

Section – 1

30. Match the columns:

State	Capital
(A) Uttaranchal	1. Ranchi
(B) Chhattisgarh	2. Dispur
(C) Jharkhand	3. Dehradun
(D) Assam	4. Raipur
(a) A - 3, B - 4, C - 1, D - 2	(b) A - 4, B - 3, C - 1, D - 2
(c) A - 3, B - 4, C - 2, D - 1	(d) A - 4, B - 3, C - 2, D - 1

31. Who among the following cannot be impeached?

- (a) The President (b) The Vice President (c) The Chief Justice (d) The Governor

32. The number of members nominated by the President in the Rajya Sabha is ____.

- (a) two (b) eight (c) ten (d) twelve

33. Who among the following do not participate in the election for the President?

- (a) The elected members of the Lok Sabha
(b) The elected members of the Rajya Sabha
(c) The elected members of the Legislative Assemblies of the states
(d) The nominated members of the Rajya Sabha, Lok Sabha and state legislatures

34. Which of the following representative bodies cannot be dissolved?

- (a) Lok Sabha (b) Rajya Sabha
(c) Legislative Assembly (d) State Legislative Council

35. Which of the following is the true index of economic growth?

- (a) An increase in the per capita income at constant prices.
(b) An increase in the national income at current prices.
(c) An increase in the gross domestic product at constant prices.
(d) An increase in the gross domestic product at current prices.

36. World Human Rights Day is observed every year on ____.

- (a) December 1 (b) December 8 (c) December 10 (d) December 16

37. What effect does an indirect tax have on a commodity?

- (a) Increases its price (b) Reduces its price
(c) Increases its production (d) Keeps the price constant

38. The largest read daily in India is ____.

- (a) *The Times of India* (b) *The Hindustan Times*
(c) *Amar Ujala* (d) *Dainik Bhaskar*

39. Which constitutional amendment is called the 'Mini Constitution'?

- (a) 42nd Amendment (b) 43rd Amendment (c) 44th Amendment (d) 45th Amendment

40. Which organization celebrated 150 years of its establishment in 2002?

- (a) Post and Telegraph (b) Indian Railways
(c) Airport Authority of India (d) VSNL

Section – 2

Direction for questions 41 to 45: Read the passage, and answer the questions following.

Not only mathematics is dependent on us and our thoughts, but in another sense, we and the whole universe of existing things are dependent on mathematics. The apprehension of this purely ideal character is indispensable if we are to understand rightly the place of mathematics as one among the arts. It was formerly supposed that pure reason could decide in some respects as to the nature of the actual world: geometry, at least, was thought to deal with the space in which we live. But we now know that pure mathematics can never pronounce upon the questions of actual existence: the world of reason, in a sense, controls the world of facts, but it is not at any point creative of fact, and in the application of its results to the world in time and space, its certainty and precision are lost among approximations and working hypotheses. The objects considered by mathematicians have, in the past, been mainly of a kind suggested by phenomena; but from such restrictions, the abstract imagination should be wholly free. A reciprocal liberty must be accorded; reason cannot dictate to the world of facts, but the fact cannot restrict reason's privilege of dealing with whatever objects its love of beauty may cause to seem worthy of consideration. Here, as elsewhere, we build up our ideals out of the fragments to be found in the world; and in the end, it is hard to say whether the result is a creation or a discovery.

Direction for questions 46 to 50: Read the passage, and answer the questions following it.

One of the greatest public speaking failures of my career took place last summer at Valparaiso University, Indiana where I addressed a convention of editors of college newspapers. I said many screamingly funny things but the applause was dismal at the end. During the evening, I asked one of my hosts in what way I had offended the audience. He replied that they had hoped I would moralize. They had hired me as a moralist.

So now when I speak to students, I do moralize. I tell them not to take more than they need, not to be greedy. I tell them not to kill, even in self-defence. I tell them not to pollute water or the atmosphere.

I tell them not to raid the public treasury. I tell them not to commit war crimes or to help others to commit war crimes. These morals go over very well. They are of course echoes of what the young say to themselves.

I had a friend from Schenectady visited me recently, and he asked me this, "Why are fewer and fewer young Americans going into science each year?" I hold him that the young were impressed by the war crimes trials at Nuremberg. They were afraid that careers in science could all too easily lead to the commission of war crimes. They don't want to work on the development of new weapons. They don't want to make discoveries which will lead to improved weapons. They don't want to work for corporations that pollute water or atmosphere or raid the public treasury. So they go into other fields. They become physicists who are so virtuous that they don't go into physics at all.

