letter of the word from the left ? If more than one such word can be formed, given 'A' as the answer. If no such word can be formed, give 'Z' as your answer.

(1) A (2) T
(3) O (4) N
(5) Z

136. In which of the following expressions will the expression P < M be definitely true ?

(1) M < R > P ≥ S
(2) M ≤ S = P < F
(3) Q < M < F = P
(4) P = A < R < M
(5) None of these

137. In a class of 42 children, Joseph's rank is sixteenth from the top. Kevin is seven ranks below Joseph. What is Kevin's rank from the bottom ?

(1) 22nd (2) 20th
(3) 19th (4) 23rd
(5) 25th

Directions (138-140) : *The following questions are based on the alphabetical series given below :*

C L R T B Q S M A P D I N F J K G Y X

138. Four of the following five are alike in a certain way and so form a group. Which is the one that **does not** belong to the group ?

(1) LBT (2) SPA
(3) IJF (4) PID
(5) BMS

139. If 'CT' is related to 'RQ' and 'AI' is related to 'DF' in a certain way, to which of the following is 'SP' related to, following the same pattern ?

(1) MD (2) DN
(3) AD (4) AI
(5) DF

140. What will come in place of the question mark in the following series ?

CR LB TM SI ?

(1) PK (2) DK
(3) DG (4) NX
(5) PG

Directions (141-145) : *Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and –*

Given answer (1) If the data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

Give answer (2) If the data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question

Give answer (3) If the data **either** in statement I alone or in statement II alone are sufficient to answer the question

Give answer (4) If the data even in both statements I and II together are **not** sufficient to answer the question

Give answer (5) If the data in **both** statements I and II **together** are necessary to answer the question

141. How is 'Party' coded in the language ?

I. 'going to a party' is coded as 'la fa qu tu' and 'to party' is coded as 'fa me tu'
II. 'start the party' is coded as 'tu co ra' and 'going to start' is coded as 'qu co la'.

142. On which day of the week is Priya definitely travelling ?

I. Amita correctly remembers that Priya is travelling after Tuesday but before Saturday. Rohit correctly remembers that Priya is travelling befor Friday but after Monday.
II. Priya does not travel on a Friday.

143. How is P related to A ?

I. A is the daughter of M and he sister of S.
II. K is the son of P and the husband of M.

144. Four movies are screened form Monday to Thursday (one on each day starting on Monday and ending on Thursday) viz-Crash, Social Network, Ice Age and Notting Hill. On which day is the movie 'Crash' screened ?

I. Social Network is screened on the last day.
II. Neither Ice Age nor Notting Hill are screened on Monday.

145. Who sits to the immediate right of Ayesha ?

I. Four friends- Shraddha, Tania, Vilma and Ayesha are sitting around a circular table facing the centre.
II. Shraddha sits second to the right of Tania. Vilma is an immediate neighbour of Shraddha.

Directions (146-150) : *Study the following information to answer the given questions :*

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

(Single digit numbers are preceded by a zero. All other numbers are two digit numbers)

Input : good 18 to raise 02 12 money 28 for 57 charity 09.

Step I : to good 18 raise 02 12 money 28 for charity 09 57.

Step II : to raise good 18 02 12 money for charity 09 28 57.

Step III : to raise money good 02 12 for charity 09 18 28 57.

Step IV : to raise money good 02 for charity 02 12 18 28 57.

Step V : to raise money good for charity 02 09 12 18 28 57.

Step V : is the last Step of the arrangement of the above input as the intended arrangement is obtained.

Directions (146-147) : *These questions are based on the following input :*

Input : always 19 give 21 84 for 62 14 worthy cause.

146. Which of the following would be step III for the above input ?
(1) worthy give for always 19 14 cause 84 62 21.
(2) worthy give for always 14 19 cause 21 62 84.
(3) always give for worthy 19 14 cause 21 62 84.
(4) worthy give for always 19 14 cause 21 62 84.
(5) always give for cause 19 14 worthy 21 62 84.

147. How many steps would be needed to complete the arrangement for the above input ?
(1) VI (2) V
(3) IV (4) VII
(5) None of these

Directions (148-150) : *These questions are based on the following input :*

Input : 50 62 tips on 67 how can 42 stay young 17 89 forever 03.

148. The following stands for which step of the arrangement ?
young tips stay 50 on how can 42 17 forever 03 62 67 89.
(1) Step III (2) Step V
(3) Step VI (4) Step IV
(5) None of these

149. Which of the words/numbers below would be at the fifth position (from the right end) in Step V of the input ?
(1) forever (2) 42
(3) 50 (4) young
(5) None of these

150. Which of the following would be the last step for the input ?
(1) young tips stay on how forever can 03 17 42 50 62 67 89.
(2) young tips stay on how forever can 89 67 62 50 42 17 03.
(3) can forever how on stay tips forever 89 67 62 50 42 17 03.
(4) young tips stay on how forever can 03 17 42 50 67 62 89.
(5) can forever how on stay tips young 03 17 42 50 62 67 89.

