

Class Test-01

1. In a sporting event, students have played **Cricket** and **Football**. Probability of playing **both** of the games is **0.42**. Of those coming to the sporting event, the probability of playing **Cricket** is **0.62** and the probability of playing **Football** is **0.54**. What is the probability of playing **none** of the games? [3]
2. Each of three bowlers will attempt to hit the wicket. Let A_i denote the event that the wicket is got by player i ; $i = 1, 2, 3$. Assume that all of the events are mutually independent and that $P(A_1) = 0.5$, $P(A_2) = 0.6$ and $P(A_3) = 0.4$. Find the probability that **exactly one** player is successful, and probability of **no player** is successful. [3]
3. At an office, officials are classified and **30%** of them **efficient**, **50%** are **usual**, and **20%** are **inefficient** for the work. Of **efficient** ones, **55%** got an increment; of the **usual** workers, **20%** got an increment, and of **inefficient** workers, **5%** got an increment. Given that an employee got an increment, if the employee classes are **independent** what is the probability that the employee is **usual** one? Also, what is the probability that the employee is **not usual** one? [4]