IBPS Clerk

Preliminary Practice set No : 9

www.ibpsexamguru.in

Sections	Number of questions	Marks	Duration of Exam
1. English Language	30	30	60 Minutes
2. Reasoning	35	35	
3. Quantitative Aptitude	35	35	
	Total = 100 Qs.	Total marks = 100	

1. English Language

Direction (Q. 1 - 15): Read the following passage carefully and answer the questions given below it. Certain words/phrases in the passage are printed in bold to help you locate them while answering some of the questions.

In a country where consumers have traditionally had a raw deal, the Consumer Protection Act was one of the most progressive acts of legislation introduced in 1986. Before this, a shop could get away easily with the line "goods once sold will not be taken back or exchanged" or a car parking contractor with "park at your own risk". It is not that things have changed now but at least legislation is in place and a **forum** is available to seek **redressal**. One of the basic limitations of this act is its mystification and general ignorance. No consumer agency or group has made its provisions general, nor has any redressal commission or forum. Restricted as it is by **a lack of in frastructure and personnel and great verdicts** to encourage consumers. The legislation is comprehensive. It gives consumers the right to redress against defective goods, deficient services and unfair trade practices. Consumer courts must deliver their judgments within 40 days, but rarely is this deadline adhered to. This reviewer had a first-hand experience of the chairman of a consumer court in Delhi who **adjourned** a case against a foreign airline for two years on the grounds that he did not have staff to type the orders. His replacement found the backlog so shocking that he dismissed several cases without applying his mind, in the process working against the interests of consumers. But what is more important is that the law has it that a consumer can approach court on his own without having to pay legal fees. In practice, this does not happen. The chairperson of the National Commission, who is a sitting judge, is so **attuned** to delivering judgments which can stand scrutiny in a civil court of law that it is insisted upon that a consumer must be represented by a lawyer. If not, cases are adjourned with **impunity** and set for another day. Girimaji's attempt is creditable in that it is the first of its kind and has addressed almost all possible angles. She has discussed redressals in complaints about housing, basic telephony, rail transportation, power supply, life insurance and medical negligence. There are even tips on how to file a complaint. But it is **mired** in the case files of the National/ State Commissions of the Consumer Forum. A useful dimension would have been a comparison with the Law of Torts practiced abroad. It is necessary here also, especially in an era of economic liberalization, when the **consumer is likely to be swept off his feet** by free-market forces.

1. Why is the consumer likely to be swept off his feet?

1) He is easily taken in by the deceptive publicity.

2) He is wooed by the charm of foreign brands readily available in the market.

3) He is not aware of the Law of Torts as practiced abroad.

4) He is not aware of the benefits of the consumer rights.

5) The Consumer Protection Act has been implemented and he can seek redressal.

2. What does 'lack of... verdicts' imply?

1) A lack of the basis of the system, trained staff and decisions based on fact

2) A paucity of funds, jury and judgment

3) A lack of resources, employees and final decision based on facts

4) Not having the required manpower, economy and decisive ruling

5) None of these

3. Which of the following statements is/are true?

A. Girimaji's attempt is comprehensive but could have done with an angle or two more.

B. Though the Act allows the consumer to approach the court on his own, yet a lawyer to represent him is insisted upon.

C Despite the Act, much remains the same.

1) Only A and C 2) Only A and B 3) AHA, B and C 4) Only B and C 5) None of these

4. What does the author mean by 'mystification of the Act'?

1) The mysterious Act is yet to be resolved.

2) The consumer is wary of the Act.

3) The Act is not easily accessible.

4) The consumer remains unaware of his rights and privileges.

5) The plight of the consumer is yet to end.

5. Which of the following best describes the judge's replacement?

1) He was partial towards the airline as it was a foreign one.

2) He never bothered to safeguard the interests of the reviewer.

3) He dismissed cases without even giving a second thought to what cases came to him.

4) He was apathetic and uninterested about the direction the case might head in.

5) He passed irrelevant verdicts indifferently.

6. What does the Act broadly cover?

1) It protects the right to redress.

2) It is a forum that protects the redresser.

3) It shields the consumer from deceptive and unfair trade practices.

4) It enables the plaintiff to fight his case free of cost.

5) None of these

7. Which of the following is a limitation of the Act?

1) It does not cover the international law of torts.

2) It is not comprehensive with regard to liberal economy.

3) No forum or commission has come forward to bring it to light.

4) Its red-tapism

5) None of these

8. How has Girimaji's attempt been creditable?

1) It has given the Act a new dimension.

2) She has brought all the loopholes in the Act to the consumer's notice.

3) She has looked at the Act in a very disinterested and impersonal manner.

4) She has discussed the law in the most explicit manner.

5) Her implicit dialogue with the consumer has made him aware of his rights.

