

Sample Paper MAT 2005

Please read the Instructions for the test carefully

1. Please start the test only after the signal to start is given.
2. Use only HB pencils to darken the correct option in the ovals provided in the answer sheet.
3. Fill in your Name, ID & other information in the answer sheet.
4. This booklet contains 30 pages. Immediately after the signal to start is given, please verify the same.
5. Calculators, cellular phones, pagers, Digital Dairies, Notebook computes and scales are not allowed.
6. There are 200 questions in 5 sections in this test paper, which examine various abilities.
7. This test is of 150 minutes. In distributing time between sections, you have to demonstrate competence in all the sections.
8. Directions for answering questions are given in the test booklet before each set of questions. Read the directions carefully and answer by darkening the appropriate oval.
9. There is only one correct answer. Each question carries 1 mark. Wrong answers carry 0.25 negative marks.
10. Do your rough work on the test booklet only.
11. Follow the instructions issued by the invigilator. Any violation of instructions will lead to disqualification.
12. At the end of the test remain seated till the invigilator collects your answer sheet. Leave only after the invigilator makes an announcement allowing you to leave.



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SECTION – I**REASONING ABILITY****Number of Questions: 40**

1. A man has a certain no. of small boxes to pack into parcels. If he packs 3, 4, 5, 6 in a parcel, he is left with one over, if he packs 7 in a parcel, none is left over. What is the no. of boxes he must have to pack?
1. 106 2. 301 3. 309 4. 400
2. The age of father is twice that of the elder son, Ten years hence the age of father will be three times that of the younger son. If the difference of ages of the two sons is 15 years, the age of the father is
1. 50 years 2. 55 years 3. 60 years 4. 70 years
3. A placed three sheets with two carbons to get two extra copies of the original. Then he decided to get more carbon copies & folded the paper in such a way that the upper half of the sheets was on the top of the lower half. Then he typed how many carbon copies did he get.
1. 1 2. 2 3. 3 4. 4
4. In a certain language MADRAS is coded as NBESBT. How is BOMBAY written in that code?
1. CPNCBX 2. CPNCBZ 3. CPOCBZ 4. CQOCBZ
5. If in a certain language, POPULAR is coded as QPOVMBS, which word would be used as GBNPUT?
1. EAMOSU 2. FAMOUS 3. FASOUM 4. FOSAUM
6. If DELHI is coded as 73541 & CALCUTTA as 82589662, how can CALICUT be coded?
1. 5279431 2. 5978213 3. 8251896 4. 8543691
7. In a certain code, 15789 is written as EGKPT & 2346 is written as ALUR. How is 23549 written in that code.
1. ALEUT 2. ALGTU 3. ALGUT 4. ALGRT
8. If white is called blue, blue is called Red, Red is called yellow, Yellow is called green, Green is called black, Black is called violet and Violet is called orange, what would be the colour of human blood?
1. Red 2. Green 3. Yellow 4. Violet

DIRECTIONS for questions 9 to 12: Study the following information carefully to answer the questions that follow.

Following are the qualifications necessary for the recruitment of a Librarian in a State University. The candidate must:

- A. have a Master's degree in Library Science with a least 55% marks or its equivalent grade and a consistently good academic record.
- B. have one year specialisation in an area of Information Technology/Archives and Manuscript-keeping Master's Degree in an area of thrust in the institution.
- C. have at least ten years' experience as a Deputy Librarian in University.
- D. bear an evidence of innovative library service and organisation of published work.

In the case of a candidate who:

- E. has a 15 years' experience as a College Librarian, the case may be referred to the Vice Chancellor.
- F. has obtained less than 55% marks in Library Science but has 13 years' experience as a Deputy Librarian in a University; the case may be referred to the Registrar of the University for his consideration.
- G. has M.Phil./Ph.D. degree in Library Science/Information Science/Documentation/Archives and Manuscript-keeping but has only ten years' experience as a College Librarian, the condition at A. may be waived.

Based on the above conditions and the information provided against each of the candidates in the questions given below, decide which of the following courses of action should be taken against each candidate.

Mark the answer as

- (1) if the candidate is to be selected.
 - (2) if the candidate is not to be selected.
 - (3) if the data is inadequate.
 - (4) if the case is to be referred to the Registrar.
-
- 9. Rahul Sehgal, an M.Phil. in Library Science has been a Deputy Librarian in the Rohilkhand University since 27th August, 1980. He also bears Master's Degree in Archives and Manuscript-keeping. He holds the evidence of innovative organisation of published work of the college students doing Ph.D.
 - 10. Sanjay Verma has been a Deputy Librarian in the IMS University since 1973. He holds an evidence of contributing library service in the same institution. He has a Master's Degree in Library Science with 53% marks.
 - 11. Ramesh Singhania holding a Ph.D. degree in Library Science has one year specialisation in Archives and Manuscript-keeping. He has been a Deputy Librarian in the Assam University since 11th April, 1982. He also bears a certificate of innovative library service in a public library for three years.
 - 12. Sunil Garewal has been a College Librarian since 15th December, 1975. He holds an M.Phil. Degree in Library Science.

DIRECTIONS for questions 13 to 19: In each question below is given a statement followed by two courses of action numbered I and II. You have to assume everything in the statement to be true, then decide which of the two suggested courses of action logically follows for pursuing.

Mark the answer as

- (1) if only I follows.
- (2) if only II follows.
- (3) if either I or II follows.
- (4) if neither I nor II follows.

13.

- Statement :** The Minister said that the teachers are still not familiarised with the need, importance and meaning of population education in the higher education system. They are not even clearly aware about their role and responsibilities in the population education programme.
- Course of Action :**
- I. Population education programme should be included in the college curriculum.
 - II. Orientation programme should be conducted for teachers on population education.

14.

- Statement :** Financial stringency prevented the State Government from paying salaries to its employees since April this year.
- Course of Action :**
- I. The State Government should immediately curtail the staff strength at least by 30%.
 - II. The State Government should reduce wasteful expenditure and arrange to pay the salaries of its employees.

15.

- Statement :** One of the problems facing the food processing industry is the irregular supply of raw material. The producers of raw material are not getting a reasonable price.
- Course of Action :**
- I. The government should regulate the supply of raw material to other industries also.
 - II. The government should announce an attractive package to ensure regular supply of raw material for food processing industry.

16.

- Statement :** The Officer In charge of a Company had a hunch that some money was missing from the safe.
- Course of Action :**
- I. He should get it recounted with the help of the staff and check it with the balance sheet.
 - II. He should inform the police.

17.

- Statement :** The government has decided not to provide financial support to voluntary organisations from the next five year plan and has communicated that all such organisations should raise funds to meet their financial needs.
- Course of Action :**
- I. Voluntary organisations should collaborate with foreign agencies.
 - II. They should explore other sources of financial support.

18.

- Statement :** If the retired Professors of the same Institute are also invited to deliberate on restructuring of the organisation, their contribution may be beneficial to the Institute.
- Course of Action :**
- I. Management may seek opinion of the employees before calling retired professors.
 - II. Management should involve experienced people for the systematic restructuring of the organisation.

19.

- Statement :** Youngsters are often found staring at obscene posters.
- Course of Action :**
- I. Children should be punished and penalized if they are found doing so.
 - II. Any display of such material should be banned.

DIRECTIONS for questions 20 to 25: In each question below are given two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

Mark the answer as

- (1) if only conclusion I follows.
- (2) if only conclusion II follows.
- (3) if both I and II follow.
- (4) if neither I nor II follows.

20.

- Statements :** Some soldiers are famous.
Some soldiers are intelligent.
- Conclusions :**
- I. Some soldiers are either famous or intelligent.
 - II. Some soldiers are neither famous nor intelligent.

21.

- Statements :** Sohan is a good sportsman.
Sportsmen are healthy.
- Conclusions :**
- I. All healthy persons are sportsmen.
 - II. Sohan is healthy.

22.

- Statements :** Some sticks are bolts.
Kite is a stick.
- Conclusions :**
- I. Some bolts are sticks.
 - II. Some kites are bolts.

23.

- Statements :** Some men are educated.
Educated persons prefer small families.
- Conclusions :**
- I. All small families are educated.
 - II. Some men prefer small families.

24.

- Statements :** All windows are doors.
No door is wall.
- Conclusions :**
- I. No window is wall.
 - II. No wall is door.

25.

- Statements :** All young scientists are open-minded.
No open-minded men are superstitious.
- Conclusions :** I. No scientist is superstitious.
II. No young people are superstitious.

DIRECTIONS for questions 26 to 31: Each question given below consists of a statement, followed by two arguments I and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

Mark the answer as

- (1) if only argument I is strong.
(2) if only argument II is strong.
(3) if both I and II is strong.
(4) if neither I nor II is strong.

26.

- Statement :** Is paying ransom or agreeing to the conditions of kidnappers of political figures, a proper course of action?
- Arguments :** I. Yes. The victims must be saved at all costs.
II. No. It encourages the kidnappers to continue their sinister activities.

27.

- Statement :** Is buying things on instalments profitable to the customer?
- Arguments :** I. Yes. He has to pay less.
II. No. Paying instalments upsets the family budget.

28.

- Statement :** Should agriculture in rural India be mechanised?
- Arguments :** I. Yes. It would lead to higher production.
II. No. Then many villagers would be left unemployed.

29.

- Statement :** Should new big industries be started in Mumbai?
- Arguments :** I. Yes. It will create job opportunities.
II. No. It will further add to the pollution of the city.

30.

- Statement :** Should military service be made compulsory in our country?
- Arguments :** I. No. It is against the policy of non-violence.
II. Yes. Every citizen should protect his country.

31.

- Statement :** Should the health care service be nationalized?
- Arguments :** I. Yes. It has been done elsewhere also.
II. No. The quality of health care service will deteriorate.

DIRECTIONS for questions 32 to 36: In each of the following questions, various terms of a letter series are given with one or more term(s) missing as shown by (?). Choose the missing term(s) out of the given alternatives.

32. A, Z, X, B, V, T, C, R, ?, ?

1. P, D

2. E, O

3. Q, E

4. O, Q

33. eac gce ieg ?
1. jhi 2. jgi 3. kgi 4. khi
34. deb ijg nol ? xyv
1. rsp 2. stp 3. rsq 4. stq
35. AB, DEF, HIJK, ? STUVWX
1. MNOPQ 2. LMNOP 3. LMNO 4. QRSTU
36. Q1F, S2E, U6D, W21C, ?
1. Y66B 2. Y44B 3. Y88B 4. Z88B

DIRECTIONS for questions 37 to 38: Read the following information carefully and answer the questions that follow.

In a village of Bastar district in Madhya Pradesh, only two types of people live who belong to a tribal class. The first type is known as class A, while the other is known as class B. In that village, there is no other type of person except these two. The activities of both types of people are governed by perfectly patterned norms of social behaviour. Each person of the tribe has to obey the norms. They are rigid about this.

As far as marriage is concerned, the following norms are to be followed:

- (i) The people of class A cannot marry any other member of their own class, though they can marry members of class B.
 - (ii) After being married, each male member ceases to be a member of that class in which he was born but automatically, he becomes the member of the other class to which his wife belongs.
 - (iii) As far as females are concerned, they remain the members of their own class after being married.
 - (iv) On his birth, the child automatically becomes the member of his mother's class.
 - (v) When any male member becomes widower or divorcee, then he again belongs to the group in which he was born.
 - (vi) Nobody can marry more than one person according to social laws.
37. One boy, who was born in class A (boy and his wife both can have married and unmarried brothers),
- 1. can have his grandson in class A.
 - 2. can have a son-in-law born in class A.
 - 3. can have his uncle from any class.
 - 4. can have a granddaughter in class A.
38. Which of the following marriages is *not* permissible according to the social laws?
- 1. Any girl of class B marries her mother's brother.
 - 2. Any girl of class A marries her mother's brother.
 - 3. Any boy of class B marries his father's sister.
 - 4. Any widower born in class A marries his brother's widow.

DIRECTIONS for questions 39 to 40: Study the information given below carefully and answer the questions that follow.

On a playing ground, Dinesh, Kunal, Nitin, Atul and Prashant are standing as described below facing the North.

- (i) Kunal is 40 metres to the right of Atul.
- (ii) Dinesh is 60 metres to the south of Kunal.
- (iii) Nitin is 25 metres to the west of Atul.
- (iv) Prashant is 90 metres to the north of Dinesh.

