



**United International University**  
***School of Science and Engineering***

CT-01 Trimester: Fall-2020 Section: B

Course Title: Probability and Statistics

Course Code: Stat 205 Marks: 20 Time: 30 Mins

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**(Answer all the questions)**

1. If from an ordinary pack of cards a single card is drawn. What is the probability that it is either a club, or a jack? [5]
2. At a country fair carnival game there are **27** balloons on a board, of which **12** balloons are yellow, **7** are red, and the remaining are green. A player throws darts at the balloons to win a prize and randomly hits one of them. If the first balloon hit is red, what is the probability of (i) next balloon is green, (ii) next balloon is not green. [5]
3. Four inspectors look at a critical component of a product. Their probabilities of detecting an error are different, namely, **0.93, 0.91, 0.89** and **0.87** respectively. If their detections are independent, then find the probability of (i) no one detecting the error, (ii) at least one detecting the error, (iii) only one inspector detecting the error. [7]
4. What is the probability of at least one “**T**” in *three* tosses of a coin? [3]