At the University of Michigan, at Ann Arbor, the students have been raising hell about the university doing secret government work. I go to talk with some of the students about the protests that had been made against the recruiters of Dow Chemicals, manufacturers of napalm among other things.

I offered the opinion that an attack on a Dow recruiter was about as significant as an attack on the doorman or theatre usher. I didn't think the recruiter stood for anything.

I called attention to the fact that during the Dow protest at Harvard a couple of years back, the actual inventor of napalm was able to circulate through the crowd of protestors unmolested. I didn't find the fact that he was unmolested reprehensible. I saw it as a moral curiosity. Though I did not mean to suggest to the students at Ann Arbor that the inventor of napalm should have been given one hell of a time.

46. In this address at Valparaiso University, the author
 - (a) became the greatest public speaker of the summer.
 - (b) made the audience laugh a lot by screaming in a funny way.
 - (c) was dismayed by the audience at the end.
 - (d) felt that he did make a significant impression on the audience.
47. Moralists are
 - (a) young people who speak to themselves about water and atmospheric pollution.
 - (b) not fond of jokes made of sacrosanct things.
 - (c) opposed to taking up science as a career.
 - (d) concerned about hiring working to raid the public treasury.
48. The author's perception is that young people
 - (a) like to hear lectures on morals.
 - (b) were so impressed by the Nuremberg trials that they gave up physics.
 - (c) would have been scientists but for the pollution created by science.
 - (d) do not like to kill even in self-defence.
49. The author regarded the inventor of napalm as
 - (a) morally reprehensible.
 - (b) someone who should have been attacked but was not.
 - (c) a person who was attacked by Harvard students.
 - (d) a moral curiosity.
50. It is implied from the author's comments that the present-day students
 - (a) do not care much for scientific discoveries.
 - (b) prefer to be told what is right or wrong.
 - (c) lack a sense of discipline.
 - (d) lack a sense of humour.

Direction for questions 51 to 53: In the following questions, select the answer choice that provides the best meaning of the word given.

51. **ELICIT**
(a) to act illegally (b) to deceive (c) to draw forth (d) to entreat

Direction for questions 54 to 58: Fill in the blanks with the appropriate choices.

Direction for questions 59 to 63: From the four choices provided, choose the analogy that is most similar to the one in the question.

59. wealth : poverty
(a) part : whole (b) good : excellent (c) prodigal : chary (d) wicked : sinful

60. misfortune : catastrophe
(a) miniature : big (b) limited : infinite (c) knowledge : learning (d) generosity : parsimony

61. molecule : atoms
(a) family : sisters (b) light : bulb (c) tissue : cells (d) body : limb

62. limp : walk
(a) flap : fly (b) run : race (c) stutter : talk (d) chew : digest

63. riddle : solve
(a) mirage : illusion (b) joke : amuse (c) tangle : unravel (d) target : aim

Direction for questions 64 to 68: A number of sentences are given below which, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the four given choices to construct a coherent paragraph.

64. A. It is turning off the tap.
B. And with no consensus of the exit policy, the government is damned if it supports loss-making units and damned if it doesn't.
C. The private sector did the same in the past because securing legal sanction for closure was virtually impossible.
D. After years of funding the losses of public sector companies, the government is doing the unthinkable.

(a) DACB (b) CADB (c) DCAB (d) BDAC

Direction for questions 69 to 73: In each of the following sentences, a part of the sentence is underlined. Beneath each sentence four different ways of phrasing the underlined part are indicated. Choose the best alternative among the four options.

69. He considers me as a fool.
(a) I as a fool (b) me for a fool (c) I for a fool (d) me a fool

70. The accountant has all ready given the balance sheet.
(a) already given (b) already give (c) already make (d) allready given

71. Jack may be a better player to me.
(a) a better player than me (b) a better player than I
(c) the better player to me (d) the better player than I

72. He not only was competent but also intelligent.
(a) Not only he was competent (b) He was not only competent
(c) Not only was he competent (d) He was competent not only