Directions (151-155) : *Study the following information and answer the questions below.*

Eight people- S, R, N, L, M, T, O and P are sitting in a circle facing the centre. All eight belong to different professions - reporter, doctor, cricketer, teacher, accountant, shopkeeper, painter and supervisor. They are not necessarily seated in the mentioned order.

M is sitting third to the left of O. The doctor is to the immediate right of M and M is not a reporter. R is sitting fourth to the right of P. Neither R nor P is an immediate neighbour of M. T is a teacher and is sitting third to the right of the doctor. The shopkeeper is sitting second to the left of the teacher. The painter is sitting second to the left of M. S the cricketer is sitting exactly between T and P. The accountant is sitting second to the right of the cricketer. N is sitting third to the left of T.

151. Who amongst the following is a reporter ?
(1) O
(2) L
(3) N
(4) R
(5) None of these

152. What is S's position with respect to R ?
(1) Third to the right
(2) Second to the right
(3) Third to the left
(4) Second to the left
(5) Fourth to the right

153. How many people are sitting between P and N when counted in an anti clockwise direction N ?
(1) One
(2) Two
(3) Three
(4) Four
(5) None

154. Four of the following five pairs are alike in a certain way based on their positions in the above arrangement and so from a group. Which of the following **does not** belong to the group ?
(1) Teacher - Painter
(2) Supervisor - Shopkeeper
(3) Cricketer - Reporter
(4) Doctor - Accountant
(5) Shopkeeper - Doctor

155. Which one of the following statements is **false** according to the above mentioned arrangement ?
(1) N is to the immediate right of the supervisor
(2) The cricketer is third to the right of the shopkeeper
(3) The doctor is sitting exactly between the supervisor and the accountant
(4) L is neither a teacher nor a supervisor
(5) There are only three people between S and N

Directions (156-160) : *Study the following information and answer the questions that follow :*

In a certain code language, 'hope to see you' is coded as 're so na di' 'Please come to see the party' is coded as 'fi ge na di ke zo' 'hope to come' is coded as 'di so ge' and 'see you the party' is coded as 're fi zo na'.

156. How is 'party' coded in the given code language ?
(1) di (2) ke
(3) fi (4) na
(5) None of these

157. What does the code 'so' stand for in the given code language ?
(1) hope (2) come
(3) see (4) to
(5) None of these

158. How is 'party' coded in the given code language ?
(1) Either 're' or 'fi'
(2) Either 'zo' or 'na'
(3) Either 'zo' or 'fi'
(4) Either 'zo' or 'ge'
(5) Either 'ke' or 'fi'

159. How will 'please see you' be coded in the given code language ?
(1) re na ke
(2) so re na
(3) zo re na
(4) na di ke
(5) ke re ge

160. Which one of the following will be coded as 'so di re' in the given code language ?
(1) you see hope
(2) hope you please
(3) hope you come
(4) the hope to
(5) you hope to

Directions (161-165) : *In each question below a statement is given followed by two courses of action numbered I and II. A course of action is a practicable and feasible step or administrative decision to be taken for follow-up, improvement or further action in regard to the problem, policy, etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true, and decide which of the suggested courses of action logically follow/s for pursuing.*
Given answer (1) if only I follows.
Given answer (2) if only II follows.
Given answer (3) if either I or II follows.
Given answer (4) if neither I nor II follows.
Given answer (5) if both I and II follow.

161. Statement : Four cases of pick pocketing were reported at one of the most renowned five star hotels last evening.
Courses of action :
I. The hotel staff should be instructed to be vigilant and report any suspicious person or activity.
II. More CCTV cameras should be installed near the dining and reception areas of the hotel where these incidents took place.

162. Statement : Despite repeated warnings to students and parents from the college, some students have finally not fulfilled the mandatory criteria of 75% attendance in order to appear for exams.
Courses of action :
I. The college should stop adhering to this particular criteria.
II. Either the parents or guardians of the defaulters should be called for a meeting.

163. Statement : The students residing at the hostel of a university had to stay without electricity and water for 48 hours not because of shortages but because of negligence by the hostel staff.
Courses of action :
I. The management of the university should look into the matter and take strict action against such negligence.
II. The students should leave the hostel and find some alternate accommodation.

164. Statement : Local villagers have reported that instances of illegal cutting of trees have increased over the last few months in forest area.

Courses of action :

I. The locals should be encouraged to report any such activities in the future as well.

II. Authorities should immediately look into the matter and put a stop to such illegal activities.

165. **Statement :** The packets of many of the packaged eatables convey incorrect information about the ingredients and nutrient content.

courses of action :

I. All such products should be banned from the market if after a warning also correct information is not provided.

II. The issue should be ignored as long as the eatables are popular among the public.

Directions (166-170) : *Study the following information and answer the questions that follow :*

Six friends- Deepak, Varun, Anit, Nilesh, Rajesh and Siddharth are studying six different specializations of engineering which are- metallurgy, telecommunication, software, mechanical, electrical and hardware not necessarily in the same order. Each one likes a different sport- hockey, cricket, swimming, football, badminton and tennis again not in the same order.

