nd). Three persons after A is C (5th).

Q19. If A is related to Hatchback and in the same way E is related to Limousine, then C is related to which type of car?

(a) Coupe
(b) Convertible
(c) SUV
(d) Sedan
(e) None of these

Answer: (c)

Explanation: The pattern relates each person to the car bought immediately after them. The car bought after C is SUV.

Q20. The number of cars bought between E and the one who purchased Hatchback is one more than the number of cars bought after the one who purchased _____.

(a) Convertible
(b) SUV
(c) Coupe
(d) Limousine
(e) Sedan

Answer: (b)

Explanation: Cars between E and Hatchback (D) = 1 (A). Cars after SUV (B) = 0. Since 1 is one more than 0, the answer is SUV.

Q21. Sedan was purchased by who among the following person?

(a) A
(b) D
(c) E
(d) F
(e) C

Answer: (c)

Explanation: E bought the Sedan.

Directions (22-24): Syllogism questions. Choose the correct conclusion:
(a) If only conclusion I follows
(b) If only conclusion II follows
(c) If either conclusion I or II follows
(d) If neither conclusion I nor II follows
(e) If both conclusions I and II follow

Q22. Statements: Only a few club is court; Some court is allow; No allow is revenue
Conclusions:

I. Some club being allow is a possibility
II. Some court are not revenue.

(a) If only conclusion I follows
(b) If only conclusion II follows
(c) If either conclusion I or II follows
(d) If neither conclusion I nor II follows
(e) If both conclusions I and II follow

Answer: (e)

Explanation: I follows because there is no restriction between club and allow. II follows because the part of court that is allow can never be revenue. Both follow.

Q23. Statements: Only a few Edition is investors; All investors are verdict; No verdict is affect
Conclusions:
I. No edition is affect
II. All investors being affect is a possibility

(a) If only conclusion I follows
(b) If only conclusion II follows
(c) If either conclusion I or II follows
(d) If neither conclusion I nor II follows
(e) If both conclusions I and II follow

Answer: (d)

Explanation: I does not follow definitely (only some editions cannot be affect). II is impossible because all investors are verdict and no verdict is affect. Neither follows.

Q24. Statements: All skipper is win; Some win is player; Only a few player is hear
Conclusions:
I. All skipper being hear is a possibility
II. No win is hear

(a) If only conclusion I follows
(b) If only conclusion II follows
(c) If either conclusion I or II follows
(d) If neither conclusion I nor II follows
(e) If both conclusions I and II follow

Answer: (a)

Explanation: There is no negative relation between skipper and hear, so all skipper being hear is a possibility. Conclusion I follows.

Q25. Find the odd one out among: JLMP, ACDG, EGHK, LNOR, QSTU

(a) JLMP
(b) ACDG
(c) EGHK
(d) LNOR
(e) QSTU

Answer: (e)

Explanation: Pattern is +2, +1, +3 (e.g., A+2=C, C+1=D, D+3=G). QSTU follows +2, +1, +1, which does not match.

Directions (26-30): Seven persons born in different years (base year 2025):

- ***1947: Age 78 = B***
- ***1959: Age 66 = G***
- ***1964: Age 61 = D***
- ***1973: Age 52 = E***
- ***1978: Age 47 = A***
- ***1988: Age 37 = F***
- ***2001: Age 24 = C***

(Note: C(24) + F(37) = D(61); G(66) is divisible by 6; A(47)+G(66)=113 prime; B(78)+A(47)=125 divisible by 5)

Year	Age (in 2025)	Person
1947	78	B
1959	66	G
1964	61	D
1973	52	E
1978	47	A
1988	37	F
2001	24	C

Q26. Who among the following was born in 1973?

(a) G

(b) B

(c) E

(d) A

(e) C

Answer: (c)

Explanation: E was born in 1973 (Age 52).

Q27. How many persons were born between A and B?

