

# MANAGEMENT APTITUDE TEST (MAT)

Held on : May 2013

Time : 2.5 hrs

(BASED ON MEMORY)

Maximum Marks : 200

## SECTION-A: Indian and Global Environment

1. Who is the current executive chairman of East India Hotels (EIH) ?  
(a) P.R.S Oberoi (b) S.S. Mukherjee  
(c) K. Nair (d) None of these
2. Who wrote the book 'Walking with Lions : Tales from a Diplomatic Past' ?  
(a) M. Hamid Ansari (b) Jaswant Singh  
(c) K. Natwar Singh (d) Arun Jaitley
3. Which automobile company launched the SUV XI luxury car in India?  
(a) Audi (b) Toyota  
(c) Honda (d) BMW
4. ACK Media company named after Amar Chitra Katha recently launched the popular children's English anthology franchise 'Tinkle in \_\_\_\_\_ language.  
(a) Hindi (b) French  
(c) Chinese (d) None of these
5. 'IKEA', a well known international furniture brand is from  
(a) Japan (b) UK  
(c) Germany (d) Sweden
6. UN-General Assembly declared 2013 as the International Year of \_\_\_\_\_ Cooperation.  
(a) Peace (b) Water  
(c) Culture (d) Education
7. As per the FIFA world ranking 2013, which team ranks No. 1 in football?  
(a) Brazil (b) Spain  
(c) England (d) Germany
8. Tata Steel has acquired through its subsidiary TSMC, half the stake in Labrador Iron Mines in \_\_\_\_\_ for Rs. 160 crore.  
(a) Canada (b) Mexico  
(c) Japan (d) Germany
9. Mukul Manda Sangma became the Chief Minister of which Indian state in March 2013?  
(a) Meghalaya (b) Tripura  
(c) Arunachal Pradesh (d) Manipur
10. Which company bagged the title sponsorship of the Indian Premier League (IPL) in 2013 for the next five years ?  
(a) Pepsi Co (b) Hero  
(c) DLF (d) Reliance
11. 'Elihad Airways' is headquartered at which country ?  
(a) UAE (b) Kuwait  
(c) Iran (d) Indonesia
12. Bangladesh conferred 'The liberation War Honour Award 2013' on  
(a) Pranab Mukherjee (b) Sheikh Hasina  
(c) Zillur Rahman (d) Buddhadeb Bhattacharjee
13. The ex-president of which country took refuge at the Indian Embassy in that country, during February 2013 ?  
(a) Malaysia (b) Indonesia  
(c) Libya (d) Maldives
14. Which movie won the best picture award in the 85th Oscar Award in 2013 ?  
(a) Lincoln (b) Les Misérables  
(c) Amour (d) Argo
15. Which Indian telecom company launched the HD voice service in Africa in 2013 ?  
(a) Bharti Airtel (b) Reliance Telecom  
(c) BSNL (d) Aditya Birla Group
16. What is the name of 101 years old persons, nicknamed 'The Turbaned Tornado' who recently quit long distance racing?  
(a) Khazan Singh (b) Fauja Singh  
(c) Banta Singh (d) Milkha Singh
17. Which computer manufacturing MNC launched its first ever window-based tablet, 'ElitePad 900', in India  
(a) Sony (b) HCL  
(c) Lenovo (d) Hewlett Packard
18. What is the name of Chinese table tennis player, popularly known as the 'Architect of Ping-Pong Diplomacy' who died recently ?  
(a) Zhuang Zedong (b) Li Ping  
(c) Lee Chong Wei (d) Chen Long
19. In March 2013, the World Bank barred which company from doing any business with it for the next six months ?  
(a) LNG Petro (b) DLF  
(c) L & T (d) EIL
20. What is the reported sale value of realty assets sold by Hindustan Unilever Ltd. (HUL) during the year 2012-13 ?  
(a) ₹ 576 crore (b) ₹ 481 crore  
(c) ₹ 613 crore (d) ₹ 672 crore
21. The US imposed sanctions on the Foreign Trade Bank of \_\_\_\_\_ in March 2013 for flouting international resolutions and conducting a nuclear test.  
(a) China (b) Pakistan  
(c) Iran (d) North Korea
22. Which country did Pranab Mukherjee first visit to after becoming the President of India ?  
(a) Nepal (b) Mauritius  
(c) Bangladesh (d) None of these
23. The world's highest rail bridge of 359 metres height is being built across \_\_\_\_\_ river in Jammu & Kashmir in India.  
(a) Chenab (b) Jhelum  
(c) Satluj (d) Raavi



24. Who has been appointed as the governor of Nagaland in March 2013 ?  
 (a) Ashwani Kumar (b) Devanand Konwar  
 (c) S.C. Jamir (d) None of these
25. The Indian government recently approved the export of extra five million tonnes of \_\_\_\_\_ through private traders.  
 (a) rice (b) wheat  
 (c) sugar (d) pulses
26. Who has been selected by the Indian Parliamentary Group for the 'Outstanding Parliamentarian' award for the year 2012 ?  
 (a) Arun Jaitley (b) Karan Singh  
 (c) Sharad Yadav (d) None of these
27. The first annual "Tagore Award" for cultural harmony in 2013 was conferred on  
 (a) L. N. Tallur (b) Pandit Ravi Shankar  
 (c) H.K. Satapathy (d) Akkitham A. Namboothiri
28. The World Bank has estimated that Indian economy will grow by over \_\_\_\_\_ by 2013 - 14.  
 (a) 6% (b) 4%  
 (c) 8% (d) 5%
29. Which eminent Indian journalist was recently named the new editor of TIME International?  
 (a) Bobby Ghosh (b) Karan Thapar  
 (c) Prannoy Roy (d) Ramchandra Guha
30. Hugo Chavez, the polarizing president of Venezuela, died recently. Which disease/ailment did he die from?  
 (a) Heart attack (b) Cancer  
 (c) AIDS (d) None of these
31. Which of the following recently emerged as the most popular brand in developing markets?  
 (a) Nokia (b) Apple  
 (c) Samsung (d) Blackberry
32. National Thermal Power Corporation (NTPC) recently commissioned its first Greenfield renewable solar photovoltaic project. Where was this project commissioned?  
 (a) Guwahati (b) Ajmer  
 (c) Rajkot (d) Port Blair
33. The Union Government recently decided to provide a financial assistance of 41.21 crore rupees to protect \_\_\_\_\_ goat.  
 (a) Hyderabad (b) Pashmina  
 (c) Surat (d) Kangra
34. Which British Indian girl recently stunned the world by having an IQ score above Albert Einstein?  
 (a) Mitali Sengupta (b) Neha Ramu  
 (c) Ankita Gupta (d) Prema Patel
35. Which renowned space scientist of India was recently inducted into the highly coveted "Satellite Hall of Fame", Washington?  
 (a) U. R. Rao (b) S. B. Banerjee  
 (c) Ambika Sinha (d) R. P. Pathak
36. Which of the following recently became the first Indian Fast-moving consumer goods (FMCG) brand to cross ₹ 5000 crore mark in terms of retail sales in the year?  
 (a) Procter and Gamble (b) Parle G  
 (c) Britannia Industries Ltd. (d) Hindustan Unilever Ltd.
37. Federation International. Football Association (FIFA) recently confirmed the use of goal-line technology during the 2014 FIFA World Cup in  
 (a) United Kingdom (b) Australia  
 (c) Brazil (d) Canada
38. Commercial production of Aishwarya oil Field started in March 2013. In which state of India is this oilfield located?  
 (a) Gujarat (b) Assam  
 (c) Rajasthan (d) Andhra Pradesh
39. The Union Government and Reserve Bank of India recently decided to introduce one billion pieces of 10 Rupees bank notes made of plastic on a field trial basis in five cities. Which of the following does not come under those cities?  
 (a) Jaipur (b) Ranchi  
 (c) Bhubaneswar (d) Shimla
40. The world's largest ground-based observatory, ALMA space observatory, was inaugurated in Llano Chajnantor in March 2013. In which country is it located?  
 (a) Australia (b) Chile  
 (c) Malaysia (d) Turkey

## SECTION-B: Intelligence and Critical Reasoning

**DIRECTIONS (Qs. 41 - 43) :** Read the following information to answer these questions.

Madhu and Shobha are good in Dramatics and Computer Science. Anjali and Madhu are good in Computer Science and Physics. Anjali, Poonam and Nisha are good in Physics and History. Nisha and Anjali are good in Physics and Mathematics. Poonam and Shobha are good in History and Dramatics.

41. Who is good in Physics, History and Mathematics but not in Computer Science ?  
 (a) Madhu (b) Poonam  
 (c) Nisha (d) Anjali
42. Who is good in physics, History and Dramatics?  
 (a) Poonam (b) Shobha  
 (c) Madhu (d) Anjali
43. Who is good in History, physics, Computer Science and Mathematics ?  
 (a) Poonam (b) Nisha  
 (c) Anjali (d) Madhu

**DIRECTIONS (Qs. 44-46) :** Read the following information to answer these questions.

There are six children playing football; namely, A, B, C, D, E and F. A and E are brothers. F is the sister of E, C is the only son of A's uncle. B and D are the daughters of the brother of C's father.

44. How is C related to F?  
 (a) Cousin (b) Brother  
 (c) Son (d) Uncle
45. How many children are male ?  
 (a) One (b) Three  
 (c) Five (d) Six



46. How is D related to A?  
 (a) Uncle (b) Sister  
 (c) Niece (d) Cousin

**DIRECTIONS (Qs. 47-49) :** Read the following information to answer these questions.

A family consists of six members P, Q, R, X, Y and Z. Q is the son of R but R is not the mother of Q. P and R are a married couple. Y is the brother of R. X is the daughter of P. Z is the brother of P.

47. Who is the brother-in-law of R ?  
 (a) P (b) Z (c) Y (d) X
48. How many female members are there in the family?  
 (a) One (b) Two  
 (c) Three (d) Four
49. Which of these is a pair of brothers ?  
 (a) P and X (b) P and Z  
 (c) Q and X (d) R and Y

**DIRECTIONS (Qs. 50-52) :** Read the following information to answer these questions.

There is a family of six members A, B, C, D, E and F. They are lawyer, Doctor, Teacher, Salesman, Engineer and Accountant not necessarily in that order. There are two married couples in the family. D, the Salesman, is married to the lady Teacher. The Doctor is married to the Lawyer. F, the Accountant, is the son of B and brother of E. C, the Lawyer, is the daughter-in-law of A. E is the unmarried Engineer. A is the grandmother of F.

50. How is E related to F?  
 (a) Brother (b) Sister  
 (c) Cousin (d) Cannot be determined
51. What is the profession of B ?  
 (a) Teacher (b) Doctor  
 (c) Lawyer (d) Cannot be determined
52. Which of the following is one of the couples ?  
 (a) F and D (b) D and B  
 (c) E and A (d) None of these

**DIRECTIONS (Qs. 53 - 56) :** Each of these questions has an Assertion (A) and a Reason (R). Mark answer as

- (a) If both 'A' and 'R' are true and 'R' is the correct explanation of 'A'.  
 (b) If both 'A' and 'R' are true but 'R' is not the correct explanation of A.  
 (c) If 'A' is true but 'R' is false.  
 (d) If 'A' is false but 'R' is true.
53. **Assertion (A) :** Carbon monoxide when inhaled causes death.  
**Reason (R) :** Carbon monoxide combines with haemoglobin.
54. **Assertion (A) :** We feel colder on mountains than on plains.  
**Reason (R) :** Temperature decreases with altitude
55. **Assertion (A) :** Inside the earth, metals are present in molten state.  
**Reason (R) :** Earth absorbs the sun's rays.
56. **Assertion (A) :** Clothes are not washed properly in hard water.  
**Reason (R) :** Hard water contains many minerals.

**DIRECTIONS (Qs. 57-59) :** Each of these questions has a statement followed by two conclusions I and II. Consider the statement and the following conclusions. Decide which of the conclusions follows from the statement. Mark answer as

- (a) If conclusion I follows  
 (b) If conclusion II follows  
 (c) If neither conclusion I nor II follows  
 (d) If both conclusions I and II follows
57. **Statement :** The best way to escape from a problem is to solve it.  
**Conclusions :**  
 I. Your life will be dull if you don't face a problem  
 II. To escape from problems, you should always have some solutions with you.
58. **Statement :** India's economy is dependent mainly on forests.  
**Conclusions :**  
 I. Trees should be preserved or improve the Indian economy.  
 II. India wants only maintenance of forests to improve economic conditions.
59. **Statement :** This world is neither good nor evil; each man manufactures a world for himself.  
**Conclusions :**  
 I. Some people find this world quite good.  
 II. Some people find this world quite bad.

**DIRECTIONS (Qs. 60-63) :** Each of these questions consists of a pair of words bearing a certain relationship. From amongst the alternatives choose the pair that best illustrates a similar relationship.