Nilesh is not studying hardware. Rajesh is studying software and likes hockey. Anit likes swimming and is not studying hardware. The one who likes football is studying electrical. Siddharth is studying mechanical and does not like tennis. The one who likes badminton is studying telecommunication. Deepak and Varun do not like badminton. Deepak does not like tennis.

166. Which specialization is Varun studying ?
(1) Metallurgy (2) Mechanical
(3) Hardware (4) Electrical
(5) None of these

167. Which sport does Deepak like ?
(1) Football (2) Cricket
(3) Hockey (4) Cannot be determined
(5) None of these

168. Which of the following person - specialization combination is **correct** according to the given information ?
(1) Niles - Hardware (2) Varun - Electrical
(3) Anit - Metallurgy (4) Siddharth - Software
(5) None of these

Directions (169-170) : If all six friends are asked sit in a straight line facing north, in an alphabetical order (according to their names), from left to right, then –

169. Who will be to the immediate left of the one studying electrical ?
(1) The one who likes badminton
(2) The one who is studying telecommunication
(3) The one who is studying hardware
(4) The one who likes hockey
(5) None of these

170. Which of the following combinations will represent the favourite sport of the immediate neighbours of Rajesh ?
(1) Badminton - Football
(2) Cricket - Tennis
(3) Cricket - Football
(4) Tennis - Football
(5) Cricket - Badminton

Directions (171-17) : *Six friends A, B, C, D, E and F working in the same office take different time to reach office. All of them take time in the multiples of ten in such a manner that the one who reaches office the earliest, reaches in 10 minutes and the one who takes maximum time reaches office in 60 minutes. D takes more time than E but less time than A. A reaches in 30 minutes. B takes less time than only F.*

171. How much time does C take to reach office ?
(1) 60 minutes (2) 50 minutes
(3) 40 minutes (4) 20 minutes
(5) Cannot be determined

172. Who amongst the following takes maximum time to reach office ?
(1) B (2) C
(3) D (4) F
(5) Cannot be determined

173. How many people take more time to reach office than D ?
(1) Four (2) Three
(3) Two (4) One
(5) None

Directions (174-178) : *In each question below is given a statement followed by two assumptions/inferences numbered I and II. An assumption is something supposed or taken for granted and an inference is something which can be directly inferred from the given facts. You have to consider the statement and the following assumptions/inferences and decide which of those is/are implicit in the statement.*

Given answer (1) if only I is implicit.
Given answer (2) if only II is implicit.
Given answer (3) if either I or II is implicit.

Given answer (4) if neither I nor II is implicit.
Given answer (5) if both I and II are implicit.

174. Statement : Using calculator for simpler calculations adversely affects mathematical abilities of children.
I. Using calculator for complex calculations may not affect mathematical abilities adversely.
II. Complex calculations cannot be done manually without the help of a calculator.

175. Statement : For underwater battles only weaponry X should be used.
I. Not all weaponry can function well under water.
II. There are different kinds of weaponry available for battles on ground and under water.

176. Statement : An advertisement by EasyAir, a private airliner 'Travel to Meerut by our airlines and get a chance to win an all expenses paid holiday to Bangkok'.
I. EasyAir flights are available for Bangkok.
II. The city of Meerut has an airport

177. Statement : As the prices of petrol and diesel shoot up, more and more people are resorting to the use of electric cars.
I. Using electricity for powering cars is less expensive than using petrol or diesel.
II. Many people cannot afford the raised prices of petrol and diesel

178. Statement : Book your railway tickets at least three months in advance to ensure a confirmed reservation.
I. No booking is taken by the railways before three months of the date of journey.
II. Air tickets need to be booked as much in advance as train tickets

Directions (179-181) : *Read the following information carefully and answer the questions which follow.*

Ruling governments in the west are being punished by the voters for ever rising unemployment rates. Their parliament is abuzz with campaigns marked by criticism of India as an outsourcing hub. India is seen by many in the west as a land of call centres and back offices with cheap labour that costs people in the west, their jobs.

179. Which of the following statements would **weaken** the argument given in the passage ?
(1) Outsourced jobs do not require highly skilled and qualified employees
(2) Nearly 34% of the unemployed people would secure jobs in the west if outsourced jobs were in-sourced by their organizations
(3) After suffering heavy losses in the elections the governments in the west are expected to change their decision on outsourcing to India.
(4) Outsourcing, a dynamic, two-way relationship has created jobs and growth in India as well as the west.
(5) Although outsourcing to India allowed many companies in west to focus on their core operations, they heavily compromised the quality and the standards of their back office jobs.