(a) Two

(b) More than four

(c) Four

(d) One

(e) Three

Answer: (e)

Explanation: Between B (1947) and A (1978), three persons were born: G, D, E.

Q28. What is the difference between the age of C and D?

(a) 12 years
(b) 10 years
(c) 24 years
(d) 37 years
(e) 38 years

Answer: (d)

Explanation: Age of D = 61, Age of C = 24. Difference = 61 - 24 = 37 years.

Q29. Who among the following is the oldest person?

(a) E
(b) B
(c) G
(d) D
(e) None of these

Answer: (b)

Explanation: B is the oldest person (born in 1947, 78 years old).

Q30. What is the age of G?

(a) 37 years
(b) 24 years
(c) 47 years
(d) 52 years
(e) 66 years

Answer: (e)

Explanation: G was born in 1959, so G is 66 years old.

Directions (31-35): 14 persons in two parallel rows of 7 each:
Row 2 (Facing South): P, S, R, Q, V, U, T
Row 1 (Facing North): A, B, C, G, F, E, D

Row 2 (South)	P	S	R	Q	V	U	T
Row 1 (North)	A	B	C	G	F	E	D

Q31. Who among the following faces R?

(a) G
(b) D
(c) B
(d) C
(e) A

Answer: (d)

Explanation: C faces R.

Q32. Which of the following statement(s) is/are true?

(a) Two persons sit between G and A

(b) U faces E

(c) V sits left of R

(d) C doesn't sit at extreme ends

(e) All are true

Answer: (e)

Explanation: All the given statements are correct.

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

(a) T

(b) F

(c) S

(d) U

(e) G

Answer: (a)

Explanation: Per seating/facing position relative to neighbors, T is the odd one.

Q34. How many persons sit to the left of the one who faces S?

(a) Two

(b) More than four

(c) Four

(d) One

(e) Three

Answer: (d)

Explanation: B faces S. Facing north, only 1 person (A) sits to the left of B.

Q35. Who among the following sits second to the right of the one who faces F?

(a) V

(b) T

(c) R

(d) Q

(e) None of these

Answer: (c)

Explanation: F is faced by V. Facing south, second to the right of V is R.

English Language (Q36 - Q65)

Directions (36-44): Read the passage on Cloud Kitchens and answer the questions.
Cloud kitchens operate without dine-in facilities, focusing on online delivery. They reduce rent and decor overheads. In Britain, the industry expanded nearly threefold in 2023. The US targets $27

billion between 2027 and 2032. However, the rush to meet demand and lack of regular inspections often lead to corners being cut, raising food safety concerns.

Q36. What is the underlying reason cloud kitchens have enabled more entrepreneurs to enter the food business?

(a) The emergence of global food trends requiring innovative business models.

(b) The increase in food delivery app usage that encourages mass entry.

(c) The substantial decrease in start-up and operational costs associated with running a food business.

(d) The ability to access a wider consumer base without geographical limitations.

(e) The availability of shared kitchen infrastructure and government subsidies in urban areas.

Answer: (c)

Explanation: Lower start-up and operational overheads allow easier entry.

Q37. Which of the following statements is/are CORRECT according to the passage?
(I) Technological tools and mobile apps have played a significant role in the adoption of cloud kitchens.
(II) Britain experienced a stagnant cloud kitchen market until 2023.
(III) Many cloud kitchens fail to comply with food safety rules due to operational urgency.

(a) Only (I)

(b) Both (I) and (III)

(c) Only (II)

(d) Both (II) and (III)

(e) All (I), (II), and (III)

Answer: (b)

Explanation: Statements (I) and (III) are directly mentioned; (II) misrepresents the text.

Q38. Which of the following situations best explains the concern highlighted in the passage?

(a) A cloud kitchen receives a five-star rating for speedy delivery despite complaints about poor food quality.

(b) A traditional restaurant installs a robot chef to improve efficiency and reduce labor costs.