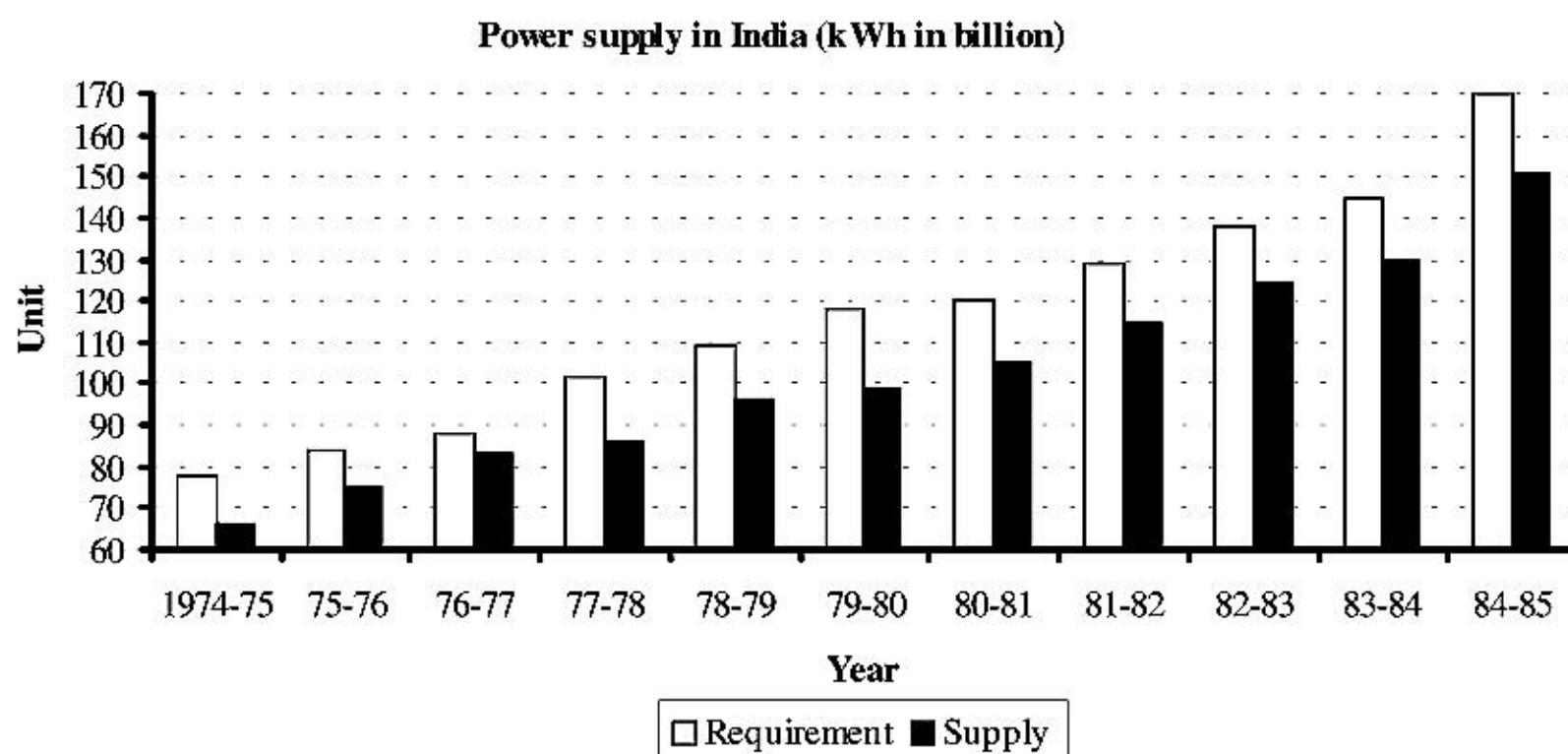
73. There have been heavy rainfall yesterday.
(a) have been strong rainfall (b) has been strong rainfall
(c) has been heavy rainfall (d) was been heavy rainfall

Direction for questions 74 to 77: Choose the alternative that gives the closest meaning for the underlined expression.

Direction for questions 78 to 80: Mark the alternative that has the opposite meaning of the word given in the question.

