

Test-I English Language

Directions (Q. 1-9): Read the passage carefully and answer the questions given below it.

The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Bill, passed by the Lok Sabha recently, is a landmark piece of legislation for the urban poor. It is the culmination of the efforts of organisations like the National Association of Street Vendors of India (NAS VI) and the Self Employed Women's Association (SEWA), which have been campaigning for a comprehensive law for nearly two decades. The impetus came with a Supreme Court judgment passed in October 2010 — Ganda Ram and Others vs MCD. The court directed the "authorities" to frame adequate laws by July 2011 to protect and regulate street vending. A debate ensued on what the competent "authority" was. The Centre said that since street vending was a matter of urban policy, it was the responsibility of the state governments. Finally, it was decided that urban development was not the issue, the livelihood of the urban working poor was. And that was in the domain of the Union government (as in the case of MGNREGA).

The bill states that every city will have a town vending committee (TVC), headed by the municipal commissioner or the chief executive, which will decide on all issues related to street vending. All stakeholders will be represented on the TVC, but the elected representatives of street vendors will constitute 40 per cent of the members. One-third of the latter shall be women. The TVC will issue identity cards to all street vendors after conducting a survey to determine their numbers and locations. It will ensure that all street vendors are accommodated, subject to the condition that they constitute no more than 2.5 per cent of the total population of a ward, zone or town. If a particular area has more than the stipulated maximum, the excess number will be transferred to an adjoining zone, but the bill stresses that there will be no eviction. The bill also states that no street vendor will be evicted till the survey is completed.

Eviction is the biggest threat that street vendors face. The authorities forcibly remove street vendors and confiscate their goods. Even the better-off sections of vendors can be reduced to penury after an eviction drive. They lose half their goods and the fines for claiming them are exceptionally high. The bill makes it clear that under no circumstances can fines be more than the value of the goods confiscated.

The bill notes that evictions may be carried out as a last resort and only in cases where vendors resist relocation. In case relocation is absolutely necessary, the vendors must be given notice of 30 days. If they fail to respond, they will be fined at the rate of ₹250 a day and if even that does not work, they may be evicted forcibly. The

bill states that the vendors will be provided a signed seizure list and they may claim the goods after paying the fine. It further states that perishable goods can be claimed by the vendors on the same day. Non-perishable goods must be released within two days.

The seizure list is crucial because the street vendor can get back all the goods confiscated. At present, no such list is provided and the vendor finds that half the goods are missing. Even when the police raid the homes of criminals or terrorists and gather evidence, a seizure list is provided. But street vendors are denied this basic right.

Legalising street vending is a big step towards improving the economic conditions of these vendors. Their present illegal status encourages rent seeking by unscrupulous officials and denies them access to loans from banks. A study conducted by the UNDP and Tata Institute of Social Sciences (TISS) on financial inclusion of street vendors in 15 cities shows that banks are willing to give loans if the vendors have legal status. At present, they are drawn to private money lenders, who charge interest rates ranging from 300 per cent to 800 per cent per annum, which pushes many vendors into a debt trap. The bill directs the government to help in providing institutional credit, insurance and other welfare schemes.

1. What is/are the purpose of passing the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Bill?

- (a) To ensure protection to rural street vendors
- (b) To ensure livelihood to the urban working poor
- (c) Urban development
- (d) To provide employment to all street vendors irrespective of their places of dwelling
- (e) All the above

2. Which of the following statements is not in accordance with the facts mentioned in the passage?

- (a) After conducting a survey the town vending committee will issue identity cards to all street vendors.
- (b) The maximum number of vendors accommodated in a particular area will not exceed 2.5 per cent of the total population of a ward, zone or town.
- (c) The bill states that the TVC shall have the authority to evict any vendor before the survey is completed.
- (d) There will be no eviction of vendors even though their number exceeds the maximum stipulated for a particular zone
- (e) None of these