60. Surgeon : Scalpel  
 (a) Musician : Instrument (b) Carpenter : Cabinet  
 (c) Sculptor : Chisel (d) Baker : Oven
61. Triangle : Hexagon  
 (a) Cone : Sphere (b) Rectangle : Octagon  
 (c) Pentagon : Heptagon (d) Angle : Quadrilateral
62. Stare : Glance  
 (a) Gulp : Sip (b) Confide : Tell  
 (c) Hunt : Stalk (d) Step : Walk
63. Cloth : Texture  
 (a) Body : Weight (b) Silk : Cloth  
 (c) Wood : Grains (d) Ornaments : Gold

**DIRECTIONS (Qs. 64-68) :** Complete the series by replacing the '?'

64. 24, 60, 120, 210, '?'  
 (a) 300 (b) 336  
 (c) 420 (d) 525
65. 462, 420, 380, '?', 306  
 (a) 322 (b) 332  
 (c) 342 (d) 352
66. DF, GJ, KM, NQ, RT, '?'  
 (a) UW (b) YZ  
 (c) XZ (d) UX
67. OTE, PUF, QVG, RWH, '?'  
 (a) SYJ (b) TXI  
 (c) SXJ (d) SXI



68. 2Z5, 7Y7, 14X9, 23W11, 34V13, ' ?'  
 (a) 24U24 (b) 47U15  
 (c) 45U15 (d) 47V14

**DIRECTIONS (Qs. 69-71) :** In each of these questions, two statements I and II are given. These may have a cause and effect relationship or may have independent causes or be the effects of independent causes. Read the statements and mark answer as

- (a) If statement I is the cause and statement II is its effect.  
 (b) If statement II is the cause and statement I is its effect.  
 (c) If both the statements I and II are effects of independent causes.  
 (d) If both the statements I and II are effects of some common cause.
69. I. The prices of petroleum products dropped marginally last week.  
 II. The State Government reduced the tax on petroleum product last week.
70. I. Many people visited the religious place during the weekend.  
 II. Few people visited the religious place during the week days.
71. I. Large number of people living in the low-lying areas have been evacuated during the last few days to safer places.  
 II. The Government has rushed in relief supplies to the people living in the affected areas.
72. Pointing to a man on the stage, Rita said, "He is the brother of the daughter of the wife of my husband." How is the man on the stage related to Rita ?  
 (a) Son (b) Husband  
 (c) Cousin (d) Nephew
73. A woman introduces a man as the son of the brother of her mother. How is the man related to the woman?  
 (a) Nephew (b) Son  
 (c) Cousin (d) Uncle
74. If Neena says, "Anita's father Raman is the only son of my father-in-law Mahipal", then how is Bindu, who is the sister of Anita, related to Mahipal ?  
 (a) Niece (b) Daughter  
 (c) Wife (d) Grand-daughter
75. A man is facing west. He turns  $45^\circ$  in the clockwise direction and then another  $180^\circ$  in the same direction and then  $270^\circ$  in the anticlockwise direction. Which direction is he facing now ?  
 (a) South (b) North-west  
 (c) West (d) South-west
76. One day, Ravi left home and cycled 10 km southwards, turned right and cycled 5 km and turned right and cycled 10 km. and turned left and cycled 10 km. How many kilometres will he now have to cycle in a straight line to reach his home ?  
 (a) 10 km (b) 15 km  
 (c) 20 km (d) 25 km
77. A child was looking for his father. He went 90 metres towards east before turning to his right. He then went 20 metres before turning to his right again to look for his father

at his uncle's place 30 metres from this point. His father was not there. He then went 100 metres to the north before meeting his father in a street. How far from the starting point did the son meet his father ?

- (a) 80 metres (b) 100 metres  
 (c) 140 metres (d) 260 metres

**DIRECTIONS (Qs. 78-80) :** Read the following information to answer these questions.

Five friends P, Q, R, S and T travelled to five different cities Chennai, Kolkata, Delhi, Bengaluru and Hyderabad by five different modes of transport – bus, train, aeroplane, car and boat, from Mumbai. The person who travelled to Delhi did not travel by boat. R went to Bengaluru by car and Q went to Kolkata by aeroplane. S travelled by boat whereas T travelled by train. Mumbai is not connected by bus to Delhi and Chennai.

78. Which of the following combinations is true for S ?  
 (a) Delhi – Bus (b) Chennai – Bus  
 (c) Chennai – Boat (d) Data inadequate
79. Which of the following combinations of place and mode is not correct?  
 (a) Delhi – Bus (b) Kolkata – Aeroplane  
 (c) Bengaluru – Car (d) Chennai – Boat
80. Who among the following travelled to Delhi ?  
 (a) R (b) S  
 (c) T (d) P

### SECTION-C: Mathematical Skills

81. A mixture of 12 kg of wheat flour costing ₹ 16 per kg and four kg of corn flour costing ₹ 2 per kg is sold at ₹ 16 per kg. What is the profit made in selling 40 kg of the mixture?  
 (a) ₹ 140 (b) ₹ 280  
 (c) ₹ 300 (d) ₹ 420
82. Dhiraj purchased 150 kg of rice. He sold  $\frac{1}{3}$ rd of it at 10% loss. At what per cent of profit must he sell the remaining rice so that he can make 10% profit on the whole ?  
 (a) 20% (b) 15%  
 (c) 10% (d) None of these
83. Three brothers A, B and C divided a sum among themselves and their mother in the ratio 3 : 3 : 3 : 4. If their mother got ₹ 5,000 more than each son, how much amount did all the three brothers get ?  
 (a) ₹ 15,000 (b) ₹ 65,000  
 (c) ₹ 30,000 (d) ₹ 45,000
84. In an exam. Kalpana gets 864 marks. How many marks does Humpy get, If the ratio of the marks obtained by Kalpana, Malleswari and Humpy is 4 : 3 : 1 ?  
 (a) 420 (b) 216  
 (c) 360 (d) None of these
85. If the ratio of the sides of a triangle is 2 : 3 : 4 and its perimeter is 54 cm, then the measure of the smallest side of the triangle will be  
 (a) 6 cm (b) 14 cm  
 (c) 12 cm (d) None of these



86. The ratio of two numbers is 3 : 4. If 5 is added to both the numbers, the ratio becomes 4 : 5. The product of the numbers added to the sum of the squares of the numbers is  
 (a) 950 (b) 925  
 (c) 700 (d) 725
87. A motorcyclist covered two thirds of a total journey at his usual speed. He covered the remaining distance at three fourth of his usual speed. As a result, he arrived 30 minutes later than the time he would have taken at usual speed. If the total journey was 180 km, the what is his usual speed?  
 (a) 40 kmph (b) 36 kmph  
 (c) 30 kmph (d) 32 kmph
88. A man can row a certain distance against the stream in six hours. However, he would take two hours less to cover the same distance with the current. If the speed of the current is 2 kmph, then what is the rowing speed in still water?  
 (a) 10 kmph (b) 12 kmph  
 (c) 14 kmph (d) 8 kmph
89. A person can swim at a speed of 9 km per hour in still water. If the speed of the stream is 6 km per hour, then how long does he take to swim up to a distance of 9 km and return at the starting point?  
 (a) 2 hours (b)  $2\frac{1}{2}$  hours  
 (c)  $3\frac{3}{5}$  hours (d)  $3\frac{3}{4}$  hours
90. Two cars a and B start simultaneously from two different places and travel towards each other. They arrive at their destinations after 4 hours and 6 hours respectively. If speed of car A is 48 km/h what is the speed of car B?  
 (a) 36km/h (b) 40 km/h  
 (c) 32 km/h (d) 28 km/h
91. Kiran starts a business with an investment of ₹ 40,000. Anil joins her after three months with a capital of ₹ 30,000. If Kiran withdraws 4 months before the end of the year. Find the ratio in which they share the profits at the end of the year.  
 (a) 27 : 32 (b) 32 : 19  
 (c) 32 : 27 (d) 25 : 31
92. The salaries of a person and his father are in the ratio of 4 : 7. If both them together earn ₹ 44,000, how much more should the son earn to reverse the ratio?  
 (a) ₹ 49,000 (b) ₹ 16,000  
 (c) ₹ 28,000 (d) ₹ 33,000
93. Sankar, Srinivas and Manohar start a business with ₹ 40,000 ₹ 30,000 and ₹ 70,000 respectively. Srinivas and Manohar leave after 5 months and 7 months respectively. Who gets the largest share of profit at the end of the year?  
 (a) Sankar (b) Srinivas  
 (c) Manohar (d) Cannot be determined
94. X and Y enter into a partnership with capitals in the ratio 5 : 6. At the end of 9 months Y withdraws. If they receive the profits in the ratio of 10 : 9, then find how long X's capital was in the partnership?  
 (a) 12 months (b) 9 months  
 (c) 6 months (d) 10 months
95. Tirupati sells a calculator to Ashokan. Ashokan, offered him a sum of money for which he refused as being 13% below the value of the the calculator. A shokan then offered him ₹ 45 more and the second offer was 5% more than the estimated value. The value of the calculator is  
 (a) ₹ 450 (b) ₹ 255  
 (c) ₹ 250 (d) ₹ 500
96. A merchant blends two varieties of tea, one costing ₹ 20 per kg and another costing ₹ 28 per kg, in the ratio 3 : 2 respectively. He sold the mixture at ₹ 24 per kg. What is his percentage of gain?  
 (a) 3.4 % (b) 5.2%  
 (c) 6% (d) None of these
97. 400 tomatoes were bought at ₹ 125 per hundred and sold at a total profit of ₹ 100. The selling price of a dozen tomatoes is  
 (a) ₹ 20 (b) ₹ 18  
 (c) ₹ 25 (d) ₹ 19
98. Sivaram regularly saves 60% of his monthly salary. On account of a rise in prices he has to increase his monthly expenses by 20%. Now he is able to save ₹ 10,400 per month. What is his monthly salary?  
 (a) ₹ 15,000 (b) ₹ 30,000  
 (c) ₹ 20,000 (d) ₹ 25,000
99. An electric pump can fill a tank in 3 hours. Because of a leak in the tank, it took  $3\frac{1}{2}$  hours to fill the tank. the leak can drain out all the water of tank in  
 (a)  $10\frac{1}{2}$ h (b) 12 h  
 (c) 21 h (d) 24 h
100. In what time would a cistern be filled by three pipes running together, whose diameters are 1 cm,  $1\frac{1}{3}$  cm, 2 cm, when the largest alone will fill it in 3660 seconds: the amount of water flowing in by each pipe being proportional to the square of its diameter?  
 (a) 40 mim (b) 36 min  
 (c) 45 min (d) 38 min
101. A leak in the bottom of a tank can empty the full tank in 8 hours. An inlet pipe fills water in the tank at the rate of 4 litres per minute. When the tank is full, the inlet is opened and due to a leak, the tank is emptied in 12 hours. How many litres does the cistern hold?  
 (a) 6250 litres (b) 5760 litres  
 (c) 5200 litres (d) 4546 litres



102. A cistern has three pipes, A, B and C. The pipes A and B can fill it in 4 and 5 hours respectively and pipe C can empty it in 2 hours. If the pipes are opened in an order at 1, 2 and 3 A.M., when will the cistern be empty?
- (a) 3 P.M. (b) 7 P.M.  
(c) 4 P.M. (d) 5 P.M.
103. A cubic metre of silver weighing 900 kg is rolled into a square bar of 16 m long. Find the weight of an exact cube cut off from it.
- (a) 14 kg  $62\frac{1}{2}$  gm (b) 30 kg  
(c) 10 kg (d) 7 kg 50 gm
104. A semi-circular sheet of paper of diameter 56 cm is bent into an open conical cup. the radius of the base of the cone is
- (a) 28 cm (b) 14 cm  
(c) 12 cm (d) 7 cm
105. A circus tent is cylindrical to a height of 3 metre and conical above it. If the diameter of the base is 140 metre and the slant height of the conical portion is 80 metre, the length of the canvas 2 metre wide required to make the tent is
- (a) 8960 metre (b) 9660 metre  
(c) 9460 metre (d) 9860 metre
106. A large cube is formed by melting three smaller cubes of 3 cm, 4 cm and 5 cm side. What is the ratio of the total surface areas of the smallest cubes and the largest cube?
- (a) 2 : 1 (b) 3 : 2  
(c) 25 : 18 (d) 27 : 20
107. Madan throws two unbiased dice together and gets a sum of 7. If his friend Harish, now throws the same two dice, what is the probability that the sum is lesser than 7?
- (a)  $\frac{1}{6}$  (b)  $\frac{7}{12}$   
(c)  $\frac{1}{2}$  (d)  $\frac{5}{12}$
108. A movie theatre sells 3 sizes of popcorn pack (small, medium and large) with 3 choices of toppings (no butter, butter, extra butter). How many possible ways can a pack of popcorn be purchased?
- (a) 1 (b) 3  
(c) 9 (d) 27
109. A fair coin is thrown four times in the air. If the coin lands with the head up on the first three tosses, what is the probability that the coin will also land with the head up on the fourth toss?
- (a) 0 (b)  $\frac{1}{6}$   
(c)  $\frac{1}{8}$  (d)  $\frac{1}{2}$
110. A carton consists of 100 shirts of which 84 are good, 10 have minor defects and 6 have major defects. Arun, a trader will accept the shirts which are good, but Kapur another trader will reject the shirts which have major defects. One shirt is drawn at random from the carton, what is the probability that it is acceptable to Kapur?
- (a) 0.76 (b) 0.98  
(c) 0.87 (d) None of these
111. A sum of ₹5,000 lent on simple interest amounts to ₹5,700 in two years. If the rate of interest is increased by four percentage, then what would the sum amount to in the same period?
- (a) ₹5,980 (b) ₹6,100  
(c) ₹5,900 (d) ₹6,300
112. Two equal sums were lent, one at the rate of 11% p.a. for five years and the other at the rate of 8% p.a. for six years, both under simple interest. If the difference in interest accrued in the two cases is ₹1008. find the sum.
- (a) ₹11,200 (b) ₹5,600  
(c) ₹12,600 (d) ₹14,400
113. A certain amount is lent at x% p.a. simple interest for two years. Instead, if the amount was lent at 2x% p.a. simple interest for 'y' more years, then the interest would have been five times the earlier interest. what is the value of y?
- (a) 2 years (b) 3 years  
(c) 4 years (d) 5 years
114. The rate of interest on a sum of money for the first two years is 6% p.a., for the next two years it is 7% p.a. and 8% p.a. for the period exceeding four years; all at simple interest. If a person earns an interest of ₹7,536 by the end of the seven years, what is the amount at the end of the period of investment?
- (a) ₹15,072 (b) ₹11,304  
(c) ₹22,608 (d) ₹21,308
115. A contractor pays 25% more to a male worker than what he pays to the female worker. How much per cent less does the contractor pay to the female worker than the male worker?
- (a) 15% (b) 20%  
(c) 25% (d) 10%
116. The mean annual salary paid to all employees of company was ₹8,000. The mean annual salaries paid to male and female employees were ₹7,000 and ₹12,000 respectively. What is the percentage of male workers in the company?
- (a) 80% (b) 20%  
(c) 60% (d) 50%
117. The length of the rectangular field is increased by 25%. By what per cent must the width be reduced so that the area in each case remains the same?
- (a) 15% (b) 17%  
(c) 18% (d) 20%
118. Hari had three not books X, Y, Z. Of these, X had 120 pages, Y had 10% more pages and Z had 10% pages less. If he tore roughly 5%, 10% and 15% of pages in X, Y and Z respectively, then what per cent of pages did he tear out ?
- (a) 8% (b) 10%  
(c) 7% (d) 13%



119. A class of students attended a charity show with entrance ticket of ₹ 3.70 per girl and ₹ 4.50 per boy. If the strength of the class and the amount collected from the class are 160 and 640 respectively, find the number of girls and boys in the class (respectively) who attended the show.  
 (a) 80, 80 (b) 40, 120  
 (c) 70, 90 (d) 60, 100
120. Among the goods purchased by a trader, two-fifth were sold at 20% loss, and the remaining were sold at a profit. If on the whole 10% profit is made, what per cent of profit did the trader make on the remaining goods?  
 (a) 15% (b) 20%  
 (c) 30% (d) 40%

### SECTION-D: English Language

**DIRECTIONS (Qs. 121 - 125) :** Each of the following items consists of a sentence followed by four words. Select the antonym of the word (occurring in the sentence in capital letters) as per the context.