9. What is the functionary role of the chairman of the National Commission?

1) To be the titular head of the commission

2) To be accountable to the public

3) To prevent any dissent arising out of his verdicts and Acts

4) To adjourn the cases with impunity

5) None of these

Direction (Q. 10 - 12): Choose the word which is most SIMILAR in meaning to the word printed in bold as used in the passage.

10. Forum

1) Dias 2) Podium 3) Platform 4) Stage 5) None of these

11. Attuned

1) Brought into harmony 2) Adjusted 3) Hazardous 4) Out of tune 5) Malpractice

12. Adjourned

1) Stopped 2) Postponed 3) Decided 4) Cleared 5) Pended

Direction (Q. 13 - 15): Select the word which is most OPPOSITE in meaning of the word printed in bold as used in the passage.

13. Impunity

1) Penalized 2) Fine 3) Sentence 4) Freedom from punishment 5) None of these

14. Mired

1) Buried 2) Muddy 3) Steeped 4) Free 5) None of these

15. Redressal

1) Plea 2) Justice 3) Sue for compensation 4) Not to compensate 5) Put right

Direction (Q. 16 - 20): Read each sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is 5), ie No error. (Ignore errors of punctuation, if any.)

16. 1) Salma had no other /2) hobby than that /3) of wearing dresses of /4) the latest design./5) No error

17. 1) Being a rainy day /2) Rakish decided to stay /3) and work further /4) on the problem. /5) No error

18. 1) A five-star hotel /2) is to build /3) in the centre /4) of the city. /5) No error

19. 1) The report said /2) that the judge acquitted /3) him of all /4) the charges. /5) No error

20. 1) In spite of being /2) very busy /3) she saves time /4) for the visitors. /5) No error

Direction (Q. 21 - 30): In the following passage, there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

The researchers (21) tiny bubbles into the beaker and (22)them with sound waves. The bubbles rapidly expanded and then (23). It caused a momentary shock wave that created high pressure, high temperature and a (24) of light. Achieving (25) nuclear fusion would be a scientific (26) if not the (27).

The experiment produced only (28) amount of energy, but scientists feel it might be possible to enlarge the (29) to a commercially (30) scale.

21. 1) poured 2) introduced 3) filled 4) thrust 5) pulled

22. 1) zapped 2) collided 3) hit 4) axed 5) sunk

23. 1) vanished 2) fell 3) collapsed 4) swooned 5) sunk

24. 1) flame 2) flash 3) current 4) beam 5) spot

25. 1) sustainable 2) tenable 3) therefore 4) culpable 5) commendation

26. 1) pinnacle 2) landmark 3) milestone 4) earmark 5) commendation

27. 1) final 2) curtain call 3) road 4) finals 5) finality

28. 1) fit 2) miniature 3) sweeping 4) minuscule 5) massive

29. 1) method 2) technology 3) proceeds 4) experimentation 5) process

30. 1) success 2) massive 3) manageable 4) marketable 5) viable

Answers:

1. (2)

2. (2)

3. (4)

4. (4)

5. (3)

6. (3)

7. (5)

8. (4)

9. (5)

10. (3)

11. (2)

12. (2)

13. (1)

14. (4)

15. (4)

16. (5)

17. (1); 'It being'

18. (2); 'is to be built'

19. (2); 'the judge had acquitted'

20. (5)

21. (2)

22. (3)

23. (3)

24. (2)

25. (1)

26. (3)

27. (5)

28. (4)

29. (5)

30. (5)

2. Reasoning

Direction (Q. 1 - 5): Study the following information carefully and answer the questions given below it.

A, B, C, D, E, F and G are travelling in three cars, viz Ferrari, Audi, and Toyota, with at least two persons in each car. There are three female members among them with at least one in each car. E is not travelling in Ferrari. C is travelling in Audi with his best friend G only. B is not travelling with either A or D and his best friend F is travelling in Ferrari. D is not travelling in Toyota.

1. Which of the following definitely represents a group of male members?

1) CBA 2) CBF 3) CBFA 4) CBAD 5) Data inadequate

2. In which car is B travelling?

1) Ferrari 2) Toyota 4) Audi 4) cannot be determined 5) none of these

3. Which of the following cars is carrying three persons together?

1) Toyota 2) Audi 3) Ferrari 4) Cannot be determined 5) None of these

4. In which car is A travelling?

1) Ferrari 2) Audi 3) Toyota 5) cannot be determined 5) none of these

5. Which of the following represents a group of three female members?

1) DEG 2) AEG 3) FEG 4) Cannot be determined 5) None of these

Direction (Q. 6 - 10): Study the following information carefully and answer the questions given below.

P, Q, R, S, T, U and V are sitting around a circle facing the centre. S is sitting between P and V. U is second to the right of V and T is second to the right of U. R is not an immediate neighbor of V.

6. Who is on the immediate left of T?

1) P 2) R 3) U 4) Data inadequate 5) None of these

7. Which of the following is not true?

1) V is second to the right of P.

