English Language

Directions (Q.1-15) Read the following passage carefully and answer the questions given below it. Certain words have been printed in bold to help you locate them, while answering some of the questions.

Among those suffering from the global recession are millions of workers who are not even included in the official statistics : urban recyclers – the trash pickers, sorters, traders and reprocessors who extricate paper, cardboard and plastics from garbage heaps and prepare them for reuse. Their work is both unrecorded and largely unrecognized, even though in some parts of the World they handle as much as 20% of all waste.

The World's 15 million informal recyclers clean up cities, prevent some trash from ending in landfills and thus, reduce climate change by saving energy on waste disposal techniques like incineration. In the developed countries they are the preferred ones since they recycle waste much more cheaply and efficiently than governments or private corporations can. In the developing World, on the other hand, they provide the only recycling services except for a few big cities. But as recession hits the markets Worldwide, the price of scrap metal, paper and plastic has also fallen. Recyclers throughout the World are experiencing a **sharp** drop in income. Trash pickers and scrap dealers saw a decline of as much as 80% in the price of scrap from October 2007 to October 2009. In some countries scrap dealers have **shuttered** so quickly that researchers at the Solid Waste Management Association didn't have a chance to record their losses.

In Delhi, some 80% of families in the informal recycling business surveyed by an organization said they had cut back on "luxury foods," which they defined as fruit, milk and meat. About 41% had stopped buying milk for their children. By this summer, most of those children, already malnourished, hadn't had a glass of milk in nine months. Many of these children have also cut down on hours spent in school to work alongside their parents. Families have **liquidated** their most valuable assets – primarily copper from electrical wires – and have stopped sending remittances back to their rural villages. Many have also sold their emergency stores of grain. **Their misery is not as familiar as that of the laid-off workers of big name but imploding, service sector corporation,** but it is often more tragic.

Few countries have adopted emergency measures to help trash pickers. Brazil, for one, is providing recyclers, or "catadores," with cheaper food, both through arrangements with local farmers and by offering food subsidies. Other countries, with the support of non-governmental organizations and donor agencies are following Brazil's example. Unfortunately, most trash pickers operate outside official notice and end up falling through the **cracks** of programmes like these. In the long run, though, these **invisible** workers will remain especially vulnerable to economic slowdowns unless they are integrated into the formal business sector, where they can have insurance and reliable wages. This is not hard to accomplish. Informal junk shops should have to apply for licences, and governments should create or expand doorstep waste collection programmes to employ trash pickers. Instead of sorting through haphazard trash heaps and landfills, the pickers would have access to the cleaner scrap that comes from households.

The need of the hour, however, is a more immediate solution. An efficient but temporary solution would be for governments where they'd have to pay a small subsidy to waste dealers so they could purchase scrap from trash pickers at about 20% above the current price. This increase, if well advertised and broadky utilized, would bring recyclers a higher price and eventually bring them back from the brink. Trash pickers make our cities healthier and more liveable. We all stand to gain by making sure that the work of recycling remains sustainable for years to come.

1. Which of the following is not true in the context of the passage?
   a) Purchase of trash at a higher price by the government is only a temporary solution to the larger problem
   b) The welfare programs started by the government for the recyclers largely fail to help them
   c) In the last couple of years the price of scrap has come down to 20% of its original price
   d) Few countries have started to take steps against the plight of the recyclers

e) All the true

2. According to the passage, which of the following measures have been taken to help the distressed recyclers?
(A) Helping them with the aid of NGOs.
(B) Taking steps to make the scrap pickers have access to cleaner scrap.
(C) Providing food subsidies to the recyclers.

 a) Only A   b) Only A and C   c) Only C
 d) Only B and C   e) None of these

3. How, according to the author, have the recyclers contributed towards saving the environment?
(A) By preventing the trash being dumped into the landfills.
(B) By using renewable sources of energy to recycle the scrap.
(C) By helping to avoid the energy consuming waste disposal techniques.

 a) Only A   b) Only B   c) Only A and B
 d) Only A and C   e) None of these

4. Which of the following has not been an effect of the losses observed in the informal waste recycling?
a) To help their families, the children of the recyclers have started working thus compromising on their education
b) Many scrap dealers have discontinued their businesses
c) The government in many countries has derecognized scrap dealers in view of their unprofitable business
d) Governments in many countries had to take emergency steps to help the recyclers deal with the crisis
e) None of these

5. What does the author mean by "**Their misery is not as familiar as that of the laid-off workers of big-name but imploding, service sector corporation**" as given in the passage?
a) The effect of recession on the famous organizations is clearly noticed, whereas the plight of informal recyclers is neglected.
b) Big name corporations are often hesitant to help the relatively smaller sest-ups such as that of the informal recyclers.
c) The big name private recyclers have been getting the government help, whereas the smaller ones are not
d) The misery of the informal recyclers has been kept a secret by the government
e) None of these

6. Which of the following is true regarding waste recycling in the developing countries?
a) The government and private organizations services are much costlier than the informal recyclers.
b) Barring a few cities, government waste recycling mechanism is completely lacking in these countries
c) There has not been any effort in the developing countries to help the struggling recyclers
d) Global recession has hit the recyclers of the developing countries
e) None of these

7. Which step does the author suggest in order to immediately bring the waste recyclers back from the adversity?
a) Enabling the scrap dealers to purchase scrap at a price higher than that of the market
b) By advertising recycling as a profitable business amongst the informal recyclers
c) Banning the waste collection by informal trash pickers
d) Supporting the families of the recyclers until the recession tides over
e) None of these

