**AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**

Program: Bachelor of Science in Computer Science and Engineering

Course Number: CSE 3223

Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Time: 30 Minutes

Total: 20

Ms. Stake is concerned that too many forms are being filled out incorrectly. She feels that about 8% of all the forms have an error.

1. Determine the sample size that Ms. Stake should use to be 99% certain that margin of error will be within 0.02. [7]
2. Determine the sample size that Ms. Stake should use to be 90% certain that margin of error will be within 0.02. [7]
3. Suppose Ms. Stake will accept a confidence level of 95% that margin of error will be within 0.02. Determine the sample size of forms now. [6]

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Consider that a publisher receives orders from the customers and supplies books with invoices to them.

1. Draw Data Flow Diagrams (from Context-Level to Level 2) that represent the current ordering system. [10]
2. Explain the data elements, data flows and data stores that could be used in this system. [10]