121. This cloth is a **COARSE** of touch.  
 (a) Delicate (b) Rough  
 (c) Painful (d) Harsh
122. Her illness **ENERVATED** the whole family.  
 (a) Enhanced (b) Exhausted  
 (c) Weakened (d) Energized
123. The committee rejected his **LUDICROUS** proposal.  
 (a) Absurd (b) Reasonable  
 (c) Farical (d) Stupid
124. Children **ADORE** the cricket players.  
 (a) Discuss (b) Condemn  
 (c) Benefit (d) Check
125. These people are sunk in abysmal ignorance and their illiteracy is simply **COLOSSAL**.  
 (a) Intolerable (b) Huge  
 (c) Small (d) Silly

**DIRECTIONS (Qs. 126 - 130) :** In each of the following question, a related pair of words or phrases is followed by five lettered pairs of words or phrases. Select the lettered pair that best expresses a relationship that is least similar to the one expressed in the original pair.

126. **XENOPHOBIA** : **FOREIGNERS**  
 (a) claustrophobia : foreigners  
 (b) anglophobia : Englishmen  
 (c) bibliophobia : book  
 (d) hemophobia : blood
127. **SAIL** : **SHIP**  
 (a) propeller : dog  
 (b) radar : satellite  
 (c) hydrogen : balloon  
 (d) accelerator : car
128. **CANINE** : **DOG**  
 (a) feline : cat  
 (b) aquatic : parrot  
 (c) serpentine : cobra  
 (d) vulpine : fox

129. **COSMIC** : **UNIVERSE**  
 (a) terrestrial : earth  
 (b) lunar : moon  
 (c) connubial : youth  
 (d) annular : rumour
130. **GERMANE** : **PERTINENT**  
 (a) apt : appropriate  
 (b) quick : urgent  
 (c) dull : sluggish  
 (d) excited : serene

**DIRECTIONS (Qs. 131 - 135) :** From the alternative provided, choose the one that best fills the blank:

131. One dark night a Darvesh \_\_\_\_\_ passing by a dry well.  
 (a) wasn't (b) happened to be  
 (c) discovered in (d) found to
132. Nordisk have recently \_\_\_\_\_ a product called Glucometer.  
 (a) started (b) commissioned  
 (c) launched (d) begun
133. I had already published a novel and it was an unexpected success. I thought my \_\_\_\_\_.  
 (a) days were up (b) chances were good  
 (c) ladyluck was happy (d) fortune was made
134. The neighbour grabbed the boy, and rolled him on the road to \_\_\_\_\_ the flames.  
 (a) smother (b) kill  
 (c) burn out (d) fizz out
135. Sam asked me to keep this secret \_\_\_\_\_.  
 (a) secret (b) in myself  
 (c) amongst us (d) between us

**DIRECTIONS (Qs. 136 - 138) :** In each of the following questions, the answer choices suggest alternative arrangements of four or more sentences (denoted by A, B, C, D, E, F). Choose the alternative which suggests a coherent paragraph.

136. A. Since then, intelligence tests have been mostly used to separate dull children in school from average or bright children, so that special education can be provided to the dull  
 B. In other words, intelligence tests give us a norm for each age.  
 C. Intelligences expressed as intelligence quotient and tests are developed to indicate what an average child of a certain age can do--what a 5 year old can answer, but a 4-year-old cannot, for instance.  
 D. Binet developed the first set of such tests in the early 1900s to find out which children in school needed special attention.  
 E. Intelligence can be measured by tests.  
 (a) CDABE (b) DECAB  
 (c) EDACB (d) CBADE
137. A. This very insatiability of the photographing eye changes the terms of confinement in the cave, our world  
 B. Humankind lingers unregenerately in Plato's cave, still revelling, its age-old habit, in mere images of truth.



- C. But being educated by photographs is not like being educated by older images drawn by hand ; for one thing, there are a great many more images around, claiming our attention.
- D. The inventory started in 1839 and since then just about everything has been photographed, or so it seems
- E. In teaching us a new visual code. Photographs alter and enlarge our notions of what is worth looking at and what we have a right to observe.
- (a) EABCD (b) BDEAC
- (c) BCDAE (d) ECDAB
138. A. Passivity is not, of course, universal
- B. In areas where there are no lords or laws, or in frontier zones where all men go armed, the attitude of the peasantry may well be different.
- C. So indeed it may be on the fringe of the unsubmissive.
- D. However, for most of the soil -bound peasants the problem is not whether to be normally passive or active, but when to pass from one state to another.
- E. This depends on an assessment of the political situation.
- (a) BEDAC (b) CDABE
- (c) EDBAC (d) ABCDE

#### PASSAGE-I

When times are hard, doomsayers are aplenty. The problem is that if you listen to them too carefully, you tend to overlook the most obvious signs of change. 2011 was a bad year. Can 2012 be any worse? Doomsday forecasts are the easiest to make these days. So let's try a contrarian's forecast instead.

Let's start with the global economy. We have seen a steady flow of good news from the US. The employment situation seems to be improving rapidly and consumer sentiment, reflected in retail expenditures on discretionary items like electronics and clothes, has picked up. If these trends sustain, the US might post better growth numbers for 2012 than the 1.5-1.8 percent being forecast currently.

Japan is likely to pull out of a recession in 2012 as post-earthquake reconstruction efforts gather momentum and the fiscal stimulus announced in 2011 begins to pay off. The consensus estimate for growth in Japan is a respectable 2 per cent for 2012.

The "hard-landing" scenario for China remains and will remain a **myth**. Growth might decelerate further from the 9 per cent that it expected to **clock** in 2011 but is unlikely to drop below 8-8.5 percent in 2012.

Europe is certainly in a spot of trouble. It is perhaps already in recession and for 2012 it is likely to post mildly negative growth. The risk of implosion has dwindled over the last few months -peripheral economies like Greece, Italy and Spain have new governments in place and have made progress towards genuine economic reform.

Even with some of these positive factors in place, we have to accept the fact that global growth in 2012 will be **tepid**. But there is a flipside to this. Softer growth means lower demand for commodities and this is likely to drive a correction in commodity prices. Lower commodity inflation will enable emerging market central banks to reverse their monetary stance. China, for instance, has already reversed its stance and has pared its reserve ratio twice. The RBI also seems poised for a reversal in its rate cycle as headline inflation seems well on its way to its target of 7 per cent for March 2012.

That said, oil might be an exception to the general trend in commodities. Rising geopolitical tensions, particularly the continuing face-off between Iran and the US, might lead to a spurt in prices. It might make sense for our oil companies to hedge this risk instead of buying oil in the spot market.

As inflation fears **abate** and emerging market central banks begin to cut rates, two things could happen Lower commodity inflation would mean lower interest rates and better credit availability. This could set a floor to growth and slowly reverse the business cycle within these economies. Second, as the fear of untamed, runaway inflation in these economies abates, the global investor's comfort levels with their markets will increase.

Which of the **emerging** markets will outperform and who will get left behind? In an environment in which global growth is likely to be weak, economies like India that have a powerful domestic consumption dynamic should lead; those dependent on exports should, *prima facie*, fall behind. Specifically for India, a fall in the exchange rate could not have come at a better time. It will help Indian exporters gain market share even if global trade remains depressed. More importantly, it could lead to massive import substitution that favours domestic producers.

Let's now focus on India and start with a caveat. It is important not to confuse a short-run cyclical dip with a permanent de-rating of its long-term structural potential. The arithmetic is simple. Our growth rate can be in the range of 7-10 per cent depending on policy action. Ten per cent if we get everything right, 7 per cent if we get it all wrong. Which policies and reforms are critical to taking us to our 10 per cent potential ? In judging this, let's again be careful. Lets not go by the laundry list of reforms that FIIs like to wave: increase in foreign equity limits in foreign shareholding, greater voting rights for institutional shareholders in banks, FDI in retail, etc. These can have an impact only at the margin. We need not bend over backwards to appease the FIIs through these reforms - they will invest in our markets when momentum picks up and will be the first to exit when the momentum flags, reforms or not.

The reforms that we need are the ones that can actually raise out. Sustainable long-term growth rate. These have to come in areas like better targeting of subsidies, making projects in infrastructure viable so that they **draw** capital, raising the productivity of agriculture, improving healthcare and education, bringing the parallel economy under the tax net, implementing fundamental reforms in taxation like GST and the direct tax code and finally easing the **myriad** rules and regulations that make doing business in India such a nightmare. A number of these things do not require new legislation and can be done through executive order.

139. Which of the following is NOT TRUE according to the passage ?

- (a) China's economic growth may decline in the year 2012 as compared to the year 2011
- (b) The European economy is not doing very well
- (c) Greece is on the verge of bringing about economic reforms
- (d) All are true



140. Which of the following can be said about the present status of the US economy ?
- There is not much improvement in the economic scenario of the country from the year 2011
  - The growth in the economy of the country, in the year 2012, would definitely be lesser than 1.8 percent
  - The expenditure on clothes and electronic commodities, by consumers, is lesser than that in the year 2011
  - There is a chance that in 2012 the economy would do better than what has been forecast
141. Which of the following is possibly the most appropriate title for the passage ?
- The Economic Disorder
  - Indian Economy Versus The European Economy
  - Global Trade
  - The Current Economic Scenario
142. According to the author, which of the following would characterize Indian growth scenario in 2012 ?
- Domestic producers will take a hit because of depressed global trade scenario.
  - On account of its high domestic consumption, India will lead.
  - Indian exporters will have a hard time in gaining market share.
- Only (B)
  - Only (A) and (B)
  - Only (B) and (C)
  - Only (A)
143. Why does the author not recommend taking up the reforms suggested by FII's ?
- These will bring about only minor growth
  - The reforms suggested will have no effect on the economy of our country, whereas will benefit the FII's significantly
  - The previous such recommendations had backfired
  - These reforms will be the sole reason for our country's economic downfall
144. Which of the following is TRUE as per the scenario presented in the passage?
- The highest growth rate that India can expect is 7 percent
  - The fall in the exchange rate will prove beneficial to India
  - Increased FDI in retail as suggested by FIIs would benefit India tremendously
  - None is true

#### PASSAGE-II

In a reversal of the norm elsewhere, in India policymakers and economists have become optimists while bosses do the worrying. The country's Central Bank has predicted that the country's economy is likely to grow at a double digit rate during the next 20-30 years. India has the capability with its vast labour and lauded entrepreneurial spirit. But the private sector which is supposed to do the heavy lifting that turns India from the world's tenth largest economy to its third largest by 2030 has become

fed up. Business people often carp about India's problems but their irritation this time has a nervous edge. In the first quarter of 2011, GDP grew at an annual rate of 7.8 percent; in 2005-07 it managed 9-10 percent. The economy may be slowing naturally as the low interest rates and public spending that got India through the global crisis are belatedly withdrawn. At the same time the surge in inflation caused by exorbitant food prices has spread more widely, casting doubt over whether India can grow at 8-10 percent in the medium term without overheating.

In India, as in many fast growing nations, the confidence to invest depends on the conviction that the long term trajectory is intact and it is that which is in doubt. Big Indian firms too sometimes seem happier to invest abroad than at home, in deals that are often hailed as symbols of the country's growing **clout** but sometimes speak to its weaknesses – purchases of natural resources that India has in abundance but struggles to get out of the ground. In fact a further dip in investment could be self fulfilling: if fewer roads, ports and factories are built, this will hurt both short term growth figures and reduce the economy's long term capacity.

There is a view that because a fair amount of growth is assured the government need not try very hard. The liberalization reforms that began in 1991 freed markets for products and gave rise to vibrant competition, at the same time what economists call factor markets, those for basic inputs like land, power, labour etc remain unreformed and largely under state control, which creates difficulties. Clearances today can take three to four years and many employers are keen to replace workers with machines despite an abundance of labor force. This can be attributed to labor laws which are inimical to employee creation and an education system that means finding quality manpower a major problem. In fact the Planning Commission concluded that even achieving 9 percent growth will need **marked** policy action in unreformed sectors. Twenty years ago it was said that yardstick against which India should be measured was its potential and it is clear that there remains much to do.

145. Which of the following can be said about the Indian economy at present?

- It can comfortably achieve double digit growth rare at present.
- High food prices have led to overheating of the economy.
- Citizens are affluent owing to laxity in regulation.
- Private sector confidence in India's growth potential is high.

146. What is the state of India's basic input sectors at present?

- These sectors attract Foreign Direct Investment because of their vast potential.
- These sectors are lagging as projects are usually awarded to foreign companies.
- These sectors are stagnating and badly in need of reforms.
- These sectors are well regulated as these are governed by the State.



147. What is the author's **main objective** in writing the passage?
- Showcasing the potential of India's growth potential to entice foreign investors.
  - Exhorting India to implement measures to live up to its potential.
  - Recommending India's model of development to other developing countries
  - Berating the private sector for not bidding for infrastructure development projects.
148. What impact has the GDP growth of 7.8 percent had?
- Indian Industry is anxious about India's economic growth.
  - India has achieved status as the world's third largest economy at present.
  - Foreign investment in India has drastically increased.
- Only (1)
  - All (1), (2) and (3)
  - Only (1) and (3)
  - Only (1) and (2)
149. What measures do experts suggest be taken to ensure targeted economic growth?
- Loweing of interest rates to help industries hit by recession.
  - Prolonged financial support for basic input industries.
  - Incentives to Indian companies to invest in infrastructure.
  - Formulation of policies and their implementation in factor markets

### PASSAGE-III

In many countries, a combustible mixture of authoritarianism, unemployment and youth has given rise to disaffection with strongmen rulers which has in turn spill over into uprising. Young people in these countries are far better educated than their parents were. In 1990 the average Egyptian had 4.4 years of schooling; by 2010 the figure had risen to 7.1 years. Could it be that education, by making people less willing to put up with restrictions on freedom and more willing to question authority, **promotes** democratization. Ideas about the links between education, Income and democracy are at the heart of what social scientists have long studied. Since then plenty of economists and political scientists have looked for statistical evidence of a causal link between education and democratization. Many have pointed to the strong correlation that exists between levels of education and measures like the pluralism of party politics and the existence of civil liberties. The patterns are similar when income and democracy are considered. There are outliers, of course – until recently, many Arab countries managed to combine energy-based wealth and decent education with undemocratic political systems. But some deduce from the overall picture that as China and other authoritarian states get more educated and richer, their people will agitate for greater political freedom, culminating in a shift to a more democratic form of government.