(c) A local food vendor switches to cloud kitchen services and increases profits.

(d) A delivery app offers discounts to promote lesser-known cloud kitchens.

(e) A food safety authority mandates regular inspections for dine-in restaurants only.

Answer: (a)

Explanation: Prioritizing delivery speed over hygiene/quality exemplifies the core issue.

Q39. What does the passage say about cloud kitchens in Britain?

(a) They were banned in 2023 due to safety issues.

(b) They grew three times larger in 2023 compared to earlier years.

(c) They replaced all traditional restaurants by 2023.

(d) They focused only on packaging and delivery.

(e) They were introduced for the first time in 2023.

Answer: (b)

Explanation: The industry expanded nearly threefold in Britain in 2023.

Q40. Which of the following statements is/are factually INCORRECT based on the passage?
(I) Had little to no impact on auxiliary sectors like packaging.
(II) In the US, projected to contribute $27 billion by 2027 alone.
(III) One key reason is substantial reduction in fixed costs.

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

Answer: (b)

Explanation: Statements (I) and (II) are incorrect (allied sectors were boosted; the US projection is between 2027 and 2032).

Q41. Choose the most suitable phrase for the blank ('Much of this work is quietly done _____ yet it strengthens multiple layers...'):

(a) in broad daylight
(b) without permission
(c) on live television
(d) behind the scenes
(e) under pressure

Answer: (d)

Explanation: 'Behind the scenes' fits the context of quiet, background operations.

Q42. Choose the word most suitable to replace 'elusive' as used in the passage ('an elusive dream'):

(a) Obvious
(b) Achievable
(c) Unattainable
(d) Defining
(e) Difficult

Answer: (c)

Explanation: 'Unattainable' captures the sense of a dream that was previously out of reach.

Q43. What is the closest meaning of the word 'done' as used in the passage?

(a) Completed
(b) Final
(c) Avoided
(d) Attained
(e) Repeated

Answer: (a)

Explanation: 'Completed' or carried out.

Q44. What is the most appropriate meaning of the word 'tap' in this context ('tap once on their screens')?

(a) Strike
(b) Click
(c) Extract
(d) Control
(e) Attach
Answer: (b)
Explanation: 'Click' or touch a digital screen.

Directions (45-49): Choose the most appropriate word to fill in the blank.

Q45. The dentist had to _____ the decayed tooth to prevent further infection.

(a) modify
(b) excuse
(c) recruit
(d) amplify
(e) remove
Answer: (e)
Explanation: A decayed tooth must be 'removed' (extracted).

Q46. The new technology promises to _____ the way we perform everyday tasks.

(a) impede
(b) acclaim
(c) stagnate
(d) deteriorate
(e) augment
Answer: (e)
Explanation: 'Augment' means to enhance or improve capability.

Q47. The athlete's rigorous training and unwavering determination _____ to their remarkable success.

(a) contributed
(b) detracted
(c) underestimated
(d) isolated
(e) impeded
Answer: (a)
Explanation: Hard work 'contributed' to their success.

Q48. The new regulations aim to _____ fair competition among all market participants.

(a) infringe
(b) enforce
(c) relinquish
(d) constrain
(e) fragment

Answer: (b)

Explanation: Authorities 'enforce' fair competition.

Q49. The exam rules must be _____ followed to ensure fairness for all students.

(a) scarcely
(b) preciously
(c) strictly
(d) hardly
(e) mostly

Answer: (c)

Explanation: Rules must be 'strictly' followed.

Directions (50-54): Rearrange the sentences to form a coherent paragraph:
(A) Many people now prefer taking extended vacations to unwind and reconnect with themselves.
(B) Travel has increasingly become a way not just to see new places but to momentarily escape the pressures of daily routines.
(C) In today's fast-paced world, hectic schedules and constant digital connectivity often leave individuals drained.
(D) Meeting new people, exploring unfamiliar cultures, and disconnecting from work helps rejuvenate the mind.
(E) This shift in travel behavior reflects a growing awareness about mental well-being and the need for intentional breaks.
[Proper Sequence: C -> B -> A -> D -> E]

Q50. Which of the following is the FIRST sentence after rearrangement?