8. Which of the following is intended in the given passage?
   a) To highlight the domination of the big-name service industry corporations in the scrap dealing business
   b) To highlight various factors responsible for the prevailing malnutrition in children of the informal recyclers
   c) To suggest the steps which can help the anguished recyclers
   d) To explain the measures which can be taken in order to make recycling more energy efficient
   e) None of these

9. Why, according to the author, are the urban recyclers facing a sharp decline in their business?
   a) Recession has adversely affected the prices of scrap thus, making it an unprofitable business
   b) Many governmental and private organizations have entered the business providing a comparatively better service
   c) Their work has been gradually derecognized by the government
   d) Recycling and waste disposing techniques are cost inefficient
   e) None of these

10. What measures does the author suggest to help the informal recyclers in the times to come?
    a) To encourage them to work in union with the private organizations
    b) To provide them subsidies in food and education throughout their business scareer
    c) To record their losses precisely with the research conducted by Solid Waste Management Association and then take appropriate steps
    d) To involve them in the organized sector so as to enable them to have a stable income
    e) None of these

Directions (Q. ____) Choose the word/group of words which is most similar in meaning to the word printed in bold as used in the passage.

11. Liquidated
    a) Borrowed   b) Floated   c) Scrutinized
    d) Stagnated   e) Sold

12. Cracks
    a) Breaks   b) Collapse   c) Fractures
    d) Loopholes   e) Fragments

13. Shuttered
    a) Covered   b) Blocked   c) Closed
    d) Concluded   e) Intercepted

Directions (Q. ____) Choose the word/phrase which is most opposite in meaning to the word printed in bold as used in the passage.

14. Invisible
    a) Opaque   b) Bright   c) Spotless
    d) Noticeable   e) Clear

15. Sharp
    a) Gradual   b) Blunt   c) Polite
    d) Damp   e) Pointless

Directions (Q. 16-25) 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 will be the answer. If there is 'No error' mark (5) as the answer (Ignore errors of punctuation, if any)

16. The journalist alongwith (1) / the camera crew were (2) / kidnapped by the (3) / militants last night. (4) No error (5)
17. She told her son (1) / to wait in the car (2) / until she does not (3) / return from the shop. (4) No error (5)
18. The number of flu cases (1) / is decreasing slowly, (2) / thanks to the (3) / timely governmental efforts. (4) No error (5)
19. The principal spotted Indira (1) / which was sitting in (2) / the canteen at the time when (3) / she should be attending the classes. (4) No error (5)
20. If I will meet (1) / Nayan in the meeting. (2) / I will give (3) / him your message. (4) No error (5)
21. Without a doubt, (1) / Ahmad is the most (2) / sincere of all the (3) / student in the class. (4) No error (5)
22. Had it not been raining (1) / so heavily, we would have (2) / surely gone for a picnic (3) / to the hill station. (4) No error (5)
23. The students dressed them (1) / in their trendiest best attires (2) / as they attended the (3) / annual day program of the college. (4) No error (5)
24. The reason behind his (1) / extraordinary height is due to (2) / the malfunctioning of a gland (3) / situated in the brain. (4) No error (5)
25. Unlike these days, (1) / he enjoyed reading books (2) / and spend quite some time (3) / in the library when he was young. (4) No error (5)

Directions (Q. 26-30) Which of the phrases (1), (2), (3) and (4) given below each statement should replace the phrase printed in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and 'No correction is required', mark (5) as the answer.

26. As the lawyer was too personally involved, the judge decided to **removed him from the** case.
    a) remove himself from the
    b) remove him from the
    c) removes him from the
    d) remove him on the
    e) No correction required

27. In order to protect from rotting, many fruits are treated with chemicals **before been shipped from** one place to another.
    a) after being shipped to
    b) before being shipped at
    c) before being shipped from
    d) after been shifted to
    e) No correction required

28. If our business continues to expand at this rate, we will need to **employ many staff soon.**
    a) employ more staff soon
    b) employ much staffs sooner
    c) employment much staff soon
    d) employ many staffs soon
    e) No correction required

29. Two escaped prisoners **were recaptured this morning** when they were trying to cross the border to enter the neighbouring country.
    a) got recaptured this morning
    b) are recaptured this morning

c) could recapture this morning
d) were recaptured on morning
e) No correction required

30. **There is believed to** be thousands of homeless teenagers living on the streets of the capital city.
    a) It is believed to
    b) There is believe to
    c) There are beliefs to
    d) There are believed to
    e) No correction required

Reasoning Ability

31. In a certain code language 'MADRAS' is written as 'DAMSAR' how can 'MUMBAI' be written in that code language?
    a) BAIUMM   b) MUMIAB   c) IABMUM
    d) MBIAUM   e) None of these

32. If in a certain code 'INSTITUTION' is written as 'NOITUTITSNI'. How will 'PERFECTION' be written in that language?
    a) NOICTEFREP
    b) NOITCEFERP
    c) NOITCEFRPE
    d) NOITCEFREP
    e) None of these

33. Seema's younger brother Sohan is older than Seeta. Sweta is younger than Deepti but elder than Seema. Who is the eldest?
    a) Seema   b) Sweta   c) Seeta
    d) Deepti   e) None of these

34. Rashmi is 14th from the right end in a row of 40 girls. What is her position from the left end?
    a) 25th   b) 27th   c) 21st
    d) Can't be determined   e) None of these

35. Ayush remembers that Sanjay's birthday is certainly after January 12 but not later than 16th January. If Mehar remembers that Sanjay's birthday is before 17th of January but not before 13th January. On which of the following day was Sanjay's birthday?
    a) 14th   b) 15th   c) 16th
    d) Either 14th or 15th   e) None of these

36. If '+' means '÷', '÷' means '−', '−' means '×' and '×' means '+', then $12 + 6 \div 3 - 2 \times 8 = ?$
    a) −2   b) 4   c) 2
    d) 8   e) None of these

Directions (Q. 37-41) In these questions, relationship between different elements is shown in the statements. These statements are followed by two conclusions.