2) Q is second to the right of S.

3) U is second to the left of T.

4) T is second to the left of S.

5) All are correct

8. In which of the following groups is the third member sitting between the first and second members?

1) TPS 2) SVQ 3) VUQ 4) SPV 5) None of these

9. Who is sitting between R and P?

1) T 2) S 3) U 4) V 5) None of these

10. Who is on the immediate right of V?

1) U 2) S 3) Q 4) Data inadequate 5) None of these

Direction (Q. 11 - 15): In these questions, relationship between different elements is shown in the statements. These statements are followed by three conclusions. You have to find which of the given conclusions follows from the given statements.

11. Statements: M < T , T ≤ K , K = D

Conclusions: I. D ≥ T II. K > M III. D>M

1) Only I and II are true

2) Only I and III are true

3) Only II and III are true

4) All are true

5) None of these

12. Statements: B>H,H≥A,A = K

Conclusions: I. B≥K II. K ≤ H III. A<B

1) Only I and II are true

2) Only I and III are true

3) Only II and III are true

4) Only II is true

5) None of these

13. Statements: W≥N, N > R , R≤F

Conclusions: I. F > N II. W > N III. R < W

1) None is true

2) Only HI is true

3) Only I and II are true

4) Only II and III are true

5) None of these

14. Statements: F = K, K > M , M≤V

Conclusions: I. F≥V II. V ≤ K III. M>K

1) Only I is true

2) Only II is true

3) Only HI is true

4) All are true

5) None of these

15. Statements: N ≤ D , D<T, T≥J

Conclusions: I. J<D II. N>J III. T>N

1) Only III is true

2) Only II is true

3) Only I is true

4) Only I and II are true

5) None of these

Direction (Q. 16 - 20): Study the following information carefully and answer the questions given below.

A, B, C, D, E, F and G are seven students of a college belonging to three streams —Computer Science, IT and Electronics—with at least two students in each stream. Each of them has a different choice of a soft drink, viz Coca-Cola, Pepsi, Thums-up, Sprite, Limca, Fanta and 7-Up, not necessarily in the same order.

C is in Electronics and his choice of soft drink is 7-Up. F does not like either Pepsi or Fanta and has the same stream as that of only G among them. B's stream is the same as that of Abut neither Electronics nor Computer Science. E's stream is not Electronics and he likes Sprite. The one who likes Coca- Cola does not have either Computer Science or IT. A likes Thums-Up. The one who likes Fanta does not have IT stream.

16. What is B's favourite soft drink?

1) Coca-Cola 2) 7-Up 3) Fanta 4) Pepsi 5) None of these

17. What is D's favourite soft drink?

1) Fanta 2) Thums-Up 3) Coca-Cola 4) Data inadequate 5) None of these

18. Which of the following streams has three persons together?

1) Computer Science 2) IT 3) Electronics 4) Data inadequate 5) None of these

19. What is F's favourite soft drink?

1) Pepsi 2) Sprite 3) Fanta 4) Coca-Cola 5) None of these

20. What is G's stream?

1) Computer Science 2) IT 3) Electronics 4) Data inadequate 5) None of these

Direction (Q. 21 - 25): Read the following information carefully and answer the questions that follow.

Five professors A, B, C, D and E, residing in five different cities, teach five different subjects.

1. A does not live in either Bangalore or Lucknow and he teaches Philosophy.

2. B lives neither in Hyderabad nor in Lucknow. He teaches Mathematics.

3. D lives in Jaipur and does not teach Economics.

4. E lives neither in Bangalore nor in Delhi. He teaches Geography.

5. C does not teach History and he lives in Delhi.

21. Who lives in Bangalore?

1) A 2) B 3) C 4) D 5) None of these

22. Which of the following subjects does C teach?

1) Philosophy 2) Mathematics 3) History 4) Economics 5) None of these

23. In which of the following cities does E live?

1) Bangalore 2) Hyderabad 3) Lucknow 4) Delhi 5) None of these

24. Which of the following subjects does D teach?

1) Mathematics 2) Philosophy 3) Economics 4) History 5) None of these

25. Which of the following combinations is wrong?

1) A-Hyderabad 2) B-Geography 3) C-Delhi 4) D-History 5) All are true

Direction (Q. 26 - 30): Study the following information carefully and answer the given questions.

Given an input line, a coding machine rearranges the

input following certain steps as explained below.

Input: 47 desert go 56 there often 32 12

Step I: there 47 desert go 56 often 32 12

Step II: there 12 47 desert go 56 often 32

Step III: there 12 often 47 desert go 56 32

Step IV: there 12 often 32 47 desert go 56

Step V: there 12 often 32 go 47 desert 56

Step V is the last step of the arrangement.

In each of the following questions, the rearrangement is done following the same rules as explained in the above illustration.