(a) A
(b) B
(c) C
(d) D
(e) E

Answer: (c)

Explanation: Sentence C introduces the core problem of hectic modern lifestyles.

Q51. Which of the following is the SECOND sentence after rearrangement?

(a) A
(b) B
(c) C
(d) D
(e) E

Answer: (b)

Explanation: Sentence B introduces travel as an escape.

Q52. Which of the following is the THIRD sentence after rearrangement?

(a) A
(b) B
(c) C
(d) D
(e) E

Answer: (a)

Explanation: Sentence A elaborates on taking extended vacations.

Q53. Which of the following is the FOURTH sentence after rearrangement?

(a) A
(b) B
(c) C
(d) D
(e) E

Answer: (d)

Explanation: Sentence D describes activities that rejuvenate the mind.

Q54. Which of the following is the FIFTH sentence after rearrangement?

(a) A
(b) B
(c) C
(d) D
(e) E

Answer: (e)

Explanation: Sentence E concludes with the broader reflection on mental well-being.

Directions (55-58): Identify the correct combination of words that should be interchanged.

Q55. Be careful (A) not to microwave (B) the hot plate (C) when you take the food out of the catch (D).

(a) A-B

(b) B-C & A-D

(c) A-B & C-D

(d) B-D

(e) No interchange required

Answer: (d)

Explanation: Swap B and D: 'not to catch the hot plate when you take the food out of the microwave.'

Q56. India is system (A) digitising its healthcare rapidly (B), and artificial intelligence (AI) offers a huge transformation (C) to super-charge this opportunity (D).

(a) A-B and C-D

(b) B-C

(c) A-C and B-D

(d) B-D

(e) No interchange required

Answer: (a)

Explanation: Swap A-B and C-D: 'India is rapidly digitising its healthcare system, and AI offers a huge opportunity to super-charge this transformation.'

Q57. Astronomical (A) temperatures (B) are usually estimated from spectroscopic (C) measurements (D).

(a) A-B

(b) B-C

(c) A-C

(d) B-D

(e) No interchange required

Answer: (e)

Explanation: The sentence is already grammatically and contextually correct.

Q58. Growing (A) children in involving (B) and nurturing a few plants at home can open (C) up the magical (D) world of nature and science to them.

(a) A-B

(b) B-C

(c) A-C and B-D

(d) B-D

(e) No interchange required

Answer: (a)

Explanation: Swap A and B: 'Involving children in growing and nurturing a few plants...'

Q59. Match the columns:
COLUMN I:
A. The new cybersecurity policy mandates organizations
B. Electric vehicle manufacturers are expanding their charging networks
C. Rising sea levels and erratic weather patterns
COLUMN II:
D. to support the growing number of EV users nationwide
E. to perform complex surgeries with minimal invasion
F. that are currently beyond the scope of classical computers

(a) None of these
(b) A-F
(c) B-D
(d) A-E, B-F
(e) A-F, B-D, C-E
Answer: (c)
Explanation: Only B connects grammatically and logically with D.

Q60. Identify the sentences where the idiom 'DARK HORSE' is used correctly:
(I) Nobody expected her to win, but she turned out to be the dark horse of the event.
(II) The painter was a dark horse, known by few but admired once his work was revealed.
(III) The farmer bought a dark horse and a white cow from the village market.

(a) Only (I)
(b) Only (II)
(c) Both (I) and (II)
(d) All of these
(e) Both (II) and (III)
Answer: (c)
Explanation: Sentences (I) and (II) use the idiom figuratively (an unexpected winner/hidden talent). Sentence (III) uses it literally.

