

Questions are of value as indicated in the margin.

Group-A

Methodology of Social Research

Answer question No 6 and **any three** from the rest.

1. Is observation a method of data collection? Enumerate the types of observation, its suitabilities and limitations in the collection process. 3+3+3+3=12
2. Bring out the major differences between questionnaires and schedules. How can a schedule be used for data collection? 8+4=12
3. Critically explain various PRA methods in primary data collection. 12
4. What do you mean by a scale? Explain different qualities in constructing scales. 3+9=12
5. What is the meaning of secondary data? Point out the merits and demerits of secondary data. 2+10=12
6. Write a short Note on **any one** of the following : 4
 - (a) Distributor or store audits (b) Mechanical devices (c) Survey

Group-B

Quantitative Techniques for Rural Development-II

Answer question No 6 and **any three** from the rest.

1. Define and illustrate the following terms :
 - (a) Mutually exclusive events (b) Exhaustive set of events (c) Composite events (d) Independent events. 4×3=12
2. (a) For two events A and B, let $P(A) = 0.4$, $P(A \cup B) = 0.7$ and $P(B) = m$. For what value of m are A and B (i) mutually exclusive? (ii) independent?
 - (b) Out of 120 tickets numbered consecutively from 1 to 120, one is drawn at random. What is the probability of getting a number which is a multiple of 5?
 - (c) The height distribution of a group of 10,000 men is normal with mean height 64.5 inches and standard deviation 4.5 inches. Find the number of men whose heights are more than 73.5 inches? Given $P(Z \leq 2) = 0.9772$ where Z is the standard normal variable. 3×4=12
3. (a) Discuss the advantages of sample survey over complete enumeration.
 - (b) Write a note on Stratified Random Sampling. 6+6=12
4. (a) Draw a circular systematic sample of 10 households from a population of 1600 households. Describe all the steps.
 - (b) Draw a Simple Random Sample (without replacement) of size 10 from a population of 480 rural households. Describe all the steps.
Use the following string of random numbers :
7 3 6 4 4 5 1 3 8 0 8 2 6 8 6 4 2 6 3 3 9 7 4 9 3 5 1 8 3 7 3 4 9 8 5 2 2 0 4 3 9 4 3 7 3 8 1 5 3 9
4 7 9 3 3 6 2 4 6 8 6+6=12

P.T.O.

(2)

5. (a) It is claimed that the students entering a college have an average IQ higher than 100. A random sample of 16 students is taken and the sample mean IQ is found to be 106. The sample standard deviation of IQ is 10. Do you consider the claim to be supportable?
- (b) From the following data regarding eye-colour of fathers and sons, test if the colour of son's eyes is associated with that of father's.

6+6=12

Father's eye-colour	Son's eye-colour	
	Light	Not light
Light	47	16
Not light	14	23

6. Write a short Note on **any one** of the following :

4

(a) Random experiment (b) Quota sampling (c) Four properties of probability.