Section – 3

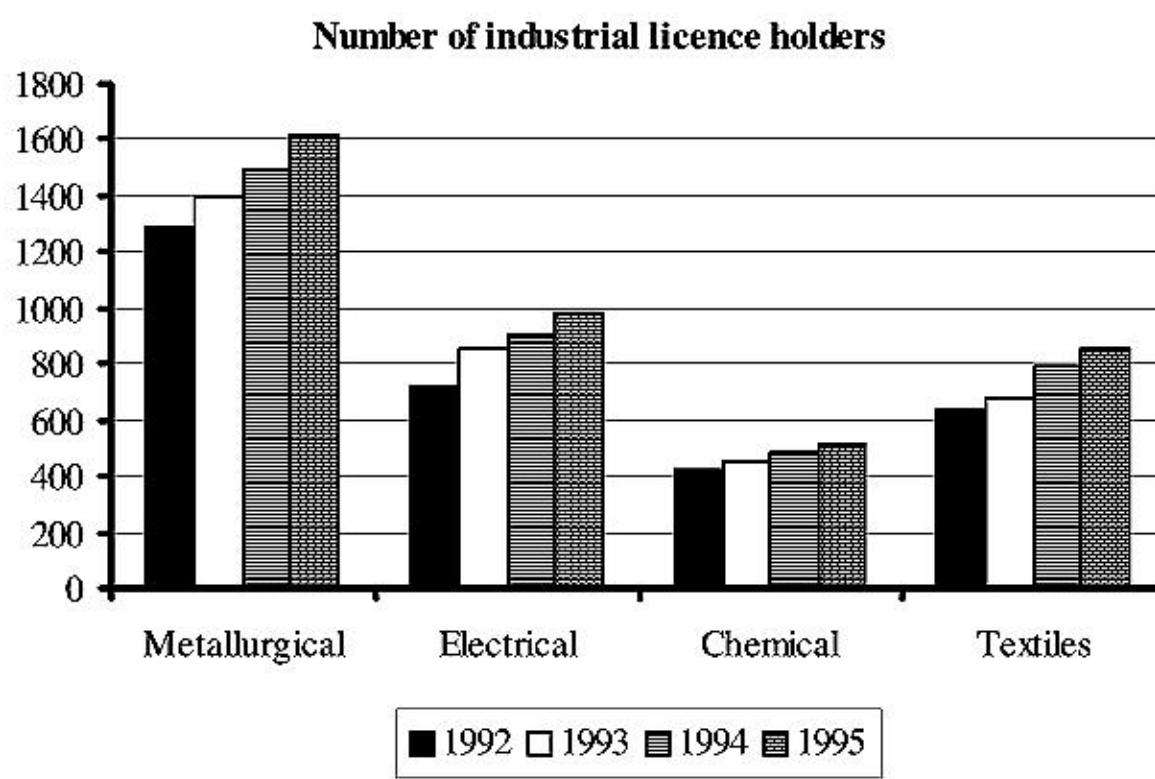
Direction for questions 81 to 85: Answer the questions based on the following information available in the bar graph. The graph represents the annual supply and requirement of power in billion kWh in India in different years.



Direction for questions 86 to 90: Answer the questions based on the following information provided in the tabular form, given below. A survey was conducted for monthly per capita consumer expenditure of different food and non-food items (in per cent).

Item	Rural			Urban		
	1983	1978	1973	1983	1978	1973
Cereal	36.3	37.4	46.0	22.9	24.4	27.2
Milk	7.5	7.7	7.3	9.2	9.5	9.3
Oil	4.0	3.6	3.5	4.8	4.6	4.8
Meat	3.0	2.7	2.5	3.6	3.5	3.3
Vegetable	4.7	3.8	3.6	5.0	4.4	4.4
Fruit	1.4	1.1	1.1	2.1	2.0	2.0
Sugar	2.8	2.6	3.8	2.5	2.6	3.6
Other foods	5.8	5.5	5.2	9.0	9.0	9.9
Food total	65.6	64.3	72.9	59.1	60.0	64.5
Intoxicants	3.0	2.9	3.1	2.4	2.4	2.8
Fuel	7.0	6.0	5.6	6.9	6.4	5.6
Clothing	8.6	8.7	7.0	7.6	7.0	5.3
Footwear	1.0	0.7	0.5	1.1	0.6	0.4
Durables	2.3	7.0	2.2	2.3	8.9	2.2
Miscellaneous	12.5	10.3	8.7	20.5	14.6	19.2
Non-food total	34.4	35.7	27.1	40.9	40.0	35.5

Direction for questions 91 to 95: These questions are to be answered with the help of the following bar graph, that gives total number of licenceholders for screening metallurgical, electrical, chemical and textiles industries during the years 1992 to 1995.

