United International University

School of Science and Engineering

CT-01 Trimester: Summer-2020 Section: A

Course Title: Probability and Statistics

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

(Answer all the questions)

1. The possibilities of detecting the defects of a product ***three*** machines namely, $\boldsymbol{A}, \boldsymbol{B}$ & $\boldsymbol{C}$ are $\frac{1}{2}, \frac{2}{3}$ and $\frac{3}{7}$ respectively. Find the probability that the defect will be find out. **[6]**

2. A man has ***two*** boxes. One of them lies on his **left** side and other lies on his **right** side. The right side box contains ***seven*** red and ***five*** blue balls and other box contains ***four*** blue and ***five*** red balls. If he transfers one ball at random from **right to left** box, what is the probability that a ball drawn from his left box is **different color**? **[7]**

3. A bag contains **7** red & **5** white balls. Two draws are made **without replacement**. What is the probability that both the balls are **different color**? **[7]**