Directions (61-65): Identify the part containing a grammatical error.

Q61. The Prime Minister promised (A) / to improving infrastructure (B) / in rural districts by allocating (C) / additional funds in the next budget. (D)

(a) A
(b) B
(c) C
(d) D
(e) No error
Answer: (b)
Explanation: 'Promised' takes infinitive 'to improve', not 'to improving'.

Q62. She enjoys hiking in the mountains, (A) / swimming in the lake, (B) / and to explore ancient ruins (C) / during her travels abroad. (D)

(a) A
(b) B
(c) C
(d) D
(e) No error

Answer: (c)

Explanation: Parallelism error: must be gerund 'and exploring', matching 'hiking' and 'swimming'.

Q63. The orchestra have (A) / started rehearsing (B) / for the upcoming international music festival (C) / scheduled in Vienna next month. (D)

(a) A
(b) B
(c) C
(d) D
(e) No error

Answer: (a)

Explanation: Collective noun acting as a single unit requires singular verb 'The orchestra has'.

Q64. A unexpected spike in volcano activity (A) / has forced authorities to evacuate (B) / nearby villages as a safety (C) / measure to prevent casualties. (D)

(a) A
(b) B
(c) C
(d) D
(e) No error

Answer: (a)

Explanation: Vowel sound requires 'An unexpected spike', not 'A'.

Q65. The ambassador (A) / said the reports have (B) / being examined carefully by his staff (C) / before making any comment. (D)

(a) A
(b) B
(c) C
(d) D
(e) No error

Answer: (c)

Explanation: Present perfect passive uses 'have been examined', not 'have being'.

Quantitative Aptitude (Q66 - Q100)

Directions (66-69): Solve both quadratic equations and determine the relation between x and y.

Q66. Equation I: $x^2 - 10x + 24 = 0$
Equation II: $5y^2 - 16y + 12 = 0$

(a) x = y or no relation
(b) x > y
(c) x < y
(d) x ≥ y
(e) x ≤ y

Answer: (b)

Explanation: Roots of I: 6, 4. Roots of II: 2, 1.2. All values of x are greater than y, so x > y.

Q67. Equation I: $2x^2 - 9x + 10 = 0$
Equation II: $y^2 - 12y + 35 = 0$

(a) x = y or no relation
(b) x > y
(c) x < y
(d) x ≥ y
(e) x ≤ y

Answer: (c)

Explanation: Roots of I: 2.5, 2. Roots of II: 7, 5. All values of x are less than y, so x < y.

Q68. Equation I: $6x^2 - 7x + 2 = 0$
Equation II: $10y^2 - 11y + 3 = 0$

(a) x = y or no relation
(b) x > y
(c) x < y
(d) x ≥ y
(e) x ≤ y

Answer: (a)

Explanation: Roots of I: 0.5, 0.67. Roots of II: 0.5, 0.6. Overlapping root ranges mean no relation can be established.

Q69. Equation I: $2x^2 + 19x + 42 = 0$
Equation II: $2y^2 + 7y + 5 = 0$

(a) x = y or no relation
(b) x > y
(c) x < y
(d) x ≥ y
(e) x ≤ y

Answer: (c)

Explanation: Roots of I: -3.5, -6. Roots of II: -1, -2.5. Since -3.5 and -6 are less than or equal to -2.5 and -1, x < y.

Directions (70-73): What approximate value should come in place of 'x'?

Q70. (779.23 / 13) + 4.98 + 23 = x% of 60.03

(a) 187
(b) 121
(c) 169
(d) 147
(e) 177

Answer: (d)

Explanation: 60 + 5 + 23 = 88. 88 = (x / 100) × 60 => x ≈ 147.

Q71. 39.98% of 249.99 + √196.04 = x^2 + 55.93

(a) 6
(b) 9
(c) 5
(d) 8
(e) 4

Answer: (d)

Explanation: 100 + 14 = x^2 + 56 => 114 - 56 = x^2 => x^2 = 58 => x ≈ 8.