26. If the fourth step of an input is "wonderful 22 seashore 36 48 fine 62 morning", what was its first step?

1) fine 48 wonderful 22 seashore 36 62 morning

2) fine 48 wonderful 22 36 seashore 62 morning

3) fine 48 seashore wonderful 22 36 morning 62

4) fine 48 seashore wonderful 36 22 morning 62

5) Cannot be determined

27. What will be the third step for the following input?

Input: paper common 36 51 pencil 28 test 66

1) test 28 paper pencil common 36 51 66

2) test 28 pencil 66 paper common 36 51

3) test 66 pencil paper 28 common 5136

4) test 28 pencil paper common 36 51 66

5) None of these

28. If step II of an input is "waive 14 available time 38 46 probation 85", how many more steps will be required to complete the arrangement?

1) Three 2) Four 3) Five 4) Two 5) None of these

29. Which step will be the last step for the input "27 sports 48 television commentary 18 house 36"?

1) IV 2) V 3) VI 4) W 5) None of these

30. What will be the third step of an input having first step as "number game 54 23 always lacking 16 75"?

1) number 16 lacking 23 game always 54 75

2) number 16 lacking 23 always 54 game 75

3) number 16 lacking 23 game 54 always 75

4) Cannot be determined

5) None of these

Direction (Q. 31 - 35): In each question below are given three statements followed by three conclusions numbered I, II and III. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

31. Statements: All grapes are mangoes.

Some oranges are mangoes.

Some leaves are oranges.

Conclusions: I. Some leaves are mangoes.

II. Some oranges are grapes.

III. Some leaves are grapes.

1) Only I follows 2) Only II follows 3) Only III follows 4) Only I and II follow 5) None of these

32. Statements: Some desks are benches.

Some benches are rooms.

Some rooms are walls.

Conclusions: I. Some walls are benches.

II. Some rooms are desks.

III. Some desks are walls.

1) None follows 2) Only I follows 2) Only II follows 4) Only III follows 5) All follow

33. Statements: Some hotels are towns.

All towns are villages.

All villages are cities.

Conclusions: I. Some cities are hotels.

II. Some villages are hotels.

III. All villages are towns.

1) Only I and II follow 2) Only I and III follow 3) Only II and III follow 4) All follow 5) None of these

34. Statements: All books are garments.

Some garments are houses.

All houses are vehicles.

Conclusions: I. Some vehicles are garments.

II. Some houses are books.

III. Some vehicles are books.

1) All follow 2) Only I follows 3) Only II follows 4) Only I and II follow 5) Only II and III follow

35. Statements: All kites are crows.

All crows are bananas.

All bananas are apples.

Conclusions: I. Some apples are kites.

II. All bananas are kites.

III. Some apples are crows.

1) All follow 2) Only I follows 3) Only HI follows 4) Only I and III follow 5) None of these

Answers:

(1 - 5):

Person	Sex	Car
A	Male/Female	Ferrari
B	Male	Toyota
C	Male	Audi
D	Male/Female	Ferrari
E	Female	Toyota

F	Male/Female	Ferrari
G	Female	Audi

1. (1);

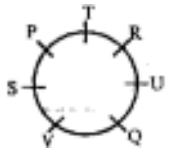
2. (2);

3. (3);

4. (1);

5. (4);

(6 - 10);



6. (2);

7. (5);

8. (3);

9. (1);

10. (3);

11. (4)

12. (3)

13. (2)

14. (5)

15. (1)

(16 - 20):

Student	Stream	Soft drink
A	IT	Thums-Up
B	IT	Pepsi
C	Electronics	7-Up
D	Electronics	Coca-cola
E	IT	Sprite

F	Comp. Science	Limca
G	Comp. Science	Fanta

16. (4);

17. (3);

18. (2);

19. (5);

20. (1);

(21 - 25):

Professor	City	Subject
A	Hyderabad	Philosophy
B	Bangalore	Maths
C	Delhi	Economics
D	Jaipur	History
E	Lucknow	Geography

21. (2);

22. (4);

23. (3);

24. (4);

25. (2);

(26 - 30):

The word that comes last in the alphabetical order goes to the first position in step I while the rest of the line shifts rightward. The smallest number comes to the second position in the next step and the rest of the line shift rightward. This goes on alternately till and words get arrayed in reverse alphabetical order and the numbers in ascending order at alternate places.

26. (5); It is not possible to find the previous step.

27. (4);

Input: paper common 36 51 pencil 28 test 66

Step I: test paper common 36 51 pencil 28 66

Step II: test 28 paper common 36 51 pencil 66

Step III: test 28 pencil paper common 36 51 66

28. (2);

Step II: Waive 14 available time 38 46 probation 85

Step III: Waive 14 times available 38 46 probation 85

Step IV: Waive 14 times 38 available 46 probation 85

Step V: waive 14 times 38 probation available 46 85

Step VI: waive 14 times 38 probation 46 available 85

So, four more steps will be required.