- 3. What led to the passage of the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Bill?**
 (A) Relentless efforts of organisations like NASVI and SEWA
 (B) A supreme court judgement passed in 2010 in Gaiinda Ram and Others v MCD.
 (C) Suo motu initiative of the Govt of India
 (a) Only (A) (b) Only (B)
 (c) Only (C) (d) Both (A) and (B)
 (e) All (A), (B) and (C)
- 4. What is/are the significance of legalising street vending?**
 (A) It will help in improving the economic conditions of street vendors.
 (B) The street vendors will now be able to avail bank loans and other institutional credit facilities.
 (C) Now, they will not be forced to raise money from private money lenders at extremely high rate of interest.
 (a) Only (A) and (B) (b) Only (B) and (C)
 (c) Only (A) and (C) (d) Only (C)
 (e) All (A), (B) and (C)
- 5. What provisions are there in the said Bill regarding the goods seized from the vendors?**
 (A) Non-perishable goods must be released to the vendors within twenty days after paying the fine.
 (B) The vendors will be provided a signed seizure list and the seized goods can be claimed by them after paying the fine.
 (C) The seizure list is the documentary evidence of confiscated goods and on that basis the street vendor can get back all the confiscated goods.
 (a) Only (A) and (B) (b) Only (A) and (C)
 (c) Only (B) and (C) (d) All (A), (B) and (C)
 (e) Neither (A) nor (C)
- 6. Who is the appropriate authority to make laws related to the Street Vendors Bill?**
 (a) The state government
 (b) Chairman of the Municipal Corporation
 (c) Ministry of Rural Development, Govt of India
 (d) The Union Government
 (e) Not yet decided
- 7. Which of the following statements is/are not correct regarding the provisions for relocation of vendors?**
 (A) The bill states that vendors will not be relocated under any condition whatsoever.
 (B) In cases where relocation is necessary vendors must be given a 30 days' notice.
 (C) A penalty at the rate of Rs. 250 per day should be imposed on the vendors if they fail to comply with the notice of relocation.
 (a) Only (A) (b) Only (B)
 (c) Only (A) and (b) (d) Only (B) and (C)
 (e) All (A), (B) and (C)
- 8. Which of the following is the main problem that street vendors usually face?**
 (a) Financial constraints
 (b) Threats of forceful eviction
 (c) Theft of their belongings at night
 (d) No provision for bank loans for them
 (e) All the above
- 9. Which of the following statements regarding the Street Vendors Bill is not based on the facts mentioned in the given passage?**
 (a) The Town Vending Committee will be headed by the Municipal Commissioner or the Chief Executive.
 (b) Every city will have a town vending committee.
 (c) The Municipal Commissioner shall have the authority to decide all the issues related to street vending.
 (d) Forty per cent of the elected representatives of the vendor committee will be women.
 (e) None of these
- Directions (Q. 10-15): In each of the following questions four words are given of which two are most nearly the same or opposite in meaning. Find the two words which are most nearly the same or opposite in meaning and find the number of the correct letter combination.**
- 10.** (A) Savage (B) Spiritual (C) Stupor (D) Gentle
 (a) B-C (b) B-D (c) C-D (d) A-D (e) A-C
- 11.** (A) Chaos (B) Contradictory
 (C) Order (D) Vigilant
 (a) A-B (b) B-C (c) C-D (d) A-C (e) A-D
- 12.** (A) Contrive (B) Design
 (C) Implement (D) Intervene
 (a) A-B (b) B-C (c) C-D (d) B-C (e) A-C
- 13.** (A) Project (B) Decipher (C) Entail (D) Involve
 (a) A-B (b) B-C (c) C-D (d) B-D (e) A-D
- 14.** (A) Tangible (B) Stewed
 (C) Unkempt (D) Tidy
 (a) A-C (b) B-D (c) A-B (d) B-C (e) C-D
- 15.** (A) Trice (B) Whet
 (C) Syncope (D) Stimulate
 (a) A-C (b) B-D (c) A-B (d) A-D (e) B-C
- Directions (Q. 16-20): Read each sentence to find out whether there is any grammatical or idiomatic 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 (e). (Ignore errors of punctuation, if any.)**
- 16.** (a) A marriage between any two people belonging to any religion / (b) or creed may be solemnised under the Special Marriage Act / (c) if at the time of the marriage the male / (d) has completed 21 years and the female 18. / (e) No error

17. (a) Recent focused studies by anthropologists / (b) have shown that while Muslim men have / (c) significantly greater rights than women, / (d) they are infrequently asserted. / (e) No error
18. (a) The most recent National family Health Survey in 2011 / (b) indicates that Hindu and Christian men / (c) had more than one wives / (d) as against Muslim men. / (e) No error
19. (a) Congress President Sonia Gandhi wrote to / (b) Prime Minister Manmohan Singh requested him / (c) to ensure that the officer / (d) was "not unfairly treated." / (e) No error
20. (a) The Washington Post epitomises what is wrong / (b) with the newspaper industry across the / (c) developed world, but especially / (d) in the United States. / (e) No error

Directions (Q. 21-25): Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph and then answer the questions given below.

- (A) To perform this duty impartially and properly, the Constitution envisaged that the office is independent of any control of the Executive.
- (B) In this way, the Constitution has assured that his position is equivalent to that of a judge of the Supreme Court.
- (C) This is ensured through the appointment procedures and other job conditions.
- (D) CAG is the guardian of the public purse and it is his duty to see that only authorised expenditure is made out of the Consolidated Fund of India.
- (E) This committee scrutinises the appropriation accounts of the Government of India and the Audit Report presented by the CAG
- (F) The audit reports of the CAG are presented to the parliament through the Public Accounts Committee.
21. Which of the following would be the **THIRD** sentence after rearrangement?
(a) A (b) E (c) B (d) D (e) C
22. Which of the following would be the **LAST (SIXTH)** sentence after rearrangement?
(a) E (b) B (c) C (d) A (e) F
23. Which of the following would be the **FIFTH** sentence after rearrangement?
(a) B (b) A (c) F (d) C (e) D
24. Which of the following would be the **FIRST** sentence after rearrangement?
(a) F (b) C (c) A (d) D (e) B
25. Which of the following would be the **FOURTH** sentence after rearrangement?

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

Directions (Q. 26-30): In the following questions, a sentence has been given with some part of it in bold. To make the sentence correct, you have to replace the bold part with the correct alternative given below. If the sentence is correct as it is, please give (e) as your answer (ie No correction required).