180. Which of the following can be a **possible repercussion** of the opposition to outsourcing in the west ?
(1) Jobs which are currently outsourced to India would be transferred to another country which in all prob ability would be China.
(2) Call centres and back offices employees in India would expect a salary at par with their western counterparts.
(3) In-sourcing of jobs by the west would render thousands of Indians unemployed.
(4) If in-sourced in the west itself, the companies would not be able to employ professionals and experts of same quality as available in India.
(5) The western companies which earlier outsourced to India would benefit financially as offices would not have to be set overseas.

181. Which of the following can be **inferred** ? (An inference is something which is not directly stated but can be inferred from the given facts)
(1) Unemployment in India is not as severe a problem as that in the west
(2) Employees working in the back offices and call centres in the west earn much more than their counterparts in India
(3) Developing countries such as China and India do not outsource their back office jobs at all to other countries
(4) Countries which do not outsource jobs do not face the problem of unemployment
(5) One of the main reasons for high unemployment rate in India is its clan of call centres and back offices whcih undertake outsourced work from the west

Directions (182-184) : *Read the following information carefully and answer the questions which follow :*

P is son of Q. Q is mother of R. R is wife of T. T is father of V. V is brother of W. Y is mother of T.

182. Which of the following is **true** based upon the relationships given above ?

(1) W is grand-daughter of Y
(2) R is sister of P
(3) V is son of Q
(4) V is brother-in-law of Y
(5) None of these

183. How is T related to P ?
(1) Son-in-law (2) Brother
(3) Father-in-law (4) Brother-in-law
(5) Cannot be determined

184. Which of the following is/are required to establish that W is the daughter of R ?
(1) No extra information is required as the relation can be established from the given information
(2) R has only three children, one son and two daughters
(3) Q has only one grandson
(4) Y has only two children, a son and a daughter
(5) Either (2) or (3)

Directions (185-190) : *In these questions, relationship relationship between different elements is shown in the statements. These statements are followed by two conclusions.*

Mark answer if
(1) Only conclusion **I** follows
(2) Only conclusion **II** follows
(3) **Either** conclusion I or II follows
(4) **Neither** conclusion I nor II follows
(5) **Both** conclusions I and II follow

185. **Statement :** $A \geq B \leq C, D, D > F$
Conclusions : I. $F > B$
II. $A > D$

186. **Statement :** $X > Y \geq Z, Q = Y, P > J$
Conclusions : I. $Z < P$
II. $P > Q$

187. **Statement :** $L \geq I, H > I \geq J, K < J$
Conclusions : I. $H > L$
II. $L > K$

188. **Statement :** $Q \geq P = Q, R < P, S < Q$
Conclusions : I. $R < S$
II. $O > S$

189. **Statement :** $D \geq E > F = G, E = H < J$
Conclusions : I. $J > D$
II. $G < J$

190. **Statement :** $J \geq R > Z, R > F < W, B > J$
Conclusions : I. $J > F$
II. $B > W$

Directions (191-196) : K, L, M, P, Q, R, S and T are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each if the four sides. The ones who sit at the four corners face outside while those who sit in the middle of the sides face the centre of the table.

P sits third to the right of S. S faces the centre. Q sits third to the left of M. does not sit in the middle of the sides. Only one person sits between Q and R. R is not an immediate neighbour of M. T faces the centre. K is not an immediate neighblur of R.

191. What is position of M with respect to L ?
(1) Third to the right
(2) M and L sit diagonally opposite to each other
(3) Second to the right
(4) Second to the left
(5) Fifth to the right

192. Who sits exactly between Q and R ?
(1) T (2) P
(3) K (4) M
(5) S and K

193. Which of the following pairs represents the persons seated in the middle of the sides who face each other ?
(1) S,Q
(2) K,L
(3) M,P
(4) R,T
(5) T,Q

194. Who amongst the following sit between R and K when counted in anti-clockwise direction from K ?
(1) No one sits between R and K as R and k are immediate neighbours of each other
(2) S, P and L
(3) P and Q
(4) L and R
(5) M, S and T

195. If K is made to face the opposite direction, who would sit to his immediate right ?
(1) R
(2) Q
(3) P
(4) T
(5) S

196. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group ?
(1) L
(2) M
(3) K
(4) P
(5) R

Directions (197-200) : *Read the following information and five statements given below it carefully and answer the questions which fellow.*
Exodus from rural areas to the urban hubs in search of job opportunities has now declined to nearly twenty-six percent of what it was at the turn of 21st century.
(A) Since the last decade, the rural economy has transformed itself into a bankable, profit making and commercially viable venture
(B) Job opportunities differ in urban and rural areas
(C) The load on infrastructure and resources in the urban areas which had remained unmanageable for a long time has been eased a little since the last decade.
(D) This trend of reverse migration which was seen only in developed countries till now has entered the scenes of developing nations as well
(E) According to a recent report more than eighty percent of the professionals having roots in rural areas prefer to work in urban cities rather than their home villages.