29. (3);

Input: 27 sports 48 television commentary 18 house 36

Step I: television 27 sports 48 commentary 18 house 36

Step II: television 18 27 sports 48 commentary house 36

Step III: television 18 sports 27 48 commentary house 36

Step IV: television 18 sports 27 house 48 commentary 36

Step V: television 18 sports 27 house 36 48 commentary

Step VI: television 18 sports 27 house 36 commentary 48

30. (3);

Input: number g a m e 54 23 always lacking 16 75

Step I: number 16 game 54 23 always lacking 75

Step II: number 16 lacking game 54 23 always 75

Step III: number 16 lacking 23 game 54 always 75

31. (5);

Some leaves are oranges + Some oranges are mangoes = I + I = No conclusion. Hence I does not follow. N either does III consequently. Some oranges are mangoes + conversion of All grapes are mangoes = 1 + 1 = N o conclusion. Hence II does not follow.

32. (1);

I + I = No Conclusion.

33. (1);

All towns are villages (A) → conversion → Some villages are towns (I). hence III does not follow. Some hotels are towns + All towns are villages = I + A = I = S o m e hotels are villages → conversion → Some villages are hotels (I). Hence II follows. Some hotels are villages + All villages are cities = I + A = I = Some hotels are cties → conversion → Some cities are hotels (I). Hence I follows.

34. (2);

Some garments are houses + All houses are vehicles = I + A = I = Some garments are vehicles → conversion → Some vehicles are garments (I). Hence I follows. All books are garments + Some garments are houses = A + I = No conclusion. Hence II and III do not follow.

35. (4);

All kites are crows + AH crows are bananas = A + A = A = All kites are bananas → conversion → Some bananas are kites (I). Hence II does not follow. All kites are bananas + All bananas are apples = A + A = A = All kites are apples → conversion Some apples are kites (I). Hence I follows. All crows are bananas + All bananas are apples = A + A = A All crows are apples → conversion → Some apples are crows (I). Hence III follows.

3. Quantitative Aptitude

Direction (Q. 1 - 5): What value should come in place of question mark (?) in the following equations?

1. $(50625)^{0.13} \times (3375)^{2} \times (50625)^{0.12} = (15)^{?}$

1) 176 2) 216 3) 242 4) 278 5) 304

2. 372% of 450 – 45% of 3640 = 20% of?

1) 160 2) 180 3) 200 4) 220 5) 240

3. $\frac{17}{71}$ of $\frac{91}{19}$ of 10792 = ?

1) 12451 2) 12284 3) 12376 4) 12435 5) 12452

4. $\sqrt[3]{19683} \times \sqrt[3]{42875}$ = 45 x ?

1) 15 2) 21 3) 24 4) 27 5) 32

5. 223080 ÷ ? = 1352

1) 145 2) 155 3) 165 4) 175 5) 185

Direction (Q. 6 - 10): What approximate value should come in place of question mark (?) in the following equations?

6. 7.89% of 6650 + 6.65% of 7890 = ?

1) 950 2) 1050 3) 1150 4) 1250 5) 1350

7. $\sqrt[3]{140600}$ = ?

1) 51 2) 52 3) 53 4) 54 5) 56

8. $\frac{1385.86}{7.698} + \frac{14}{0.069}$ = ?

1) 320 2) 340 3) 360 4) 380 5) 400

9. 13.98% of 7551 – 17.02% of 4495 = ?

1) 290 2) 340 3) 180 4) 250 5) 320

10. $\sqrt{5775} + \sqrt{2400} = \sqrt{620} +$?

1) 90 2) 100 3) 110 4) 120 5) 130

Direction (Q. 11 - 15): Following table shows the GDP (in USD million) of different countries and percentage contribution by different sectors in total GDP. Answer questions based on this table.

Country	Total GDP	Agriculture	Industry	Service Sector
A	1640	40%	30%	30%
B	1200	37%	42%	21%
C	1580	25%	40%	35%
D	960	30%	45%	25%
E	1050	40%	20%	40%
F	1375	20%	60%	20%
G	1320	50%	25%	25%
H	850	16%	34%	50%
I	720	45%	25%	30%
J	1100	27%	36%	37%

11. Total GDP of Country A is what percentage more than the total GDP of Country B?

1) 24.84% 2) 36.66% 3) 37.5% 4) 42% 5) 44.24%

12. What is the average contribution by Industry in the total GDP, taking all the ten countries together? (Answer in million USD)

1) 423 2) 425 3) 427 4) 429 5) None of these

13. The GDP of Country I contributed by the Service sector is what percentage more than the contribution by Industry?

1) 16% 2) 20% 3) 24% 4) 30% 5) None of these

14. GDP of Country E contributed by Agriculture is what percentage of GDP of Country D contributed by the Service sector?