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 I and II follow

37. **Statements:**   L > M, M > N, N > P
    Conclusions: I. L > P   II. M > P

38. **Statements:**   A > B, B = H, H > G
    Conclusions: I. A > G   II. A > H

39. **Statements:**   H < J, F < H, I   J = K
    Conclusions: I. H > I   II. I   F

40. **Statements:**   A < B < C   D = E
    Conclusions: I. B   E   II. B < E

41. **Statements:**   P > M > Q, Q > Z > N
    Conclusions: I. M   Z   II. N < P

Directions (Q. 42-47) In the following questions, the symbols ©, %, $ and @ are used with the following meaning as illustrated below.

P © Q means P is either smaller than or equal to Q.
P % Q means P is smaller than Q.
P @ Q means P is equal to Q.
P * Q means P is either greater than or equal to Q.
P $ Q means P is greater than Q.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true?

Give answer:
    (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 neither conclusion I nor II is true
    (e) If both conclusion I and II are true

42. **Statements:**   M % T, T $ K, K © D
    Conclusions: I. T $ D   II. D $ M

43. **Statements:**   F @ B, B % N, N $ H
    Conclusions: I. N $ F   II. H $ F

44. **Statements:**   R * M, M @ K, K © J
    Conclusions: I. J $ M   II. J @ M

45. **Statements:**   B $ N, N * R, R @ K
    Conclusions: I. K © N   II. B $ K

46. **Statements:**   J © K, K $ N, N * D
    Conclusions: I. J % N   II. D % K

47. **Statements:**   R @ D, D © M, M $ T
    Conclusions: I. T % D   II. M * R

48. Neelam, who is Rohit's daughter, says to Indu, your mother Reeta is the younger sister of my father, who is third child of Sohanji. How is Sohanji related to Indu?

a) Maternal Uncle   b) Father   c) Grandfather
d) Father-in-law   e) None of these

49. If 'A × D' means 'A is sister of D', 'A + D' means 'D is the daughter of A' and 'A ÷ D' means 'A is the mother of D', then how will 'N is the aunt of M' be denoted?
a) M + L × N
b) M ÷ L + N
c) L × N ÷ M
d) N × L ÷ M
e) None of these

50. What will be the measurement of the angle made by the hands of a clock when the time is 8 : 35 ?
a) 32.4˚   b) 37.5˚   c) 45˚
d) 47.5˚   e) None of these

51. If 1st January 2001 was Monday, then what day of the week was it on 31st December, 2001?
a) Wednesday   b) Friday   c) Monday
d) Saturday   e) None of these

52. A direction pole was situated on the road crossing. Due to an accident, the pole turned in such a manner that the pointer which was showing East, started showing South. Sita, a traveller went to the wrong direction thinking it to be West. In what direction actually she was travelling?
a) North   b) West   c) East
d) South   e) None of these

53. 5 friends are sitting on a bench. A is to the left of B but on the right of C. D is to the right of B but on the left of E. Who are at the extremes?
a) A, B   b) A, D   c) B, D
d) C, E   e) None of these

Directions (Q. 54-58) Study the following information to answer the given questions.

Eight friends A, B, C, D, E, F, G and H are sitting in a circle facing the centre, not necessarily in the same order. D sits 3rd to the left of A. E sits to the immediate right of A. B is 3rd to the left of D. G is 2nd to the right of B. C is an immediate neighbor of B. C is 3rd to the left of H.

54. Who amongst the following is sitting exactly between F and D?
a) C   b) E   c) H
d) A   e) None of these

55. Three of the following four are alike in a certain way based on the information given above and so form a group. Which is the one that does not belong to that group?
a) DC   b) AH   c) EF
d) CB   e) None of these

56. Who amongst the following is sitting 2nd to the left of H?
a) E   b) B   c) A
d) None of these   e) Can't be determined

57. Who amongst the following are immediate neighbours of G?
a) CA   b) AF   c) DC
d) DF   e) None of these

58. Who amongst the following is sitting 3rd to the right of A?
    a) F   b) H   c) B
    d) C   e) None of these

Directions (Q. 59-63) Read the following information carefully and answer the question given below it.
Following are the criteria for selection of interpreter in different embassies in India.

A. The candidate should be a graduate from a recognized university.
B. He or she should be 23 to 26 years of age as on 07th March, 2006.
C. The candidate should have the ability to read, write and speak English and Hindi besides the foreign language to which he/she has applied.
D. The candidate should have his/her own accommodation, either rental or own, in Delhi.