39. Who is to the north-east of the person who is to the left of Kunal?

1. Dinesh 2. Nitin 3. Atul 4. None of these

40. If a boy walks from Nitin, meets Atul followed by Kunal, Dinesh and then Prashant, how many metres has he walked if he has travelled the straight distance all through?

1. 155 metres 2. 185 metres 3. 215 metres 4. 245 metres

SECTION II
LANGUAGE COMPREHENSION**Number of questions: 40**

DIRECTIONS for questions 41-57: Read the passages carefully to answer the questions that follow each passage.

PASSAGE – A

The Indian cooperative sector is celebrating its centenary this year. In the process of completing a century of its presence, this sector has built up a network, which is considered the world's largest. More than five lakh individual cooperative organisations and over 25 crore members make it numerically the largest movement in the world. A paid up capital base of more than 50,000 crore rupees, presence in practically all walks of life and covering almost all villages of the country, makes it economically and socially the most significant set of organisations. But then, the problems too are plenty. The general perception is that the cooperative sector is weak and inactive. Barring exceptions, the sector seems to be ill-equipped to face the challenge of neo-liberal thrust. Even after a hundred years, most cooperatives are dependant on government patronage both for their business and capital requirements. The future does not look bright if some structural changes are not effected to rejuvenate the sector and the movement as a whole. There are two very important vices that we have inherited and two essential values we have failed to inculcate, which have marred the 'cooperative character' in our setting. The first of the vices is the bureaucratization and government control. When the colonial rulers officially brought the cooperatives to India, they introduced the omnipotent Registrar, a position specially created by the government in order to have the final controlling rights with it and not to allow the cooperative sector to blossom as a people's movement. The government of free India, while championing the cause of cooperatives, not only retained this key position but also further added a long hierarchy of bureaucratic power centres. In fact, a government directed cooperative movement is in itself a contradiction and against the "logic of cooperative movement." The second vice, which we developed by ourselves, is that the politicians are cooperators by default. They are in cooperatives either because they want to move up in the political hierarchy (cooperatives as breeding grounds) or because they have temporarily failed to make headway in that route (cooperatives as rehabilitation centres). There is no harm in cooperators becoming politicians. In fact it would be a welcome development. But the other way round, which is the practice today, would kill the movement.

Our cooperative sector has clearly failed to inculcate two of the very essential cooperative values. The first is that of self-help. Self-help was envisaged as a basic tenet of cooperatives. Both Robert Owen and Charles Fourier had seen cooperation as a process of creating 'self-help communities'. In its very genesis the movement was opposed to Market and State, since both had failed to protect the interest of the common man. Both are, in that sense, forces which the cooperators resist. Drawing support from such sources is essentially a modern day political compromise, and it would be against the cooperative ideology. We need to understand that governments both in centrally planned economies and free market domains were too eager and willing to provide financial and other support to cooperatives and the sector fell prey to this temptation. A cooperative endeavour should necessarily depend on its own resources, energy and time, however small it could turn out to be. Its growth and expansion should be evolutionary. The second very important missing value is the member centrality. Cooperatives by their very nature are inward looking organisations. They are meant to serve the member community unlike the outward looking organisations such as the corporate which sells to any one so long as there is profit. The focus of all activities of cooperatives should have been members. Business activities are to be developed based on member needs, policies are to be designed according to member views and administration is to be carried out through member participation. Indian cooperatives generally do not stick to this value. It is increasingly felt that the pressures of globalisation will have to be addressed to a large extent through self-help initiatives. The talk of social capital as an input for development and self-help groups as instruments of development is everywhere. This reinforces the need for cooperative endeavours. There is a definite credibility crisis for the cooperative sector. The process of withdrawal of the state from certain service

areas should have in the ordinary course opened up the doors for cooperativisation instead of privatisation. But no one believes that the cooperative sector is competent enough to accept this challenge. Unless the sector moves away from the clutches of government control and comes out with norms for restraining politicians from making use of the sector as a ladder for their personal benefits, the movement is sure to slip down further. It is inevitable that a good number of our cooperative enterprises will disappear in the coming years, since they are not strong enough to stand the trial of time. However, inculcating the values of self-help and member centrality can give rise to cooperatives, which are not just 'enterprises' but instruments of creating 'cooperative communities'. The cooperative ideology is indeed too precious and realistic to discard. Hard introspection and commitment to further the cause is needed during the centenary celebrations.

41. According to the passage which one of the following statements is not true?
1. The Indian cooperative sector is equipped well to face the challenges of neo-liberal business environment.
 2. A definite credibility crisis overshadows the cooperative sector.
 3. Cooperators oppose the forces of Market and State.
 4. It would be a welcome development if cooperators become politicians.
42. What are the reasons behind the deterioration in cooperative movement?
1. Government control on cooperative sector.
 2. Politician's ambition to use cooperative movements for individual gain.
 3. Both (1) and (2).
 4. None of these.
43. Which is the significant vice that plagues the cooperative system?
1. Bureaucratization
 2. Government control
 3. Politicians in cooperative movement
 4. All the above
44. Which is/are the essential value(s) that the cooperative sector failed to develop?
1. Self help
 2. Focus on members
 3. Resources
 4. Both (1) and (2)

PASSAGE - B

Had the India Meteorological Department been a bookmaker, it would have lost a packet. In April it predicted that rainfall in this year's southwest monsoon from June 1 to September 30 would be normal, in fact, 100 per cent of the long-term average. The chances that the rainfall would be less than 90 per cent of the average were set at just 4 per cent. In June, it raised the stakes further, postulating the odds of such a reduction in rainfall at a mere 3 per cent. As it turns out, the monsoon has performed 13 per cent below normal. For the second time in three years the Department has got it strikingly wrong, not having foreseen the drought of 2002 when the deficiency was 19 per cent. This time the Department can cite some extenuating aberrations in the monsoon schedule: the monsoon actually broke on May 18 over Kerala, 12 days ahead of schedule, and whatever rain came in May has not been taken into the southwest monsoon folder. Further, the monsoon has not yet closed its books, with rain falling fairly heavily in many parts of the country in the first week of October. Some dribbles of comfort, may be, for farmers in some states but

none for the Department that will need to get back to questioning the validity of the 10 parameter regression model it uses to predict monsoon performance. Or was it that its interpretation of the data went awry?

Data on the sea surface temperatures in the Tropical Pacific Ocean known as the Nino 3.4 region from January to June (one of the 10 parameters on which the forecast is built) had turned out to be “unfavourable” but the department chose to belittle their effect. It is not just in the overall number that the forecast was way off target; it went seriously wrong in projecting the distribution of rainfall over the country. Northwest India was projected to get 103 per cent of its long-term average rainfall; it got barely 80 per cent. Northeast India was the only region with the right number. When forecasts go so wayward, it raises the question whether they provide any value to India’s agriculture that depends so vitally on the performance of the monsoon. It was the great Indian drought of 1877 that prompted the Department to issue its first seasonal monsoon forecast in 1884. Yet 120 years later and despite extensive multinational research, monsoon predictive capabilities are still too green uncertain, and bereft of much practical value at least to individual farmers. Long term predictions for the country as a whole might offer some inputs for policy making at Krishi Bhavan in New Delhi and for punters on Dalal Street. But they have never meant anything to farmers who have relied on gut instinct, tradition, and soothsayers to tell them how the seasonal rains would turn out. It must be conceded that there has been more reliability and practicality about the Department’s short-term forecasts in recent times. The National Centre for Medium Range Weather Forecasting, which provides countrywide regional forecasts three to five days ahead, has claimed better results. “Farmers who follow our advisories earn about twice as much profit as those who do not,” is one such claim. Reliable wind and cloud forecasts three days ahead can no doubt help farmers reduce costs of irrigation, fertilizer, and pesticide application. To be fully effective for precision farming, these forecasts must be valid at the local village level. Given the complexity of the monsoon and our limited understanding of it, none will bet on such a service being available in the near future.

45. According to the author of the passage, which one of the following statements is not correct?
1. Validity of regression model for predicting weather is questionable.
 2. The distribution of rainfall over the country was not projected correctly.
 3. Farmers have not derived much practical value out of research on monsoon.
 4. The short-term forecast over three to five days ahead has been as unreliable as the long-term forecast
46. “Long term prediction for the country as a whole might offer some inputs for policy making at Krishi Bhavan in New Delhi and for punters on Dalal Street.” The term ‘policy’ in this context refers to the policy of
1. Meteorological Department.
 2. Department of Science and Technology.
 3. Ministry of Agriculture.
 4. Ministry of Food and Civil Supplies.

PASSAGE – C

Recently released economic data for the first quarter of the fiscal year give room for optimism. According to the preliminary estimates of the Central Statistical Organisation (CSO), the Gross Domestic Product grew by 7.4 per cent during April-June this year compared with 5.3 per cent during the same period last year. The performance is particularly noteworthy as all the three sectors – agriculture, industry and services – have grown on a year-on-year basis. Industrial growth, underpinned by a strong performance of the manufacturing sector, registered a rise of 6.9 per cent while the buoyant services sector notched up an impressive 9.5 per cent growth (compared with 7.4 per cent last year). In a statistical sense the growth in agriculture at 3.4 per cent seems modest but, coming on top of a 0.1 per cent increase during April-June last year, it has boosted the overall growth figures significantly. Farm output will be keenly watched during the rest of the year to see whether the first quarter GDP growth rate can be sustained. The key

question is the difference the less-than-satisfactory southwest monsoon will make to the economic growth. While the rabi crop is expected to be normal, the kharif crop could well see a shortfall because of the delayed and uneven rain in many parts of the country. There is a need to place the statistics relating to growth in a fresh, forward-looking perspective. The 7.4 per cent growth of the first quarter follows a string of higher rates registered over three successive quarters. In 2003-04, after a slow start, economic growth picked up, recording increases of 8.6 per cent, 10.5 per cent, and 8.2 per cent during the second, third, and fourth quarters. That also means that growth estimates for the rest of this year will have to contend with a “high base effect” and will consequently be less impressive than they have been for the first quarter. Such distortions are intrinsic to year-on-year comparisons.

Last year, agriculture was credited with an impressive 9.1 per cent growth when it was merely recovering from the prolonged drought during the previous year (2002-2003), when its growth was negative. One has therefore to look beyond the CSO statistics to arrive at a realistic estimate of GDP growth for the whole year. The official claim is that the economy will grow by 6.5 to 7 per cent over the full year, despite the oil shock and the resurgent inflation, but that projection has to be tempered with caution as global oil prices are still ruling at record highs. Even though consumers have been provided a cushion, thanks to the Government agreeing to forsake some taxes and oil companies a part of their profits, there is no running away from the fact that the economy will eventually bear the burden. On the positive side, there are a number of corroborative factors that lend credence to the official view. The buoyancy in manufacturing and services is likely to be sustained. Credit offtake from banks, a key indicator of industrial recovery, is reportedly running at five times last year’s level. Foreign institutional investors have started pumping money again into the Indian stock markets, driving the Sensex up to a five-month high. According to the recent balance of payment statistics, the merchandise trade deficit during April-June was \$ 6.3 billion, the highest for any quarter. The fact that non-oil imports have also surged could be another indication of strong economic growth.

47. Which one of the following statements is *not* supported by the contents of the passage?
1. Manufacturing sector strongly influenced the industrial segment growth which in turn contributed to the economic growth.
 2. As the agricultural growth in the first quarter of the fiscal year is only 3.4 percent, its quantitative influence in absolute terms has not been significant.
 3. The fact that the agricultural growth during 2000-2003 was negative, has influenced the recording of impressive growth during 2002-2003.
 4. The first quarter of the current fiscal year has recorded the highest merchandise trade deficit for any quarter.
48. The corroborative factors which give credibility to the official claim that economic growth will be 6.5 – 7 percent over the year is/are
1. Indian stock market started getting foreign institutional investments.
 2. The uptrend in manufacturing and services sectors will be sustained.
 3. Credit offtake from the banks has increased.
 4. All the above.