197. Which of the statements numbered (A), (B), (C), (D) and (E) mentioned above represents an **effect** of the given information most appropriately ?
(1) B (2) C
(3) D (4) E
(5) Either D or E

198. Which of the statements numbered (A), (B), (C), (D) and (E) mentioned above represents a **cause** of the given information most appropriately ?
(1) E
(2) D
(3) C
(4) B
(5) A

199. Which of the statements numbered (A), (B), (C), (D) and (E) mentioned above represents an **assumption** most appropriately ? (An assumption is something supposed or taken for granted)
(1) A
(2) B
(3) C
(4) Both A and C
(5) D

200. Which of the statements numbered (A), (B), (C), (D) and (E) mentioned above would **weaken/contradict** the facts presented in the paragraph ?
(1) A (2) B
(3) C (4) D
(5) E

Directions (201-205) : *Read the following information and answer the questions which follow :*
Twelve friends A, B, C, D, E, F, G, H, I, J, K and L took birth in different months of the same year. J was born right after one month of the birth of K but right before the month of the birth of C. J neither born in October nor in February. L and B have a gap of two months between their birth. The month, in which I was born, was of 30 days. D was born right after one month of the birth of I. D took birth in the month of 31 days. There is a gap of one month between the birthdays of B and F. E and H was born in the month having 31 days.

201. In which of the following month B took birth?
(1) December
(2) June
(3) March
(4) November
(5) September

202. Four out of the five are similar somehow, so they form a group. Which one is different from that group?
(1) L (2) A
(3) J (4) K
(5) B

203. Which of the following was born in January?
(1) J (2) L
(3) E or H (4) C
(4) I

204. How many people celebrate their birthdays after F?
(1) None (2) 3
(3) 4 (4) 5
(5) 6

205. If I has a specific relation with A and B with J based on their birth months, L will have that kind of relationship with which of the following as per the same basis?
(1) G (2) 4
(3) K (4) E
(5) H

Directions (206-210) : *Read the following information and answer the questions below :*

Twelve people are sitting in two different parallel rows, six in each, in a manner that every one has the same distance from his neighbour : A, B, C, D, E and F are sitting in row one and they are facing towards East. P, Q, R, S, T and V are sitting in a row facing towards West. In this sitting arrangement, person sitting in one row keeps his face towards another one sitting in second row.

P, sitting on the end of a row, is second from the right of T. A does not keep his face towards P or T. A is third from the left of F. Only two people are sitting between Q and V. Only are person is sitting between C and D. Neither C nor D has his face towards P. B is sitting bside C. S, whose face is not towards H is not sitting near Q.

206. Towards which of the following F keeps his face?
(1) Q (2) T
(3) S (4) R
(5) V

207. How many people are sitting between E and C?
(1) 1 (2) 2
(3) 3 (4) 4
(5) None

208. E has the same relation with R as B has with S. On the same pattern with which of the following F has the relation?
(1) V
(2) P
(3) T
(4) Q
(5) None of these

209. Which of the following is true regarding B?
(1) Q is sitting on the left side of the man who is facing B
(2) C is not the nearest neighbour of B.
(3) E is second on the right of B.
(4) T is facing B.
(5) B is sitting second from the left end of the row.

210. Which of the following are sitting on the ends of the rows?
(1) P,V (2) E, A
(3) D, E (4) P, S
(5) None of these

Answer Sheet

1. (5)	2. (3)	3. (3)	4. (3)	5. (4)	6. (5)	7. (5)	8. (5)	9. (2)	10. (5)
11. (5)	12. (4)	13. (1)	14. (4)	15. (5)	16. (1)	17. (5)	18. (2)	19. (1)	20. (2)
21. (5)	22. (2)	23. (4)	24. (2)	25. (2)	26. (4)	27. (2)	28. (2)	29. (5)	30. (1)
31. (4)	32. (1)	33. (2)	34. (3)	35. (1)	36. (4)	37. (5)	38. (3)	39. (4)	40. (3)
41. (1)	42. (1)	43. (2)	44. (1)	45. (3)	46. (4)	47. (5)	48. (3)	49. (2)	50. (5)
51. (5)	52. (1)	53. (2)	54. (1)	55. (3)	56. (3)	57. (4)	58. (2)	59. (5)	60. (4)
61. (2)	62. (3)	63. (1)	64. (4)	65. (2)	66. (4)	67. (5)	68. (4)	69. (2)	70. (1)
71. (2)	72. (4)	73. (5)	74. (3)	75. (1)	76. (2)	77. (4)	78. (5)	79. (3)	80. (2)
81. (1)	82. (4)	83. (1)	84. (2)	85. (5)	86. (3)	87. (4)	88. (5)	89. (1)	90. (5)
91. (2)	92. (4)	93. (4)	94. (3)	95. (4)	96. (3)	97. (2)	98. (5)	99. (1)	100. (5)
101. (4)	102. (1)	103. (5)	104. (1)	105. (1)	106. (5)	107. (3)	108. (2)	109. (2)	110. (3)
111. (5)	112. (3)	113. (2)	114. (3)	115. (5)	116. (5)	117. (3)	118. (5)	119. (2)	120. (2)
121. (4)	122. (4)	123. (5)	124. (2)	125. (5)	126. (2)	127. (1)	128. (3)	129. (4)	130. (3)
131. (4)	132. (3)	133. (2)	134. (2)	135. (1)	136. (4)	137. (2)	138. (4)	139. (4)	140. (3)
141. (5)	142. (4)	143. (5)	144. (5)	145. (5)	146. (4)	147. (3)	148. (1)	149. (2)	150. (1)
151. (1)	152. (1)	153. (4)	154. (5)	155. (3)	156. (2)	157. (1)	158. (3)	159. (1)	160. (5)
161. (5)	162. (2)	163. (1)	164. (5)	165. (1)	166. (3)	167. (1)	168. (3)	169. (5)	170. (5)
171. (3)	172. (4)	173. (1)	174. (1)	175. (5)	176. (2)	177. (5)	178. (4)	179. (4)	180. (3)
181. (2)	182. (2)	183. (4)	184. (5)	185. (4)	186. (5)	187. (2)	188. (2)	189. (2)	190. (1)
191. (5)	192. (2)	193. (5)	194. (3)	195. (1)	196. (5)	197. (3)	198. (4)	199. (3)	200. (5)
201. (5)	202. (4)	203. (3)	204. (4)	205. (1)	206. (5)	207. (2)	208. (5)	209. (4)	210. (3)