However, if a candidate fulfills all criteria except.
(i)   At D but he/she has accommodation either rental or own, in NCT Delhi, his/her case is to be referred to foreign secretary.
(ii)   At B but he/she has a PG degree in any discipline, his/her case is to be referred to personal assistant, foreign secretary.
Now, based on the above criteria and the information given below, you have to take decision in regard to each case. You are not to assume any information which is not available.

Give answer:
(a) If to be referred to foreign secretary
(b) If to be referred to PA foreign secretary
(c) If data is inadequate
(d) If to be selected
(e) If not to be selected

59. Sweta Singh is a Hindi Hons. Graduate from Hindu College, Delhi. Recently, she has celebrated her 23rd birthday on 09th January, 2006. She possesses her own house in Vikaspuri, Delhi. She can speak, write and read English, Hindi and French equally well.
60. Miss Anu knows how to speak, write and read Hindi, English and Portuguese. She also knows how to handle computers. She has done GNIIT after doing her graduation from a recognized university. She can arrange a house in Delhi for her accommodation.
61. Pinki has done her graduation from Oxford University. Her date of birth is 09th November, 1979. She knows how to speak, write and read Hindi, English and Spanish. Her grandfather owns a house in Ghaziabad, in NCT, Delhi. She can live with her grandfather during her job in Delhi.
62. Kiran, wife of Ajay and a graduate from a recognized university, lives with her husband at Kamla Nagar in North. Delhi in their rental house. She has passed her post-graduation in History in February, 2003 at the age of 23 years. She can speak, read and write Maithili, Hindi, English and Nepali. Three languages Nepali, Maithili and Bhojpuri are being spoken in Nepal.
63. Reena has done the graduation from Jabalpur University, Madhya Pradesh. She can arrange her accommodation with her brother-in-law in Delhi. Her date of birth is 12th January, 1983. She can speak more than two languages including a foreign language.

Directions (Q. 64-65) In each of the questions below is given a statement followed by three courses of action numbered I, II and III. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy, etc. On the basis of information given in the statement, you have to assume everything in the statement to be true and then decide which of the three given suggested courses of action logically follows worth pursuing. Then, decide which of the alternatives (a), (b), (c), (d) or (e) is correct.

64. **Statement:** The army has been alerted in the District following floods triggered by incessant rains.
    Courses of action
    I.   Relief to flood affected people should be arranged.
    II.   Supply of flood articles should be arranged.
    III.   Adequate medical facilities should be arranged.
    a) Only I follows
    b) Only II follows
    c) Both I and III follow
    d) All follow
    e) None of these

65. **Statement:** Faced with a serious resource crunch and a depressing overall economic scenario, the state 'X' is unlikely to achieve the targeted percent compound annual growth rate during the 10th plan.
    Courses of action
    I.   The target growth should be reduced for the next plan.
    II.   The reasons for the failures should be studied.
    III.   The state 'X's performance should be compared with that of other states.
    a) Only I follows
    b) Both I and III follow
    c) Both II and III follow
    d) None follows
    e) None of these

Quantitative Aptitude

66. The MRP of a shirt is Rs.750 and 12% discount is allowed on the MRP. The shopkeeper allows a further discount of 6% to clear the old stock. What would be the selling price of the shirt?
    a) Rs.534.78   b) Rs.537.68   c) Rs.620.4
    d) Rs.630.48   e) Rs.528.38

67. The ratio of milk to water is 4 : 3 in a mixture of 490 litres. To make this ratio 4 : 5 the quantity of water to be further added should be
    a) 120 litres   b) 125 litres   c) 130 litres
    d) 140 litres   e) 135 litres

68. The present age of Avinash is four times that of Amitabh. 5 years hence the age of Avinash will become 5 years more than 3 times the age of Amitabh. The present age of Avinash is
    a) 52 years   b) 56 years   c) 55 years
    d) 58 years   e) 60 years

69. In how many different ways can the letters of the word MUMBAI be arranged?
    a) 120   b) 360   c) 180
    d) 720   e) 24

70. An amount of Rs.10000 becomes Rs.14641 in 2 years, if the interest is compounded half yearly. What is the rate of compound interest?
    a) 25%   b) 21%   c) 23%
    d) 24.5%   e) 26.2%

Directions (Q. 71-75) Study the following graph carefully and answer the questions that follow:

The bar graph shows the number of recruitments for the post of Officers, Clerks and Managers

71. What is the ratio of the recruitments for the post of Officers to that for Clerks during the period 2008 to 2013?
    a) 36 : 35   b) 37 : 38   c) 33 : 32
    d) 34 : 33   e) 39 : 40

72. The total recruitments in 2012 is what percent of the total recruitments in 2013?
    a) 78%   b) 80%   c) 100%
    d) 95%   e) 90%

73. What is the difference between the total number of Managers recruited during 6 years and the total recruitments in 2009?
    a) 300   b) 350   c) 325
    d) 320   e) 321

74. The total recruitments in 2008 is what percent of the total recruitments in 2011?
    a) 95.51%   b) 210.41%   c) 115.21%
    d) 120.11%   e) 126.31%

75. If in 2013, 30% Managers are females, and in 2011, 40% Managers are females, what is the ratio of male Managers in 2013 to those in 2011?
    a) 5 : 7   b) 4 : 3   c) 5 : 4
    d) 7 : 3   e) 7 : 6

76. The price of rice decreased by 15%, as result of which Jatin could purchase 4 kg more rice for Rs.250. What is the reduced price of rice per kg?
    a) Rs.6.641   b) Rs.7.465   c) Rs.8.714
    d) Rs.9.367   e) Rs.7.068