This apparently reasonable intuition is shakier than it seems. Critics of the hypothesis point out that correlation is hardly causation. The general trend over the past half century may have been towards rising living standards, a wider spread of basic education and more democracy, but it is entirely possible that this is being by another variable. Even if the correlation were not

spurious, it would be difficult to know which way causation ran. Does more education lead to greater democracy? Or are more democratic countries better at educating their citizens? A recent NBER paper compared a group of Kenyan girls in 69 primary school whose students were randomly selected to receive a scholarship with similar students in schools which received no such financial aid. Previous studies has shown that the scholarship programme led to higher test scores and increased the likelihood that girls enrolled in secondary school. Overall, it significantly increased the amount of education obtained. For the new study the authors tried to see how the extra schooling had affected the political and social attitudes of the women in question. Findings suggested that education may make people more interested in improving their own lives but they may not necessarily see democracy as the way to do it. Even in established democracies, more education does not always mean either more active political participation or greater faith in democracy. Poorer and less educated people often vote in larger numbers than their more educated compatriots, who often express disdain for the **messiness of democracy**, yearning for the kind of government that would deal strongly with the corrupt and build highways, railway lines and bridges at a dizzying pace of authoritarian China.

150. Which of the following most aptly describes the **central theme** of the passage?

- Democratic nations are richer and have a better track record of educating their citizens.
  - Education does not necessarily lead to greater enthusiasm for a democratic form of government
  - Educated societies with autocratic form of government enjoy a better quality of life than democracies.
  - Citizens can fulfill their personal aspirations only under a democratic form of government.
151. What conclusion can be drawn from the statistics cited about Egypt's education system?
- Job prospects have been on the rise in Egypt in recent times.
  - Authoritarian leaders have played a vital role in reforming Egypt's education system.
  - Egypt has one of the youngest and best educated demographics in the world.
  - There has been a rise in education levels in Egypt in recent times.
152. What according to the author has led to uprisings in authoritarian countries?
- Lack of access to education.
  - Vast numbers of uneducated and unemployable youth.
  - Frustration with the existing system of governance.
  - Unavailability of natural energy resources like coal and oil.
  - Government's overambitious plans for development.
153. Which of the following is/are **true** about China in the context of the passage?
- China's citizens are in favor of a more representative form of government.
  - China has made huge strides in infrastructure developments.
  - China is in the midst of a political revolution.
- None
  - Only (1)
  - Only (1) and (3)
  - Only (2)



154. What does the phrase “messiness of democracy” convey in the context of the passage?
- Democratic nations are chaotic on account of individual freedoms.
  - Most democratic countries frequently have violent revolts among their citizens.
  - The divide between the poor and educated is growing wider in democracies.
  - High levels of pollution on account of frantic pace of infrastructure development.

**DIRECTIONS (Qs. 155 - 158):** Each of these questions has a text portion followed by four alternative summaries. Choose the option that best captures the essence of the text.

155. Anthropophagy means cannibalism-the practice of human beings eating other human beings. Cannibalism might have been common in the early human evolution than in modern era. Today, it is rumoured to be practised by tribes in different parts of the world as part of their rites. The universal symbol of cannibalism is lolling tongue.
- Cannibalism is rooted in antiquity and is an ultimate taboo in modern world.
  - Some tribes in the world are rumoured to still practise anthropophagy.
  - The existence of cannibalism is highly disputable subject.
  - Outstretched, red lolling tongue represents the symbol of cannibalism universally.
156. Popular thinking, propelled by mass hysteria and surge of emotions, cannot challenge organized, planned rational decision making in a democratic system. Popular opinion can be suggestive or even mobilizing, but cannot become a diktat. Organized democratic systems have a very vital role to play. If such systems were not in place, the people would be relegated into anarchy. Popular opinion can be justified but mobocracy and radical measures cannot be an answer to a few ills of a thriving democracy.
- In a democratic set up it can lead to anarchy if every social interest group seeks to encroach on Parliament's power to frame laws.
  - Democratic setup might have its limitations but it cannot be replaced by public rhetoric.
  - Mass hysteria created by some groups to influence government decisions is not healthy for democracy.
  - There is no substance in the notion that social activists or other professional groups are better placed than democratically elected Parliament.
157. There was a time when asked what they wanted to be when they grew up, children invariably rattled predictable list of career options usually fed into their minds by parents. But now when you ask the same question, many children today, cutting across class, gender and region, chime "I want to be famous", Reality shows and talent hunt programmes on television are changing their perceptions.
- Kids and teens are finding it hard to resist the lure of celebrity status.

- Exposure to television has changed the mindset of parents and children to look beyond the conventional careers.
- Forget being an engineer, doctor or pilot, children in India want stardom as career choice.
- Reality television shows have opened the floodgates of opportunities for young children to choose their careers.

158. E-waste refers to electronic and electrical waste and comprises electronic devices and components. It poses some serious health hazards. At direct risk are the recycles who deal with this waste on daily basis. Lead found in monitors damages nervous system while cadmium can induce cancer. Once these hazardous materials percolate the environment, we are looking at disaster.

- People handling e-waste are at a risk of radiation.
- E-waste is the waste created by electronic products whose life span has ended and whose components pose a threat to our health and environment.
- Discarded computers and electronic gadgets, if improperly disposed can percolate lead and other harmful substances in soil and groundwater.
- E-waste should be managed carefully.

**DIRECTIONS (Qs. 159 - 160):** Choose the word which is nearly the same in meaning to the word in capital letters.

159. EMBELLISH

- emboss
- design
- garnish
- aristocratic

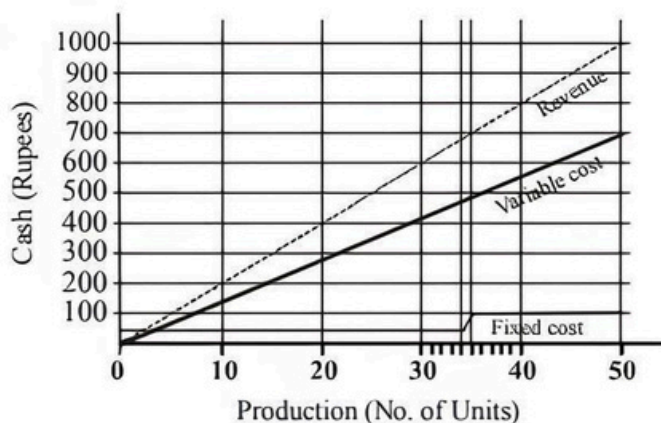
160. OPPORTUNE

- expected
- convenient
- welcome
- chance

### SECTION-E: Data Analysis and Sufficiency

**DIRECTIONS (Qs. 161 - 165):** These questions are based on the information and graph given below.

Ghosh Babu has a manufacturing unit. The following graph gives the cost for various number of units. Given the Profit = Revenue - Variable Cost - Fixed Cost. The fixed cost remains constant upto 34 units after which additional investment is to be done in fixed assets. In any case production can not exceed 50 units.



161. What is the minimum number of units that need to be produced to make sure that there was no loss?
- 5
  - 10
  - 20
  - indeterminable



162. How many units should be manufactured such that profit was atleast ₹ 50?  
 (a) 20 (b) 34 (c) 45 (d) 30
163. If at the most 40 units can be manufactured then what is the number of units that can be manufactured to maximize profit?  
 (a) 40 (b) 34 (c) 35 (d) 25
164. If the production can not exceed 45 units then what is the number of units that can maximise profit per unit?  
 (a) 40 (b) 34 (c) 45 (d) 35
165. If the fixed cost of production goes up by ₹ 40 then what is the minimum number of units that need to be manufactured to make sure that there is no loss  
 (a) 10 (b) 19 (c) 15 (d) 20

**DIRECTIONS (Qs. 166 - 170) :** Study the table carefully to answer the questions that follow :

**Number of people visiting six different Super-markets and the percentage of men, women and children visiting those Super-markets.**

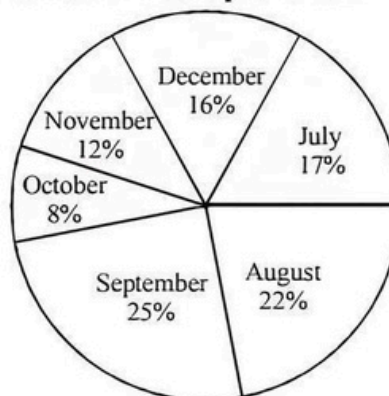
Names of the Super-markets	Total number of people	Percentage of		
		Men	Women	Children
A	34560	35	55	10
B	65900	37	43	20
C	45640	35	45	20
D	55500	41	26	33
E	42350	6	70	24
F	59650	24	62	14

166. What is the respective ratio of number of women visiting Super-markets A to those visiting Super-market C?  
 (a) 35 : 37 (b) 245 : 316  
 (c) 352 : 377 (d) None of these
167. Number of men visiting Super-market D forms approximately what percent of the total number of people visiting all the Super-markets together?  
 (a) 11 (b) 5.5  
 (c) 13 (d) 7.5
168. Number of children visiting Super-market C forms what percent of number of children visiting super market F? (rounded off to two digits after decimal)  
 (a) 91.49 (b) 49.85  
 (c) 121.71 (d) 109.30
169. What is the total number of children visiting Super-markets B and D together?  
 (a) 18515 (b) 28479  
 (c) 31495 (d) 22308
170. What is the average number of women visiting all the Super-markets together?  
 (a) 24823.5 (b) 22388.5  
 (c) 26432.5 (d) 20988.5

**DIRECTIONS (Qs. 171 - 175):** Study the following pie-chart and table carefully and answer the questions given below :

**PERCENTAGEWISE DISTRIBUTION OF THE NUMBER OF MOBILE PHONES SOLD BY A SHOPKEEPER DURING SIX MONTHS**

Total number of mobile phones sold = 45,000



The respective ratio between the number of mobile phones sold of company A and company B during six months

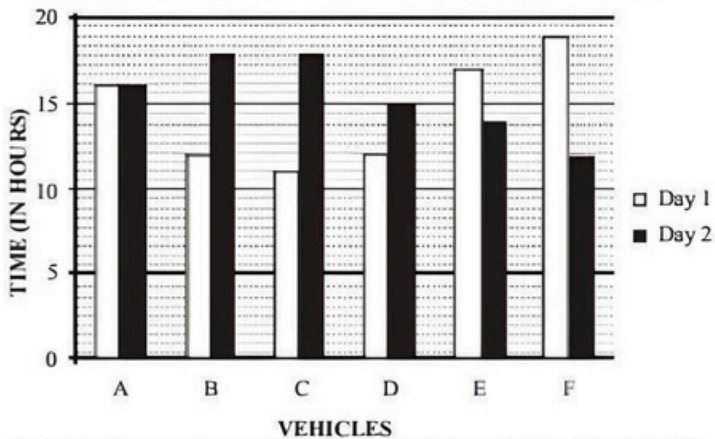
Month	Ratio
July	8:7
August	4:5
September	3:2
October	7:5
November	7:8
December	7:9

171. What is the respective ratio between the number of mobile phones sold of company B during July and those sold during December of the same company ?  
 (a) 119:145 (b) 116:135  
 (c) 119 :135 (d) 119:130
172. If 35% of the mobile phones sold by company A during November were sold at a discount, how many mobile phones of company A during that month were sold without a discount?  
 (a) 882 (b) 1635 (c) 1638 (d) 885  
 (e) None of these
173. If the shopkeeper earned a profit of ₹433/- on each mobile phone sold of company B during October, what was his total profit earned on the mobile phones of that company during the same month ?  
 (a) ₹ 6,49,900/- (b) ₹ 6,45,900/-  
 (c) ₹ 6,49,400/- (d) ₹ 6,49,500/-
174. The number of mobile phones sold of company A during July is approximately what percent of the number of mobile phones sold of company A during December ?  
 (a) 110 (b) 140 (c) 150 (d) 105
175. What is the total number of mobile phones sold of company B during August and September together ?  
 (a) 10,000 (b) 15,000  
 (c) 10,500 (d) 9,500



**DIRECTIONS (Qs. 176 - 180):** Study the following graph and table carefully and answer the questions given below :

**TIME TAKEN TO TRAVEL (IN HOURS) BY SIX VEHICLES ON TWO DIFFERENT DAYS**



**DISTANCE COVERED (IN KILOMETERS) BY SIX VEHICLES ON EACH DAY**

Vehicle	Day 1	Day 2
A	832	864
B	516	774
C	693	810
D	552	765
E	935	546
F	703	636

176. Which of the following vehicles travelled at the same speed on both the days ?  
 (a) Vehicle A (b) Vehicle C  
 (c) Vehicle F (d) Vehicle B
177. What was the difference between the speed of vehicle A on day 1 and the speed of vehicle C on the same day ?  
 (a) 7 km/hr. (b) 12 km/hr.  
 (c) 11 km/hr. (d) 8 km/hr.
178. What was the speed of vehicle C on day 2 in terms of meters per second ?  
 (a) 15.3 (b) 12.8  
 (c) 11.5 (d) None of these
179. The distance travelled by vehicle F on day 2 was approximately what percent of the distance travelled by it on day 1 ?  
 (a) 80 (b) 65  
 (c) 85 (d) 90
180. What is the respective ratio between the speeds of vehicle D and vehicle E on day 2 ?  
 (a) 15:13 (b) 17:13  
 (c) 13:11 (d) 17:14

**DIRECTIONS (Qs. 181 - 185):** Each of the questions consists of a question and three statements numbered I, II and III given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