SOLUTIONS

91. (2) $|x-45|=40$

$\Rightarrow \quad x-45=\pm 40$

$\Rightarrow \quad x=85 \text{ or } 5$ **Ans.**

92. (4) $\{(3^2)^6\}^4=9^x$

$\Rightarrow \quad 3^{48}=3^{2x}$

$\Rightarrow \quad 2x=48$

$\Rightarrow \quad x=24$ **Ans.**

93. (4) $\sqrt{289}=\sqrt{17\times 17}$

$\Rightarrow \quad \pm 17$ **Ans.**

94. (3) $4^x \times \frac{x}{48}=512$

$\Rightarrow \quad 4^x \times x=5120$

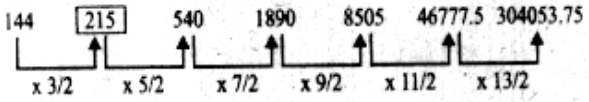
$\Rightarrow \quad 4^x \times x=4^5 \times 5$

$\Rightarrow \quad x=5$ **Ans.**

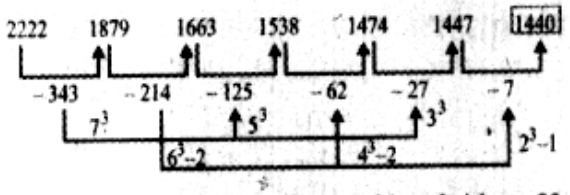
95. (4) $\sqrt[4]{1296}=\sqrt[4]{2^4\times 3^4}$

$\Rightarrow \quad 2\times 3=6$ **Ans.**

99. (1)



100. (5)



101. (4) Let, the boys in the college are $31x$ and girls are $23x$

$\because \quad \frac{31x}{23x+75}=\frac{124}{107}$

$\Rightarrow \quad x=20$

So, boys are $31\times 20=620$

and girls are $23\times 20+75=535$

So, $620-535=85$ girls should be join. **Ans.**

102. (1) $C.I=P\left(1+\frac{r}{100}\right)^n-P$

$\Rightarrow \quad 2862=P\left\{\left(1+\frac{12}{100}\right)^2-1\right\}$

$\Rightarrow \quad 2862=P\left\{\left(\frac{28}{25}\right)^2-1\right\}$

$\Rightarrow \quad 2862=P\times\frac{159}{625}$

$\Rightarrow \quad P=11{,}250$ Ans.

103. (5) speed of the train

$\Rightarrow \quad \frac{280}{20}=14 \text{ m/sec}$

Let, the length of the platefarm is x m.

$\because \quad 60=\frac{x+280}{14}$

$\Rightarrow \quad x+280=840$

$\Rightarrow \quad x=560\,\text{m}$ Ans.

104. (1) $\because x+2x+30=180$

$\Rightarrow \quad 3x=150$

$\Rightarrow \quad x=50$

So, the greatest angle $=2x=2\times 50$

$=100^\circ$ Ans.

105. (1) Total no. of ways $=2\times \lfloor 4$

$\Rightarrow \quad 2\times 4\times 3\times 2\times 1=48$ Ans.

106. (5) Probability of being green $=\frac{2_{C_2}}{15_{C_3}}$

$\Rightarrow \quad \frac{1}{105}$ Ans.