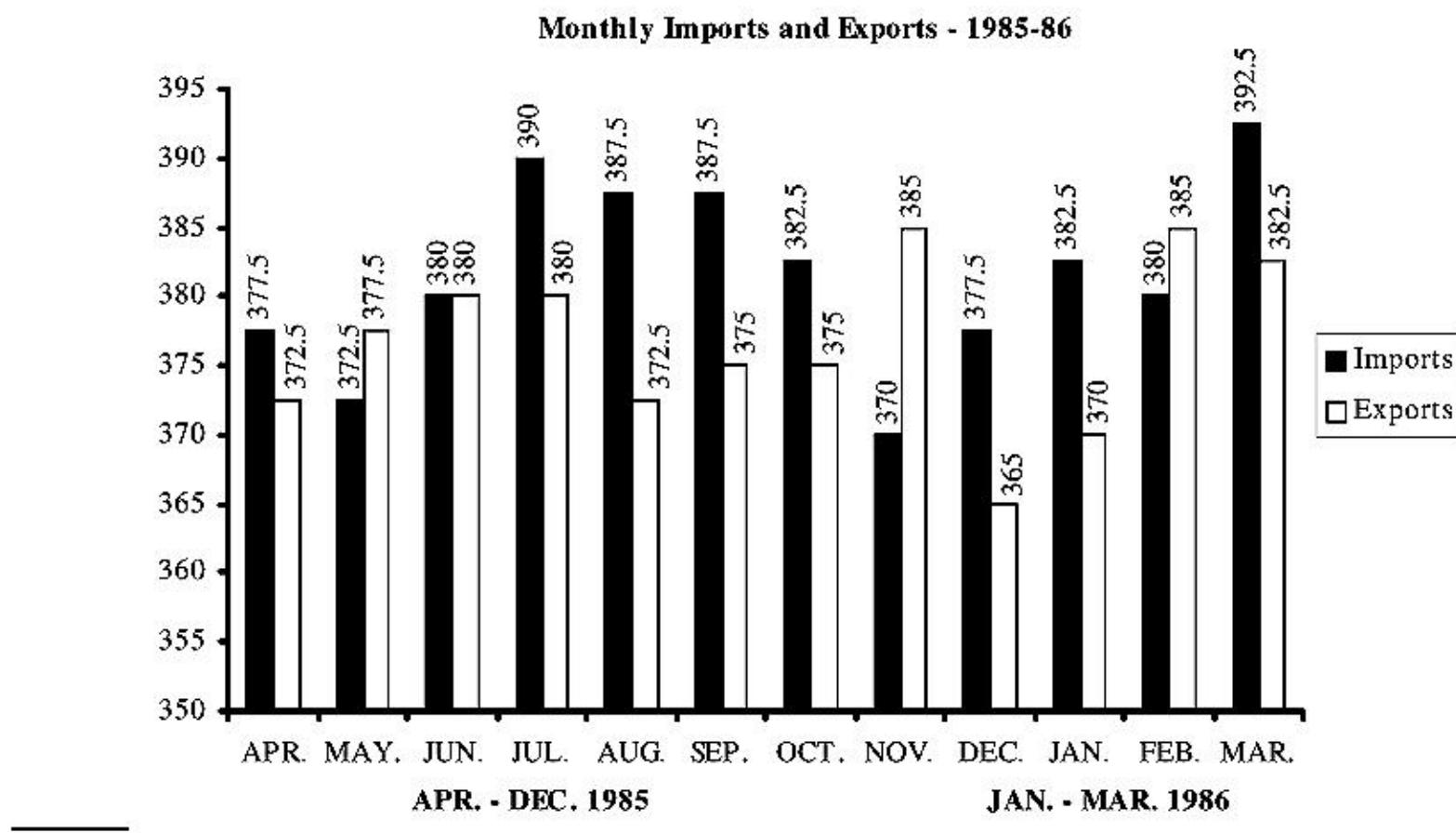


Direction for questions 96 to 100: Answer the questions based on the following data.