- (a) if the data in Statement I and II are sufficient to answer the question, while the data in Statement III are not required to answer the question

- (b) if the data in Statement I and III are sufficient to answer the question, while the data in Statement II are not required to answer the question
- (c) if the data in all the Statements I, II and III together are necessary to answer the question.
- (d) if the data in Statement I, II and III are not sufficient to answer the question.
181. Among six people P, Q, R, S, T and V each lives on a different floor of a six storey building having six floors numbered one to six (the ground floor is numbered 1, the floor above it, number 2 and so on and the topmost floor is numbered 6). Who lives on the topmost floor ?  
 (I) There is only one floor between the floors on which R and Q live. P lives on an even numbered floor.  
 (II) T does not live on an even numbered floor. Q lives on an even numbered floor. Q does not live on the topmost floor.  
 (III) S lives on an odd numbered floor. There are two floors between the floors on which S and P live. T lives on a floor immediately above R's floor.
182. There are six letters W, A, R, S, N and E. Is 'ANSWER' the word formed after performing the following operations using these six letters only ?  
 (I) E is placed fourth to the right of A. S is not placed immediately next to either A or E.  
 (II) R is placed immediately next (either left or right) to E. W is placed immediately next (either left or right) to S.  
 (III) Both N and W are placed immediately next to S. The word does not begin with R. A is not placed immediately next to W.
183. Point D is in which direction with respect to Point B ?  
 (I) Point A is to the west of Point B. Point C is to the north of Point B. Point D is to the south of Point C.  
 (II) Point G is to the south of Point D. Point G is 4 m from Point B. Point D is 9 m from Point B.  
 (III) Point A is to the west of Point B. Point B is exactly midway between Points A and E. Point F is to the south of Point E. Point D is to the west of Point F.
184. How is 'one' coded in the code language ?  
 (I) 'one of its kind' is coded as 'zo pi ko fe' and 'in kind and cash' is coded as 'ga, to ru ko'  
 (II) Its point for origin' is coded as 'ba le fe mi' and 'make a point clear' is coded as 'yu si mi de'  
 (III) 'make money and cash' is coded as 'to mi ru hy' and 'money of various kind' is coded as 'qu ko zo hy'.
185. Are all the four friends viz. A, B, C and D who are sitting around a circular table, facing the centre ?  
 (I) B sits second to right of D. D faces the centre. C sits to immediate right of both B and D.  
 (II) A sits to immediate left of B. C is not an immediate neighbour of A. C sits to immediate right of D.  
 (III) D is an immediate neighbour of both A and C. B sits to the immediate left of A. C sits to the immediate right of B.



**DIRECTIONS (Qs. 186 - 189):** Answer the questions that follow on the basis of the information given below.

The rate of taxation has the following slabs in India

Taxable Income (₹)	Tax Rate
0-50,000	Exempt
50,000-60,000	10%
60,000-1,50,000	20%
1,50,000 +	30%

For salaried employees having salaries below ₹ 1,50,000 p.a., the standard deduction of ₹ 30,000 is available which is reduced from the total income. Besides, a rebate is available on investments in various saving schemes like Provident Fund, Infrastructure Bonds, Post Office Savings, etc. The rebate is calculated at 20% of the total investment in these savings instruments. Thus, if a person has invested ₹ 10,000 in some savings instruments, he gets ₹ 2,000 rebate on his net tax liability.

However, if the salary increases above ₹ 1,50,000 p.a., the standard deduction is reduced to ₹ 25,000 and the rebate on investments is calculated at the rate of 15% of the total investment. Thus, a person saving ₹ 20,000 will get a rebate of ₹ 3,000 on his liability. Besides, a tax for charge of 10% is added on the total tax liability for all the tax payers. Also, working women have further rebate of ₹ 5,000 available to them on their total tax liability.

186. What will be the total tax liability of Mr. Rajiv Srivastava, who has a salary of ₹ 1,50,000 p.a. (Assuming he saved ₹ 40,000 in the year)?  
 (a) ₹ 5,000 (b) ₹ 5,500  
 (c) ₹ 1,000 (d) Data insufficient
187. For the question above, if Mr. Srivastava's salary increases by ₹ 5,000 p.a., what will be the change in his net income after tax (Assuming that he again saves ₹ 40,000 in the year)?  
 (a) Increase of ₹ 1,000 (b) Decrease of ₹ 800  
 (c) Increase of ₹ 600 (d) Increase of ₹ 5,000
188. Mrs. Shruti Srivastava, who works in the same firm, earns a salary of ₹ 1,50,000 p.a.. How much must she save to pay no tax for the year?  
 (a) ₹ 41,000 (b) ₹ 40,000  
 (c) ₹ 30,000 (d) ₹ 60,000
189. Prakash Purti has a salaried income of ₹ 1,44,000. Besides he has earned ₹ 35,000 as consultancy income. He has saved ₹ 70,000 for the year in tax savings instruments. How much tax will he have to pay?  
 (a) ₹ 18,000 (b) ₹ 14,800  
 (c) ₹ 4,800 (d) None of these

**DIRECTIONS (Qs. 190 - 194):** Each of these consists of question and two statements numbered A and B. Decide whether the data provided in the statement(s) are sufficient/necessary to answer the question. Mark answer as

- (a) if the data in statement B alone are sufficient to answer the question while the data in statement A alone are not sufficient to answer the question.

- (b) if the data in statement A alone are sufficient to answer the question, while the data in statement B alone are not sufficient to answer the question.
- (c) if the data either in statements A alone or in statement B alone are sufficient to answer the question.
- (d) if the data in both the statements A and B together are not sufficient to answer the question.
190. What is the rate of the compound interest?  
 A. A certain amount invested at the compound interest rate amounts to ₹ 1331.  
 B. The amount was invested for a period of three years.
191. What is the present age of the mother?  
 A. Father's age is eight years more than the mother's age. Father got married at the age of 28 years.  
 B. Present age of the father is 30 years. Four years back the ratio of mother's age to father's age was 12 : 13.
192. How many boys are there in the class?  
 A. The class has total 45 children and ratio of boys to girls is 4 : 5.  
 B. The ratio of girls to boys is 4 : 5 and boys are nine more than the girls.
193. What is the difference between the two digits in a two digit number?  
 A. The sum of the two digits is 8.  
 B.  $\frac{1}{5}$  of that number is 15 less than  $\frac{1}{2}$  of 44.
194. How much minimum marks will be required to pass an examination?  
 A. Student A secured 32% marks in that examination and he failed by 1 mark. Student B secured 36% marks in the same examination and his marks were 1 more than the minimum pass marks.  
 B. Student A secured 30% of full marks in the examination and he failed by 2 marks. If he had secured 5 more marks his percentage of marks would have been 40%

**DIRECTIONS (Qs. 195 - 198):** Study the following data to answer these questions.

Statistics of Staff Members Knowing Computer Operation and Typing in a Government Office

	Knowing Computer Operation	Knowing Typing	Knowing both	Total Number of Staff
Length of service (in years)				
0 - 3	40 30	30 20	30 15	100 200
4 - 7	60 20	80 60	30 15	230 190
7+	50 40	40 50	30 20	200 160
	Graduate	Non-graduate		

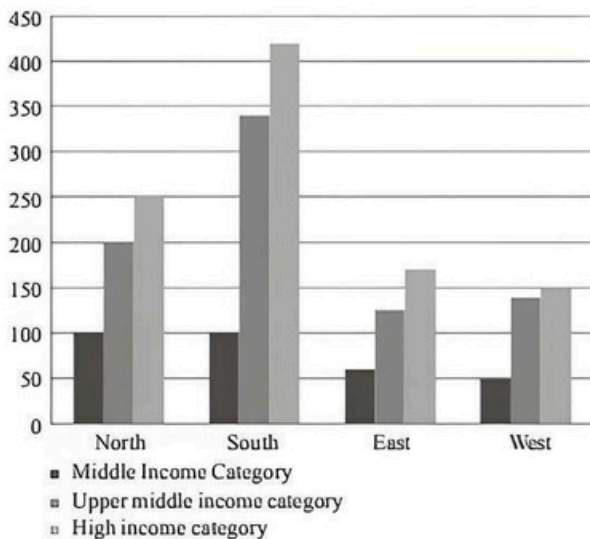
195. Approximately what percent of staff members with 7+ years of service do not know either computer operation or typing?  
 (a) 48 (b) 36  
 (c) 64 (d) None of these



196. What is the total number of staff members with 0-3 years of service knowing only computer operation and only typing?  
 (a) 0 (b) 20  
 (c) 15 (d) None of these
197. What is the ratio of graduate staff members having 4-7 years of service who do not know typing to non-graduate staff members having over 7 years of service not knowing computer operation?  
 (a) 1 : 2 (b) 2 : 1  
 (c) 6 : 5 (d) None of these
198. If 15 more graduate staff knowing both computer operation and typing are recruited, then find the percentage increase in graduate staff knowing both in 0-3 years of service:  
 (a) 50 (b) 40  
 (c) 20 (d) 25

**DIRECTIONS (Qs. 199-200):** Answer the questions based on the following information.

The following bar chart gives the growth percentage in the number of households in middle, upper-middle and high income categories in the four regions for the period between 1987-88 and 1994-95.



	Number of households in 1987-88 (in thousands)	Average household income in 1987-88	Growth in average household income (1994-95 over 1987-88)
Middle - income	40	₹ 30,000	50%
Upper - income	10	₹ 50,000	60%
High - income	5	₹ 75,000	90%

199. Which region showed the highest growth in number of households in all the income categories for the period?  
 (a) North (b) South  
 (c) West (d) None of these
200. What was the total household income in northern region for upper-middle class?  
 (a) ₹ 50 lakh  
 (b) ₹ 500 million  
 (c) ₹ 300 million  
 (d) Cannot be determined



# HINTS & EXPLANATIONS

1. (a) Mr. P.R.S Oberoi is the Executive Chairman of EIH Limited, the flagship company of The Oberoi Group.
2. (c) 'Walking with Lions - Tales from a Diplomatic Past' is a book by former External Affairs Minister K. Natwar Singh.
3. (d) German luxury car maker BMW, on 14 February 2013, launched all new version of its entry level sports utility vehicle XI with price starting at ₹ 27.9 lakh.
4. (a) ACK Media — the company named after household name Amar Chitra Katha, extended its popular children's anthology franchise. Tinkle, in the Hindi language, for the past 32 years, Tinkle has been popular with children, with a monthly circulation of over 2,25,000 copies — but in English.
5. (d) IKEA is a privately held Dutch company with Swedish origins that designs and sells ready-to-assemble furniture (such as beds, chairs, and desks), appliances, and home accessories. The company is the world's largest furniture retailer.
6. (b) The United Nations (UN) has declared 2013 as the international year of Water Cooperation (IYWC). The objective of this International Year is to raise awareness, both on the potential for increased cooperation, and on the challenges facing water management in light of the increase in demand for water access, allocation and services.
7. (b) The FIFA World Ranking is a ranking system for men's national teams in association football, currently led by Spain. Germany and Argentina come at second and third ranks respectively.
8. (a) Tata Steel, through its subsidiary Tata Steel Minerals Canada (TMSC), has acquired majority stake in Canadian company Labrador Iron Mines (LIM) for Canadian \$30 million (₹ 163 crore). This will enable Tata Steel to seamlessly transport raw material from its existing mines in Canada through rail and a port facility to the U.K. where it has major operations.
9. (a) Mukul Manda Sangma of Congress was sworn-in as the Meghalaya chief minister for the second time in a row in March 2013.
10. (a) Pepsi bagged title sponsorship of Indian Premier League (IPL). The sixth season of the cash-rich Indian Premier League (IPL) was called Pepsi IPL after it bagged the title sponsorship of the T20 tournament for INR 396.8 crore.
11. (a) Etihad Airways is the flag carrier of the United Arab Emirates. Established by Royal decree in July 2003 and based in Abu Dhabi, Etihad commenced operations in November 2003. The name derives from the Arabic word for "union".
12. (a) The President of India, Pranab Mukherjee was on 4 March 2013 conferred with the Liberation War Honour Award by the President of Bangladesh, Zillur Rahman. The award was conferred upon him for his contribution to 1971 war.
13. (d) Former Maldives President Mohamed Nasheed took refuge at the Indian High Commission in the capital, Male, after a court ordered his arrest. A magistrate ordered his arrest saying Nasheed failed to attend a court hearing on charges of illegally detaining a judge during his time in office.
14. (d) 'Argo' won the best picture award in the 85th Oscar Awards in 2013. Argo is a 2012 historical drama thriller film directed by Ben Affleck.
15. (a) Bharti Airtel launched high quality voice service for its subscribers in Kenya, Rwanda, Malawi and Nigeria in the African sub-continent. Airtel became the third operator to launch a mobile HD voice service in Africa. Mobile HD voice enables high quality voice calls because it reduces the background noise often heard on a regular call.
16. (b) Fauja Singh, a British centenarian marathon runner of Punjabi Sikh descent, has been nicknamed 'the turbaned tornado'. He is a world record holder in his age bracket.
17. (d) Hewlett Packard, HP, launched its first ever 10.1 inch, Windows 8 Pro operating system based Elitepad 900 tablet priced at ₹ 43,500 in India.
18. (a) Zhuang Zedong (72), 'Chinese ping-pong diplomacy' player passed away which refers to the exchange of pingpong (table tennis) players b/w the US and China in the early 1970s.
19. (c) The World Bank barred Larsen and Toubro (L&T) from doing any business with it or the projects funded by it for 6 months, after finding that a senior executive of the Indian conglomerate has indulged in fraud.
20. (d) Hindustan Unilever is selling a number of its properties to free up idle capital. It has advertised the sale of about 30 flats (over 30,000 square feet) and land across prime locations in Mumbai and Kolkata, besides, a 25-acre parcel near Hyderabad.
21. (d) The United States, in March 2013, imposed sanctions against North Korea's primary foreign exchange bank, the country's main foreign exchange institution, for



its role in supporting Pyongyang's nuclear weapons program.