77. The average weight of seven members of a family is 18 kg. If the head of the family is not considered, the average weight of other members becomes less by 6 kg. The weight of the head of the family is
    a) 42 kg   b) 48 kg   c) 52 kg
    d) 36 kg   e) None of these

78. A is twice as good a workman as B. Together, they finish the work in 14 days. In how many days can it be done by each of them separately?
a) 21, 42   b) 21, 22   c) 20, 40
d) 18, 36   e) 19, 38

79. Vinayak borrowed Rs.7000 from a bank at simple interest. After 3 years he paid Rs.3000 to the bank and at the end of 5 years from the date of borrowing he paid Rs.5450 to the bank to settle the account. Find the rate of interest.
a) 4.14%   b) 3.16%   c) 3.32%
d) 3.48%   e) 4.24%

80. The length of a rectangular floor is three times its breadth. If Rs.750 is required to paint the floor at the rate of Rs.10 per square metre, what is the length of the floor?
a) 19 metres   b) 18 metres   c) 17 metres
d) 15 metres   e) 13 metres

Directions (Q.81-85) Study the table carefully to answer the questions that follow:

Number of athletes (in hundred) who participated in a sports event from five different countries over the years

Country Year	A		B		C		D		E	
	M	F	M	F	M	F	M	F	M	F
2008	5.1	3.8	7.2	3.6	5.6	4.2	6.5	4.3	6.2	3.2
2009	7.8	3.5	8.5	4.2	4.8	3.8	5.6	3.5	5.6	4.5
2010	5.5	2.2	6.3	3.8	5.6	4.8	4.8	2.4	7.8	4.9
2011	6.7	1.8	5.2	5.4	6.7	9.5	7.1	5.3	9.4	3.4
2012	8.5	2.4	6.4	4.7	7.3	8.6	8.4	6.5	10.6	5.5
2013	9.4	4.3	8.4	3.3	6.0	5.1	7.6	4.0	11.4	6.5

81. In which of the following years was the total number of participants the 2nd highest from Country E?
a) 2009   b) 2011   c) 2008
d) 2013   e) 2012

82. What was the average number of female athletes who participated from Country C over all the years together?
a) 575   b) 600   c) 825
d) 972   e) 765

83. What was the approximate percentage decrease in the number of male athletes who participated from Country D in year 2010 as compared to the previous year?
a) 15.62%   b) 12.8%   c) 13.35%
d) 14.28%   e) 11.96%

84. The number of female athletes who participated from Country E in the year 2011 was approximately what percent of the total number of athletes who participated from Country A in the year 2008?
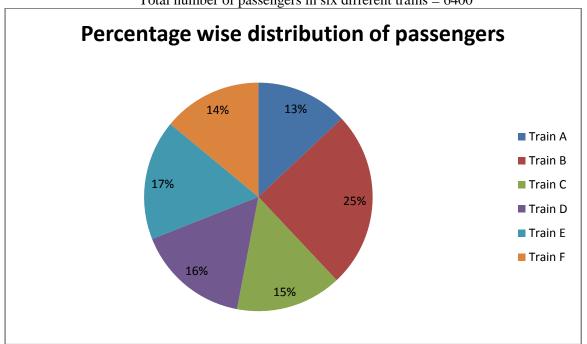a) 38.20%   b) 28.55%   c) 30.6%
d) 40.25%   e) None of these

85. In which of the following countries is the difference between the number of male and female participants the 2nd highest in the year 2012?

a) B   b) A   c) E

d) C   e) D

Directions (Q. 86-90) Study the following pie chart carefully to answer the given questions

Total number of passengers in six different trains = 6400

Percentage wise distribution of passengers

- Train A
- Train B
- Train C
- Train D
- Train E
- Train F

(13%, 25%, 15%, 16%, 17%, 14%)

86. What is the average number of passengers travelling in Train B, D and E together? (Approximately)

a) 1521   b) 1327   c) 1124

d) 1237   e) 993

87. If the cost of one ticket is Rs.136, what is the total amount paid by the passengers of Train A? (Assume all the passengers purchased tickets and the cost of each ticket is equal)

a) Rs.1,13,152   b) Rs.1,34,682   c) Rs.98,675

d) Rs.1,75,980   e) Rs.2,35,700

88. The number of passengers in Train F is approximately what percent of the total number of passengers in Train C and E together?

a) 38%   b) 48%   c) 53%

d) 44%   e) 59%

89. What is the difference between the number of passengers in Train B and that in Train E?

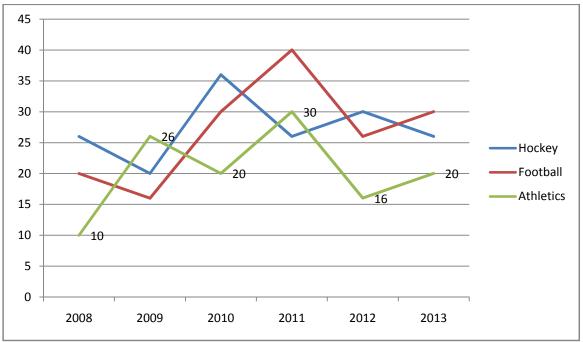a) 623   b) 512   c) 428

d) 972   e) 776

90. What is the total number of passengers in Train C, E, F and A together?

a) 2864   b) 2386   c) 3776

d) 3239   e) 4265

Directions (Q.91-95) Study the following graph carefully to answer the questions that follow

