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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 : $1 \times 7 = 7$

    (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 $\overline{X}$ 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)

(Turn Over)

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 pouplations.

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.

(Continued)

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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