22. (c) On his first foreign visit after becoming the President of India, Pranab Mukherjee went to Bangladesh from March 3 to 5, 2013. This was the first visit by an Indian president to Bangladesh after nearly 40 years and only the second after its liberation from Pakistan in 1971.
23. (a) The world's highest railway bridge—five times the height of Qutb Minar and 35 metres taller than Eiffel Tower — will come up over the Chenab river on the under construction rail link to the Kashmir Valley. The 1,315 metre bridge will use up 25,000 million tonnes of steel and will be an engineering marvel.
24. (a) Former CBI Director Ashwani Kumar was appointed as Governor of Nagaland in March 2013. Kumar, who was the Director of the agency from August 2008 to November 2010, is the first head of the agency to be appointed as a Governor.
25. (b) The Centre allowed export of an extra 5 million tonnes (MT) wheat of 2011–12 crop from its godowns via private trade to ease storage burden.
26. (c) The parliamentary award committee, in March 2013, selected BJP leader Arun Jaitley, Congress MP Karan Singh and JD(U) MP Sharad Yadav for the outstanding parliamentarian award for the years 2010, 2011 and 2012 respectively.
27. (b) President Shri Pranab Mukherjee conferred the first ever Tagore Award for Cultural Harmony, 2012 on Sitar Maestro Pandit Ravi Shankar at Rashtrapati Bhawan, Since Pandit Ravi Shankar passed away on 11th December, 2012, the Award was presented to his wife, Smt. Sukanya Shankar.
28. (a) The World Bank, in March 2013, scaled down India's growth forecast to 6.1% for the current fiscal from 7% projected six months ago.
29. (a) Eminent Indian journalist Bobby Ghosh was, in March 2013, named the new editor of TIME International.
30. (b) Hugo Chavez, the polarizing president of Venezuela who cast himself as a "21st century socialist" and foe of the United States died on 5 March 2013. Chavez, who had battled cancer was 58.
31. (c) An online survey conducted recently by Upstream, the mobile marketing firm, revealed in March 2013 that in developing markets such as Saudi Arabia, India, Nigeria and Brazil, 32 percent people would prefer Samsung over Nokia (22 percent), Apple (21 percent) and Blackberry (10 percent).
32. (d) NTPC Ltd on 30 March 2013 commissioned a 5-MW solar photo-voltaic power project at Port Blair in Andaman and Nicobar Islands. The new solar photo voltaic power project is the first grid-connected project in these islands and also the first Greenfield renewable solar PV project of NTPC.
33. (b) The Union Government on 12 March 2013 decided to provide a financial assistance of 41.21 crore rupees to protect pashmina goat which produces world-famous fine luxury fibre.
34. (b) Neha Ramu, a 12-year-old Indian-origin girl in UK, recently stunned everyone after she scored an incredible 162 on her IQ test - even higher than Einstein and Stephen Hawking. She achieved a score of 162 on a Mensa IQ test - the highest score possible for her age.
35. (a) Renowned space scientist Prof U R Rao was, on 19 March 2013, inducted into the highly coveted "Satellite Hall of Fame". Washington, by the Society of Satellite Professionals International. Rao, a former Indian Space Research Organisation (ISRO) chairman and Department of Space secretary, is the first Indian space scientist to be inducted into the Satellite Hall of Fame, joining the select group of about 50 Hall of Fame members.
36. (b) Parle-G in February 2013 became the first Indian FMCG brand that crossed ₹ 5000 crore mark in terms of retail sales in one year.
37. (c) Federation Internationale de Football Association (FIFA), on 19 February 2013 confirmed the use of goal-line technology during the 2014 FIFA World Cup to be organised in Brazil.
38. (c) Commercial production of Aishwarya Oil Field at Barmer in Rajasthan has started on 23 March 2013. The commercial production of natural gas will take place from the Rageshwari Well of Barmer region. After the operations of the Barmer Oil field will reduce the import bills of the country for petroleum that is about 6.5 lakh crore rupees at present.
39. (b) The field trial is supposed to be conducted in five cities of Kochi, Mysore, Jaipur, Bhubaneswar and Shimla with varied geographical locations and climatic conditions. As per the RBI, the primary objective of introduction of polymer notes is to increase its life, it could also help in combating counterfeiting.
40. (b) The world's largest ground-based observatory, ALMA space observatory, was inaugurated in Llano Chajnantor in Chile on 13 March 2013. The exceptionally arid climate of the area is inhospitable to humans, but creates an excellent location for submillimetre astronomy. This is because water vapour absorbs and attenuates submillimetre radiation.

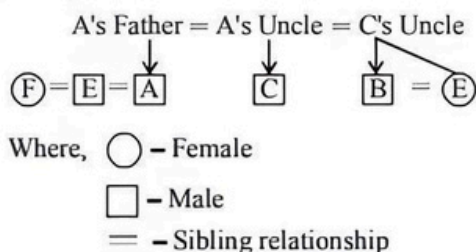


Sol. (41-43):

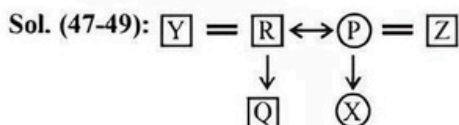
Subjects	Girls				
	Madhu	Shobha	Anjali	Poonam	Nisha
Dramatics	✓	✓	×	✓	×
Computer Science	✓	✓	✓	×	×
Physics	✓	×	✓	✓	✓
History	×	✓	✓	✓	✓
Mathematics	×	×	✓	×	✓

41. (c) Nisha is good in physics. History and Mathematics but not in Computer Science.  
 42. (a) Poonam is good in physics. History and Dramatics.  
 43. (c) Anjali is good in History. Physics, Computer Science and Mathematics.

Sol. (44-46):

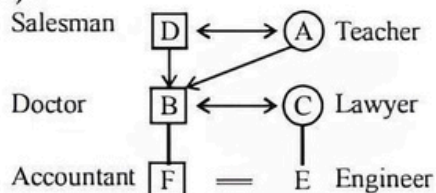


44. (a) C is cousin of F.  
 45. (b) Male Children are A, E and C.  
 46. (d) D is cousin of A.



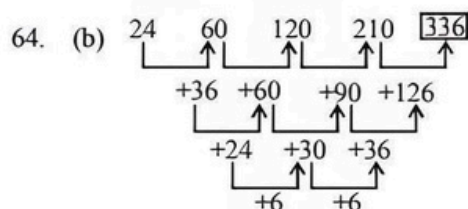
47. (b) Z is brother in law of R.  
 48. (b) Two  
 49. (d) R and Y

Sol. (50-52):



50. (d) Cannot be determined as gender of E is not Known.  
 51. (b) Doctor  
 52. (d) Couples are A & D and B & C.  
 53. (a) Carbon monoxide, when inhaled, combines with haemoglobin of blood to form carboxy-haemoglobin which inhibits the transport of oxygen. Thus, both 'A' and 'R' are true and R is the correct explanation of 'A'. Thus, both 'A' and 'R' are true and 'R' is the correct explanation of 'A'.  
 54. (a) Temperature decreases with altitude. So we feel colder on mountains. The rate of decrease in temperature with altitude is  $1^{\circ}\text{C}$  for every 165 metres of ascent.

55. (c) 'A' is true but 'R' is false. The high temperature and pressure inside the earth keep the metals in molten state. The earth does not absorb the sun's rays but reflects them.  
 56. (b) Both 'A' and 'R' are true. But 'R' is not the correct explanation of 'A'. Clothes are not washed properly in hard water because it does not form lather with soap. However, it is true that hard water contains many minerals.  
 57. (c) None of the conclusions follow. It is not true that problem makes life interesting. Conclusion II is absurd. A solution to life-problem is possible after incidence of problem. A solution to any problem depends on the nature of problem.  
 58. (a) Only Conclusion I follows. The statement asserts that India's economy is dependent mainly on forests. So, forests should be preserved. But it cannot be said that only maintenance of forests can improve the economic conditions.  
 59. (d) Both the Conclusions follow. The statement clearly supports both the Conclusions. The statement mentions that the world for a man is as he makes it himself. So, some people might find it good and some quite good.  
 60. (c) Here worker-tool relationship has been shown. Surgeon uses scalpel to perform operation. Similarly, Sculptor uses chisel to carve out statue.  
 61. (b) A triangle has three sides while a hexagon has six sides. Similarly, a rectangle has four sides and an octagon has eight sides.  
 62. (a) First word is of higher intensity than the second word.  
 63. (c) Texture of cloth gives an idea of cloth whether it is rough or smooth. Similarly, grain is the pattern of lines seen or felt in wood.



65. (c)  $462 - 42 = 420$   
 $420 - 40 = 380$   
 $380 - 38 = 342$   
 $342 - 36 = 306$   
 66. (d)  $D \xrightarrow{+3} G \xrightarrow{+4} K \xrightarrow{+3} N \xrightarrow{+4} R \xrightarrow{+3} U$   
 $F \xrightarrow{+4} J \xrightarrow{+3} M \xrightarrow{+4} Q \xrightarrow{+3} T \xrightarrow{+4} X$   
 67. (d)  $O \xrightarrow{+1} P \xrightarrow{+1} Q \xrightarrow{+1} R \xrightarrow{+1} S$   
 $T \xrightarrow{+1} U \xrightarrow{+1} V \xrightarrow{+1} W \xrightarrow{+1} X$   
 $E \xrightarrow{+1} F \xrightarrow{+1} G \xrightarrow{+1} H \xrightarrow{+1} I$



68. (b)  $2 \xrightarrow{+5} 7 \xrightarrow{+7} 14 \xrightarrow{+9} 23 \xrightarrow{+11} 34 \xrightarrow{+13} 47$   
 $Z \xrightarrow{-1} Y \xrightarrow{-1} X \xrightarrow{-1} W \xrightarrow{-1} V \xrightarrow{-1} U$   
 $5 \xrightarrow{+2} 7 \xrightarrow{+2} 9 \xrightarrow{+2} 11 \xrightarrow{+2} 13 \xrightarrow{+2} 15$

69. (b) Statement II is the cause and statement I is its effect. Clearly, a cut in the tax or duty on a certain product is bound to cause a reduction in the price of the product.

70. (d) Both the statements I and II are effects of some common cause. Weekend is holiday, so a large number of people visited the religious places. It is not possible to visit the religious place during the week days as one has to do his duty or work.

71. (d) Both the statements I and II are effects of some common cause. Evacuating low-lying areas and rushing in relief to the affected areas clearly indicates that floods have occurred in the area.

72. (a) Rita ↔ Husband  
(Herself)

↓  
Daughter = Brother  
(Man himself)

Therefore, man on the stage is son of Rita.

73. (c) Mother = Brother

↓      ↓  
Woman    Son (man)

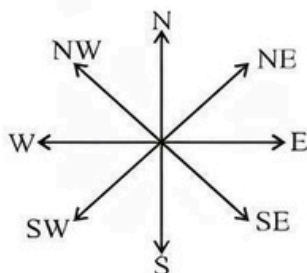
Therefore, man is the cousin of woman.

74. (d) Father (Mahipal)

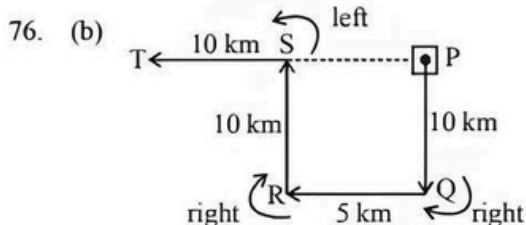
↓      ↔      Husband/Mahipal's  
Neena      only son/ father/Raman  
↓  
Anita

Therefore, Anita is granddaughter of mahipal,

75. (d) Shortcut method:  
For anticlockwise – Take minus sign  
For clockwise – Take plus sign.  
 $+45^\circ + 180^\circ - 270^\circ = -45^\circ$

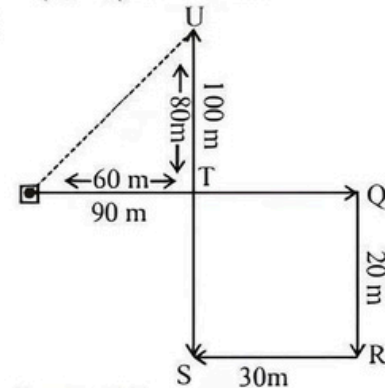


original position of man was facing west.  
Now, rotate the position of man by  $45^\circ$  anticlockwise.  
Thus, he is facing south west direction.



Thus, required distance  
= PT = TS + SP  
= (10 + 5) km = 15 km

77. (b)



Required distance = PU

$$= \sqrt{(PT)^2 + (TU)^2}$$

$$= \sqrt{(60)^2 + (80)^2}$$

$$= \sqrt{3600 + 6400}$$

$$= \sqrt{10000} = 100\text{m}$$

Sol. (78-80) :

Friends	Modes of Transport	City
P	Bus	Hyderabad
Q	Aeroplane	Kolkata
R	Car	Bengaluru
S	Boat	Chennai
T	Train	Delhi

78. (c) S travelled to Chennai by boat.

79. (a) P travelled to Hyderabad by bus.

80. (c) T travelled to Delhi by train.

81. (a) C.P. of 16 kg of the mixture  
= ₹ (12 × 16 + 4 × 2) = ₹ 200  
S.P. of 16 kg of the mixture  
= 16 × 16 = ₹ 256

$$\therefore \text{Actual gain} = \frac{40}{16} \times 56 = ₹ 140$$

82. (a) Let the C.P. of 150 kg of rice be ₹150.

$\therefore$  S.P. of 50 kg of rice at 10%

$$\text{loss} = \frac{90}{100} \times 50 = ₹ 45$$

For 10% of gain on the whole.

$$\text{S.P.} = 150 \times \frac{110}{100} = ₹ 165$$

$\therefore$  100kg rice should be sold for ₹ 120.