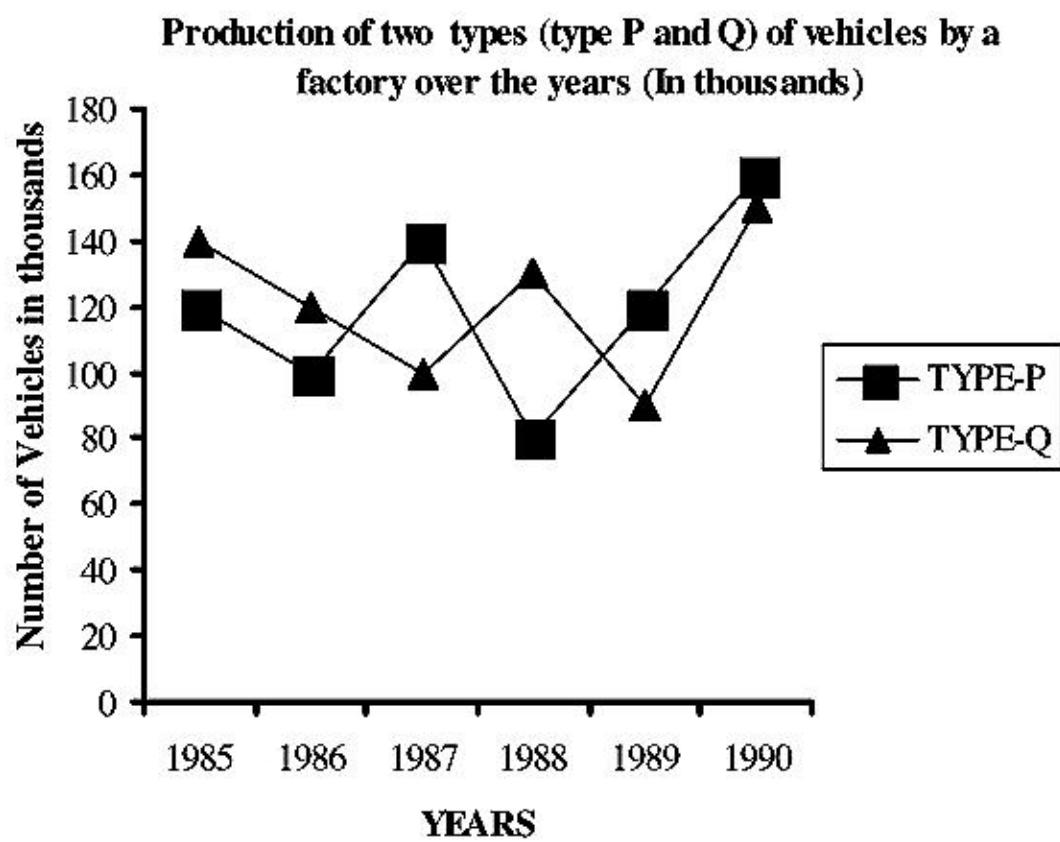
A company Daant Chamko Ltd. is planning to introduce a new variety of toothpaste. It has recruited MBA summer trainees to conduct a market research to establish the relationship between the price of a toothpaste used by a household and the household's monthly income. The following information is gathered.

Price of toothpaste used (Rs.)	Number of households by income category				
	< Rs. 1, 500	Rs. 1, 500-2, 500	Rs. 2, 500-3, 500	Rs. 3, 500-5, 000	> Rs. 5, 000
< 4	1500	500	—	—	—
4 – 6	1750	750	350	150	50
6 – 8	500	1200	400	200	50
8 – 10	250	450	500	400	100
> 10	50	100	250	300	200

Direction for questions 101 to 105: The following bar graph gives monthly imports and exports (in Rs. million) during the financial year 1985-86. Answer the questions based on information from this bar graph.



Direction for questions 106 to 110: Answer the following questions based on the following graph given below. The graph represents the annual production of the two types of vehicles, type P and type Q, (in thousands) from the year 1985 to 1990.



Direction for questions 111 to 120: Each of the following questions consists of a question and two statements I and II.

Choose:

- (a) if the question can be answered by one statement alone, but cannot be answered by using the other statement alone.
 - (b) if the question can be answered by using either statement alone.
 - (c) if the question can be answered by using both the statements together but cannot be answered by using either statement alone.
 - (d) if the question cannot be answered even by using both the statements together.

111. What are the individual prices of three cameras?

 - I. The three cameras have an average price of \$172.
 - II. Two are identical and sold for \$332 together.

112. In the figure, point C is located on the x -axis. If $\angle AOC = 30^\circ$, what is the value of $\angle BOC$?



- $$\text{II. } \angle NMP = 98^\circ$$

113. What is the numerical value of the ratio $\frac{n}{m}$?

 - I. $mn = 14$
 - II. $m = 6n$

114. What is the highest power of 5 that can completely divide $n!$?

 - I. Precisely 2 integers between 1 and n , both inclusively are multiples of 50.
 - II. $n < 200$.

115. What is the area of a regular hexagon?

 - I. The length of one of the boundary lines of the hexagon is 36 cm.
 - II. The area of the hexagon is 6 times the area of an equilateral triangle formed on one of the sides.

116. Mr. Dhingra earns Rs. 8, 000 per month by working as a visiting lecturer in various colleges. What is his annual income?

 - I. During his entire free time, he gives free coaching to deserving students.
 - II. 40 students attend his free sessions.

117. A positive number is exactly divisible by both 3 and 7. What is that number?

 - I. It is greater than 20.
 - II. It is less than 25.

118. A radio is normally sold at a profit of 15%. At the annual sale, it is offered at a discount of 5%. What is its cost price?
I. The selling price after discount amounts to Rs. 150.
II. The discount given is Rs. 30.
119. A room $20\text{ m} \times 10\text{ m}$ is to be painted. What will be the total cost?
I. The height of the room is 3 m.
II. Costing will be done on a square metre basis.
120. A train leaves from Delhi at 8.00 a.m. and reaches Agra 11.30 a.m. What is its speed?
I. It crosses a 400 metre-long bridge in 40 seconds.
II. It crosses a railway platform 800 metres long in 64 seconds.