PASSAGE – D

India has gone through the same phases of marketing development as the more advanced countries like USA, UK and Germany. Identifying and analysing the concepts dominating these phases would throw some light on the future trends. Tracing India’s marketing history based upon all its functions would be a very lengthy process. For our purpose it would suffice to examine it on the basis of today’s most important parameter of marketing: development and augmentation of brand hegemony. In the 1930s, the main motivation was acquisition of a new product, with the emphasis on the utilization aspect. Today the decision is influenced by the desire for graduating to a superior product offering more comfort, status and

style with emphasis on the symbolic value. The decade of the 1940s was particularly noteworthy for the start-up of local manufacture of many brands, mainly in the non-durable consumer goods category. The market divided itself into three general groups. The first comprising imported brands purchased by the ruling British and the wealthy, urban Indian who was educated and imitating the western lifestyles. The second represented locally manufactured brands mainly produced and distributed by foreign companies. These were designed in terms of quality and size to become affordable to the fairly large middle and lower middle class which existed in India even 50 years ago. The third group consisted of goods produced by small-scale manufacturers catering to the petty needs of the country's very large population of poor. The decade of the 1950s more or less followed the pattern of the 1940s and gave way to considerable dynamism in the next two decades.

The weakening social conservatism in the 1950s, began to roll back rapidly in the face of new ideas, and changed the temper of society from meek acceptance of whatever was available to a penchant for change. By the mid-1960s, there were clear manifestations of change in several parts of society. Table fans were replaced by ceiling fans, desert coolers with air-conditioners, bicycles with scooters, bidis with cigarettes. This changing panorama inspired marketers to launch new brands to plug the new slots that had opened up. In fact, this marked the beginning of Indian society changing to a high-consuming system from one of abstinence. Several leading brands of today such as Wills, FT, Liril, Thums up, Luna, Bajaj Scooter, Nescafe, Classic Kings, Postman and Economic Times were begotten in this era. The success graph of new entries in the 1960s and 1970s somehow petered out in the decade of the 80s. Possibly, the commanding influence of market research in the 1980s side-tracked the marketers, and they stopped hearing the rumblings of the marketplace.

A recent review of the status of new brands in the soap and cosmetics industry also lamented the absence of trend-setting brands and emphasised the need for the right mix of flavour, fragrance, colour and pack design to avoid mishaps. While selection of the right mix is important, it falls short of getting the consumer imagination often on account of the difficulty in measuring the attribute of 'representational value'. The concept of representational value is actually quite simple. It only needs understanding of the moving socio-economic pattern to discern the emerging trend in any market segment and converting it into a symbolic form for building the brand. This process is particularly relevant during a period of high societal change, as the country is experiencing now. Our society will offer many challenging opportunities to the marketing strategist, with an ear close to the ground, to cater to the brand-crazy consumerist society.

49. The author is most likely to agree with the statement that

1. the past three decades have seen a swift development on the direct marketing front.
2. the future's trend-setters need to visualize mass appeal and accordingly build the brand.
3. several leading brands lost their hold in the past six years.
4. during the 1950s, market was in total complacent situation.

50. All the following statements are correct except

1. in comparison to the 1930s, today the stress is on superior quality and comfort.
2. before Independence British constituted the elite brand users.
3. the identification of totalitarian consumer society was dominant in 1940s.
4. non-durable consumer goods were the 1940s benchmark.

51. On the basis of the passage, we can say representational value

1. is not difficult to tab.
2. is what escapes the consumer's imagination.
3. is the reward for the marketer who is aware of the changing trends.
4. is the major factor responsible for the brand catching the consumers' fancy.

PASSAGE - E

Man is a social animal, they say. To survive in a society, one must be able to reach out and establish a bond with other people, extending beyond one's family circle. As adults, we tend to take friendships and our ability to form them for granted. But consider a life without friends. In a word, unimaginable. Can you remember the day you made your first friend or even who that person was? Probably not. A child's first friendship could be said to be her first foray into society. This is a whole new ball game for her. Her parents are her guides and protectors, her safety nets. Her siblings are sometimes her teachers and sometimes her tormentors. But a friendship normally begins on an equal footing, a relationship of give-and-take, of two-way traffic, irrespective of what it ultimately evolves into. It is a relationship with a person she has been drawn to, with whom she can explore, experiment, learn about the world and make mistakes with. A friend is a person, like her, who is beginning from square one. Even though everyone was a child once, but as an adult it is difficult to slip into the shoes of a child once again. Parents and siblings can never take the place of friends of the same age and vice versa. Every relationship has a unique place in life and performs a unique function.

At what age can you expect your child to be social? Before two years of age, a child is too busy staring wide-eyed at the world around her, trying to take it all in. Her family fills her little world. While her immediate family stays a constant presence, all the time there are new faces and happenings to absorb. She is too young and immature to build a relationship with her peers. However, once she is two-year-old, she is ready to make her debut in society. When parents put a couple of two-year-olds together to play they may not think so. What they will probably observe is two toddlers pottering about with their respective toys without even acknowledging each other's presence. But parents should not despair, because even though the children seem to engage in parallel play, they are actually learning from each other through imitation. Toddlers can imitate a whole new sequence of actions from their peers and in this way absorb new skills. If parents observe two toddlers 'playing' together closely, they will see one toddler build a tower of blocks in the same manner as the other had without seeming to interact at all. That is about all that you can expect from a relationship between two-year-olds. Between the ages of three and six, children's ability to relate to their peers takes a tiny step forward. In the case of boys, it is the age to vent their aggression. Parents are most likely to see their little boys locked in combat, rolling around the floor, wrestling with other boys and generally indulging in horseplay. Girls, on the other hand, are more likely to tease and provoke each other and boys and giggle at every opportunity. This is the time when children are initiated into the world of give-and-take. It is important that children should not be isolated for whatever reason. Spoiled and overprotected children will have a difficult time.

Between the ages of six and nine, children begin to form friendships in the conventional sense. Children begin to form small groups. They get attached to particular children and want to spend all their time together with their special friends. They are possessive about their special friends and deeply hurt when a friend shows a preference for another. Group dynamics can be observed. Some children are admired, some bullied and others excluded. This is the time a child will learn the demands of closeness and the need to be sensitive to others' feelings. When two children get together, it need not necessarily be all sweetness and light. Just like adults, they just may not get on. One child may be particularly aggressive, while the other might cower in response. Given this scenario, most parents tend to jump into the fray, but this could backfire, as they are likely to reinforce their child's imbalanced behavior by their intervention. The parent of the aggressor is likely to reprimand her child with the aim of putting a stop to her aggression. At the same time, she probably resents the parent for expressing her anger. The aggressive child senses her parent's overreaction and increases her aggression. The parent of the docile child will either angrily exhort her child to fight back at a time when she is not capable, or play the role of the protector. The parent's anger and embarrassment will drive home the docile child's sense of helplessness and inadequacy. Parents should leave their children to hammer out the situation on their own. The minute parents step into the picture, it becomes an adult situation. However, if the children cannot cope even after being left to their own devices, then parents should steer them towards playmates of a similar temperament. Children are more likely to learn from playmates of a similar temperament. If parents of a docile child push her to be more aggressive or gregarious, they are merely giving her the message that they do not approve of her the

way she is. Parents of aggressive children will find that when such children are thrown together with other aggressors, they are likely to become bosom buddies as aggression on both sides somehow balances out.

Bullies are insecure children who combat their insecurity through aggression. Bullying behaviour tends to fall into a vicious circle. Children distance themselves from bullies and as the bullies are more and more isolated, their insecurity increases and so do their bullying tactics in an attempt to hide their vulnerability. Parents of bullies should try to bolster their self-image, but at the same time they should make it clear that bullying behaviour is unacceptable. They should try to make their children understand that often children tease each other in an attempt to get to know each other better and that if one can take some ribbing and teasing sportingly, one is likely to make a great deal of friends. Parents should ideally leave their children to find their own feet. The less the adult involvement, the more the children are likely to learn about each other and themselves. They should be left free to make their own judgements and mistakes. The quantity and quality of a child's friendships is a good indicator of her mental and emotional well-being. In all likelihood, a child who is shunned or ostracized by her peers is sending out a message spelling out anxiety, self-doubt or some kind of turmoil. Sometimes, children can be more sensitive and perceptive than adults. They can tell the difference between a child that is upset by some immediate circumstance and one that is chronically unhappy. In the latter case, children react by staying away because they are threatened by these feelings. When a child cannot establish bonds with her peers, it means that something is fundamentally wrong and needs parental attention.

52. A child's first friendship

1. could be her first move into society.
2. is a bond with her peers.
3. can help her stand on her own feet.
4. All of these.

53. As per the passage,

1. it is incorrect to call man a social animal.
2. parents should never be partial towards any one child.
3. sometimes children can be more sensitive and perceptive than the adults.
4. All the above.

54. Which of the following statement(s) is/are appropriate?

- A. It is difficult for an adult to slip into the shoes of a child once again.
B. Parents and siblings can easily replace friends of the same age and vice versa.

1. Only A
2. Only B
3. Both A and B
4. Neither A nor B

55. The quality of a child's friendships, according to the passage,

1. is a good indicator of her mental and emotional well-being.
2. is something for parents to judge impartially.
3. is sending out a message spelling out anxiety, self doubt or some kind of turmoil.
4. All the above.

56. The writer firmly believes

1. in single parenting.
2. in treating boys and girls differently.
3. in isolating bullies to teach them about self-restraint.
4. that a child who cannot establish bonds with her peer needs parental attention.

57. The passage is _____ in its approach.

1. fastidious
2. captious
3. analytical
4. facetious

DIRECTIONS for questions 58 to 62: Fill in the blanks of the following sentences using the most appropriate word or words from the options given.

58. Learning is more efficient when it is _____. It is less efficient when it is _____.
- | | |
|------------------------|------------------------------|
| 1. fast — slow | 2. fun — drudgery |
| 3. rapid — turtle-slow | 4. tedious — like a joy ride |
59. Physicians may soon have _____ to help paralyzed people move their limbs bypassing the _____ nerves that once controlled their muscles.
- | | |
|------------------------------|--------------------------|
| 1. instruments — detrimental | 2. ways — damaged |
| 3. reason — involuntary | 4. impediments — complex |
60. The Internet is a medium where users have nearly _____ choices and _____ constraints about where to go and what to do.
- | | |
|-----------------------------|-----------------------|
| 1. unbalanced — nonexistent | 2. embarrassing — no |
| 3. unlimited — minimal | 4. choking — shocking |
61. Education is central because electronic networks and software-driven technologies are beginning to _____ the economic barriers between nations.
- | | |
|---------------|--------------|
| 1. break down | 2. dissemble |
| 3. crumble | 4. dismantle |
62. The present Constitution will see _____ amendments but its basic structure will survive.
- | | |
|---------------------|------------------|
| 1. much more | 2. too many more |
| 3. quite a few more | 4. many more |

DIRECTIONS for questions 63 to 67: Each of these questions has a set of six sentences marked A to F. Identify the arrangement of these sentences which make a logical sequence. A is the sentence and F is the last sentence.

63. A. India, which has two out of every five TB patients, is on the brink of a major health disaster.
 B. If untreated a TB patient can die within five years.
 C. Unlike AIDS, the great cause of modern sexuality, the TB germ is airborne, which means there are no barriers to its spread.
 D. The dreaded infection ranks fourth among major killers worldwide.
 E. Every minute, a patient falls prey to the infection in India, which means that over five lakh people die of the disease annually.
 F. Anyone, anywhere can be affected by this disease.
- | | | | |
|-----------|-----------|-----------|-----------|
| 1. ADBECF | 2. ACBDEF | 3. ABCDEF | 4. AECBDF |
|-----------|-----------|-----------|-----------|

64. A. Until the MBA arrived on the scene, the IIT graduate was the king.
 B. A degree from one of the five IITs was a passport to a well-paying job, great prospects abroad and, for some, decent dowry to boot.
 C. From the day he or she cracked the Joint Entrance Examination, the IIT student commanded the awe of neighbours and close relatives.
 D. IIT students had, meanwhile, also developed their own special culture, complete with lingo and attitude, which they passed down.
 E. True, the success stories of IIT graduates are legion and they now constitute the concern of the Indian diaspora.
 F. But not many alumni would agree that the IIT undergraduate mindset merits a serious psychological study, let alone an iterative one.

1. ABEDCF 2. ACBDEF 3. ACBEDF 4. ABCDEF

65. A. Good literacy magazines have been good because of their editors.
 B. Furthermore, to edit by committee, as it were, would prevent any magazine from finding its own identity.
 C. The more quirky and idiosyncratic they have been, the better the magazine is, at least as a general rule.
 D. But the number of editors one can have for a magazine should also be determined by the number of contributions to it.
 E. To have four editors for an issue that contains only seven contributions, it is a bit silly to start with.
 F. However, in spite of this anomaly, the magazine does acquire merit in its attempt to give a comprehensive view of the Indian literacy scene as it is today.