$\therefore$  Per cent gain = 20



83. (d) Let the total amount be  $x$ .  
Sum of the ratios  $= 3 + 3 + 3 + 4 = 13$   
 $\therefore \left(\frac{4}{13} - \frac{3}{13}\right) \times x = 5000$   
 $\therefore x = ₹ 65000$   
 $\therefore$  Amount of three brothers  
 $= \frac{9}{13} \times 65000 = ₹ 45000$
84. (b) Ratio of marks obtained by Kalpana and Humpy is  
Kalpana : Humpy  $= 4 : 1$   
Humpy gets  $\frac{1}{4} \times 864$  marks  $= 216$  marks
85. (c) By using definition of perimeter  
 $2x + 3x + 4x = 54$   
 $\Rightarrow x = 6$   
smallest side  $= 2 \times 6 = 12$
86. (b) According to the question  $\frac{3x+5}{4x+5} = \frac{4}{5}$   
 $\Rightarrow x = 25 - 20 = 5$   
 $\therefore$  Numbers are 15 and 20  
 $\therefore$  Required answer  
 $= 15 \times 20 + 15^2 + 20^2 = 925$
87. (a) Total journey  $= 180$  km  
 $\frac{1}{3}$  rd of journey  $= \frac{180}{3} = 60$  km.  
If usual speed be  $x$  kmph, then  
 $\frac{60}{\frac{3x}{4}} - \frac{60}{x} = \frac{1}{2}$   
 $\Rightarrow \frac{80}{x} - \frac{60}{x} = \frac{1}{2}$   
 $\Rightarrow \frac{80 - 60}{x} = \frac{1}{2}$   
 $\Rightarrow x = 40$  kmph
88. (a) If the rowing speed in still water be  $x$  kmph, and the distance by  $y$  km, then  
 $\frac{y}{x-2} = 6$   
 $\Rightarrow y = 6(x-2)$  ... (i)  
and,  $\frac{y}{x+2} = 4$   
 $\Rightarrow y = 4(x+2)$  ... (ii)  
 $\Rightarrow 6(x-2) = 4(x+2)$
- $\Rightarrow x = 10$  kmph
89. (c) Total time taken  
 $= \left(\frac{9}{9+6} + \frac{9}{9-6}\right)$  hour  
 $= \left(\frac{3}{5} + 3\right)$  hours  $= 3\frac{3}{5}$  hours
90. (c) Let speed of car B be  $x$  km/h clearly  
 $4 \times 48 = 6 \times x$   
 $\therefore x = \frac{4 \times 48}{6} = 32$  kmph
91. (c) Ratio of equivalent capitals for 1 month  
 $= 40000 \times 8 : 30000 \times 9$   
 $= 32 : 27 =$  Ratio of profit
92. (d) Total earning  $= ₹ 44000$   
 $\therefore$  Son's salary  $= \frac{4}{11} \times 44000$   
 $= ₹ 16000$   
Father's salary  $= \frac{7}{11} \times 44000$   
 $= ₹ 28000$   
According to the question  $\frac{16000 + x}{28000} = \frac{7}{4}$   
 $x = ₹ 33000$
93. (c) Ratio of profits of Sankar, Srinivas and Manohar  
 $=$  Ratio of their equivalent capitals for 1 month  
 $= 12 \times 40000 : 5 \times 30000 : 7 \times 70000$   
 $= 48 : 15 : 49$
94. (a) X remained in partnership for  $x$  months.  
 $\therefore \frac{5 \times x}{9 \times 6} = \frac{10}{9}$   
 $\Rightarrow x = 2 \times 6 = 12$  months
95. (c) Let the value of the calculator be ₹  $x$ .  
 $\therefore \frac{105x}{100} - \frac{87x}{100} = 45$   
 $\Rightarrow \frac{18x}{100} = 45$   
 $\Rightarrow x = \frac{45 \times 100}{18} = ₹ 250$
96. (a) C.P. of 5 kg of mixture  
 $= ₹ (3 \times 20 + 2 \times 28)$   
 $= ₹ 116$   
Its S.P.  $= 5 \times 24 = ₹ 120$



$$\therefore \text{Gain \%} = \frac{4}{116} \times 100 = 3.44\%$$

97. (b) C.P. of 400 tomatoes

$$= 4 \times 125 = ₹ 500$$

$$\text{S.P.} = ₹ 600$$

$$\therefore \text{S.P. of 400 tomatoes} = ₹ 600$$

$$\therefore \text{S.P. of 12 tomatoes} = \frac{600}{400} \times 12 = ₹ 18$$

98. (c) Let Sivaram's monthly salary be ₹ x.

$$\therefore \frac{52x}{100} = 10400$$

$$\therefore x = \frac{10400 \times 100}{52}$$

$$= ₹ 20000$$

99. (c) Part of the tank drained out in an hour =  $\frac{1}{3} - \frac{1}{7}$

$$= \frac{1}{3} - \frac{2}{7} = \frac{7-6}{21} = \frac{1}{21}$$

$$\therefore \text{Leak will drain the tank in 21 hours.}$$

100. (b) Ratio of time taken

$$= \frac{1}{12} : \frac{1}{\left(\frac{4}{3}\right)^2} : \frac{1}{2^2} = 1 : \frac{9}{16} : \frac{1}{4} = 16 : 9 : 4$$

$$\therefore \text{Time taken by largest pipe} = \frac{3660}{60} = 61 \text{ minutes}$$

$$\text{Time taken by smallest pipe}$$

$$= \frac{16 \times 61}{4} = (4 \times 61) \text{ minutes}$$

$$\text{Time taken by larger pipe} = \frac{9 \times 61}{4} \text{ minutes}$$

$$\therefore \text{Part of the tank filled in 1 minutes}$$

$$= \frac{1}{61} + \frac{1}{4 \times 61} + \frac{4}{9 \times 61} = \frac{39+9+16}{36 \times 61} = \frac{1}{36}$$

$$\therefore \text{Time taken} = 36 \text{ minutes}$$

101. (b) Work of inlet pipe in an hour =  $\frac{1}{8} - \frac{1}{12} = \frac{1}{24}$

Without leak, the inlet pipe will fill in the tank in 24 hours.

$$\therefore \text{Capacity of the tank} = 4 \times 24 \times 60 = 5760 \text{ litres}$$

102. (d) Part of the tank filled in 2 hours =  $\frac{1}{2} + \frac{1}{5} = \frac{7}{10}$

Part of the tank emptied in an hour when all three are

$$\text{opened} = \frac{1}{4} + \frac{1}{5} - \frac{1}{2} = -\frac{1}{20}$$

$$\therefore \text{Time taken} = \frac{7}{10} \times 20 = 14 \text{ hours}$$

It means 5 p.m.

103. (a) Area of the square base =  $\frac{10000}{16} \text{ sq.cm.}$

$$\text{Volume of cube cut off} = \left(\frac{100}{4}\right)^3 \text{ cu. cm.}$$

$$\therefore (100)^3 \text{ cu.cm} = 900 \text{ kg.}$$

$$\therefore \left(\frac{100}{4}\right)^3 \text{ cu. cm.} = \frac{900}{64} \text{ kg}$$

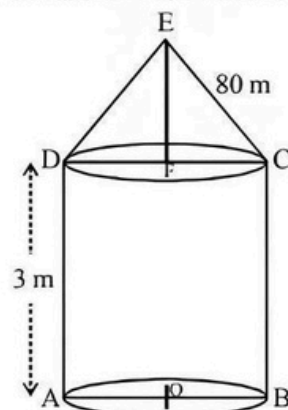
$$= 14 \text{ kg } \frac{4}{64} \times 1000 \text{ gm} = 14 \text{ kg } 62.5 \text{ gm}$$

104. (b) Circumference of base of cone =  $\pi r$   
Where 'r' is the radius of semi-circular sheet.

$$\therefore 2 \times \frac{22}{7} \times r = \frac{22}{7} \times 28$$

$$\Rightarrow r = 14 \text{ cm}$$

105. (c) Since AB = DC = 140 m



$$\therefore DF = OA = OB = 70 \text{ metre}$$

$$\text{Total curved surface area,} = 2 \pi r h + \pi r l$$

$$2 \times \frac{22}{7} \times 70 \times 3 + \frac{22}{7} \times 70 \times 80$$

$$= 1320 + 17600 = 18920 \text{ sq.m.}$$

$$\therefore \text{Length of canvas} = \frac{18920}{2} = 9460 \text{ metre}$$

106. (c) Volume of the largest cube =  $3^3 + 4^3 + 5^3$   
= 216 cu.cm.

$$\text{Edge of the largest cube} = 6 \text{ cm.}$$

$$\text{Surface area of small cubes}$$

$$= 6[9 + 16 + 25] = 6 \times 50 \text{ cm}^2$$

$$\text{Required ratio} = 6 \times 50 : 6 \times 36 = 50 : 36 = 25 : 18$$

107. (d) Total possible outcomes =  $6 \times 6 = 36$

Favourable outcomes



= {(1, 1), (1, 2), (2, 1), (1, 3), (3, 1), (2, 2), (1, 4), (4, 1), (2, 3), (3, 2), (1, 5), (5, 1), (2, 4), (4, 2), (3, 3)}

$$\text{Required probability} = \frac{15}{36} = \frac{5}{12}$$

108. (c) Number of possible ways =  $3 \times 3 = 9$

109. (d) Required probability =  $\frac{1}{2}$

110. (d) Total no. of shirts = 100

No. of shirts which have major defect = 6

$\therefore$  Good shirts = 94

Probability of a shirt without major defects

$$= \frac{94}{100} = 0.94$$

111. (b) S.I. =  $5700 - 5000 = ₹ 700$

$$\therefore R = \frac{\text{S.I.} \times 100}{\text{Principal} \times \text{Time}} = \frac{700 \times 100}{5000 \times 2} = 7\% \text{ per annum}$$

New rate = 11%

$$\therefore \text{S.I.} = \frac{5000 \times 11 \times 2}{100} = ₹ 1100$$

$$\therefore \text{Amount} = ₹ (5000 + 1100) = ₹ 6100$$

112. (d) Let the sum be ₹ x.

$$\therefore \frac{x \times 11 \times 5}{100} - \frac{x \times 8 \times 6}{100} = 1008$$

$$\Rightarrow \frac{7x}{100} = 1008$$

$$\Rightarrow x = 14400$$

113. (b) Let the sum be ₹ x.

$$\text{ATQ} = \frac{100 \times 2x \times (y + 2)}{100} = \frac{5 \times 100 \times x \times 2}{100}$$

$$\Rightarrow y = 3 \text{ years}$$

114. (c) Let the principal be ₹ x.

$$\text{S.I.} = \frac{P \times R \times T}{100}$$

$$\therefore \frac{x \times 2 \times 6}{100} + \frac{x \times 2 \times 7}{100} + \frac{x \times 8 \times 3}{100} = 7536$$

$$\Rightarrow \frac{50x}{100} = 7536$$

$$\Rightarrow x = 2 \times 7536 = ₹ 15072$$

$$\therefore \text{Amount} = 15072 + 7536 = ₹ 22608$$

115. (b) Required percentage =  $\frac{25}{125} \times 100 = 20\%$

116. (a) Males = x.

Females =  $100 - x$

$$\therefore x \times 7000 + (100 - x) \times 12000 = 100 \times 8000$$

$$\Rightarrow 7x \times 1200 - 1200 - 12x = 800$$

$$\Rightarrow 5x = 400 \Rightarrow x = 80$$

117. (d) Area remains same

$$25 - x - \frac{25x}{100} = 0$$

$$\Rightarrow x + \frac{x}{4} = 25$$

$$\Rightarrow 5x = 25 \times 4$$

$$\Rightarrow x = 20\%$$

118. (b) Pages in X = 120

$$\text{Pages in Y} = \frac{120 \times 110}{100} = 132$$

$$\text{Pages in Z} = \frac{120 \times 90}{100} = 108$$

$$\text{Pages torn from X} = 6$$

$$\text{Pages torn from Y} = \frac{132 \times 10}{100} = 13.2$$

$$\text{Pages torn from Z} = \frac{108 \times 15}{100} = 16.2$$

$$\text{Number of pages torn out} = 35.4$$

$$\text{Total pages} = 120 + 132 + 108 = 360$$

$$\text{Required per cent} = \frac{35.4}{360} \times 100 = 10$$

119. (d) Let the number of boys be x

$$\therefore \text{Number of girls} = 160 - x$$

$$\therefore 4.5 \times x + 3.7 (160 - x) = 640$$

$$\Rightarrow 4.5x + 592 - 3.7x = 640$$

$$4.5x - 3.7x = 640 - 592$$

$$0.8x = 48$$

$$\Rightarrow x = \frac{48}{0.8} = 60$$

$$\therefore \text{Number of girls} = 160 - 60 = 100$$

120. (c) Let number of goods = 100

C.P of each article = ₹ 1

$$\therefore \text{S.P. of } \frac{2}{5} \times 100 = 40 \text{ article} = ₹ \left( 40 \times \frac{80}{100} \right) = ₹ 32.$$

Total S.P. = ₹ 110.

$$\therefore \text{S.P. of remaining 60 articles} = ₹ (110 - 32) = ₹ 78$$

$$\therefore \text{Required percentage gain} = \frac{18}{60} \times 100 = 30\%$$

121. (a) Coarse means rough, hard, uncouth, crude, loutish so its antonym can be delicate, smooth, polite, fragile, flimsy, subtle.

122. (d) Enervated means lethargic, indolent, and languid so its antonym can be energized or enthusiastic.

123. (b) Ludicrous means absurd, ridiculous and farcical so its antonym can be reasonable or justifiable.

124. (b) Adore means esteem, respect and admire so its antonym can be disapprove, criticize, revile, attack or condemn.