107. (3) Probability of being two blue and one yellow

$\Rightarrow \quad \frac{6_{C_2}\times 4_{C_1}}{15_{C_3}}=\frac{15\times 4}{5\times 7\times 13}=\frac{12}{91}$ Ans.

108. (2) Probability of getting 4 marbles which are not yellow

$\Rightarrow \quad \frac{11_{C_4}}{15_{C_4}}=\frac{11\times 10\times 3}{105\times 13}=\frac{22}{91}$

So, Prob. of getting 4 morbles at least one is yellow

$\Rightarrow \quad 1-\frac{22}{91}=\frac{69}{91}$ Ans.

109. (2) Prob. of being red or green

$$\Rightarrow \frac{{}^{3}C_{2} + {}^{2}C_{2}}{{}^{15}C_{2}} = \frac{3+1}{105} = \frac{4}{105}$$ **Ans.**

110. (3) Prob. of being one green, two blue and one red

$$\Rightarrow \frac{{}^{2}C_{1} \times {}^{6}C_{2} \times {}^{3}C_{1}}{{}^{15}C_{4}} = \frac{2\times 3\times 5\times 3}{15\times 7\times 13}$$

$$\Rightarrow = \frac{6}{91}$$ **Ans..**

116. (5) Employees in Marketing dep.

$$= \frac{3250\times 79.2}{360} = 715$$

Male employees are $= \frac{715\times 3}{5} = 429$ **Ans.**

117. (3) Employs in H.R dept. $= \frac{3250\times 36}{360} = 325$

Female employees in it are $= \frac{325\times 13}{25} = 169$

And, employees in I.T. dept. $= \frac{3250\times 57.6}{360} = 520$

male are $= \frac{520\times 7}{10} = 364$

So, ratio between then,

$= 169 : 364$

$= 13 : 28$ **Ans.**

118. (5) Employees in production dept. $= \frac{3250\times 136.8}{360}$

$= 1235$

Male employees are $= \frac{1235\times 4}{5} = 988$

So, its percentage $= \frac{988\times 100}{1235} = 80\%$ **Ans.**

119. (2) Employees in I.T. dept. = 520

Females are $= \frac{520\times 3}{10} = 156$

Total employees in all department = 3250

% of Females in I.T. department

$= \frac{156\times 100}{3250} = 4.8\%$ **Ans..**

120. (2) Total male employees are

$$\Rightarrow \frac{325\times 12}{25} + \frac{520\times 7}{10} + \frac{1235\times 4}{5} + \frac{715\times 3}{5} + \frac{455\times 6}{13}$$

$= 156 + 356 + 988 + 429 + 210$

$= 2147$ **Ans.**

121. (4) (i) $x^2 + 5x + 6 = 0$

$\Rightarrow (x+2)(x+3) = 0$

$\Rightarrow x = -2$ or $x = -3$

(ii) $y^2 + 3y + 2 = 0$

$\Rightarrow (y+1)(y+2) = 0$

$\Rightarrow y = -1$ or $y = -2$

So, $x \le y$

122. (4) (i) $x^2 - 10x + 24 = 0$

$(x-4)(x-6) = 0$

$\Rightarrow x = 4$ or $x = 6$

$\Rightarrow x = 4$ or $x = 6$

(ii) $y^2 - 9y + 20 = 0$

$\Rightarrow (y-4)(y-5) = 0$

$\Rightarrow y = 4$ or $y = 5$

So, $x \le y$

123. (5) (i) $x^2 = 961$

$\Rightarrow x = \sqrt{961}$

$\Rightarrow x = \pm 31$

(ii) $y = \sqrt{961}$

$\Rightarrow y = \pm 31$

So, $x = y$

124. (2) (i) $x^2 - 72 = x$

$\Rightarrow x^2 - x - 72 = 0$

$\Rightarrow (x-9)(x+8) = 0$

$x = 9$ or $x = -8$

(ii) $y^2 = 64$

$\Rightarrow Y = \pm 8$

So, $x \ge y$

125. (5) (i) $x^2 - 463 = 321$

$\Rightarrow x^2 = 784$

$\Rightarrow x = \pm 28$

(ii) $y^2 - 421 = 308$

$\Rightarrow y^2 = 729$

$\Rightarrow y = \pm 27$

Relationship can not be established

126. (2) Approximate defaulters from Bank S in 2006

$$\Rightarrow \quad = \frac{29565 \times 21}{100} = 6208.65$$

$$= 6208 \text{ approx.}$$ **Ans.**

127. (1) Defaulters from bank Q in year 2004

$$\Rightarrow \quad 26345 \times \frac{9}{100} = 2371.05$$

and, defaulters from bank Q in year 2005

$$\Rightarrow \quad \frac{27456 \times 8}{100} = 2196.48$$

So, difference $= 2371 - 2196$

$$= 175 \text{ approx}$$ **Ans.**

130. (3) Total defaulters from bank T in year 2007 and in year 2008

$$\Rightarrow \quad = \frac{36152 \times 19}{100} + \frac{35463 \times 18}{100}$$