1) 120% 2) 125% 3) 150% 4) 175% 5) 180%

15. What is the ratio of the total GDP of Country J to the GDP of Country G contributed by the Service sector?

1) 10:4 2) 10:3 2) 2:1 4) 11:5 5) 11:4

16. Two equal amounts are deposited in two different banks at 7.5% pa interest rate each for 14-years and 9 years respectively. If the difference between their interest is Rs. 732. what is the amount deposited?

1) Rs. 6400 2) Rs. 6000 3) Rs. 5400 4) Rs. 4800 5) Rs. 4200

17. The difference between the simple interest and the compound interest compounded every six months at the rate of 18% pa at the end of two years is ?20632.644. Find the amount.

1) Rs. 6400 2) Rs. 6000 3) Rs. 5400 4) Rs. 4800 5) Rs. 4200

18. In how many different ways can the letters of the word 'PAKISTAN' be arranged in such a way that the vowels always come together?

1) 360 2) 720 3) 2160 4) 4320 5) 40320

19. 20 persons are sitting around a circle table. What is the probability that 10 particular persons sit together?

1) $\frac{5}{323}$ 2) $\frac{4}{417}$ 3) $\frac{11}{20}$ 4) $\frac{1}{2}$ 5) $\frac{2}{9}$

20. In a 3kg mixture of water and milk, 50% is milk. How much water should be added so that the proportion of milk becomes 20%?

1) 1.5 kg 2) 2 kg 3) 2.5 kg 4) 3 kg 5) None of these

21. $\frac{6}{5}$ of a number is equal to $\frac{3}{7}$ of the second number. If 24 is added to the first number, it becomes 70% of the second number. What is the second number?

1) 35 2) 70 3) 135 4) 45 5) 90

22. A tank has a leak which would empty it in 12 hours. A tap is turned on which fills the tank at the rate of 140 litres per hour and it is now emptied in 26 hours. What is the capacity of the tank?

1) 3060 litres 2) 3120 litres 3) 3280 litres 4) 3640 litres 5) None of these

23. If 28 women earn Rs. 10080 in 12 days, how many men must work for 25 days to earn Rs. 28125, if the daily wages of a man is two-and-a-half times those of a woman?

1) 10 2) 12 3) 15 4) 16 5) 18

24. A man covers a certain distance on a bicycle. Had he moved 3 kmh'1 faster, he would have taken 1 hour less. If he had moved 2 kmh1 slower, he would have taken 1 hour more. What is the distance covered by him?

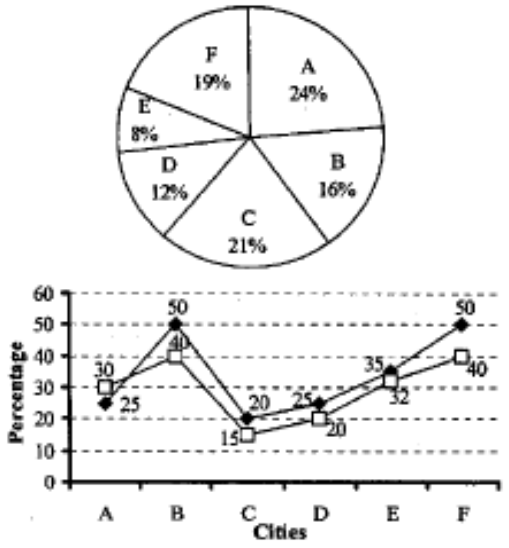
1) 30 km 2) 45 km 3) 50 km 4) 60 km 5) 75 km

25. If the length of a rectangle is increased by 3 metre and the breadth is decreased by 1 metre, the area of the rectangle remains unchanged. If the length is decreased by 6 metre and the breadth is increased by 5 metre, again the area remains unchanged. What is the length of the rectangle?

1) 24 metre 2) 18 metre 3) 16 metre 4) 12 metre 5) 9 metre

Direction (Q. 26 - 30): Following pie-chart shows the percentage distribution of total population of six different cities in the year 1980. The total population all the six cities together is 2 crore.

The line graph shows the percentage growth of population of these six cities in two decades, 1980-1990 and 1990-2000.



□ → % growth of population during 1980-1990

♦ → % growth of population during 1990-2000

26. What will be the population of City C in the year 2000?

1) 54.8 lakh 2) 57.96 lakh 3) 58.24 lakh 4) 60.96 lakh 5) 64 lakh

27. The population of City D in the year 2000 is what percentage of its population in the year 1980?

1) 145% 2) 150% 3) 122.5% 4) 125% 5) 120%

28. What is the ratio of the population of City D in the year 1990 to the population of City B in the year 1990?

1) 3:5 2) 1:2 3) 25:32 4) 15:28 5)3:4

29. What is the percentage rise in the population of City A from 1980 to 2000?

1) 55% 2) 27.5% 3) 62.5% 4) 155% 5) None of these

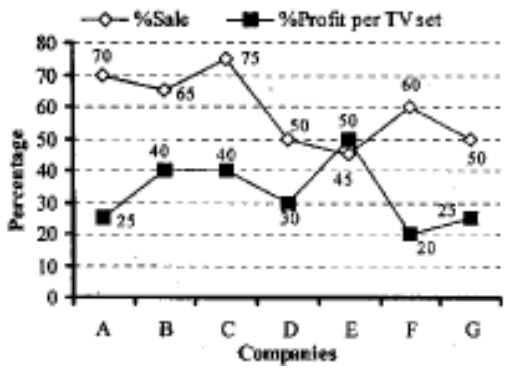
30. What is the total population of all the six cities together in 2000?