1. ABCDEF 2. ACDEBF 3. ABCEDF 4. ADCBEF

66. A. Valmik Thapar traces the cult of the tiger and provides a cache of interesting stories and beliefs connected with this magnificent animal.
 B. In all the countries where it is found, the respect in which it is held owes in large measure to the fear it arouses.
 C. "In religion, ritual and art, the tiger holds a place of unmatched eminence because of the sacred status it enjoys."
 D. The tiger's immense power and strength give it an aura unmatched in the animal world.
 E. The mixture of adoration and fear has led to a wealth of legends and myths.
 F. He traces man's relationship with the tiger in a journey from the Siberian forests of Eurasia to the forests of Indonesia.

1. ABDECF 2. ADBECF 3. ABCDEF 4. ABEDCF

67. A. To Krishnamurti, listening was an art, and a miracle.
 B. So how you received a question mattered much more than finding an answer.
 C. When the brain was absolutely quiet and there was no sound made by the word, that was real listening.
 D. Do you feel it, it is there in the room as he once said to his biographer and friends when deep in a meditative conversation.
 E. When one listened to it totally and did not translate it no convert it into an idea, something tremendous happened.
 F. Such a dialogue was real meditation, not just sitting and breathing according to a particular system.

1. ABCEDF 2. ADCBEF 3. ADBCEF 4. ACBEDF

DIRECTIONS for questions 68 to 72: Each of these questions has a sentence with an idiom which is underlined. Choose the appropriate meaning of the idiom.

68. Rahul proved to be a wet blanket in the party.
- | | |
|-------------------|----------------------|
| 1. good companion | 2. warm and friendly |
| 3. kill-joy | 4. helpful |
69. Do not depend on him, he has an axe to grind.
- | | |
|----------------|--------------------------|
| 1. no property | 2. personal end to serve |
| 3. no sense | 4. no work to do |
70. He cannot get that contract, it is a wild goose chase.
- | | |
|-------------------|---------------------|
| 1. useless effort | 2. baseless effort |
| 3. good effort | 4. desperate effort |
71. We could finish this work early, only if we cut corners.
- | | |
|--------------------------|-----------------|
| 1. resort to bribery | 2. are brutal |
| 3. take the shortest way | 4. are reckless |
72. Rima took to her heels and fled from the principal's office.
- | | |
|-------------------------|------------|
| 1. bent down | 2. ran off |
| 3. kicked off her shoes | 4. cried |

DIRECTIONS for questions 73 to 80: Given below is a set of sentences in which the underlined word is used as different parts of speech in English Grammar. Mark the answer as

1. if the underlined word is used as Adjective.
2. if the underlined word is used as Noun.
3. if the underlined word is used as Adverb.
4. if the underlined word is used as Verb.

73. I think yours is a better plan.
74. I know better.
75. Give place to your bettors.
76. The boxes with which he provided me bettered the sample.
77. They are men of like build and stature.
78. Like as a father pitieth his own children.
79. We shall not see his like again.
80. Children like sweets.

SECTION III

MATHEMATICAL SKILLS

Number of Questions: 40

81. A cylindrical container of radius 6 cm and height 15 cm is filled with ice-cream. The whole ice-cream has to be distributed to 10 children in equal cones with hemispherical tops. If the height of the conical portion is four times the radius of its base, find the radius of the ice-cream cone.
1. 2 cm 2. 3 cm 3. 4 cm 4. 5 cm
82. A man wishes to cross a river perpendicularly. In still water, he takes 4 minutes to cross the river, but in flowing river he takes 5 minutes. If the river is 100 m wide, the velocity of the flowing water of the river is
1. 15 m/sec 2. 30 m/sec 3. 10 m/sec 4. 20 m/sec
83. The banker's discount and true discount on a certain sum of money due 4 months hence are Rs. 515 and Rs. 500 respectively. The rate of interest is
1. 10% 2. 9% 3. 8% 4. 7%
84. A locomotive driver travelling at 72 km/hr finds a signal 210 metres ahead of him indicating he should stop. He instantly applies brakes to stop the train. The train retards uniformly and stops 10 metres before the signal post. What time did he take to stop the train?
1. 5 sec 2. 10 sec 3. 15 sec 4. 20 sec
85. A machine being used by a company is estimated to have a life of 15 years. At that time, the new machine would cost Rs. 74,400 and the scrap of the old machine would yield Rs. 4,600 only. A sinking fund is created for replacing the machine at the end of its life. What sum should be invested by the company at the end of each year to accumulate at 6% per annum? (Use $\log 1.06 = 0.0253$, $\text{antilog } 0.3795 = 2.396$)
1. Rs. 3,000 2. Rs. 5,000 3. Rs. 4,000 4. Rs. 6,000
86. A ladder 15 m long reaches a window which is 9 m above the ground on one side of a street. Keeping its foot at the same point, the ladder is turned to other side of the street to reach a window 12 m high. Find the width of the street.
1. 15 m 2. 21 m 3. 18 m 4. 13 m
87. A tower is $100\sqrt{3}$ metres high. Find the angle of elevation of its top from a point 100 metres away from its foot.
1. 40° 2. 50° 3. 60° 4. 70°
88. The smallest positive x satisfying $\log_{\cos x} \sin x + \log_{\sin x} \cos x = 2$ is
1. $\frac{\pi}{3}$ 2. $\frac{\pi}{6}$ 3. $\frac{\pi}{4}$ 4. $\frac{\pi}{2}$
89. The arithmetic mean of the series 1, 2, 4, 8, 16, 2^n is
1. $\frac{2^n - 1}{n}$ 2. $\frac{2^{n+1} - 1}{n+1}$ 3. $\frac{2^n + 1}{n}$ 4. $\frac{2^n - 1}{n+1}$

90. Balls are arranged in rows to form an equilateral triangle. The first row consists of one ball, the second row of two balls and so on. If 669 more balls are added, then all the balls can be arranged in the shape of a square and each of the sides then contains 8 balls less than each side of the triangle did. The initial number of balls is
1. 1600 2. 1500 3. 1540 4. 1690
91. A contract is to be completed in 46 days and 117 men were set to work, each working 8 hours a day. After 33 days $\frac{4}{7}$ of the work is completed. How many additional men may be employed so that the work may be completed in time, each man now working 9 hours a day?
1. 78 2. 79 3. 80 4. 81
92. Two circles touch each other internally. Their radii are 2 cm and 3cm. The biggest chord of the outer circle which is outside the inner circle is of length
1. $2\sqrt{2}$ cm 2. $3\sqrt{2}$ cm 3. $2\sqrt{3}$ cm 4. $4\sqrt{2}$ cm
93. A person writes a letter to four of his friends. He asks each one of them to copy the letter and mail it to four different persons with the instruction that they move the chain similarly. Assuming that the chain is not broken and that it costs 50 paise to mail one letter, the amount spent on the postage when the 8th set of letters mailed is
1. Rs. 40,000 2. Rs. 43,690 3. Rs. 30,000 4. Rs. 33,715
94. The diameter of a garden roller is 1.4 m and it is 2 m long. How much area will it cover in 5 revolutions? (Use $\pi = \frac{22}{7}$)
1. 40 m² 2. 44 m² 3. 48 m² 4. 36 m²
95. The product of the lengths of three sides of a triangle is 196 and the radius of its circumcircle is 2.5 cm. The area of the triangle is
1. 39.2 cm² 2. 19.6 cm² 3. 122.5 cm² 4. 61.25 cm²
96. A manufacturer sells a pair of glasses to a wholesale dealer at a profit of 18%. The wholesaler sells the same to a retailer at a profit of 20%. The retailer in turn sells them to a customer for Rs. 30.9, thereby earning a profit of 25%. The cost price of the manufacturer is
1. Rs. 15 2. Rs. 16 3. Rs. 17 4. Rs. 18
97. At M/s Sharma & Sons, 70 percent of this year's new employees are graduates of business schools and the remainder are graduates of engineering colleges. If 550 new employees were hired this year, the difference between the number of business school graduates hired and the number of engineering graduates hired is
1. 55 2. 220 3. 240 4. 385
98. If a heavy-load trailer travelled 7 km in 1 hour and 10 minutes, what was its speed in km per hour?
1. 6 2. 6.5 3. 8 4. 10

99. There are 240 doctors and nurses at a hospital. If the ratio of doctors to nurses is 5 : 7, the nurses at the hospital are
1. 20 2. 60 3. 100 4. 140
100. Ajitha borrowed Rs. 240, interest free, from her parents to pay for her college education. If she pays back $2\frac{1}{2}$ percent of this amount quarterly, and has already paid Rs. 42.00, for how many months has she been paying back her loan?
1. 6 2. 7 3. 19 4. 21
101. Last year, a Home Appliance Store sold an average (arithmetic mean) of 42 microwave ovens per month. In the first 10 months of this year, the store has sold an average (arithmetic mean) of only 20 microwave ovens per month. What was the average number of microwave ovens sold per month during the entire 22 month period?
1. 21 2. 30 3. 31 4. 32
102. At Srinagar, starting at 9 a.m. on a certain day, snow began to fall at a rate of $1\frac{1}{4}$ inches every two hours until 3 p.m. If there was already $2\frac{1}{4}$ inches of snow on the ground at 9 a.m., how many inches of snow was on the ground at 3 p.m. that day?
1. $3\frac{3}{4}$ 2. 6 3. 7 4. $7\frac{1}{2}$
103. The owner of a boutique decides to calculate the percentage of customers who purchase hats. If 40 percent of the store's customers decide to purchase items, and of those customers 15 percent purchase hats, what percent of the store's customers purchase hats?
1. 4% 2. 6% 3. 15% 4. 24%
104. The formula $E = \sqrt{a} / 6$ describes the relationship between the length of the edge E of a cube and the surface area a of the cube. How much longer is the edge of a cube with a surface area of 1350 than the edge of one with a surface area of 600?
1. 5 2. 15 3. 150 4. 250
105. After reading $3/5$ of the biology homework on Monday night, Sanjay read $1/3$ of the remaining homework on Tuesday night. What fraction of the original homework would Sanjay have to read on Wednesday night to complete the biology assignment ?
1. $1/15$ 2. $2/15$ 3. $4/15$ 4. $2/5$
106. In a housing society, 30 percent of the residents are men over the age of 18 and 40 percent are women over the age of 18. If there are 24 children living in the housing society, how many total residents live ?
1. 32 2. 80 3. 94 4. 112