26. **Moscow pointed out that there was no extradition treaty between Russia and the US because Washington have to refuse to sign**
(a) have refused to sign (b) has refused to sign
(c) had refused to sign one (d) had been refused to signing
(e) No correction required'
27. **The relentless pressure mounted by the US to coax Egypt's military-backed interim rulers to bring the Muslim Brotherhood back into the political mainstream has backfired resoundingly.**
(a) have fired back resoundingly
(b) has resoundingly back fire
(c) was a resound of back fire
(d) was a resound to backfire
(e) No correction required
28. **The politics of the Darjeeling Hill revolve about the demand for Gorkhaland.**
(a) Hill revolves about the
(b) Hills revolves around the
(c) Hill revolve round the
(d) Hills revolve for the (e) No correction required
29. **If separate storage and dining spaces are required for a policymaker's family of four or five persons, why equivalent facilities will be required for a School for storing materials and serving meals for school children is a moot question.**
(a) would be required for (b) would be required in
(c) would not be required in
(d) should be required in (e) No correction required
30. **The resolution passed by the Congress Working Committee for the creation of a separate State of Telangana has not had the anonymous supporters of several political parties.**
(a) anonymous supports of
(b) anonymously supporters of
(c) unanimous support by
(d) unanimous support of
(e) No correction required

Test-II Reasoning Ability

31. In the following number sequence, how many such even numbers are there which are exactly divisible by its immediate preceding number but not exactly divisible by its immediate following number?

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

Directions (Q. 32-37): Study the following information carefully: and answer the given questions.

A, N, M, R, J, V, S and D are eight friends sitting around a circular table. Two of them are not facing the centre. All of them like watches of different brands, viz Maxima, Puma, HMT, Titan, Fastrack, Rado, Quartz and Omega, but not necessarily in the same order.

R and M are sitting third and second to the left of A respectively. R and S are neighbours of N, who likes Fastrack. The one who likes Titan sits on the immediate right of N. S is sitting third to the right of A and likes Maxima. D is third to the right of J and likes Quartz. A and D are not the neighbour of that person who likes Rado. V does not like HMT and Titan. The person who likes Omega is sitting opposite J.

32. The person who is sitting second to the left of A likes which of the following watches?

- (a) Maxima (b) Puma (c) Rado (d) Omega
(e) None of these

33. Who among the following likes Rado?

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

34. What is the position of V with respect to A?

- (a) Immediate left of A (b) Second to the right of A
(c) Immediate right of A (d) Can't be determined
(e) None of these

35. If S is on the immediate right of N then by the same logic who among the following sits third to the right of N?

- (a) M (b) J (c) D (d) V
(e) None of these

36. How many persons sit between the person who like Maxima and the one who likes HMT (count in clockwise direction starting from HMT)?

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

37. Which of the following statements is true?

- (a) M is the neighbour of R and N.
(b) A likes HMT and faces outside the centre.
(c) S likes Maxima and does not face the centre.
(d) All are true
(e) None is true

Directions (Q. 38-40): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided

in the statements are sufficient to answer the question. Read both the statements and give answer

- (a) if the data in statement 1 alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
(b) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
(c) if the data either in statement I alone or in statement II alone are sufficient to answer the question.
(d) if the data in both the statements I and II together are not sufficient to answer the question.
(e) if the data in both the statements I and II together are necessary to answer the question.
38. There are five persons A, B, C, D and E. Then B is in which direction with respect to E?
- I. A is to the west of D and to the north of B, and C is to the south of E.
II. D is to the north of A and east of E. B is to the west of C and south-east of D.

39. What is the angle between the two hands of a clock?

- I. One hour ago the angle between the two hands was 75 degrees and the minute hand was ahead of the hour hand.
II. The hour hand is between 9 and 10.

40. Among T, F, L, M and B, is M uncle of F?

- I. F is son of T, who is brother of M. L is sister-in-law of M.
II. L is mother of F and wife of T, who is son of B, who is father of M and has only two sons.

Directions (Q. 41-45): Study the following information carefully and answer the given questions.

There are six family members L, M, N, O, P and Q. Each member has a different choice of ice cream, viz Vanilla, Chocolate, Strawberry, Mango, Kesar-Pista and Peanut butter but not necessarily in the same order. There are two married couples in the family. No female member likes either Vanilla or Kesar-Pista.

L is daughter-in-law of Q and likes Strawberry. N is brother of O and son of M, and likes Peanut butter. P is grandmother of O, who does not like Mango. The husband has a choice for Vanilla and his wife likes Chocolate ice cream.

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

- (a) Two (b) Three (c) Four
(d) Can't be determined (e) None of these

42. Which of the following is true about O?

- (a) Daughter of M (b) Son of L
(c) Brother of Q
(d) Either brother or sister of P
(e) None of these

43. How is M related to Q?

- (a) M is sister of Q (b) M is son of Q
(c) M is grandson of Q (d) Can't be determined
(e) None of these

44. Which of the following combinations of ice cream does one of the couples like?

- (a) Vanilla-Mango
(b) Kesar-Pista - Peanut butter
(c) Strawberry - Mango
(d) Peanut butter - Mango
(e) None of these

45. Which of the following ice creams does P like?

- (a) Vanilla (b) Mango
(c) Chocolate (d) Kesar-Pista
(e) None of these

Directions (Q. 46-50): Study the following information carefully and answer the given questions.

Q, R, S, T, U, V, W and X are eight group captains of different games, viz, Badminton, Volleyball, Cricket, Table Tennis, Football, Hockey, Kho-Kho and Lawn Tennis, but not necessarily in the same order. There are three female members in the group and four captains are holding PhD degrees.

X has a PhD degree and is the captain of Volleyball.

