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STATISTICS

( Major )

Paper : 6.3

( Applied Statistics—2 )

Full Marks : 60

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

1. Answer the following as directed : 1×7=7

- (a) Define total fertility rate.
- (b) What does the  $L_x$  column of a complete life table denote?
- (c) In SQC, when C chart is used?
- (d) What are the control limits of the  $\bar{X}$  chart?
- (e) What was the literacy rate of Assam as per Census 2011?
- (f) What is infant mortality rate?
- (g) LTPD means \_\_\_\_\_.

( Fill in the blank )

2. Answer the following questions : 2×4=8

- (a) Distinguish between product control and process control in SQC.
- (b) What are the important functions of the National Statistical Commission?
- (c) How can population projection be used to determine the future population of a country?
- (d) Distinguish between stationary and stable populations.

3. Answer any *three* of the following questions :

5×3=15

- (a) Distinguish clearly between control charts for variable and control charts for attributes.
- (b) What is epidemiology? Write a note on the importance of its study.
- (c) Discuss different columns of a complete life table together with their interpretations.
- (d) What is standardized death rate? What are its advantages and disadvantages over other types of death rates?
- (e) What is meant by sampling inspection plan? Describe the single sampling inspection plan.

4. Answer any *three* of the following questions :

10×3=30

- (a) Explain Rhodes method of fitting a logistic curve. Also explain why fitting of logistic curve is not satisfactory for Indian population.
- (b) Define GRR and NRR in detail with their merits and demerits. Also derive the relationship between them.
- (c) What are different types of control chart for variables? Explain in detail.
- (d) Explain and describe the terms producer's risk, consumer's risk and AOQL.
- (e) Discuss and compare the important highlight of Census 2001 and Census 2011.
- (f) Distinguish between tolerance limit and specification limit. Also give the statistical basis of 3-sigma limits.

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