Section – 4

142. To complete a piece of work, A and B take 30 days, B and C take 24 days and C and A take 20 days. They all work for 10 days, and then B and C leave. How many more days will A take to finish the work?
- (a) $\frac{45}{11}$ (b) $\frac{9}{2}$ (c) 8 (d) 18
143. The captain of a cricket team of 11 players is 25-year old and the wicketkeeper is 3 years older than the captain. If the ages of these two are excluded, the average age of the remaining players is 1 year less than the average age of the whole team. What is the average age of the whole team?
- (a) 21.5 year (b) 22 year (c) 22.5 year (d) 23 year
144. A man takes 5 hours to walk to a certain place and returns by car. He would have, however, gained 3 hours if he had completed his entire journey by car. How long would he have taken to walk both ways?
- (a) 6 hours (b) $6\frac{1}{2}$ hours (c) 7 hours (d) 8 hours
145. A one-foot tall tree was planted on New Year's day. If there is a 10 per cent increase in its height every month with respect to the previous month, which of the following will be its height on All Fool's Day (April 1)?
- (a) 1.729 feet (b) 1.312 feet (c) 1.464 feet (d) 1.331 feet
146. The average age of 40 boys of a class is 12 years. When 10 new boys are admitted, the average is increased by 0.1 year. What is the average age of new boys?
- (a) 12.1 years (b) 12.4 years (c) 12.33 years (d) 12.5 years
147. Anand and Bharat can cut 5 kg of wood in 20 min. Bharat and Chandra can cut 5 kg of wood in 40 min. Chandra and Anand cut 5 kg of wood in 30 min. How much time Chandra will take to cut 5 kg wood alone?
- (a) 120 min (b) 48 min (c) 240 min (d) $\frac{120}{7}$ min
148. A man can row $4\frac{1}{2}$ kmph in still water but takes twice as long to row up a stream as down it. What is the rate of the stream in kmph?
- (a) 1.5 (b) 2.25 (c) 3 (d) Data insufficient
149. There are two squares one of whose diagonal is double that of the other. The ratio of area of the bigger one to that of the smaller one is
- (a) 3 : 2 (b) 4 : 1 (c) 1 : 4 (d) 2 : 1
150. An alloy contains copper and zinc in the ratio 5:3 and another contains copper and tin in the ratio 8 : 5. If equal weights of the two are melted together to form a 3rd alloy, find the weight of tin per kg. in the new alloy.
- (a) $\frac{40}{129}$ (b) $\frac{5}{13}$ (c) $\frac{5}{26}$ (d) $\frac{28}{5}$

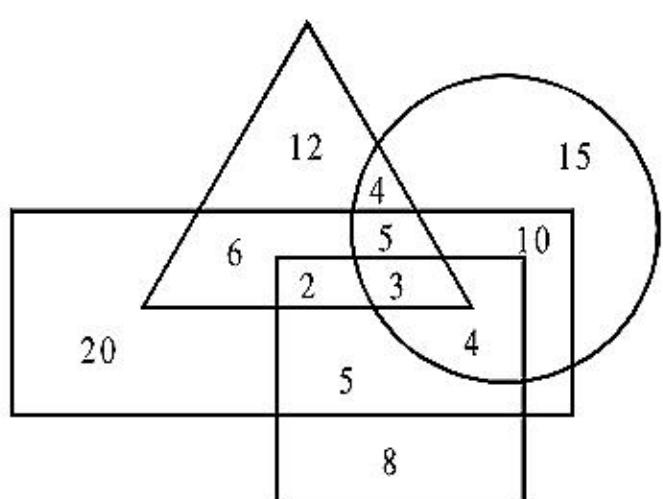
Direction for questions 151 to 160: Answer each of the questions independently.

151. A train from Mumbai to Pune and another from Pune to Mumbai start at the same time, cross one another en route and reach their destinations in 4 hour and 1 hour, respectively, after crossing. If the first train was travelling at 24 kmph, at what speed was the second train travelling?
- (a) 12 kmph (b) 48 kmph (c) 60 kmph (d) 72 kmph

Section – 5

Direction for questions 161 to 163: In the figure below, the triangle represents people of a particular society who can speak English, the circle represents people who can speak Hindi, the rectangle represents people who can speak Sanskrit whereas the square represents people who can speak Punjabi.

Answer the questions that follow on the basis of the diagram.



Direction for questions 164 to 178: Answer each of the following questions independently.

Direction for questions 179 to 183: Read the following information, and answer the questions given below.

P, Q, R and S live together in a house.