- ★ Q is the captain of Cricket. R is the captain of Hockey.
- ★ The one who is the captain of Table Tennis does not have a PhD degree.
- ★ No female is captain of either Football or Lawn Tennis.
- ★ The captain of Lawn Tennis does not have a PhD degree.
- ★ W and S are not the captains of either Football or Hockey.
- ★ S is the captain of a ladies' team and U and S have PhD degrees.
- ★ R and V are lady captains and are not PhD degree holders. T has a PhD degree and is the captain of the Kho-Kho team.

46. Who is the captain of the Hockey team?

- (a) Q (b) R (c) S (d) T
(e) None of these

47. Which captain is a female and a PhD degree holder?

- (a) R (b) T (c) S (d) V
(e) None of these

48. Which of the following groups represent the male group of captains who have PhD degrees?

- (a) QTU (b) SUX (c) UTS (d) TUX
(e) Can't be determined

49. S is the captain of which of the following games?

- (a) Cricket (b) Hockey
(c) Badminton (d) Kho-Kho
(e) None of these

50. Which of the following combinations is true?

- (a) R-Male-Hockey-PhD

(b) S - Female - Badminton - PhD

(c) T - Male - Cricket - PhD

(d) W - Male - Lawn Tennis - PhD

(e) None of these

51. Existing 3G plans will apply to users who will be migrated to 4G for no extra cost. However, they will have to get a SIM card replacement.

Which of the following occasions is most likely to have elicited this statement from the company?

(a) Voice networks will continue to run on 2G and 3G net.

(b) The company has launched 4G recently.

(c) The company is launching 4G services for smartphones.

(d) 4G network users will be able to download 10 standard movies within 30 minutes,

(e) None of these

52. How many of us know that televisions, computers and other electronic items contain hazardous material like lead, mercury and cadmium and that they pose serious threat to the environment if buried in a landfill? Which of the following can be concluded from the above statement?

(a) People should not use televisions and computers.

(b) Electronic items should be made without using hazardous materials.

(c) The environment has been endangered from e-waste and is on the verge of crashing.

(d) There should be proper disposal of electronic items.

(e) None of these

53. The biggest mistake people make is buying a life insurance policy every year to save taxes.

Which of the following can be the best reason for the assertion made in the above statement?

(a) Such people do not have adequate insurance cover.

(b) The annual premium becomes huge over a period of time.

(c) There is a mad rush to make investments to save taxes in the last three months of the financial year.

(d) A salaried individual can invest up to Rs. 1 lakh and claim tax deduction under Section 80 C of the I-T Act.

(e) None of these

54. Do tax-free bonds qualify for tax deduction under Section 80C? Well, according to stories doing the rounds, somebody thought they do and bought them. Needless to say, the poor soul realised that tax-free bonds were not meant to save tax under Section 80C; they only offer tax-free interest. Similarly, many bank customers are not aware that the bond they just bought to save tax is actually an insurance policy. Some taxpayers also don't know that a PPF is a 15-year account.

Which of the following inferences can be made in the above situation?

- (a) Investors are unaware of the nitty-gritty of tax-saving instruments.
- (b) Investment consultants often take their clients for a ride.
- (c) There are no bonds that save your taxes in their year of investment.
- (d) PPF allows tax benefits after a period of 15 years.
- (e) None of these

55. Raising tariffs won't be an easy option since the market is still very competitive and all operators do not have the same high costs of spectrum.

Which of the following assumptions is implicit in the above statement? (An assumption is something supposed or taken for granted.)

- (a) Phone call rates are not likely to go up.
- (b) There are not too many players in the telecom market.
- (c) It costs a lot to buy spectrum
- (d) Raising telecom tariffs involves prior approval from TRAI.
- (e) None of these

Directions (Q. 56-57): Study the following arrangement carefully and answer the given questions:

A 8 B 6 7 H U % 3 \$ F V R 2 I @ 1 4 1 W E 9 L 5

56. If all the numbers are dropped from the above arrangement which of the following will be eighth from the right end?

- (a) @ (b) F (c) \$ (d) V
- (e) None of these

57. Which of the following is ninth to the left of the sixteenth from the right end?

- (a) 3 (b) I (c) # (d) 5
- (e) None of these

58. How many such pairs of letters are there in the word DAUGHTER each of which has as many letters between them in the word as in the English alphabetical series?

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

Directions (Q. 59-60): Study the following information carefully and answer the given questions.

Raman does five works P, Q, R, S and T. He starts working at 9 am in the morning. P is the first work and it takes two hours. Q can be done after P. Q takes 1 hour. Work R, which takes 1 hour, can be started only when P

and Q are completed. Raman can do work S along with Q and R and would take 3 hours for it. T takes only one hour and can be started only after Q, R and S.

59. What is the time by which Raman completes all the tasks?

- (a) 2 pm (b) 3 pm (c) 4 pm
- (d) Can't be determined (e) None of these

60. What is the time by which Raman completes the work R?

- (a) 12 pm (b) 2 pm (c) 1 pm (d) 11 pm
- (e) None of these

Directions (Q. 61-65): In each question below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts. Give answer

- (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 1 and II follow.

61. Statements: Some students are members.

No member is a teacher.

All teachers are players.

- Conclusions: I. Some students are not teachers.
II. Some members are not players.

(62-65) :

Statements : All novels are books.

All books are stories.

Some stories are songs.

**62. Conclusions: I. All novels being songs is a possibility.
II. At least some stories are novels.**

**63. Conclusions: I. Some songs are not books.
II. All songs being books possibility.**

(64-65):

Statements : No writer is a teacher.

