Time: 50 minutes **Department of Computer Science and Engineering** **Full: 15**

Course Code: STA 227, Course Title: Statistics and Probability, Batch: 61 (F)

1. A researcher wants to survey the opinions of CSE students varying academic years at DIU about a new campus policy. The university has a total of 10,000 students.

- **a)** Describe how to use stratified sampling here? (2)
- **b)** Explain two strengths and weaknesses this method. (2)
- **c)** Which factors are crucial in the selection of a probability sampling method, explain. (1)

2. In a survey of 16 CSE students, we gathered data on their daily coding practice (in minutes). The recorded times are as follows:

180, 174, 222, 240, 186, 216, 258, 204, 132, 126, 150, 270, 306, 288, 198, 210

- **a)** Construct a frequency distribution table using appropriate class interval. (2)
- **b)** How many CSE students dedicate 3.75 hours or more to daily coding practice? (Hint: Ogive curve) (3)

3. Define the term "**Statistics**". (3)
4. Distinguish between "**Parameter**" and "**Statistic**". (2)

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