1) 34128 lakh 2) 342.1728 lakh 3) 343.162 lakh 4) 344.352 lakh 5) None of these

Direction (Q. 31 - 35): Following table shows the total number of TV sets produced by seven different companies and the cost price per TV set.

The line graph shows the percentage sale and percentage profit per TV set for all the seven companies.

Company	No. of TV sets produced	Cost Price per TV (in?)
A	36000	75000
B	45000	64000
C	50000	52000
D	28000	45000
E	39000	42000
F	24000	36000
G	30000	32000



31. What is the average production of TV sets by all the seven companies together?

1) 34500 2) 35200 3) 36000 4) 36400 5) 36800

32. What is the total profit earned by Company G?

1) Rs. 11.2 cr 2) Rs. 11 cr 3) Rs. 12.4 cr 4) Rs. 12.5 cr 5) Rs. 13.6 cr

33. What is the total number of TV sets sold by all the companies together?

1) 148900 2) 149600 3) 158000 4) 152900 5) 156450

34. What is the ratio of the total cost price of all the TV sets of Company F to that of Company A?

1) 8:15 2) 8:17 3) 8:21 4) 8:23 5) 8:25

35. What is the difference between the net profit of Company C and that of Company D?

1) Rs. 62.4 cr 2) Rs. 59.1 cr 3) Rs. 58.6 cr 4) Rs. 57.5 cr 5) Rs. 56 cr

Answers:

1. (5);

$(15^4)^{0.13} \times (15^3)^2 \times (15^4)^{0.12}$

$= (15^4)^{0.13+0.12} \times (15)^6$

$= (15^4)^{0.25} \times (15)^6 = (15^4)^{1/4} \times (15)^6$

$= 15 \times 15^6 = (15)^7$ ie ? = 7

2. (2);

$\frac{372\ x\ 450}{100} - \frac{45\ x\ 3640}{100}$

= 1674 – 1638 = 36

Ie 20% of 180

3. (3);

? = $\frac{10792\ x\ 17\ x\ 91}{71\ x\ 19}$ = 12376

4. (2);

45 x ? = 27 x 35

$\therefore\ ? = \frac{27x35}{45} = 21$

5. (3);

? = $\frac{223080}{1352}$ = 165

6. (2);

? = $\frac{7.89x6650+6650x7.89}{100}$

= $\frac{2x7.89x6650}{100}$ = 1049.37 = 1050

7. (2);

Because, $(52)^3$ = 140608

8. (4);

? = $\frac{1386}{7.7}$ + $\frac{14}{0.07}$ = 180 + 200 = 380

9. (1);

? = $\frac{14x7550}{100}$ - $\frac{17x4500}{100}$ = 1057 – 765

= 292 = 290

10. (2);

? = 76 + 49 – 25

= 125 – 25 = 100

11. (2);

Reqd % = $\frac{1640-1200}{1200}$ x 100 = 36.66%

12. (4);

Avg = $\frac{1640x0.3+1200x0.42+1580x0.4+960x0.45}{10}$

= $\frac{4290}{10}$ = 429 billion USD

13. (2);

GDP = 720 x $\frac{30}{100}$ = 216,

GDP = 720 x $\frac{25}{100}$ = 180

$\therefore$ Reqd $\% = \frac{216-180}{180} \text{ x } 100 = \frac{3600}{180} = 20\%$

14. (4);

GDP = 1050 x 0.4 = 420

GDP = 960 x 0.25 = 240

$\therefore$ Reqd $\% = \frac{420}{240} \text{ x } 100 = 175\%$

15. (2);

Ratio = $\frac{1100}{1320x0.25} = \frac{1100}{330} = \frac{10}{3}$

16. (5);

Let each amount be Rs. X

$\therefore \text{ X x } \frac{7.5\ x\ 14.5}{100} - \frac{x\ x\ 7.5\ x\ 9}{100} = 1732.5$

$\therefore \text{ x } = \frac{173250}{41.25} = 4200$

17. (5);

Let the amount be Rs. X

$\therefore \{(\text{x x } 1.09 \text{ x } 1.09 \text{ x } 1.09 \text{ x } 1.09)\} - \frac{xx18x2}{100}$

$= 20632.644$

$\text{X}(0.41158161 - 0.36) = 20632.644$

$\text{X} = \frac{20632.644}{0.05158161} = 400000$

18. (3);

Vowels are A, I, A and other letters are P, K, S, T, N.