No reader is a teacher.

Some readers are poets.

**64. Conclusions: I. No reader is a writer.
II. No poet is a writer.**

**65. Conclusions : I. Some poets are not teachers.
II. Some poets are not teachers.**

Test-III Quantitative Aptitude

66. A 456-litre mixture of milk and water contains milk and water in the ratio of 7 : 5. How much

milk is to be added to the mixture to get a new mixture of milk and water in the ratio of 9 : 5?

- (a) 80 litres (b) 86 litres
(c) 76 litres (d) 75 litres
(e) 77 litres
67. An amount of Rs. 9800 is lent at a certain rate of interest. After 66 months, an additional amount of Rs. 5700 is lent at a rate 3.5 times higher than the former. At the end of nine years Rs. 11061.75 is earned as interest on both the loans. What was the original rate of interest?
(a) 65% (b) 7% (c) 7.5% (d) 8% (e) 14%
68. Two stations A and B are 462 km apart. A train leaves Station A for Station B and at the same time another train leaves Station B for Station A. Both trains meet 5.5 hours after they start moving. If the train that starts from Station A is 28 km/hr faster than the other one, what is the ratio of the speeds of both the trains?
(a) 3 : 2 (b) 2 : 5 (c) 2 : 1 (d) 4 : 3 (e) 5 : 3
69. A sum was put at a certain rate of interest for five years. Had it been put at a rate of interest 5% higher than the previous rate of interest it would have fetched Rs. 72.5 more. What is the sum?
(a) Rs. 290 (b) Rs. 280 (c) Rs. 295 (d) Rs. 390
(e) Rs. 380
70. Rajeev and Rakesh can do a piece of work in 28 days. Rajeev is $\frac{7}{4}$ times as efficient as Rakesh. In how many days can Rajeev alone finish the work?
(a) 77 (b) 55 (c) 33 (d) 40 (e) 44
71. The area of a square is 1764 square metres. The breadth of a rectangle is one-fourth the side of the square and the length of the rectangle is five times its breadth. What is the difference between the area of the square and that of the rectangle?
(a) 1283.6875 sq metres (b) 1383.6575 sq metres
(c) 1273.75 sq metres (d) 1293.25 sq metres
(e) 1212.75 sq metres
72. The fare of a bus is Rs. y for the first seven kilometres and Rs. 17 per kilometre thereafter. If a passenger pays Rs. 3311 for a journey of 199 kilometres, what is the value of y?
(a) Rs. 43 (b) Rs. 45 (c) Rs. 47 (d) Rs. 46
(e) None of these
73. Govind scored 94 marks in Subject X. He scored 76% marks in Subject Y and M marks in Subject Z. The maximum marks in each subject was 175. The overall percentage marks obtained by Govind in all three subjects together was 56%. How many marks did he score in Subject Z?
(a) 66 (b) 68 (c) 69 (d) 71 (e) 67
74. A person can row 13 kmph in still water. If he takes thrice as much time to row upstream as to

row downstream in a river, what is the speed of the stream?

- (a) 4 kmph (b) 5 kmph (c) 6 kmph (d) 6.5 kmph
(e) 7.5 kmph
75. A shopkeeper sells an item at a profit of 17%. If he reduces the price of the item by Rs. 210, he makes a loss of 13%. What is the cost price of the item?
(a) Rs. 700 (b) Rs. 720 (c) Rs. 710 (d) Rs. 790
(e) Rs. 600

Directions (Q. 76-80): What will come in place of question mark (?) in the following questions?

76. $(16)^{7.2} \div (4096)^{1.6} \times (65536)^{-1.2} \div (1048576)^{-1} = (16)^?$
(a) 2.4 (b) 2.8 (c) 3 (d) 2.6 (e) 3.2
77. 45.5% of 1160 + 13.5% of 720 = ?% of 6000
(a) 6 (b) 9.32 (c) 10.42 (d) 5 (e) 12
78. $(77777 \div 700) + (6455 \div 250) + (3991 \div 26) = ?$
(a) 290.43 (b) 390.41 (c) 295.33 (d) 288.42
(e) None of these
79. $\{6^{3.6} \div (36)^{-4.2}\}^{1/4} = \sqrt{?}$
(a) 41616 (b) 43264 (c) 44944 (d) 46656
(e) 47524
80. $23564 \times 275 - 430100 = ? \times 605$
(a) 10^3 (b) 101000 (c) 10000 (d) 10^6
(e) 102000

Directions (Q. 81-85): What approximate value should come in place of question mark (?) in the following questions? (Note: You are not expected to calculate the exact value.)

81. $512.01 \times 412.99 \div 119 = ?$
(a) 1720 (b) 1740 (c) 1820 (d) 1845
(e) 1775
82. $1699.99 \times 299.88 \div 59.9 - 1498 + 3745 = ?$
(a) 10980 (b) 11700 (c) 11000 (d) 10750
(e) 9800
83. $(13.96)^2 \div (16.23)^2 + (17.26)^2 - 32.95 = ?$
(a) 790 (b) 720 (c) 840 (d) 780 (e) 680
84. $1624.98 \times 29.92 + 468.75 = ?$
(a) 49290 (b) 48220 (c) 49220 (d) 47220
(e) 46365
85. $8499.99 \div 375.002 \times 14.996 = ?$
(a) 360 (b) 290 (c) 480 (d) 380
(e) 340

Directions (Q. 86-90): In each of these questions a number series is given. In each series only one number is wrong. Find out the wrong number.