Number of players (in hundred) who participated in a sports event in three different sports in six different years

91. What is the difference between the number of players participating in Football in the year 2010 and the number of players participating in Hockey in the year 2013?
    a) 350   b) 780   c) 975
    d) 500   e) 1100

92. What was the approximate average number of players who participated in Athletics over all the years together?
    a) 1800   b) 2000   c) 2500
    d) 1500   e) 3000

93. If 27% of the players participating in Football in the year 2009 were found positive in the dope test, what was the number of players participating in Football in the year 2009 who were found negative in the dope test?
    a) 976   b) 1296   c) 1095
    d) 1623   e) None of these

94. What was the percentage decrease in the number of players participating in Hockey in the year 2012 as compared to that in the year 2010?
    a) 14-2/7%   b) 16-1/7%   c) 11-1/7%
    d) 19-1/7%   e) None of these

95. The total number of players who participated in all the sports together in the year 2013 was approximately what percent of the total number of players who participated in Athletics over all the years together?
    a) 45%   b) 71%   c) 48%
    d) 63%   e) 60%

96. There are 5 boys and 6 girls seated around a circular table so that no two boys are together. Find the number of ways in which this can be done.
    a) 56380   b) 86400   c) 92635
    d) 67500   e) None of these

97. An examinee is required to answer 8 questions out of 16 questions, which are divided into two groups each containing 8 questions. He is not permitted to answer more than five questions from any group. In how many ways can he answer eight questions?
    a) 32651   b) 21728   c) 18752
    d) 11172   e) 39689

98. A box contains 7 red balls, 10 green balls and 12 pink balls. A ball is drawn at random from the box. What is the probability that the ball drawn is either red or green?
    a) 13/29   b) 24/29   c) 17/29
    d) 7/23   e) None of these

99. A four digit number is formed with the digits 3, 5, 7 and 8 without repetition. Find the chance that the number is divisible by 5.
    a) 1/4   b) 3/5   c) 17/125
    d) 13/98   e) 37/69

100. The age of Ravi is 24 years. If Shyam's age is 25% more than that of Ravi, what percent is Ravi's age less than Shyam's?
    a) 20%   b) 28.23%   c) 25%
    d) 22%   e) 23.38%

Answers:

1. Option C
2. Option C
3. Option D
4. Option C
5. Option C
6. Option D
7. Option A
8. Option D
9. Option A
10. Option D
11. Option E
12. Option D
13. Option C
14. Option D
15. Option A
16. Option B
17. Option C
18. Option E
19. Option B
20. Option A
21. Option D
22. Option D
23. Option A
24. Option B
25. Option C
26. Option B
27. Option C
28. Option A
29. Option E
30. Option D
31. Option B
    M   A   D   R   A   S

D	A	M	S	A	R
M	U	M	B	A	I
M	U	M	I	A	B

MUMBAI = MUMIAB

32. **Option D**

I	N	S	T	I	T	U	T	I	O	N
9	14	19	20	9	20	21	20	9	15	14

N	O	I	T	U	T	I	T	S	N	I
14	15	9	20	21	20	9	20	19	14	9

P	E	R	F	E	C	T	I	O	N
16	5	18	6	5	3	20	9	15	14

N	O	I	T	C	E	F	R	E	P
14	15	9	20	3	5	6	18	5	16

33. **Option D**
    Deepti>Sweta>Seema>Sohan>Seeta
    Deepti is the eldest

34. **Option B**
    Required position = $(40 + 1 - 14) = 27^{th}$

35. **Option D**
    Days by Ayush 13, 14, 15 in January
    Days by Mehar 14, 15, 16 in January
    Clearly, 14th and 15th January are common in both the groups.

36. **Option B**
    $? = 12 + 6 \div 3 - 2 \times 8$
    $= 12 \div 6 - 3 \times 2 + 8$ (using BODMAS rule)
    $= 2 - 3 \times 2 + 8 = 2 - 6 + 8$
    $= (2 + 8) - 6 = 4$

37. **Option E**
    $L > M$ …. (i)
    $M > N$ …. (ii)
    $N > P$ …. (iii)
    On combining all the three statements, we get
    $L > M > N > P$
    Conclusions: I. $L > P$ (True)
                    II. $M > P$ (True)

38. **Option E**
    $A > B$ …. (i)
    $B = H$ …. (ii)
    $H > G$ …. (iii)
    On combining the statements (i), (ii) and (iii), we get
    $A > B = H > G$
    Conclusions: I. $A > G$ (True)
                    II. $A > H$ (True)

39. Option D
    H < J   …. (i)
    F < H   …. (ii)
    I ≥ J = K   …. (iii)
    On combining the statements (i), (ii) and (iii), we get
    F < H < J = K ≤ I
    Conclusions: I. H > I (False)
                            II. I ≥ F (False)

40. Option E
    A < B < C ≤ D = E
    Conclusions: I. B ≥ E (False)
                            II. B < E (True)

41. Option B
    P > M > Q   …. (i)
    Q > Z > N   …. (ii)
    On combining the statements (i) and (ii) we get
    P > M > Q > Z > N
    Conclusions: I. M ≤ Z (False)
                            II. N < P (True)

42. Option D
    M % T → M < T   …. (i)
    T $ K → T > K   …. (ii)
    K © D → K ≥ D   …. (iii)
    On combining the statements (i), (ii) and (iii), we get
    M < T > K ≥ D
    Conclusions: I. T $ D → T > D (False)
                            II. D $ M → D > M (False)