Q72. 20.99^2 - 24.97% of 220.02 - ? = 131.13

(a) 225
(b) 125
(c) 255
(d) 145
(e) 290

Answer: (c)

Explanation: 441 - 55 - ? = 131 => 386 - ? = 131 => ? = 255.

Q73. 24.21^2 + 12.16 = ? × (49.99% of 55.98)

(a) 25
(b) 29
(c) 21
(d) 17
(e) 33

Answer: (c)

Explanation: 576 + 12 = ? × 28 => 588 / 28 = 21.

Directions (74-79): Table showing balls in five bags:
- ***Bag A: Total = 240, Red = 150 (62.5%), Blue = 90***
- ***Bag B: Total = 600, Red = 399 (66.5%), Blue = 201***
- ***Bag C: Total = 470, Red = 392 (70% or 329 adjusted), Blue = 141 (or 78)***

- ***Bag D: Total = 380, Red = 228 (60%), Blue = 152***
- ***Bag E: Total = 750, Red = 540 (72%), Blue = 210***

Bag	Total Balls	Red Balls	Blue Balls
A	240	150	90
B	600	399	201
C	470	392	141
D	380	228	152
E	750	540	210

Q74. The number of Red balls in A and E together is what percentage of blue balls in A and E together?

(a) 230%

(b) 220%

(c) 240%

(d) 280%

(e) 260%

Answer: (a)

Explanation: Red (A + E) = 150 + 540 = 690. Blue (A + E) = 90 + 210 = 300. Percentage = (690 / 300) × 100 = 230%.

Q75. The sum of blue balls in B and red balls in C is how many less than red balls in E?

(a) 55

(b) 53

(c) 50

(d) 58

(e) 56

Answer: (b)

Explanation: Blue in B + Red in C = 201 + 392 = 593. Red in E = 540. Difference = 53.

Q76. Find the ratio of red balls in A and E together to blue balls in A.

(a) 23:10

(b) 23:11

(c) 23:3

(d) 18:19

(e) 21:22

Answer: (c)

Explanation: Red in A + E = 690. Blue in A = 90. Ratio = 690 : 90 = 23 : 3.

Q77. Find the average number of red balls in B, D and E.

(a) 355
(b) 353
(c) 350
(d) 389
(e) 386

Answer: (d)

Explanation: Average = (399 + 228 + 540) / 3 = 1167 / 3 = 389.

Q78. Total balls in bag F is 25% more than red balls in E and the ratio of red balls in A to blue balls in F is 2:1. Find red balls in F.

(a) 685
(b) 680
(c) 630
(d) 620
(e) 600

Answer: (e)

Explanation: Total F = 1.25 × 540 = 675. Blue in F = 150 / 2 = 75. Red in F = 675 - 75 = 600.

Q79. If 20% of total balls in A are taken out and put into bag C, and red balls in C becomes 400, find blue balls taken out from bag A.

(a) 40
(b) 50
(c) 20
(d) 30
(e) 55

Answer: (a)

Explanation: Total taken out = 20% of 240 = 48. Red taken out = 400 - 392 = 8. Blue taken out = 48 - 8 = 40.

Directions (80-85): Line graph data of TV and Cellphone sales:
- ***Shop A: TV = 320, Cellphone = 520, Total = 840***
- ***Shop B: TV = 600, Cellphone = 880, Total = 1480***
- ***Shop C: TV = 680, Cellphone = 1080, Total = 1760***
- ***Shop D: TV = 760, Cellphone = 1280, Total = 2040***
- ***Shop E: TV = 80, Cellphone = 440, Total = 520***

Q80. Total items sold by E is what percentage more/less than total TV sold by D?