86. 17 20 46 147 599 3015 18108
(a) 20 (b) 46 (c) 599 (d) 147
(e) 3015
87. 9 14 40 129 536 2705 16260

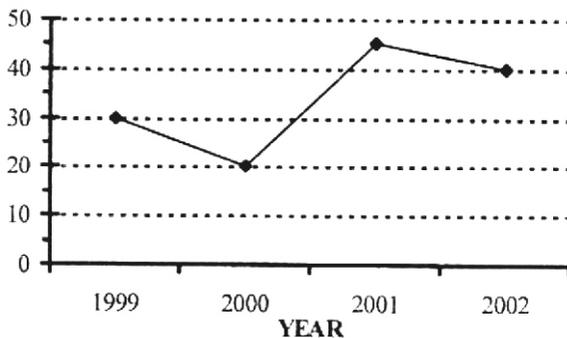
- (a) 14 (b) 40 (c) 536 (d) 9 (e) 129
88. 8 18 64 272 1395 8424 59045
 (a) 18 (b) 64 (c) 272 (d) 1395
 (e) 8424
89. 90 135 286 750 2160 6405 19155
 (a) 90 (b) 750 (c) 6405 (d) 286
 (e) 2160
90. 17 36 132 635 3500 21750 153762
 (a) 635 (b) 700 (c) 132 (d) 3500 (e) 36

Directions (Q. 91-95): In the following questions two equations numbered I and II are given. You have to solve both equations and give answer

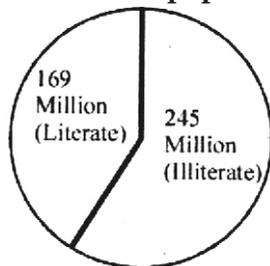
- (a) if $x > y$
 (b) If $x \geq y$
 (c) If $x < y$
 (d) $x \leq y$
 (e) If $x = y$ or the relationship cannot be established
91. I. $x^2 - 7x + 10 = 0$ II. $y^2 + 11y + 10 = 0$
 92. I. $x^2 + 28x + 192 = 0$ II. $y^2 + 16y + 48 = 0$
 93. I. $2x - 3y = -3.5$ II. $3x - 2y = -6.5$
 94. I. $x^2 + 8x + 15 = 0$ II. $y^2 + 11y + 30 = 0$
 95. I. $x = \sqrt{3136}$ II. $y^2 = 3136$

Directions (Q. 96-100): Study the information given in each of these questions to answer the questions.

96. Per cent profit earned by a company over the years:

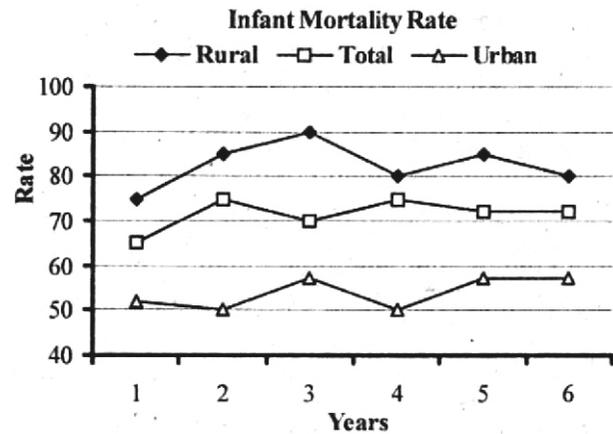


- In which year is the profit amount the highest?
 (a) 2001 (b) 2000 (c) 2002
 (d) Cannot be determined (e) None of these
97. What is the approximate percentage of the literate out of the total population?



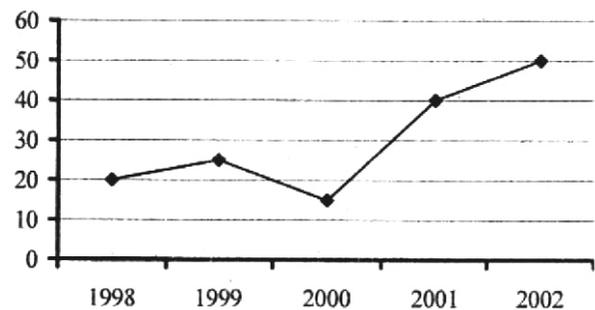
- (a) 69 (b) 76
 (c) 41 (d) 22 (e) 34

98.



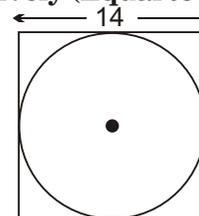
Which of the following is NOT true?

- (a) The rate for rural area was always more than that for urban.
 (b) The total (aggregate for rural and urban) was less than that of the rural.
 (c) There is a wide gap between the Infant Mortality Rates of rural and urban areas.
 (d) The trend of Infant Mortality Rate in terms of increase or decrease remained the same for urban and rural areas
 (e) There were ups and downs in Infant Mortality Rates over the years.
99. Production of a company over the years (in lakh units)



What is the highest percent increase over the previous year?

- (a) $266\frac{2}{3}$ (b) 150 (c) $166\frac{2}{3}$ (d) 250
 (e) none of these
100. Population of two states shown by a square and circle respectively (Equal to area in lakh units)



What is the difference between the populations of the two states?