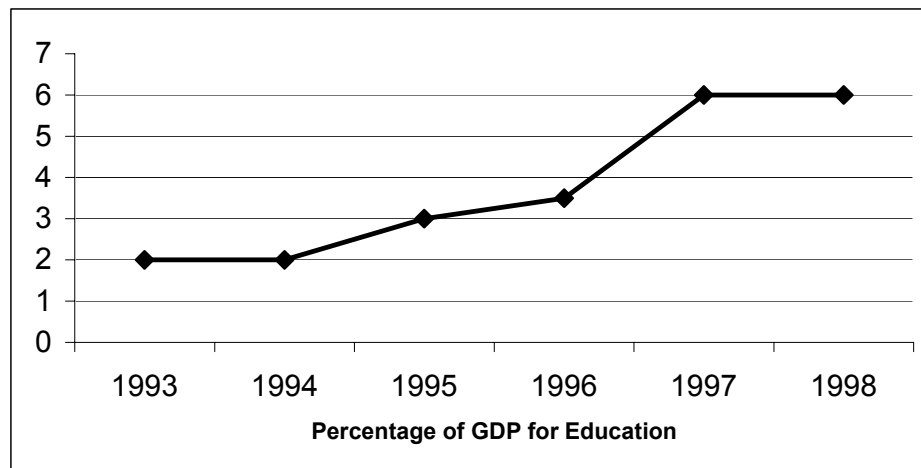
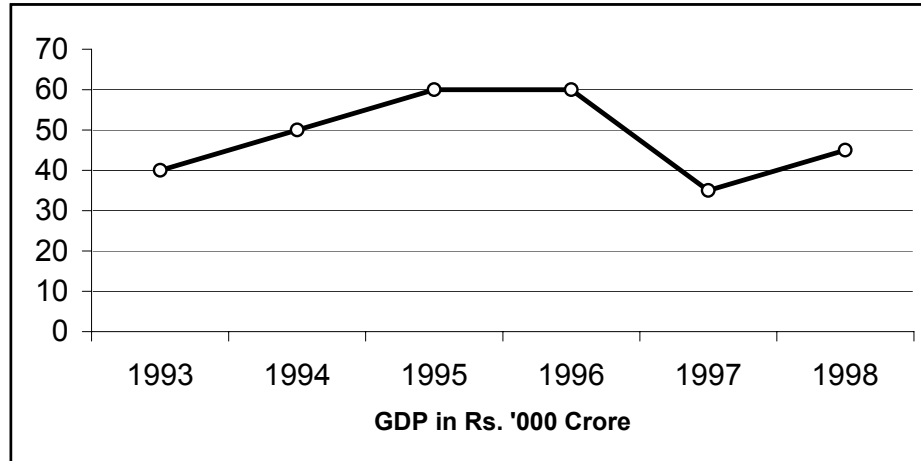
107. The length of a cold storage is double its breadth. Its height is 3 metres. The area of its four walls (including doors) is 108 m^2 . Find its volume.
1. 215 m^3 2. 216 m^3 3. 217 m^3 4. 218 m^3
108. A six-sided die with faces numbered 1 through 6 is rolled three times. What is the probability that the face with the number 6 on it will **not** face upward on all three rolls?
1. $1/216$ 2. $1/6$ 3. $2/3$ 4. $215/216$
109. A department store receives a shipment of 1,000 shirts, for which it pays Rs. 9,000. The store sells the shirts at a price 80 percent above cost for one month, after which it reduces the price of the shirts to 20 percent above cost. The store sells 75 percent of the shirts during the first month and 50 percent of the remaining shirts afterwards. How much gross income did sales of the shirts generate?
1. Rs. 10,000 2. Rs. 10,800 3. Rs. 12,150 4. Rs. 13,500
110. The Binary Ice Cream Shoppe sells two flavours, vanilla and chocolate. On Friday, the ratio of vanilla cones sold to chocolate cones sold was 2 : 3. If the store had sold 4 more vanilla cones, the ratio of vanilla cones sold to chocolate cones sold would have been 3 : 4. How many vanilla cones did the store sell on Friday ?
1. 32 2. 35 3. 42 4. 48
111. A bicycle wheel makes 5000 revolutions in moving 11 km. Find the diameter of the wheel.
1. 55 cm 2. 60 cm 3. 65 cm 4. 70 cm
112. A store raised the price of an item by exactly 10 percent. Which of the following could **not** be the resulting price of the item ?
1. Rs. 5.50 2. Rs. 7.60 3. Rs. 11.00 4. Rs. 12.10
113. The price for a pair of cuff links is Re. 1.00. The price for a 5-pair package of cuff links is Rs. 3.40. The 5-pair package is what percent cheaper per pair than 5 pairs purchased separately?
1. 63% 2. 62% 3. 47% 4. 32%
114. A company bought a total of 60 computers and 20 printers to modernize billing operations. If the price of each computer was three times the price of each printer, what percent of the total cost of the purchase was the total cost of the printers?
1. 10% 2. 11% 3. 15% 4. 20%
115. A machine costs m rupees per day to maintain and n paise for each unit it produces. If the machine is operated 7 days per week and produces r units in a week, which of the following is the total cost, in Rs., of operating the machine for a week ?
1. $7m + 100nr$ 2. $(700m + nr)/100$ 3. $m + nr$ 4. $700mnr$
116. How many integers between 100 and 150, both inclusive, can be evenly divided by neither 3 nor 5?
1. 33 2. 28 3. 27 4. 26

117. To fill a number of vacancies, an employer must hire 3 programmers from among 6 applicants, and 2 managers from among 4 applicants. What is the total number of ways in which she can make her selection?
1. 1,490 2. 132 3. 120 4. 60
118. On Monday, a certain animal shelter housed 55 cats and dogs. By Friday, exactly $\frac{1}{5}$ of the cats and $\frac{1}{4}$ of the dogs had been adopted; no new cats or dogs were brought to the shelter during this period. What is the greatest possible number of pets that could have been adopted from the animal shelter between Monday and Friday?
1. 11 2. 12 3. 13 4. 14
119. At a college football game, $\frac{4}{5}$ of the seats in the lower deck of the stadium were sold. If $\frac{1}{4}$ of all the seating in the stadium is located in the lower deck, and if $\frac{2}{3}$ of all the seats in the stadium were sold, what fraction of the unsold seats in the stadium was in the Lower deck?
1. $\frac{3}{20}$ 2. $\frac{4}{9}$ 3. $\frac{5}{9}$ 4. $\frac{1}{3}$
120. A man goes 10 m due east and then 24 m due north. Find the distance from the starting point.
1. 26 m 2. 24 m 3. 28 m 4. 30 m

SECTION IV
DATA ANALYSIS & SUFFICIENCY

Number of Questions: 40

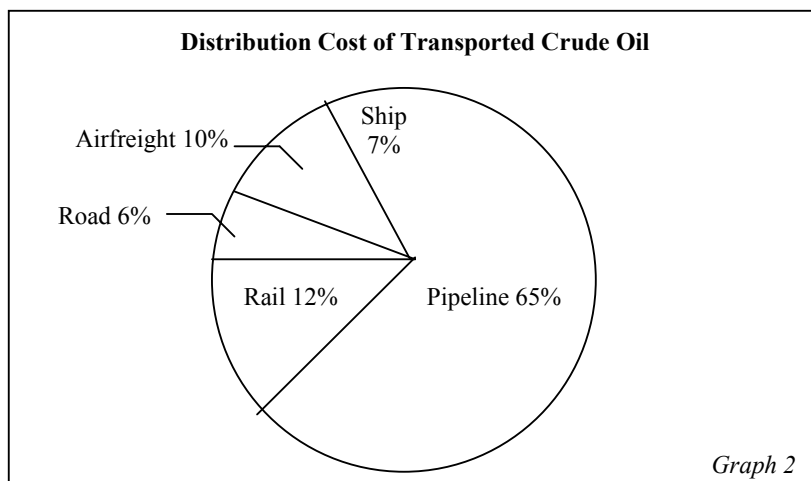
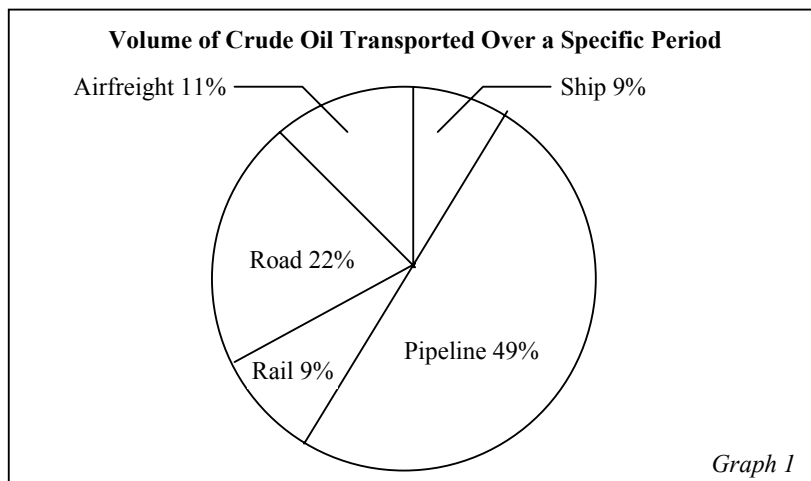
DIRECTIONS for questions 121 to 126: Answer these questions on the basis of information available in the graphs below which give the GDP and the percentage of GDP for education in the given years.



121. In how many years has actual educational spending reduced as compared to that of the previous year?
1. 0 2. 1 3. 2 4. None of these
122. Between the given years, both inclusive, what percentage of the country's total GDP has gone into education?
1. 4.3% 2. 3.7% 3. 3.4% 4. 3.1%
123. The total amount given to education would be how many times the total amount given to defence, if every year 2% of the GDP is given to defence (for the entire period)?
1. 2.15 times 2. 1.55 times 3. 1.7 times 4. 1.8 times

124. If due to an HR Ministry report it is obligatory for the government to allocate at least Rs. 3,200 crore for education in 1999, provided educational spending, as a percentage of the GDP, does not exceed 6.5%, what is the least desirable GDP for 1999 (in Rs. '000 crore) ?
1. 51.52 2. 48.24 3. 49.23 4. 42.72
125. In which year was the spending on education the lowest?
1. 1996 2. 1995 3. 1994 4. 1993
126. If percentage of GDP allocated to education in 1999 increases by twice as much percent from 1998 allocation as the 1995 increase over 1994, what is the increase likely to be in percentage terms?
1. 2% 2. 33.33% 3. 6.48% 4. Cannot be determined

DIRECTIONS for questions 127 to 129: Graph 1 below shows the distribution of twelve million tonnes of crude oil transported through different modes over a specific period of time. Graph 2 shows the distribution of the cost of transporting this crude oil. The total cost was Rs. 30 million.



127. The cost in rupees per tonne of oil moved by airfreight and ship happens to be roughly
1. 3 2. 2.125 3. 2.23 4. Cannot be determined

128. From the charts given, it appears that the costliest mode of transport is
1. road 2. rail 3. pipeline 4. ship
129. If the costs per tonne of transport by pipeline, air and rail are represented by P, Q and R respectively, which of the following is true?
1. $R > Q > P$ 2. $P > R > Q$ 3. $P > Q > R$ 4. $R > P > Q$

DIRECTIONS for questions 130 to 135: Study the table below and answer the questions that follow.

Software Exports and Total Exports for the Given Years		
Performance Year	Total Exports (Rs. crore)	Software Exports (Rs. crore)
1992-93	59688.00	7,884.00
1993-94	69,778.00	13,427.00
1994-95	82,723.00	13,836.00
1995-96	1,06,387.00	21,237.00
1996-97	1,18,917.00	24,263.00
1997-98	1,30,171.00	24,687.00
1998-99	1,39,776.00	25,257.00
1999-2000	1,62,747.00	26,862.00
2000-01	1,73,526.00	28,938.00
2001-02	1,79,914.00	30,648.00

130. The growth of software exports in 1998-99 over 1997-98 is closest to
1. 3% 2. 1% 3. less than 1% 4. 2.5%
131. The rate of growth of software exports compared to the rate of growth of total exports from 1992-93 to 2001-02 is
1. greater than total exports 2. less than total exports
3. almost equal to total exports 4. None of the above
132. Which one has the maximum growth over the given period ?
1. Total exports 2. Software exports
3. Non-software exports 4. Can't be determined
133. The greatest percentage share of software exports in total exports has been for which year?
1. 1995-96 2. 1996-97 3. 1993-94 4. 2001-02
134. Total exports of India have increased approximately _____ in 2001-02 from 1992-93.
1. 2 times 2. 3 times 3. 3.5 times 4. 4 times
135. The maximum percentage growth of total exports has been for which of the following years?
1. 1999-2000 2. 1993-94 3. 1994-95 4. 1995-96

DIRECTIONS for questions 136 to 139: From the data given in the table below, solve the questions that follow.

Election Turnout Rates (%) from 1901 to 1981 in India

Years	Voters	Females	Males
1901	51.2	38.7	60.8
1911	53.6	41.2	63.6
1921	49.7	40.7	50.9
1931	47.3	51.6	39.6
1941	41.8	56.7	32.7
1951	43.8	54.2	38.6
1961	39.1	59.6	33.7
1971	34.7	48.4	31.6
1981	38.6	51.4	37.3

136. On how many occasions did the total turnout rate increase?

1. 4 2. 3 3. 2 4. 5

137. In the given data, the total turnout rate was the maximum in

1. 1911 2. 1921 3. 1961 4. 1931

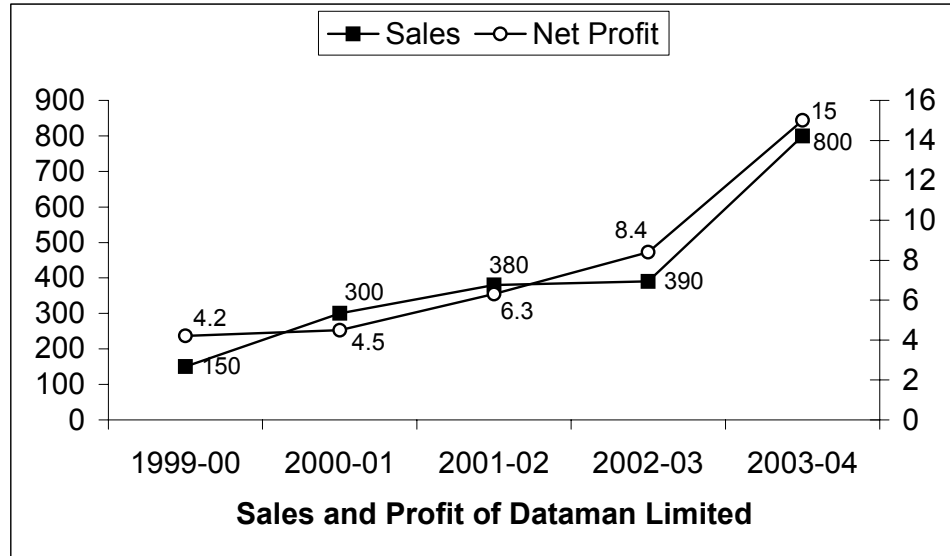
138. The maximum increase in the total turnout rate during any decade over the previous one is

1. 1.5 2. 2.4 3. 4.0 4. 3.9

139. Which of the following is true ?

1. The increase in the rate of turnout for any decade over the previous one during the pre-Independence period is lower than during the post-Independence period. (Assume Independence was achieved in 1947)
2. The total turnout rate decreased continuously.
3. Male turnout was less than one-third of the female population for the entire data.
4. None of the above.