If all the vowels are taken together, total letters = 6

$\therefore$ No. of possible arrangements

$= 6! \text{ X } \frac{3!}{2!} = 2160$

19. (1);

n(S) = (20 - 1)! = 19!

10 persons sit together, so total No. of persons

= 10 + 1 = 11

$\therefore$ No. of ways $= (11 - 1) = 10!$

10 persons sit in 10! Ways among themselves

$\therefore n(E) = 10!$ X $10!$

$\therefore P(E) = \frac{10! x 10!}{19!} = \frac{5}{323}$

20. (5); In 3 kg of mixture, milk is 50%, ie 1.5 kg

Let us add x kg water, so that the total mixture is (x + 3) kg.

$\therefore (x + 3)$ x $\frac{20}{100} = 1.5$

$(x + 3) = 1.5$ x $5 = 7.5$

$\therefore x = 7.5 - 3 = 4.5$ kg

21. (2);

Let the first number be x and the second be y.

$\frac{6x}{5} = \frac{3y}{7}$ $\quad\quad$ $\therefore \frac{x}{y} = \frac{5}{14}$

Ie $5y + 240$ .....(i)

$X + 24 = \frac{7y}{10}$ $\quad$ $\therefore 7y = 10x + 240$ .....(ii)

From equations (i) and (ii); $x = 25, y = 70$

22. (2);

Capacity of the tank = $\frac{26\ x\ 12}{26-12}$ x 140

= $\frac{26x12}{14}$ x 140 = 26 x 12 x 10 = 3120

23. (3);

Daily wages of a woman

= $\frac{10080}{12x28}$ = Rs. 30

$\therefore$ Daily wages of a man $= 30$ x $2.5 =$ Rs. 75

$\therefore$ Number of men $= \frac{28125}{25x75} = 15$

24. (4);

Let the distance be x km and speed y kmph

$\frac{x}{y} = \frac{x}{(y+3)} + 1$ $\quad \therefore \frac{x}{y}\frac{x}{(y+3)} = 1$

$\therefore x(\frac{1}{y} = \frac{1}{(y+3)}) = 1$ .....(i)

$= \frac{x}{y} = \frac{x}{(y-2)} - 1 = \frac{x}{y-2} - \frac{x}{y} = 1$

$\therefore x(\frac{1}{(y-2)} - \frac{1}{y}) = 1$ .....(ii)

From equations (i) and (ii)

$\frac{1}{y} - \frac{1}{y+3} = \frac{1}{y-2} - \frac{1}{y}$

$= \frac{y+3-y}{y(y+3)} = \frac{y-y+2}{y(y-2)}$

$\therefore \frac{3}{y+3} = \frac{2}{y-2}$

$3y-6 = 2y + 6$ $\quad \therefore y = 12$ and $x = 60$

25. (4);

Let the length be x and the breadth be y.

$\therefore (x + 3)(y-1) = xy$

So $xy - x + 3y = xy$

$\therefore x - 3y = 3$ .....(i)

$(x - 6)(y + 5) = xy$

$\therefore 5x - 6y = 30$ .....(ii)

From equations (i) and (ii),

X = 12 metre and y = 5 metre.

26. (2);

P = 57.96 lakh

27. (2);

D = 24 x 1.2 x 1.25 = 36 lakh

D = 24 lakh

$\therefore$ Reqd % $= \frac{3600}{24} = 150\%$

28. (4);

Ratio = $\frac{24x1.2x1.25}{32x1.4x1.5} = \frac{15}{28}$

29. (3);

A_{1980} = 48 lakhs

A_{2000} A_{2000} = 48 x 1.3 x 1.25 = 78

$\therefore$ % rise $= \frac{78-48}{48}$ x $100 = 62.5\%$

30. (5);

Total = (48 x 1.3 x 1.25) + (32 x 1.4 x 1.5) + (42 x 1.15 x 1.2) + (24 x 1.2 x 1.25) + (16 x 1.32 x 135) + (38 x 1.54 +1.4)

= 78 + 67.2 + 57.96 + 36 + 28.512 + 79.8

= 347.472 lakh

31. (3);

Avg = $\frac{252000}{7}$ = 36000

32. (2);

Total sale = 30000 x $\frac{50}{100}$ = 15000

Total cost = 15000 x 32000

$\therefore$ Profit $= 15000$ x 32000 x $\frac{25}{100}$

$= 120000000 = 12$ crore

33. (4);

Total sale = 36000 x 0.7 + 45000 x 0.65 + 50000 x 0.75 + 28000 x 0.5 + 39000 x 0.45 + 24000 x 0.6 + 30000 x 0.5

= 25200 + 29250 + 37500 + 14000 + 17550 + 14400 + 15000 = 152900