$$\Rightarrow = 6868.88 + 6383.34 = 13252 \text{ approx}$$ **Ans.**

131. (4) The arrangement of the word PLANET will be

$$= \text{NETPLA}$$

So, letters between P and L are 3

132. (3) WORTHY

Arrangement in alphabetical order will be

HORTWY

So, two letters T and Y are unchanged

135. (1) The second, third, light and ninth letter of the word CONFLICTED is

$$= \text{O, N, T and E}$$

meaningful word will be NOTE, TONE

146-147. always 19 give 21 84 for 62 14 worthy Cause

Step I worthy always 19 give 21 for 62 14 Cause 84

Step II worthy give always 19 21 for 14 Cause 62 84

Step III worthy give for always 19 14 cause 21 62 84

Step IV worthy give for cause always 14 19 21 62 84

146. (4) **147.** (3)

148-150. 50 62 tips on 67 how can 42 stay young. 17 89 forever 03

Step I Young 50 62 tips on 67 how can 42 stay 17 forever 03 89

Step II Young tips 50 62 on how can 42 stay 17 forever 03 67 89

Step III Young tips stay 50 on how can 42 17 forever 03 62 67 89

Step IV Young tips stay on how can 42 17 forever 50 62 67 89

Step V Young tips stay on how forever can 17 03 50 62 67 89

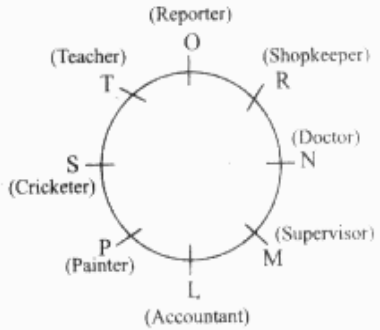
Step VI Young tips stay on how forever can 03 50 62 67 89

148. (1)

149. (2)

150. (1)

151-155 : The sitting arrangement will be



151. (1) **152.** (1) **153.** (4) **154.** (5) **155.** (3)

156-160. to = di, hope = so, see = na, you = re

the party = fi zo, come = ge, please = ke

156. (2) **157.** (1) **158.** (3) **159.** (1) **160.** (5)

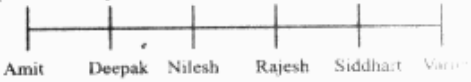
166-168. The system of arrangement will be

Name	Branch	Game
Deepak	Electrical	Football
Varun	Hardware	Tenis
Anit	Metrology	Swimming
Nilesh	Telecommunication	Bedminton
Rajesh	Software	Hockey
Sidharth	Mechanical	Cricket

from above arrangement

166. (3) **167.** (1) **168.** (3)

169-170. The sitting arrangement towards North alphabetically order is



169. (5)

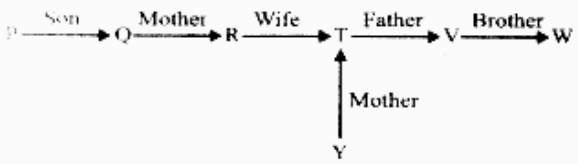
170. (5)

171-173. The schedule will be as follow

Friends	Time
F	10
D	20
A	30
C	40
B	50
E	60

170. (3) **171.** (4) **172.** (1) **173.** (1)

182-184 :

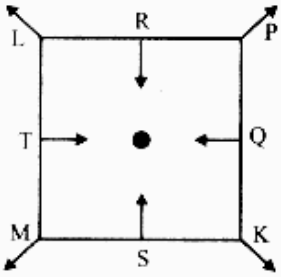


182. (2)

183. (4)

184. (5)

191-196 : the sitting arrangement will be



191. (5) **192.** (2) **193.** (5) **194.** (3)

195. (1) **196.** (5)

197-200 :

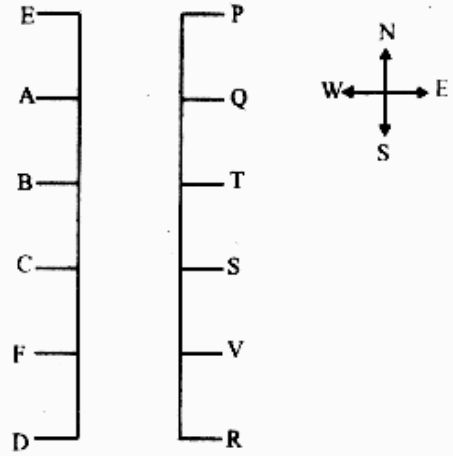
201-205. The table will be as follow :

Jan	E or H
Feb	I
March	D
April	A
May	E or H
June	L
July	F
August	G
September	B
October	K
November	J
December	C

from table

201. (5) **202.** (4) **203.** (3) **204.** (4) **205.** (1)

206-210. The sitting arrangement will be as follow.



from table

206. (5) **207.** (2) **208.** (5) **209.** (4) **210.** (3)