DIRECTIONS for questions 140 to 143: Answer the questions based on the following information. Graph below represents sales and profit in Rs. crore of Dataman Ltd. for the five years from 1999-00 to 2003-04. During this period, sales increased from Rs 150 crore to Rs 800 crore. Correspondingly, the net profit increased from Rs 4.2 crore to Rs. 15 crore. Net profit is defined as the excess of sales over total costs.



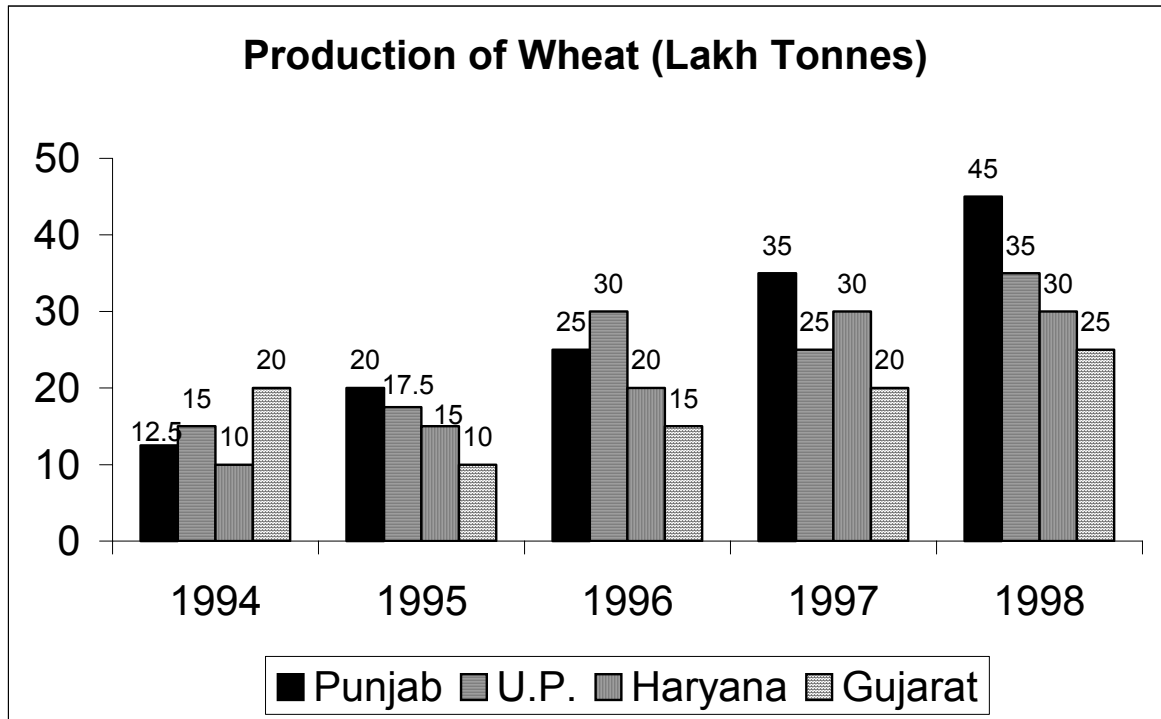
140. The highest percentage of growth in sales, relative to the previous year, occurred in
1. 2000-01
 2. 2001-02
 3. 2002-03
 4. 2003-04
141. The highest percentage growth in net profit, relative to the previous year, was achieved in
1. 2000-01
 2. 2001-02
 3. 2002-03
 4. 2003-04
142. Defining profitability as the ratio of net profit to sales, Dataman Ltd. recorded the highest profitability in
1. 1999-00
 2. 2001-02
 3. 2002-03
 4. 2003-04
143. With profitability as defined in the above question, it can be concluded that
1. profitability is non-decreasing during the five years from 1999-00 to 2003-04
 2. profitability is non-increasing during the five years from 1999-00 to 2002-04.
 3. profitability remained constant during the five years from 1999-00 to 2003-04.
 4. None of the above.

DIRECTIONS for questions 144 to 149: Each of these has a question followed by two statements indicated as A and B.

Mark the answer as

1. if statement A ALONE is sufficient, but statement B ALONE is not sufficient to answer the given question.
 2. if statement B ALONE is sufficient, but statement A ALONE is not sufficient to answer the given question.
 3. if BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient to answer the given question.
 4. if EACH statement ALONE is sufficient to answer the given question.
144. If Beena spent Rs. 400 of her earnings last month on rent, how much did Beena earn last month?
- A : Beena saved $\frac{1}{3}$ of her earnings last month and spent half of the remainder on rent.
B : Beena earned twice as much this month as last month.
145. At a restaurant, Harish left a tip for his waiter equal to 20 percent of his entire dinner check, including tax. What was the amount of the dinner cheque?
- A : The sum of the dinner check and the tip was Rs. 16.80.
B : Harish's tip consisted of two bills and four coins.
146. Raju can chop down 4 trees in an hour. How long does it take Vinay to chop down 4 trees?
- A : Vinay spends 6 hours per day chopping down trees.
B : Vinay takes twice as long as Raju to chop down trees.
147. During a five-day period, Monday through Friday, the average high temperature was 86 degrees Fahrenheit. What was the high temperature on Friday ?
- A : The average high temperature for Monday through Thursday was 87 degrees Fahrenheit.
B : The high temperature on Friday reduced the average high temperature for the week by 1 degree Fahrenheit.
148. Paul jogs at a constant rate for 80 minutes along the same route every day. How long is the route?
- A : Yesterday, Paul began jogging at 5:00 p.m.
B : Yesterday, Paul had jogged 5 miles by 5:40 p.m. and 8 miles by 6:04 p.m.
149. At company R, the average age of executive employees is 54 years old and the average age of non-executive employees is 32 years old. What is the average age of all the employees at company R ?
- A : There are 10 executive employees at company R.
B : The number of non-executive employees at company R is four times the number of executive employees at company R.

DIRECTIONS for questions 150 to 154: From the data available in the graph, answer the questions that follow.



150. In which of the following state/states did the production of wheat increase every year?
1. Punjab 2. U.P. 3. Haryana 4. Punjab & Haryana
151. What is the percentage rise in wheat production in Gujarat in 1998 over the previous year ?
1. 25% 2. 20% 3. 33.33% 4. None of the above
152. What is the difference between the average production of wheat in the states of Haryana and Gujarat over the entire period?
1. 3,00,000 tonnes 2. 10,00,000 tonnes 3. 45,000 tonnes 4. 4,50,000 tonnes
153. The production of wheat in Gujarat in 1998 is what percent less than the production of wheat in U.P. in 1997?
1. 16.66% 2. 20% 3. 40% 4. 0%
154. For which of the following years is the production closest to average yearly production for the entire period?
1. 1995 2. 1996 3. 1997 4. 1998

DIRECTIONS for questions 155 to 160: In each question below is given a statement followed by two assumptions numbered I and II. You have to consider the statement and the assumptions and decide which of the assumptions is implicit in the statement.

Mark the answer as

1. if only assumption I is implicit.
2. if only assumption II is implicit.
3. if either I or II is implicit.
4. if neither I nor II is implicit.

155.

Statement : A's advice to B – "Go to Jammu via Amritsar – the shortest route."
Assumptions : I. B wishes to go to Jammu.
II. A gives advice to everybody.

156.

Statement : Detergents should be used to clean clothes.
Assumptions : I. Detergents form more lather.
II. Detergents help to dislodge grease and dirt.

157.

Statement : "To keep myself up-to-date, I always listen to 9.00 p.m. news on radio." – a candidate tells the interview board.
Assumptions : I. The candidate does not read newspapers.
II. Recent news are broadcast only on radio.

158.

Statement : A line in an advertisement in a newspaper – "You really get your money's worth when you buy from our shop."
Assumptions : I. Other shops price goods above their worth.
II. People want full value for their money.

159.

Statement : I cannot contact you on phone from Karshik.
Assumptions : I. Telephone facility is not available at Karshik.
II. Nowadays it is difficult to contact on phone.

160.

Statement : Apart from the entertainment value of television, its educational value cannot be ignored.
Assumptions : I. People take television to be a means of entertainment only.
II. The educational value of television is not realised properly.

SECTION V
INDIAN & GLOBAL ENVIRONMENT**Number of Questions: 40**

161. The Union Minister of Commerce & Industry is
1. P. Chidambaram 2. Kamal Nath 3. Sharad Pawar 4. None of these
162. The ad line “We understand your world” is associated with which bank ?
1. State Bank of India 2. HDFC Bank 3. ABN – AMRO 4. UTI Bank
163. Name India’s first listed IT firm to have crossed \$ 1 billion turnover.
1. Infosys 2. Satyam 3. Polaris 4. Wipro
164. SEZ stands for
1. Southern Economic Zone 2. South European Zone
3. Special Economic Zone 4. Special Eastern Zone
165. Which state is *not* a leading sugar producer?
1. U.P. 2. West Bengal 3. Maharashtra 4. Bihar
166. Getz is a car model introduced by
1. Toyota 2. Ford 3. Mitsubishi 4. Hyundai
167. Which among the following has published the 6th Harry Potter book?
1. Penguin 2. Bloomsbury 3. HBJ 4. McGraw Hill
168. The late Palestinian leader Mr. Yasser Arafat was buried in
1. Paris 2. Cairo 3. Ramallah 4. Jerusalem
169. Commonwealth Games in the year 2010 are scheduled to be held in
1. Brisbane 2. Melbourne 3. Manchester 4. Delhi
170. The term ‘Fourth Estate’ refers to
1. Under Developed State 2. Parliament
3. Judiciary 4. Press
171. High quality petrol “Power” is being marketed by
1. Bharat Petroleum 2. H P 3. I B P 4. Indian Oil
172. Anand Dairy Farm is located in the state of
1. Gujarat 2. Maharashtra 3. Kerala 4. Karnataka

173. Which of the following is not a mid-cap stock as defined by marketmen?
1. Infosys
 2. Luxmi Vyas Bank
 3. Hexaware Technologies
 4. Sona Koyo
174. RDX is a
1. type of lime
 2. explosive chemical
 3. medicine
 4. fertilizer
175. Light transport aircraft designed by the National Aerospace laboratories (NAL) which recorded its maiden test flight in 2004 is called
1. Hawk
 2. Hans
 3. Garud
 4. Saras
176. The abbreviation IRDA stands for
1. Industrial Research and Development Authority of India
 2. Insurance Research and Development Authority of India
 3. Insurance Regulatory and Development Authority of India
 4. Industrial Research and Demands Agency
177. *Pulsar* is a bike launched by
1. TVS
 2. Bajaj
 3. Yamaha
 4. Suzuki
178. Central Government undertaking "Modern Foods" has been purchased by
1. Parle
 2. Amrit Banaspati
 3. Nestle
 4. Hindustan Lever
179. Naval Academy is located at
1. Cochin
 2. Mumbai
 3. Chennai
 4. Kolkata
180. TRAI is concerned with
1. fine arts
 2. telecommunication
 3. sports
 4. medicine
181. Kiran Mazumdar Shaw is associated with
1. Biocon India
 2. Jet Airways
 3. Organic Foods
 4. Shaw-Wallace
182. Sagem, which has launched mobile phones in India, is a company from
1. China
 2. Korea
 3. France
 4. Italy
183. Dabur has planned investments in the near future in
1. Pakistan
 2. Sri Lanka
 3. Nepal
 4. Bangladesh
184. Toyota Kirloskar auto parts plant has been inaugurated in
1. Bangalore
 2. Chennai
 3. Pune
 4. Varanasi