- (a) 2800000 (b) 4200000
 (c) 28000000 (d) 9800000
 (e) none of these

ANSWER KEY

1. (b)	2. (c)	3. (d)	4. (e)	5. (c)	6. (d)	7. (a)	8. (b)	9. (d)	10. (d)
11. (d)	12. (a)	13. (c)	14. (e)	15. (b)	16. (a)	17. (d)	18. (c)	19. (b)	20. (c)
21. (e)	22. (a)	23. (c)	24. (e)	25. (b)	26. (c)	27. (e)	28. (b)	29. (c)	30. (d)
31. (d)	32. (d)	33. (e)	34. (c)	35. (d)	36. (a)	37. (b)	38. (b)	39. (a)	40. (b)
41. (c)	42. (b)	43. (b)	44. (c)	45. (c)	46. (b)	47. (c)	48. (d)	49. (c)	50. (b)
51. (b)	52. (d)	53. (b)	54. (a)	55. (a)	56. (b)	57. (c)	58. (d)	59. (b)	60. (c)
61. (a)	62. (e)	63. (b)	64. (d)	65. (a)	66. (c)	67. (b)	68. (c)	69. (a)	70. (e)
71. (d)	72. (c)	73. (e)	74. (d)	75. (a)	76. (d)	77. (c)	78. (a)	79. (d)	80. (c)
81. (e)	82. (d)	83. (b)	84. (c)	85. (e)	86. (c)	87. (b)	88. (b)	89. (d)	90. (a)
91. (a)	92. (a)	93. (c)	94. (b)	95. (b)	96. (d)	97. (c)	98. (d)	99. (c)	100. (b)

Hint & Solutions

66. Initially, milk in the mixture = $\left(\frac{456}{7+5} \times 7\right) = 266$

litres and water = $\frac{456}{12} \times 5 = 190$ litres

Now, let the extra milk to be added be x litres.

Then, $\frac{266+x}{190} = \frac{9}{5}$

or $5x = 190 \times 9 - 266 \times 5$
 $= 1710 - 1330 = 380$

$\therefore x = \frac{380}{5} = 76$ litres

67. Let the original rate of interest be $r\%$ per annum. Given, 2nd amount lent after 66 months (= 5.5 yrs)

\therefore 2nd amount is lent for $(9 - 5.5 = 3.5)$ yrs

Now, $\frac{9800 \times r \times 9}{100} + \frac{5700 \times 3.5 \times 3.5r}{100} = 11061.75$

or, $885r + 698.25r = 11061.75$

or, $1580.25r = 11061.75$

$r = \frac{11061.75}{1580.25} = 7\%$

68. Let the speed of the first train be x and that of the second train be y .

Now, $x - y = 28$... (i)

$x + y = \frac{462}{5.5} = 84$... (ii)

Adding these two equations,

$2x = 28 + 84 = 112$

$\therefore x = 56, y = 28$

Required ratio = $\frac{56}{28} = \frac{2}{1} = 2 : 1$

69. Let the sum be x and the rate of interest be $r\%$ pa. Then

$\frac{x \times 5 \times (r+5)}{100} - \frac{x \times 5 \times r}{100} = 72.5$

or, $5xr + 25x - 5xr = 7250$

$\therefore x = \frac{7250}{25} = \text{Rs. } 290$

70. Let Rajeev's one day's work be $7x$ and Rakesh's one day's work be $4x$.

(Rajeev + Rakesh)'s one day's work = $\frac{1}{28}$

or, $7x + 4x = \frac{1}{28}$

or, $11x = \frac{1}{28}$

$\therefore x = \frac{1}{28 \times 11}$

Rajeev's one day's work = $7 \times \frac{1}{28 \times 11} = \frac{1}{44}$

Hence, Rajeev alone can finish the work in 44 days.

71. Let the side of the square be a .

Then, area of the square = a^2

Now, $a^2 = 1764$

$\therefore a = 42$ m

Now, breadth of rectangle = $42 \times \frac{1}{4} = 10.5$ m

Length of rectangle = $5 \times 10.5 = 52.25$ m

Area of rectangle = $52.25 \times 10.5 = 551.25$ sq m

\therefore Difference = $1764 - 551.25 = 1212.75$ sq m

72. Total journey = 199 km

Now, $(199 - 7) = 192$ km

The rate for this 192 km = Rs. 17 per km

\therefore Passenger pays = $192 \times 17 = \text{Rs. } 3264$

But the passenger pays Rs. 3311

As the passenger pays Rs. y , for the first seven kilometres.

$y = 3311 - 3264 = \text{Rs. } 47$

73. Total marks = 525

Total marks scored by Govind = $525 \times \frac{56}{100} = 294$

\therefore Marked scored by Govind in Subject Z

= $294 - 94 - 133 = 67$

$\therefore M = 67$

74. Let the speed of the stream be x kmph and the distance covered by him downstream and upstream be D .

$$\text{Then, } \frac{3 \times D}{13 + x} = \frac{D}{13 - x}$$

$$\text{or, } 39 - 3x = 13 + x$$

$$\text{or, } 4x = 26$$

$$\therefore x = 6.5 \text{ kmph}$$

75. Let the cost price be Rs. x

Selling price at a profit of 17%

$$= x + x \times \frac{17}{100} = \text{Rs. } \frac{117x}{100}$$

$$\text{Selling price at 13% loss} = x - \frac{13x}{100} = \frac{87x}{100}$$

$$\text{Now, } \frac{117x}{100} - \frac{87x}{100} = 210$$

$$\text{or, } 30x = 210 + 100$$

$$\therefore x = \frac{210 \times 100}{30} = \text{Rs. } 700$$

$$\begin{aligned} 76. (16)^? &= (16)^{7.2} \div (16^3)^{1.6} \times (16^4)^{-1.2} \div (16^5)^{-1} \\ &= (16)^{7.2} \div 16^{4.8} \times 16^{-4.8} \div 16^{-5} \end{aligned}$$