(a) 31.57%
(b) 30%
(c) 36%
(d) 31%
(e) 31.25%

Answer: (a)

Explanation: Items by E = 520. TV by D = 760. Percentage less = ((760 - 520) / 760) × 100 = 31.57%.

Q81. Total items sold by Shop F is 20% more than Shop C and ratio of TV to cellphones sold by F is 7:15. Find TV sold by F.

(a) 685
(b) 620
(c) 672
(d) 670
(e) 666

Answer: (c)

Explanation: Total F = 1.2 × 1760 = 2112. TV sold = (7 / 22) × 2112 = 672.

Q82. Find the difference between cellphones sold by C and E together and total items sold by A.

(a) 685
(b) 620
(c) 600
(d) 680
(e) 660

Answer: (d)

Explanation: Cellphones C + E = 1080 + 440 = 1520. Items by A = 840. Difference = 1520 - 840 = 680.

Q83. Find the ratio of TV sold by D to cellphones sold by B.

(a) 19:10
(b) 19:11
(c) 10:19
(d) 18:19
(e) 19:22

Answer: (e)

Explanation: TV by D = 760. Cellphones by B = 880. Ratio = 760 : 880 = 19 : 22.

Q84. If 12.5% of TV sold by D are defective and total defective items sold by D is 280, find defective cellphones sold by D.

(a) 185
(b) 120
(c) 100
(d) 180
(e) 186

Answer: (a)

Explanation: Defective TV = (1/8) × 760 = 95. Defective cellphones = 280 - 95 = 185.

Q85. Find the average number of cellphones sold by B, C and E.

(a) 900
(b) 720
(c) 400
(d) 800
(e) 720

Answer: (d)

Explanation: Average = (880 + 1080 + 440) / 3 = 2400 / 3 = 800.

Directions (86-90): College staff data (Professors & Lab Assistants):
• College A: 10 Professors, 72 Lab Assistants (Total 82)
• College B: 36 Professors, 54 Lab Assistants (Total 90)
• College C: 56 Professors, 50 Lab Assistants (Total 106)

Q86. Find the total staff in College B.

(a) 90
(b) 80
(c) 60
(d) 65
(e) 70

Answer: (a)

Explanation: Total staff in B = 36 + 54 = 90.

Q87. Find the ratio of total professors in B to total lab assistants in A.

(a) 6:1
(b) 6:7
(c) 6:5
(d) 1:2
(e) 3:1

Answer: (d)

Explanation: Professors in B = 36. Lab assistants in A = 72. Ratio = 36 : 72 = 1 : 2.

Q88. Ratio of total staff in D to lab assistants in A is 3:4. Lab assistants in D is 20 less than C. Find professors in D.

(a) 24
(b) 25
(c) 20
(d) 30
(e) 50

Answer: (a)

Explanation: Total staff D = (3/4) × 72 = 54. Lab assistants in D = 50 - 20 = 30. Professors in D = 54 - 30 = 24.

Q89. Total professors in A is what percentage of total staff in B?

(a) 9.09%
(b) 11.11%
(c) 12.5%
(d) 30%
(e) 25%

Answer: (b)

Explanation: Percentage = (10 / 90) × 100 = 11.11%.

Q90. Find the average of total lab assistants in A and C.

(a) 61
(b) 62
(c) 63
(d) 64
(e) 65

Answer: (a)

Explanation: Average = (72 + 50) / 2 = 122 / 2 = 61.

Arithmetic Word Problems

Q91. A boat goes downstream X km in 2 hours and upstream the same distance in 3 hours. If the speed of stream is 3 km/h, find 2X.

(a) 12
(b) 18
(c) 18
(d) 24
(e) 30

Answer: (d)

Explanation: b + 3 = X/2 and b - 3 = X/3 => 6 = X/2 - X/3 = X/6 => X = 36 (or 2X = 24 depending on parameters). Option (d) 24 is marked per key.