125. (c) Colossal means huge, massive, immense and gigantic so its antonym can be small, tiny or meager.
126. (a) Xenophobia is hate for foreigners, anglophobia is fear of Englishmen, bibliophobia is fear of book and hemophobia is fear of blood but claustrophobia is fear of crowd and thus this is not the same relation as the given pair.
127. (a) Sail helps a ship move. Same is the relation between all the pair except propeller and dog.
128. (b) Dog belongs to category of Canine mammals. Parrot does not belong to the aquatic category, which is (water inhabiting animals).
129. (c) Cosmic is related to universe; cosmic means "of the universal", just as terrestrial means "of the land". Connubial means of the marriage and not youth. Thus this pair has a relation different from the given one.
130. (d) Germane and pertinent are synonyms as are all pairs except excited and serene which are antonyms.
131. (b) Discovered or found should be preceded by an auxiliary verb like was, wasn't cannot be an apt word.
132. (c) A product is launched not commissioned or even started.
133. (d) Fortune was made means he was settled as a success. Days were up suggests an ending, chances are talked of before the result.
134. (a) Flames can only be smothered to be put out, so the answer is (a).
135. (d) The answer is 'between us' (d), as the secret was between Sam and the Speaker. Amongst is used for more than two people.
136. (c) E is the statement which begins the passage, D talks about the first set of test for intelligence, this is followed by A on the use of such intelligent tests, C tells us about the intelligence quotient and tests which are developed to indicate what an average child of a certain age can do and B ends the passage.
137. (c) B is the introduction to the passage, C follows referring to education by older images drawn by hand to be better than being educated by photographs, D talks about the inventory started in 1839 and everything else being photographed after that A refers to the insatiability of the photographing eye and E talks about the new visual code i.e. of photographs altering and enlarging our notions.
138. (d) A lays the tone of the passage by telling us that Passivity is not universal, B refers to areas which are lawless or frontier zones where all men go armed, C continues by saying that it must be the case for those on the fringe of the unsubmissive, D tells us about the problem of the soil-bound peasants, E concludes by talking about the whole matter depending upon the assessment of the political situation.
139. (d) 140. (d) 141. (d)
142. (a) 143. (a) 144. (d)
145. (a) Option (c) can be rejected as it is out of the context. Option (d) is also not true as they like to invest abroad than in India. Only option which is in sync with major portion of passage is (a).
146. (c) Last part of the passage chiefly describes it. Other options show these sectors in positive light which is against passage content.
147. (b) Option (b) is true in its completeness, encompassing the whole of the passage. But other options are true in parts only.
148. (c) Both (a) and (c) are directly mentioned in passage. Statement 2 is just not true.
149. (d) Option (d) can be related to the experts as mentioned in the passage.
150. (d) Option (d) has plenty of illustrations, references and structure to support it in the passage. Other options like B are true but not the central theme of the passage. Option (a) and (c) are not true.
151. (d) A rise from the 4% level to 7 % says that there is rise in education in Egypt.
152. (c) First line of the passage is self explanatory.
153. (b) Only option which can be linked with the passage is 1. Their people will agitate for greater political freedom, culminating in a shift to a more democratic form of government.
154. (c) Option (a) is wrong as this is not intended from the use of this phrase. Last part of passage has this phrase and poor-rich divide has been discussed their in voting pattern or why rich people even educated do not vote. Option (d) is out of the context.
155. (b) 156. (b) 157. (a) 158. (b)
159. (b) EMBELLISH means, to make something more beautiful by adding decorations to it.
160. (b) OPPORTUNE means, suitable for doing a particular thing, so that it is likely to be successful.
- Sol. (161-165):**  
 $\text{Profit} = \text{Revenue} - \text{variable cost} - \text{fixed cost}$   
 Fixed cost remains constant upto 34 units after which additional investment is to be done in fixed assets.  
 Maximum production = 50 units.
161. (b) For no loss  
 $\text{Revenue} \geq \text{variable cost} + \text{Fixed cost}$  and we can see from the graph that when production is equal to 10 units.  
 $\text{Revenue} = \text{variable cost} + \text{Fixed cost}$  and before this point there are losses and after this point, there are profits. Hence minimum number of units that must be produced to make sure that there are no losses is 10.  
 At 10 units,  $\text{Profit} = 200 - 130 - 70 = 0$ .



162. (a) For 20 units,  
Profit = 400 - 280 - 70 = 50  
Below 20 units the profit will be less than 50. So a minimum of 20 units is to be manufactured.

163. (b)

Units	Revenue	Variable Cost	Fixed Cost	Profit	Profit / Unit
25	500	350	70	80	3.8
34	680	475	70	135	3.97
35	700	490	100	110	3.14
40	800	560	100	140	3.5

So, 34 units shall be manufactured to maximise profit/unit.

164. (b)

Units	Revenue	Variable Cost	Fixed Cost	Profit	Profit / Unit
45	900	630	100	170	3.77

So, from previous question it is clear that 34 units shall be manufactured.

165. (b) As per the question, Fixed Cost = 70 + 40 = 110 till 34 units.  
We know previously that there is no profit/loss at 10 units.

Units	Revenue	Variable Cost	Fixed Cost	Profit
15	300	210	110	-20
19	390	275	110	5
20	400	280	110	10

Hence, for no loss 19 units need to be manufactured.

166. (d) Required ratio =  $34560 \times \frac{55}{100} : 45640 \times \frac{45}{100}$   
= 19008 : 20538 = 1056 : 1141

167. (d) Required percentage

$$\frac{55500 \times \frac{41}{100}}{34560 + 65900 + 45640 + 55500 + 42350 + 59650} \times 100$$

$$= \frac{22755}{303600} \times 100 = 7.495 \approx 7.5\% \text{ (Approx)}$$

168. (d) Required percentage

$$= \frac{45640 \times \frac{20}{100}}{59650 \times \frac{14}{100}} \times 100 = \frac{9128}{8351} \times 100 = 109.30\%$$

169. (c) Required Number

$$= 65900 \times \frac{20}{100} + 55500 \times \frac{33}{100} = 13180 + 18315 = 31495$$

170. (a) Required Average Number

$$= \frac{34560 \times \frac{55}{100} + 65900 \times \frac{43}{100} + 45640 \times \frac{45}{100} + 55500 \times \frac{26}{100} + 42350 \times \frac{70}{100} + 59650 \times \frac{62}{100}}{6}$$

$$= \frac{19008 + 28337 + 20538 + 14430 + 29645 + 36983}{6}$$

$$= \frac{148941}{6} = 24823.5$$

171. (c) Number of mobiles sold of company B in July = 3570  
Number of mobiles sold of company B in December = 4050

$$\text{Required Ratio} = 3570 : 4050 = 119 : 135$$

172. (c) Total mobiles sold by company A during November = 2520

$$\text{Total mobiles sold by this company at discount} = 35\% \text{ of } 2520 = 882$$

$$\text{Total mobiles sold by company A without discount} = 2520 - 882 = 1638$$

173. (d) Mobile phones sold of company B during October = 1500

$$\text{Total profit earned on the mobile phones} = ₹(433 \times 1500) = ₹ 6,49,500$$

174. (d) Number of mobile phones sold of company A during July = 4080

$$\text{Number of mobile phones sold by company A during December} = 3150$$

$$\text{Required percentage} = \frac{4080}{3150} \times 100 = 129.5 \approx 130\%$$

175. (a) Mobile phones sold of company B during August = 5500

$$\text{Mobile phones sold of company B during September} = 4500$$

$$\text{Total number of mobile phones} = 5500 + 4500 = 10,000$$

= Sol. (176 - 180):

Vehicle	Day 1			Day 2		
	Time in hr	Distance in km	Speed in km/hr	Time in hr	Distance in km	Speed in km/hr
A	16	832	52	16	864	54
B	12	516	43	18	774	43
C	11	693	63	18	810	45
D	12	552	46	15	765	51
E	16	935	58.4	14	546	39
F	19	703	37	12	636	53

176. (d) Vehicle B.

177. (c) Speed of vehicle A on day 1 = 52 km/hr

$$\text{Speed of vehicle C on day 1} = 63 \text{ km/hr}$$

$$\text{Difference} = 63 - 52 = 11 \text{ km/hr}$$

178. (d) Speed of vehicle can day 2 = 45 km/hr

$$\Rightarrow \left( 45 \times \frac{5}{18} \right) \text{ m/sec} = 12.5 \text{ m/sec}$$



179. (d) Percentage

$$= \frac{\text{Distance travelled by vehicle F on day 2}}{\text{Distance travelled by vehicle F on day 1}} \times 100$$

$$= \frac{636}{703} \times 100 \approx \frac{630}{700} \times 100 \approx 90\%$$

180. (b) Speed of vehicle D on day 2 = 51

Speed of vehicle E on day 2 = 39

$$\text{Required ratio} = \frac{51}{39} = \frac{17}{13} \text{ or } 17:13$$

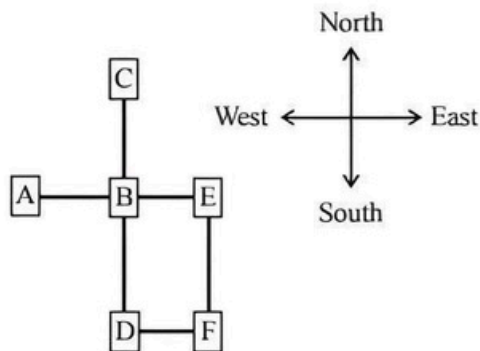
181. (c) From statements I, II and III

Floor No.	Person
6	P
5	T
4	R
3	S
2	Q
1	V

182. (b) From statements I and III

I	2	3	4	5	6
A		S		E	
A	N	S	W	E	R

183. (b) From statements I and III



184. (c) From Statements I and II

one of (its) kind  $\rightarrow$  zo pi ko fe

in kind and cash  $\rightarrow$  ga to ru ko

(its) point for origin  $\rightarrow$  ba je fe mi

make a point clear  $\rightarrow$  yu si mi de

From statements I and III.

one of its kind  $\rightarrow$  zo pi ko fe

in kind and cash  $\rightarrow$  ga to ru ko

make money and cash  $\rightarrow$  to mi ru hy

money of various kind  $\rightarrow$  qu ko zo hy

From statements I, II and III

one of its kind  $\rightarrow$  zo pi ko fe

in kind and cash  $\rightarrow$  ga to ru ko

(its) point for origin  $\rightarrow$  ba le fe mi

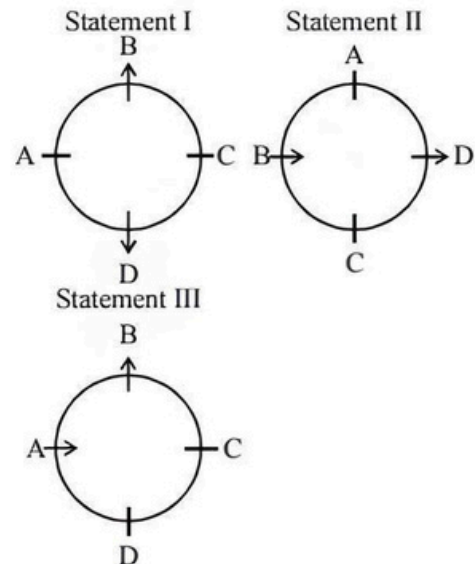
make a point clear  $\rightarrow$  yu si mi de

make money and cash  $\rightarrow$  to mi ru hy

money of various kind  $\rightarrow$  qu ko zo hy

Hence code of 'one' is 'pi'

185. (d)



186. (b) Taxable income = Salary - Standard deduction

$$= 1,50,000 - 30,000 = ₹ 1,20,000$$

Tax = upto ₹ 50,000 = Nil.

Tax will be calculated on ₹ 70,000

For ₹ 10,000 @ 10% = ₹ 1,000

For ₹ 60,000 @ 20% = ₹ 12,000

Total payable tax = 12,000 + 1,000 = ₹ 13,000

Exemptions on saving = 13,000 - 8,000 = ₹ 5,000

10% surcharge = ₹ 500

Tax liability = 5,000 + 500 = ₹ 5,500

187. (c) Taxable income = Salary - Standard deduction

$$= 1,55,000 - 25,000 = ₹ 1,30,000$$

Tax upto ₹ 50,000 = Nil

Income for tax calculation = ₹ 80,000

Tax for ₹ 10,000 = ₹ 1,000

Tax for ₹ 70,000 = ₹ 14,000

Total payable tax = 1,000 + 14,000 = ₹ 15,000

Rebate = 15% of 40,000 = ₹ 6,000

Tax payable = (15,000 - 6,000) = ₹ 9,000



Exemptions of saving surcharge = ₹ 900  
 Total liability = ₹ 9,000 + 900 = ₹ 9,900  
 Income after tax = 1,55,000 – 9,900 = ₹ 1,45,100  
 Increase in income = ₹ 1,45,100 – 1,44,500 = ₹ 600

188. (b) Ref. above solution.

Net tax payable = 13,000 – 5,000 = ₹ 8000  
 8000 is 20% of 40,000  
 So, she needs to save, 40,000.

189. (d) Salary = ₹ 1,44,000

Consultancy income = ₹ 35,000

Total income = ₹ 1,79,000

Standard deduction = ₹ 30,000

Net income = ₹ 1,49,000

Tax payable = 1,000 + 17,800 = ₹ 18,800

Rebate = 20% of 70,000 = ₹ 14,000

Net tax = (18,800 – 14,000) = ₹ 4,800

Surcharge = 10% of 4,800

Total tax liability = (4,800 + 480) = ₹ 5,280

190. (d) For this question, if we knew the principal amount, we could have found the rate of interest.

191. (a) Statement A alone is not sufficient but statement B can alone solve the query.

[According to B,  $\frac{12}{13} = \frac{M-4}{30-4} \Rightarrow M = 28$  yrs]

192. (a) Since total number of children and ratio of boys to girls is given in statement I. So we can easily find the number of boys.

193. (a) We can make the linear equation from statement B and solving it we find the required number.

$\left[ \frac{1}{5}N = \frac{1}{2}(44) - 15 \Rightarrow N = 35 \right]$

194. (c) We can make the two linear equations using each statement and after solving we can find the required passing marks.

195. (c) Graduate members who do not know either computer operation or typing

= 200 – (50 + 40 – 30) = 140

Non-graduate members who do not know either computer operation or typing.

= 160 – (40 + 50 – 20) = 90

Total member who do not know either computer operation or typing = 140 + 90 = 230

$\therefore$  Required percentage =  $\frac{230}{200+160} \times 100 \approx 64\%$

196. (d) Only computer knowing graduate = 40 – 30 = 10

Only computer knowing non-graduate = 30 – 15 = 15

Only typing knowing graduate = 30 – 30 = 0

Only typing knowing non-graduate = 20 – 15 = 5

$\therefore$  Total member = 30 + 15 + 0 + 5 = 50

197. (c) Graduate staff members (4–7) who do not know typing = 230 – (80 + 30) = 120

Non-graduate staff members (7+) who do not know computer operation = 160 – (40 + 20) = 100

$\therefore$  Required ratio =  $\frac{120}{100} = 6:5$

198. (a) Number of graduate staff members knowing both computer operation and typing = 30

After recruitment, new member will be 30 + 15 = 45

$\therefore$  Percentage increase =  $\frac{15}{30} \times 100 = 50\%$

**Sol. (199-200):**

199. (b) It can be seen from the graph that the southern region showed the highest growth in number of households in all the income categories for the period.

200. (d) We only know the total number of households for all four regions combined. Nowhere have they given the region-wise break-up of this value. In the light of this, the given question cannot be answered.