185. Which Indian film actor has been conferred the title ‘Honorary Officer of the Order of the British Empire (OBE)’ by the Queen for “his outstanding services to the British film industry” ?
1. Amrish Puri 2. Om Puri 3. Amitabh Bachchan 4. Dilip Kumar
186. Which Indian company figures in the top ten of the list of Fortune – 500 companies ?
1. Indian Oil Corporation 2. Bharat Petroleum
3. Reliance Industries 4. None of these
187. “*Wherever you go, our network follows*” is a catchline used by
1. Spice 2. Hutch 3. Airtel 4. Reliance
188. Which one of the following companies was declared the top grosser among IT software and service exporters?
1. Patni Computer Systems 2. Infosys Technologies
3. TCS 4. Wipro Technologies
189. Which of the following is/are in the Tata Group of industries?
1. Voltas 2. Indian Hotels 3. Rallis India 4. All of these
190. Which company has recently become the leading player in the Indian pharmaceutical market?
1. Glaxo-Smithkline 2. Ranbaxy 3. Cipla 4. Nicholas Piramal
191. The slogan *Express* is associated with
1. Times of India 2. Airtel 3. Business Standard 4. Outlook
192. With which part of India do you most often associate oranges?
1. Chhota Nagpur 2. Vidarbha 3. Bathinda 4. Maharashtra
193. The company which has enrolled the services of film actress Preity Zinta to endorse its premium Shampoo brand ‘Head and Shoulders’ is
1. Parle G of India 2. Ponds 3. Dabur India 4. HLL
194. Easy bill is a subsidiary company of which one of the following companies?
1. Thapar group 2. Kunwar Ajai group 3. Hero group 4. Bharti group
195. In Vidharbha region there is a demand for a separate state within the Indian Union. At present Vidharbha is a part of which one of the following states?
1. Madhya Pradesh 2. Andhra Pradesh 3. Maharashtra 4. All the above
196. After the break up of the Soviet Union which is the largest country in the world in terms of area?
1. China 2. Canada 3. Russia 4. USA

197. Which country went for democratic elections with the help of international observers in October this year after almost two decades of civil war?
1. Myanmar (Burma) 2. Pakistan 3. Afghanistan 4. Iran
198. Which bank celebrated 150 years of its existence in 2004?
1. Standard Chartered Bank 2. State Bank of India
3. Canara Bank 4. Federal Bank of India
199. *Teraflop* is a unit of
1. failure 2. computing capacity
3. astronomical distance 4. brand goodwill
200. Suzlon is into
1. textiles 2. shopping malls 3. wind energy 4. publishing

Sample Paper MAT 2005

Key, Explanations & Analysis



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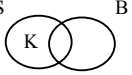
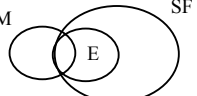
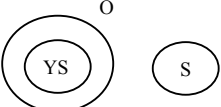
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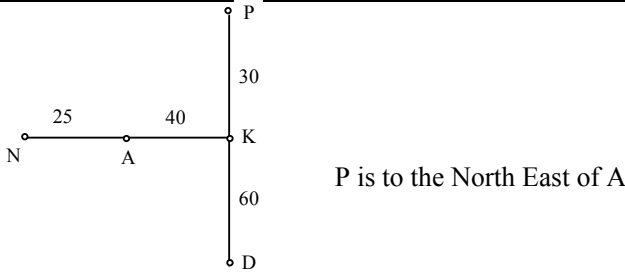
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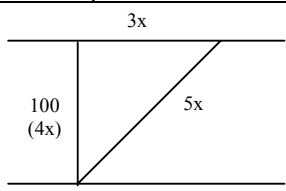
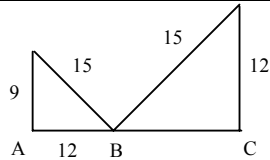
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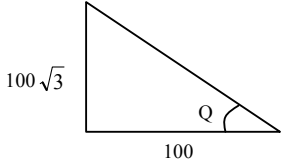
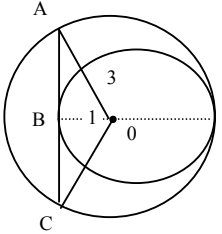
1.	2	41.	1	81.	2	121.	1	161.	2
2.	1	42.	3	82.	1	122.	2	162.	2
3.	4	43.	4	83.	2	123.	4	163.	1
4.	2	44.	4	84.	4	124.	4	164.	3
5.	2	45.	1	85.	1	125.	4	165.	2
6.	3	46.	3	86.	2	126.	4	166.	4
7.	3	47.	2	87.	3	127.	4	167.	2
8.	3	48.	4	88.	3	128.	2	168.	3
9.	4	49.	2	89.	1	129.	4	169.	4
10.	2	50.	3	90.	3	130.	4	170.	4
11.	4	51.	3	91.	4	131.	1	171.	2
12.	3	52.	1	92.	4	132.	2	172.	1
13.	2	53.	3	93.	4	133.	2	173.	1
14.	2	54.	1	94.	2	134.	2	174.	2
15.	2	55.	1	95.	2	135.	4	175.	4
16.	1	56.	4	96.	3	136.	2	176.	3
17.	3	57.	3	97.	2	137.	1	177.	2
18.	2	58.	2	98.	1	138.	4	178.	4
19.	2	59.	2	99.	4	139.	1	179.	1
20.	4	60.	3	100.	4	140.	4	180.	2
21.	2	61.	1	101.	4	141.	4	181.	1
22.	1	62.	4	102.	2	142.	1	182.	3
23.	2	63.	4	103.	2	143.	2	183.	1
24.	3	64.	3	104.	1	144.	1	184.	3
25.	4	65.	2	105.	3	145.	1	185.	2
26.	3	66.	4	106.	2	146.	2	186.	1
27.	1	67.	2	107.	2	147.	4	187.	2
28.	3	68.	3	108.	4	148.	2	188.	3
29.	3	69.	2	109.	4	149.	3	189.	4
30.	2	70.	1	110.	1	150.	1	190.	1
31.	4	71.	3	111.	4	151.	1	191.	2
32.	1	72.	2	112.	2	152.	1	192.	2
33.	3	73.	1	113.	4	153.	4	193.	4
34.	4	74.	3	114.	1	154.	2	194.	3
35.	1	75.	2	115.	2	155.	4	195.	3
36.	2	76.	4	116.	3	156.	2	196.	1
37.	4	77.	1	117.	3	157.	4	197.	3
38.	2	78.	3	118.	3	158.	2	198.	1
39.	4	79.	2	119.	1	159.	1	199.	2
40.	3	80.	4	120.	1	160.	2	200.	3

EXPLANATIONS

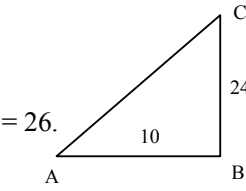
Q. No.	Ans. Key	Explanation
1.	2	LCM (3, 4, 5, 6) = 60. Hence number is $60k + 1$. Only 2 satisfies this condition and is divisible by 7.
2.	1	Work from the choices. Choice 1: Father = 50, Elder son = 25. After 10 years, Father = 60, younger son = 20. Since difference of ages of sons is $25 - 10 = 15$, hence 1 is the answer.
3.	4	He gets 2 copies initially, Folding the paper he will get 2 more.
4.	2	Each letter moves + 1.
5.	2	Each letter moves + 1.
6.	3	Simply substitute the number attached to each word, eg C = 8, A = 2, L = 5 etc.
7.	3	As in Q6.
8.	3	Red = yellow.
9.	4	The question is faulty as date of selection has not been mentioned. Assuming it is 2004, Sehgal has 24 years experience as Deputy Librarian. Hence his case is referred to Registrar.
10.	2	He does not fulfil condition D and B.
11.	4	We do not know his marks but even if they are $< 55\%$, he has 20 years experience as Deputy Librarian.
12.	3	Information about A and B is not given.
13.	2	The problem is about teachers, hence (I) is wrong, but II is correct.
14.	2	The govt. should reduce expenditure and arrange for salaries, hence II statement is valid.
15.	2	Statement (I) talks about "other industries" hence it is wrong. But II will solve the problem.
16.	1	Before calling the police, he should count the money.
17.	3	To raise funds, the voluntary agencies can either take up (I) or (II).
18.	2	The argument is about calling retired professors, hence (I) is irrelevant but (II) is correct.
19.	2	Clearly, the answer is not in penalising children, hence (I) is wrong.
20.	4	With two particular statement no conclusion is possible
21.	2	We cannot generalise about all sportsmen, but Sohan = healthy definitely follows.
22.	1	 <p>Some B are S, hence (I) is true.</p>
23.	2	 <p>We see from the diagram that (I) is wrong but (II) is right.</p>
24.	3	We can directly infer that window \neq wall and wall \neq door.
25.	4	 <p>YS and S do not intersect but the first statement talks of "scientists" and the second of "young people". Hence no conclusion is possible.</p>
26.	3	Both arguments are strong about paying ransom to free hostages.
27.	1	From (I): paying less means it is profitable for him. II is irrelevant.
28.	3	Both arguments strongly defend/criticise mechanisation.
29.	3	Both arguments are strong.

30.	2	I is irrelevant but II is strong.
31.	4	Neither statement is strong enough to answer the given question.
32.	1	There are alternate series. Second letter is ABCD..... after leaving 2 terms. First letter is Z(Y) X(W) V(U) T(S) R(Q)P. Hence PD.
33.	3	Each letter in the group moves + 1.
34.	4	Each letter moves + 5.
35.	1	AB(C)DEF(G)HIJK(L)MNO PQ.
36.	2	Each letter moves + 1 or – 1. Numbers are following the sequence *1+1, *2+2,--
37.	4	The Granddaughter will be born in Class B and remain in Class B
38.	2	A girl of A class cannot marry another person of A class.
39.	4	 <p>P is to the North East of A.</p>
40.	3	From the above, distance is $25 + 40 + 60 + 60 + 30 = 215\text{m}$.
41.	1	“Barring exceptions, the sector seems to be ill equipped to face the challenge of neo-liberal thrust...”
42.	3	Both bureaucratization and government control have been mentioned in the first paragraph.
43.	4	Same as Q 42: all of these are mentioned in the first paragraph.
44.	4	Both self help and members are mentioned in the second paragraph. However, there is no resources shortage as mentioned in the first paragraph.
45.	1	It is mentioned: “need to get back to questioning the validity of the 10 parameter regression model it uses to predict monsoon performance.” As there is a need to question the model, we cannot say that the validity of the model is questionable.
46.	3	policy making at Krishi Bhavan – Ministry of Agriculture.
47.	2	Directly mentioned: “3.4 per cent, seems modest but, coming on top of a 0.1 per cent increase during April-June last year, it has boosted the overall growth figures significantly” – the opposite of what is stated in the choice.
48.	4	All the factors are mentioned towards the end of the passage.
49.	2	Can be inferred from the line: “It only needs understanding of the moving socio-economic pattern to discern the emerging trend in any market segment and converting it into a symbolic form for building the brand.”
50.	3	All the other choices have been mentioned as existing in the 1940s. We cannot infer anything about a totalitarian consumer society in the 1940s.
51.	3	Mentioned towards the end of the passage: “The concept of representational value... only needs understanding of the moving socio-economic pattern to discern the emerging trend in any market segment and converting it into a symbolic form for building the brand.”
52.	1	Directly mentioned: “A child’s first friendship could be said to be her first foray into society.”
53.	3	Directly mentioned towards the end of the passage: “Sometimes, children can be more sensitive and perceptive than adults.”
54.	1	A is directly mentioned while B is stated in the passage as not being true.
55.	1	Directly mentioned: “The quantity and quality of a child’s friendships is a good indicator of her mental and emotional well-being.”
56.	4	Directly stated in the last line of the passage.