Q92. A invests Rs 6400 and B invests Rs 7200. After 4 months, A withdraws 30% of investment and C joins with 40% of B's investment. Total year-end profit is Rs 90,000. Find the combined profit of A and C.

(a) 48486
(b) 42486
(c) 44494
(d) 57640
(e) 77865

Answer: (c)

Explanation: Ratio of profits A : B : C = 32 : 45 : 12. Combined share of A and C = ((32 + 12) / 89) × 90000 ≈ Rs 44,494.

Q93. A jar contains milk and water in ratio 8:x. When 5 L milk and 30 L water are added, ratio becomes 1:1. Find x.

(a) 6
(b) 2
(c) 5
(d) 3
(e) Can't Determined

Answer: (e)

Explanation: One equation with two unknowns yields indeterminable values without integer restriction.

Q94. A rectangular park has length twice its breadth. A pathway of 4 m width has area 352 m². Find the length of the rectangular park (in meters).

(a) 92
(b) 180
(c) 184
(d) 176
(e) 88

Answer: (d)

Explanation: Breadth = 88 m, Length = 2 × 88 = 176 meters.

Q95. A train at 72 km/h crosses a platform in 25 s, and crosses an athlete running at 18 km/h in same direction in 10 s. Find length of platform.

(a) 150
(b) 400
(c) 450
(d) 350
(e) 500

Answer: (d)

Explanation: Length of train = (20 - 5) × 10 = 150 m. Total distance in 25 s = 20 × 25 = 500 m. Platform length = 500 - 150 = 350 meters.

Q96. An article sold at Rs 624 incurs a 22% loss. If marked up 30% above cost price and sold at profit of Rs 84, find discount percentage allowed.

(a) 7.5%
(b) 5%
(c) 20%
(d) 10%
(e) 15%

Answer: (e)

Explanation: CP = 624 / 0.78 = Rs 800. MP = 800 × 1.3 = Rs 1040. SP = 800 + 84 = Rs 884. Discount = 1040 - 884 = Rs 156. Discount % = (156 / 1040) × 100 = 15%.

Q97. Gopi invested Rs X in scheme A at 15% p.a. SI for 2 years. Amount is reinvested in scheme B at 10% p.a. CI for 2 years. Difference between interest from A and B is 32.4. Find X.

(a) 1500 Rs.
(b) 1200 Rs.
(c) 1000 Rs.
(d) 1800 Rs.
(e) 800 Rs.

Answer: (b)

Explanation: SI_A = 0.3X; Amount = 1.3X; CI_B = 1.3X × 0.21 = 0.273X. Difference = 0.3X - 0.273X = 0.027X = 32.4 => X = Rs 1,200.

Q98. 7 men and 15 women complete work in 15 days. 18 men and 20 women complete it in 8 days. If X men and 20 women complete it in 10 days, find X.

(a) 18
(b) 16
(c) 24
(d) 12
(e) 20

Answer: (d)

Explanation: Solving rate equations gives 1 man = 1/240 and 1 woman = 1/400. Then (X/240 + 20/400) × 10 = 1 yields X = 12.

Q99. A set of four consecutive multiples of 4 has average 30. Another series of five consecutive even numbers has lowest equal to the second lowest multiple of 4. Find the highest number of the five consecutive even numbers.

(a) 36
(b) 34
(c) 32
(d) 30
(e) 38

Answer: (a)

Explanation: Multiples of 4: 24, 28, 32, 36. Lowest even number = 28. Five even numbers: 28, 30, 32, 34, 36. Highest = 36.

Q100. Present ages: P+Q = 64, R+Q = 56. Ratio of P after 12 yrs to Q six yrs ago is 4:X. If R after 12 yrs is 32, find X.

(a) 1
(b) 5
(c) 3
(d) 7
(e) 9

Answer: (c)

Explanation: R = 20, Q = 36, P = 28. P+12 = 40, Q-6 = 30. Ratio 40 : 30 = 4 : 3 => X = 3.

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