43. Option A
    F @ B → F = B   …. (i)
    B % N → B < N   …. (ii)
    N $ H → N > H   …. (iii)
    On combining the statements (i), (ii) and (iii), we get
    F = B < N > H
    Conclusions: I. N $ F → N > F (True)
                            II. H $ F → H > F (False)

44. Option C
    R * M → R ≥ M   …. (i)
    M @ K → M = K   …. (ii)
    K © J → K ≥ J   …. (iii)
    On combining the statements (i), (ii) and (iii), we get
    R ≥ M = K ≥ J
    Conclusions: I. J $ M → J > M (May be true)
                            II. J @ M → J = M (May be true)

45. Option E
    B $ N → B > N   …. (i)
    N * R → N ≥ R   …. (ii)
    R @ K → R = K   …. (iii)
    On combining the statements (i), (ii) and (iii), we get
    B > N ≥ R = K

Conclusions: I. K © N   K N (True)

                         II. B $ K   B > K (True)

46. Option B

J © K   J K   …. (i)

K $ N   K > N   …. (ii)

N * D   N D   …. (iii)

On combining the statements (i), (ii) and (iii), we get

J   K > N   D

Conclusions: I. J % N   J < N (False)

                         II. D % K   D < K (True)

47. Option B

R @ D   R = D   …. (i)

D © M   D M   …. (ii)

M $ T   M > T   …. (iii)

On combining the statements (i), (ii) and (iii), we get

R = D   M > T

Conclusions: I. T % D   T < R (False)

                         II. M * R   M R (True)

48. Option C
49. Option D
50. Option D

Angle traced by hour hand in 35 min. after 8 = $35 \times \frac{1}{2} = 17.5°$

At 8 : 35, min. hand is at 7, and angle between 8 and 7 = 30°

Required angle between two hand at 8 : 35 = 30° + 17.5° = 47.5°

51. Option C

Year 2001 was an ordinary year and in an ordinary year

1st day = last day

1st January = 31st December

As, given that, 1st January = Monday

Hence, 31st December = Monday

52. Option A

The pointer which was showing West started showing South. Hence, the pointer turned 90° clockwise. Now, Sita went to the direction thinking it as West. The original direction will be +90° clockwise i.e. North direction.

53. Option D

Left   Right

C   A   B   D   E

Clearly, C and E are at the extremes.

54. Option C

Clearly, H is sitting exactly between F and D

55. Option D
56. Option D
57. Option C
58. Option D

Candidates	(A)	B (ii)	(C)	D (i)
Sweta	True	True	True	True
Miss Anu	True	?	True	True
Pinki	True	False	__	__
Kiran	True	True	True	True
Reena	True	True	?	True

59. Option D
60. Option C
61. Option E
62. Option B
63. Option C
64. Option D

All the courses of action are worth pursuing for the problem as defined in the statement, because flood affected persons need all sort of relief i.e., food, medical facilities etc.

65. Option C

Courses of action II and III are worth pursuing the problem as defined in the statement. Reasons for failure should be studied and performance of the affected state should be compared with that of other states.

66. Option C

Selling price of shirts = $750 \times \frac{88}{100} \times \frac{94}{100}$ = Rs.620.4

67. Option D

Total quantity of mixture = 490 litres
Ratio of milk to water = 4 : 3
Let milk be 4x litres
And water be 3x litres
Then, 4x + 3x = 490
x = 70
Milk = 70 × 4 = 280 litres and water = 70 × 3 = 210 litres
Let y litres of water be added

Then $\frac{280}{210+y} = \frac{4}{5}$

y = 140 litres

68. Option E

Let the present age of Avinash be x years

Present age of Amitabh = $\frac{x}{4}$ years

x + 5 = 3 ($\frac{x}{4}$ + 5) + 5

x + 5 = $\frac{3x}{4}$ + 15 + 5

x − $\frac{3x}{4}$ = 20 − 5

x = 60

Present age of Avinash = 60 years

69. Option B
70. Option B
71. Option B

Number of recruitments for the post of Officers during 2008 to 2013 = 70 + 30 + 40 + 80 + 100 + 50 = 370

Number of recruitments for the post of Clerks during 2008 to 2013 = 90 + 60 + 20 + 60 + 60 + 90 = 380

Required ratio = 370 : 380 = 37 : 38

72. Option C

Total recruitments in 2012 = 100 + 60 + 80 = 240

Total recruitments in 2013 = 50 + 90 + 100 = 240

Total recruitments in 2012 is $\frac{240 \times 100}{240}$ = 100% of the total recruitments in 2013

73. Option A

Total no. of Managers recruited during 6 years = 80 + 70 + 80 + 50 + 80 + 100 = 460

Total recruitments in 2009 = 30 + 60 + 70 = 160

Required difference = 460 − 160 = 300

74. Option E

Total recruitments in 2008 = 70 + 90 + 80 = 240

Total recruitments in 2011 = 80 + 60 + 50 = 190

Required % = $\frac{240 \times 100}{190}$ = 126.31%

75. Option D

Number of female Managers in 2013 = 100 × $\frac{30}{100}$ = 30

Number of female Managers in 2011 = 50 × $\frac{40}{100}$ = 20

Male Managers in 2013 = 100 − 30 = 70

Male Managers in 2011 = 50 − 20 = 30

Required ratio = 70 : 30 = 7 : 3

76. Option D

Let the initial price of rice be Rs.x per kg.