57.	3	The passage analyses the social life of the child, and is therefore analytical in nature.
58.	2	The first is fast because it is fun; the second is slow as it is drudgery.
59.	2	ways to help ... bypassing the damaged nerves.
60.	3	unlimited choices on the Internet and minimal constraints.
61.	1	barriers are being broken down.
62.	4	Must match with the plural "amendments".
63.	4	The best choice is A-E and D-F.
64.	3	The best link is A-C-B.
65.	2	Match with the number of editors: E-D-F.
66.	4	The best choice is A-B-E.
67.	2	The idea is carried forward best by A-D-C.
68.	3	Q 68-72 are dictionary work.
69.	2	
70.	1	
71.	3	
72.	2	
73.	1	"Better" describes plan.
74.	3	"Better" describes know, which is a verb in this case.
75.	2	"Betters" refers to persons, hence noun.
76.	4	"Bettered" refers to doing something, hence verb.
77.	1	"Like" described build.
78.	3	"Like" refers to a verb here.
79.	2	"Like" refers to persons or kind.
80.	4	"Like" is a doing word here.
81.	2	Vol. of ice cream = $\pi(6)^2 \times 15$. Vol. in cones = $10 \times \left[\frac{1}{3} \pi(r)^2(4r) + \frac{4}{6} \pi r^3 \right]$. Equating the two equations and solving it for r, we get r = 3.
82.	1	 <p>We note that $4x = 100$. Hence $3x = 75$. Hence speed of current = $75/5 = 15$.</p>
83.	2	Interest = Rs. 15 for 4 months = Rs. 45 for 1 year. Hence rate = $\frac{45}{500} \times 100 = 9\%$.
84.	4	Distance = $210 - 10 = 200$. Speed = $72 \times \frac{5}{18} = 20$ m/s. Since retardation is uniform, hence average speed = $\frac{20}{2} = 10$ m/s. \therefore time = $\frac{200}{10} = 20$ seconds.
85.	1	$x(1.06)^{15} = 74400 - 4600 = 69800$. $\therefore 15x \log 1.06 = 15 \times 0.0253 = 0.3795$. Antilog = 2.396. Hence x = 3000.
86.	2	 <p>By Pythagoras, we get BC = 9. Hence AC = $12 + 9 = 21$.</p>

87.	3	 $\tan \theta = \frac{100\sqrt{3}}{100} = \sqrt{3}.$ <p>Hence $\theta = 60^\circ$.</p>																
88.	3	<p>Using the choices, if $x = \frac{\pi}{4}$, then the expression becomes:</p> $\log_{\frac{1}{\sqrt{2}}}\left(\frac{1}{\sqrt{2}}\right) + \log_{\frac{1}{\sqrt{2}}}\left(\frac{1}{\sqrt{2}}\right) = 1 + 1 = 2.$																
89.	1	$\text{Mean} = \frac{\text{Sum}}{n}, \text{Sum} = \frac{a(2^n - 1)}{2 - 1} \text{ where } a = 1. \text{ Hence mean} = \frac{2^n - 1}{n}.$																
90.	3	$\text{Sum} = \frac{n(n+1)}{2} + 669 = (x - 8)^2.$ <p>Using the choices, we find the condition can only be fulfilled by (3): $1540 + 669 = 2209 = (47)^2$.</p>																
91.	4	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Me</th> <th>Days</th> <th>Wor</th> <th>Hrs/</th> </tr> <tr> <th>n</th> <th></th> <th>k</th> <th>day.</th> </tr> </thead> <tbody> <tr> <td>117</td> <td>33</td> <td>4/7</td> <td>8</td> </tr> <tr> <td>x</td> <td>13</td> <td>3/7</td> <td>9</td> </tr> </tbody> </table> <p>Hence $x = 117 \times \frac{8}{9} \times \frac{3}{4} \times \frac{33}{13} = 198$. Additional men required = $198 - 117 = 81$.</p>	Me	Days	Wor	Hrs/	n		k	day.	117	33	4/7	8	x	13	3/7	9
Me	Days	Wor	Hrs/															
n		k	day.															
117	33	4/7	8															
x	13	3/7	9															
92.	4	 <p>From the diagram, $AO = 3, BO = 1$. Hence $AB^2 = 3^2 - 1^2 = 8$. $AB = \sqrt{8} = 2\sqrt{2}$. Hence $AC = 4\sqrt{2}$.</p>																
93.	4	$a = 4, r = 4, n = 8$. Hence $ar^{n-1} = 4 \times 4^7 = 65536$. Postage reqd. = $\frac{65536}{2} = \text{Rs.}33000$ approx.																
94.	2	$\text{Area covered} = 2\pi r \times 5 \times 2 = 2 \times \frac{22}{7} \times 0.7 \times 5 \times 2 = 44 \text{ sq.m.}$																
95.	2	$\text{Area of } \Delta = \frac{abc}{4R} = \frac{196}{4 \times 2.5} = 19.6 \text{ sq.cm.}$																
96.	3	<p>Starting from 100, we get first SP = 118. Second SP = 141.60. Third SP = 177 (by adding the respective profits). Hence $CP = \frac{100}{177} \times 309 = 17$.</p>																
97.	2	$\text{Difference} = 70 - 30 = 40\%$. Hence 40% of $x = 550$; $\therefore x = 220$.																
98.	1	$\text{Speed} = \frac{7}{70} \times 60 = 6 \text{ km/hr.}$																
99.	4	$5x + 7x = 240$; Nurses $7x = 140$.																

100.	4	Amt. repaid = Rs. 6 per quarter. No. of quarters = $\frac{42}{6} = 7$. Hence months = $7 \times 3 = 21$.
101.	4	Total sold = $42 \times 12 + 200 = 704$. Hence average = $\frac{704}{22} = 32$.
102.	2	Snow fall in 6 hrs $(9 - 3) = \frac{5}{4} \times 3 = \frac{15}{4}$. Total snow = $\frac{15}{4} + \frac{9}{4} = \frac{24}{4} = 6$.
103.	2	15% of 40% = 6%.
104.	1	$E = \sqrt{\frac{a}{6}}$. Hence reqd. difference = $\sqrt{\frac{1350}{6}} - \sqrt{\frac{600}{6}} = 15 - 10 = 5$.
105.	3	Homework left = $1 - \left(\frac{3}{5} + \frac{2}{15}\right) = \frac{4}{15}$.
106.	2	Children = $100 - (40 + 30) = 30\%$. Now 30% of $x = 24$; hence $x = 80$.
107.	2	Area of 4 walls = $2(lh + bh) = 2(6x + 3x) = 108$. $\therefore x = 6$ and $x^3 = 216$.
108.	4	Probability of no six = $1 - \text{Probability of 6} = 1 - \frac{1}{6} \times \frac{1}{6} \times \frac{1}{6} = \frac{215}{216}$.
109.	4	Collection for 1 st month = $\frac{3}{4} \times \frac{9}{5} \times 9000$. Collection for 2 nd month = $\frac{1}{8} \times \frac{6}{5} \times 9000$. Thus total Collection for 2 months is = 13500.
110.	1	$\frac{2x + 4}{3x} = \frac{3}{4}$; $8x + 16 = 9x$; $x = 16$. Vanilla cones = $2x = 2 \times 16 = 32$.
111.	4	Distance travelled = $2\pi r \times 5000 \Rightarrow 11000 \times 100$ cm. Hence $r = 110 \times \frac{7}{22} = 35$ cm. $\therefore 2r = 35 \times 2 = 70$ cm.
112.	2	Let price = x . Then increased price = $x \times \frac{110}{100}$; i.e. price must be a multiple of 11.
113.	4	Difference = $\frac{5 - 3.40}{5} \times 100 = 32\%$.
114.	1	Let cost of printer = 1 and cost of computer = 3. Then, total cost = $60 \times 3 + 20 \times 1 = 200$. Percentage of printer = $\frac{20}{200} \times 100 = 10\%$.
115.	2	Total cost in 2 weeks = Rs. $7m + \frac{nr}{100} = \frac{700m + nr}{100}$.
116.	3	Total integers between 100 – 150 = 51. Div by 3 = 17, Div. by 5 = 11; Div by 15 = 4. Hence required total = $17 + 11 - 4 = 24$. Not divisible by 3 or 5 = $51 - 24 = 27$.
117.	3	${}^6C_3 \times {}^4C_2 = 20 \times 6 = 120$.
118.	3	Cats = multiple of 5, dogs = multiple of 4. Greatest number will be when dogs are maximised. Hence $\frac{1}{5}x + \frac{1}{4}y$. By hit and trial, we get $y = 40, x = 15$. Hence number of pets = $\frac{1}{4} \times 40 + \frac{1}{5} \times 15 = 10 + 3 = 13$.
119.	1	Let the LCM of Denominators(3,4,5)be the Total Seat. Total Seats in L Deck=30, Of these 24 are sold & 6 unsold. Total Seats sold in stadium = $\frac{2}{3} *120=80$; No. of sets sold in upper deck $80-24=56$. Hence unsold seta in U Deck $90-56=34$. Hence required Fraction is $\frac{6}{40} = \frac{3}{20}$ Hence Option 1 is answer.

120.	1	 <p>By Pythagoras, $AC^2 = AB^2 + BC^2 = 10^2 + 24^2 = 676$; $AC = 26$.</p>
121.	1	In none of the years has educational spending reduced.
122.	2	Average = $\frac{2 + 2 + 3 + 3.5 + 6 + 6}{6} = \frac{22.5}{6} = 3.7\%$.
123.	4	Amt. for education = $2\%(40) + 2\%(50) + 3\%(60) + 3.5\%(60) + 6\%(35) + 6\%(45) = 10.5$. Defence = $2\%(40 + 50 + 60 + 60 + 35 + 45) = 5.8$ No. of times = $\frac{10.5}{5.8} = 1.8$.
124.	4	6.5% of $x = 3200$. Hence $x > 49.23$. Least desirable = lowest = 42.72
125.	4	From Q 123.
126.	4	We do not know the GDP figure for 1999, hence % cannot be calculated.
127.	4	Qty of material in tonnes is not given, hence cost per tonne cannot be calculated.
128.	2	Rail = 12% in cost and only 9% in volume. Hence it is the costliest.
129.	4	$R = 12, 9$; $Q = 10, 11$, $P = 65, 49$. Hence $R > P > Q$.
130.	4	Growth in 98-99 = $\frac{25257 - 24687}{24687} \times 100 = 2.3\%$ approx.
131.	1	Software has increased almost 4 times while total exports have increased 3 times.
132.	2	Software exports have grown almost 4 times
133.	2	Visually, the increase is maximum (almost double) in 1996-7
134.	2	$\frac{180}{60} = 3$ times approx.
135.	4	Increase in 95-96 = $\frac{106 - 82}{82} = 29\%$ approx., which is the maximum.
136.	2	Visual question.
137.	1	
138.	4	$38.6 - 34.7 = 3.9$ approx., which is the maximum.
139.	1	
140.	4	Visually, highest growth is the last year.
141.	4	Visually, highest growth is the last year.
142.	1	$\frac{4.2}{150} \times 100 = 2.8\%$, which is highest.
143.	2	We can say profitably is non increasing.
144.	1	From A, spending = $\frac{2}{3}$, Rent = $\frac{1}{2} \times \frac{2}{3} = \frac{1}{3}$, hence answer is obtained.
145.	1	We can get the answer from A: $x + 20\% x = 16.80$. B is irrelevant.
146.	2	1 st statement does not give any relevant info. 2 nd statement is self sufficient
147.	4	We can get the answer by either A or B.
148.	2	From statement 2 rate can be found 3 miles in 24 minutes hence 1 mile in 8 min. Info from 1 st statement is redundant.
149.	3	The number of employees can be obtained by using both statements.
150.	1	Visual question.

151.	1	$\frac{25-20}{20} \times 100 = 25\%$.
152.	1	<p>Average of Haryana = $\frac{10+15+20+30+30}{5} = 21$ Lakh Tonnes</p> <p>Average of Gujarat = $\frac{20+10+15+20+25}{5} = 18$ Lakh Tonnes</p> <p>Difference = 3 lakh tonnes.</p>
153.	4	They are same.
154.	2	All the figures are in approx. in ascending order hence middle year is answer
155.	4	We can infer none: I may be an order, II is too general.
156.	2	We are not concerned with lather, but with cleaning.
157.	4	We cannot assume I or II.
158.	2	We can say nothing about other shops, hence I is wrong, but II is assumed.
159.	1	If I cannot contact you, then we may assume that telephone facility is not available.
160.	2	Statement does not infer "only" word used in 1 st Assumption