$$= (16)^{7.2-4.8-4.8+5} = (16)^{(12.2-9.6)}$$

$$= 16^{2.6}$$

$$\therefore ? = 2.6$$

$$77. \frac{6000 \times ?}{100} = 45.5 \times 11.6 + 13.5 \times 7.2$$

$$= 527.8 + 97.2 = 625$$

$$\therefore ? = \frac{625 \times 100}{6000} = 10.42\%$$

$$78. ? = \frac{77777}{700} + \frac{6455}{250} + \frac{3991}{26}$$

$$= \frac{11111}{100} + \frac{1291}{50} + \frac{307}{2}$$

$$= \frac{11111 + 2582 + 15350}{100}$$

$$= \frac{29043}{100} = 290.43$$

$$79. \sqrt{?} = \{6^{3.6} \div (6^2)^{-4.2}\}^{1/4}$$

$$= \{6^{3.6} \div 6^{-8.4}\}^{1/4} = \{6^{3.6+8.4}\}^{1/4}$$

$$= \{16^{12}\}^{1/4} = 6^3 = 216$$

$$\therefore ? = (216 \times 216) = 46656$$

$$80. ? = \frac{23564 \times 275 - 430100}{605}$$

$$= \frac{6480100 - 430100}{605}$$

$$= \frac{6050000}{605} = 10000 = 10^4$$

$$81. ? = 512.01 \times \frac{412.99}{119} = \frac{512 \times 413}{17 \times 7}$$

$$= \frac{510 \times 413}{17 \times 7} = 30 \times 59$$

$$= 1770 \approx 1775$$

$$82. ? = \frac{1700 \times 300}{60} - 1498 + 3745$$

$$= \frac{510000}{60} - 1498 + 3745$$

$$= 8500 - 1498 + 3745$$

$$= 12245 - 1498 = 10747 \approx 10750$$

$$83. ? \approx (14)^2 + (16.2)^2 + (17.25)^2 - 33$$

$$\approx 196 + 262.44 + 297.56 - 33$$

$$\approx 756 - 33 = 723 \approx 720$$

(approximate)

$$84. ? \approx 1625 \times 30 + 469$$

$$= 48750 + 469 = 49219 \approx 49220$$

$$85. ? = \frac{8500}{375} \times 15 \approx 340$$

86. The number should be 600 in place of 599. The series is $\times 1 + 3, \times 2 + 6, \times 3 + 9, \dots$

87. The number should be 38 in place of 40. the series is $\times 1 + 5, \times 2 + 10, \times 3 + 15 \dots$

88. The number should be 63 in place of 64. The series is $(8 + 1) \times 2, (18 + 3) \times 3, (63 + 5) \times 4 \dots$

89. The number should be 285 in place of 286. The series is $(90 - 45) \times 3, (135 - 40) \times 3, (285 - 35) \times 3, \dots$

90. The number should be 636 in place of 635. The series is $(17 + 1^3) \times 2, (36 + 2^3) \times 3, (132 + 3^3) \times 4, (636 + 4^3) \times 5, \dots$

$$91. \text{I. } \Rightarrow (x - 5)(x - 2) = 0 \Rightarrow x = 2, 5$$

$$\text{II. } \Rightarrow (y + 10)(y + 1) = 0 \Rightarrow y = -1, -10$$

Therefore $x > y$.

$$92. \text{I. } \Rightarrow (x + 12)(x + 16) = 0$$

$$\Rightarrow x = -12, -16$$

$$\text{II. } \Rightarrow (y + 4)(y + 12) = 0$$

$$\Rightarrow y = -4, -12$$

Therefore $y \geq x$.

93. Solving (I) & (II), we get

$$x = -2.5 \text{ and}$$

$$y = -0.5$$

$$\therefore y > x$$

$$94. \text{I. } \Rightarrow (x + 3)(x + 5) \Rightarrow x = -3, -5$$

$$\text{II. } \Rightarrow (y + 5)(y + 6) \Rightarrow y = -5, -6$$

Therefore $x \geq y$.

$$95. \text{I. } \Rightarrow x = \sqrt{3136} = 56$$

$$\text{II. } \Rightarrow y = \pm\sqrt{3136} = +56, -56$$

Therefore $x \geq y$.

96. We can't get the absolute a amount of profit with the help of the graph given.

$$97. \text{ Required percentage} = \frac{169}{(169 + 245) \times 100}$$

$$= 40.82\% = 41\%$$

99. The highest percentage increase is witnessed in the year 2001 with respect to the year 2000. See the rise in the line from the year 2000 to the year 2001.

Now, the required percentage increase

$$= \frac{40 - 15}{15} \times 100$$

$$= \frac{25}{15} \times 100 = 166\frac{2}{3}\%$$

100. The required difference (in lakh units)

$$= 14 \times 14 - \frac{22}{7} \times 7 \times 7$$

$$= 14 \times 3 = 42 \text{ lakh} = 4200000$$