New price = x × $\frac{85}{100}$ = $\frac{85x}{100}$ per kg

$\frac{250}{\frac{85x}{100}} - \frac{250}{x} = 4$

$$\frac{5000}{17x} - \frac{250}{x} = 4$$

x = Rs.11.02 per kg

Now price = $11.02 \times \frac{85}{100}$ = Rs.9.367 per kg

77. Option E

Total weight of seven members of the family = $18 \times 7 = 126$ kg

Total weight of the family without its head = $(18 - 6) \times 6 = 72$ kg

Weight of the head of the family = $(126 - 72) = 54$ kg

78. Option A

Given that A is twice as good a workman as B.

If the work done by B in 1 day is $\frac{1}{x}$

Then that by A is $\frac{2}{x}$

$14 \left(\frac{1}{x} + \frac{2}{x}\right) = 1$

$14 \left(\frac{1+2}{x}\right) = 1$

x = 42

B can do this work in 42 days

A can do the work in 21 days

79. Option A

Principal = Rs.7000

Amount = 3000 + 5450 = 8450

Interest = Amount – Principal = 5450 – 7000 = Rs.1450

Time = 5 years

Rate = $\frac{Interest \times 100}{Time \times Principal} = \frac{1450 \times 100}{5 \times 7000} = 4.14\%$

80. Option D

Let the length of the floor be 2.5x and the breadth be x metres.

Area of the floor = $\frac{Total\ cost\ of\ painting}{Painting\ cost\ per\ square\ metre} = \frac{750}{10\ per\ m^2} = 75\ m^2$

$3x \times x = 75$

$x^2 = \frac{75}{3} = 25$

x = 5

Length of the floor = $5 \times 3 = 15$ metres

81. Option E

Number of participants from country E in the year 2008 = $(6.2 + 3.2) \times 100 = 940$

In the year 2009 = $(5.6 + 4.5) \times 100 = 1010$

In the year 2010 = $(7.8 + 4.9) \times 100 = 1270$

In the year 2011 = $(9.4 + 3.4) \times 100 = 1280$

In the year 2012 = $(10.6 + 5.5) \times 100 = 1610$

In the year 2013 = $(11.4 + 6.5) \times 100 = 1690$

In the year 2012, the number of participants was the 2nd highest

82. Option B

Required average number of female athletes = $\frac{4.2+3.8+4.8+9.5+8.6+5.1}{6} = \frac{36 \times 100}{6} = 600$

83. Option D

Required decrease = $\frac{5.6 - 4.8}{5.6} \times 100 = 14.28\%$

84. Option A
    Required % $= \frac{3.4}{5.1+3.8} \times 100 = \frac{3.4}{8.9} \times 100 = 38.20\%$

85. Option C
    Difference between the number of male and female participants
    Country A = (8.5 – 2.4) × 100 = 610
    Country B = (6.4 – 4.7) × 100 = 170
    Country C = (7.3 – 8.6) × 100 = – 130
    Country D = (8.4 – 6.5) × 100 = 190
    Country E = (10.6 – 5.5) × 100 = 510
    Thus, the 2nd highest difference in 2012 is in company E

86. Option D
    Average number of passengers travelling in Train B, D and E together $= \frac{25+16+17 \% \, of \, 6400}{3} =$
    1237

87. Option A
    Total amount paid by passengers of train A $= 136 \times \frac{13}{100} \times 6400 = $ Rs.113152

88. Option D
    Required passengers $= \frac{14}{15+17} \times 100 = 43.75\% = 44\%$

89. Option B
    Required difference = (25 – 17)% of 6400 $= \frac{8 \times 6400}{100} = 512$

90. Option C
    Required number of passengers = (15 + 17 + 14 + 13)% of 6400
    59% of 6400
    $= \frac{59 \times 6400}{100} = 3776$

91. Option D
    Number of players who participated in Football in the year 2010 = 3000
    Number of players who participated in Hockey in the year 2013 = 2500
    Required difference = 3000 – 2500 = 500

92. Option B
    The total number of players who participated in Athletics over all the years together = (10 + 25 + 20 + 30 + 15 + 20) × 100 = 12000
    Required average = 12000/6 = 2000

93. Option C
    Number of players who participated in Football in the year 2009 = 1500
    From there, the number of players who were found negative in dope test = (100 – 27)% of 1500
    73% of 1500
    $= \frac{73 \times 1500}{100} = 73 \times 15 = 1095$

94. Option A
    Number of players who participated in Hockey in 2012 = 3000
    And in 2010 = 3500
    Required % decrease $= \frac{3500 - 3000}{3500} \times 100$

$= \dfrac{500}{3500} \times 100 = 14\text{-}2/7\%$

95. Option D
    Total number of players who participated in all the sports together in 2013 = (20 + 25 + 30) × 100 = 7500
    Total number of players who participated in Athletics over all the years together = (10 + 25 +20 + 30 + 15 + 20) × 100 = 12000
    Required % $= \dfrac{7500}{12000} \times 100 = 62.5\%$

96. Option B
97. Option D
98. Option C
99. Option A
100.   Option A
    Shyam's age = $24 \times \dfrac{125}{100} = 30$ years
    Percentage decrease $= \dfrac{30 - 24}{30} \times 100 = 20\%$