- I. P lives with his (or her) parents.
 - II. Q lives with at least 3 persons younger than him (or her).
 - III. S lives with his mother, and is older than at least 2 persons living with him.
 - IV. R lives with his (or her) son and is not older than S.

Direction for questions 187 to 191: Each of the following questions is based on the following series.

A B C D 5 F G H 9 J K L M N 15 P Q R 16 T U 22 W X Z

187. If the above series is written in the reverse order, then which letter will be the 16th letter from the left?
(a) K (b) L (c) M (d) J

188. Which letter/number is 5th to the left of 19th letter from the right of A?
(a) M (b) P (c) Q (d) 15

189. Which letter/number is 9th to the left of 14th letter from your left?
(a) F (b) G (c) T (d) 5

190. Which of the following options would replace the question mark?
AC5 G9K 13OQ ?
(a) Q16U (b) RT22 (c) SU22 (d) 16TU

191. Which letter is between 7th letter from left and 11th letter from right?
(a) K (b) L (c) M (d) J

Direction for questions 192 and 193: Answer the questions based on the following information.

P drank more at the party than W and left later than V.

T drank more than P and less than V and left later than P and earlier than S.

U drank less than Q and more than V and left later than S.

W drank more than R and left earlier than V.

Direction for questions 194 to 197: In each question below is given a statement followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

Mark:

- (a) if only assumption I is implicit.
 - (b) if only assumption II is implicit.
 - (c) if either assumption I or II is implicit.
 - (d) if neither assumption I nor II is implicit.

194. **Statement:** To the extent that India operates in a globalized economy, it is absolutely vital that Indian industry convince the rest of the global players about its worthiness of trust, honest intentions, promise-keeping and ethical behaviour.

Assumptions:

- I. The most advanced economies are becoming vigilant about corruption and unethical business practices.
 - II. Indian industry will have to demand of itself a respect for rules and transparent corporate governance.

195. **Statement:** No truthful Indian would have said that the judges of the Supreme Court were motivated by caste in giving their decisions.

Assumptions:

- I. Judges can never deliver judgements on the basis of caste lines.
 - II. Earlier our judiciary was monopolised by Brahmins.

- 196. Statement:** There is no doubt that in the present warlike situation in the Kargil front, the entire nation is behind our armed forces, both emotionally and financially.

Assumptions:

- I. The relatives and near and dear ones of the army personnel are residing all over the country.
II. Different funds have been set up for supporting the families of the dead soldiers.

197. **Statement:** Stock Holding Corporation of India Ltd (SHCIL) will offer its services through the internet in the next two months while its stock lending scheme is expected to take off in the immediate future.

Assumptions:

- Assumptions:**

 - I. The said services via the internet are at a developmental stage.
 - II. The move will not benefit the stock brokers.

198. In the closing days of the Civil War, President Abraham Lincoln was planning to graciously welcome the defeated Confederate states back into the Union. After Lincoln was assassinated, however, the 'Radical Republicans' in Congress imposed martial law in the South, creating resentment that caused problems well into this century. Had Lincoln lived, the history of regional conflict in 20th-century America would have been considerably different.

All of the following assumptions underlie the argument above EXCEPT

- (a) the imposition of martial law in the South was primarily responsible for the resentment felt in the South.
- (b) had he lived, Lincoln would have treated the defeated South as he had planned.
- (c) Lincoln would have been able to prevent the Radical Republicans in Congress from imposing martial law in the South.
- (d) Factors other than the imposition of martial law in the South affected the history of regional conflicts in 20th-century America.

199. Rock and roll music started in the 1950s as a young man's medium, and rock is still best performed by men in their 20s and 30s. As rock performers grow into their 40s, and even 50s, they are simply less physically capable of producing the kind of exciting music they did when they were younger.

All the following assumptions underlie the argument above EXCEPT

- (a) as rock performers mature, their performances tend to become less exciting.
- (b) rock music is dominated by male performers.
- (c) women performers have always played a significant role in rock music.
- (d) the physical demands of performing rock are better met by the young.

200. The honeymooner's haven among the not-so-rich Americans, Las Vegas has much more to offer than shops and slot machines. But sadly, tourists seldom stray off the beaten track. *2001 Guide* is a book that encourages the visitors to do so and discover the living museum, that is the Las Vegas city.

Which of the following information about *2001 Guide* will weaken the intended impact of the book?

- (a) The greatest attraction of Las Vegas that sets it apart from other places is its casino.
- (b) *2001 Guide* does not give a detailed account of the geography of the lesser known facts of Las Vegas.
- (c) An increasing number of young couples are taking to adventures and undiscovered land.
- (d) Las Vegas has many more visitors than first honeymooners.