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| **DEPARTMENT OF ELECTRICAL ENGINEERING** | | |
| COURSE NAME: Probability Methods in Engineering | TERM: Spring | ASSIGNMENT 2 |
| COURSE CODE: EE-309 | SEMESTER: 4th | SUBMISSION DATE: Week 15 |
| RESOURCE PERSON: Asima Kiran | SESSION: 2018-2020 | MAX. MARKS: 16 |

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| Sr. No. | Questions | CLO | PLO | Taxonomy Level | Marks |
| 1 | **Statement:**  Design of an engineered game based on probability to ensure fairness of chance to win or lose.  **Description:**  A pair of dice is rolled on every play and the player wins at once if the total for the first throw is 7 or 11, loses at once if 2, 3, or 12 are rolled. Any other throw is called a "carry-over." If the first throw is a carry-over, then the player throws the dice repeatedly until he wins by throwing the same carry-over again or loses by throwing 7.   1. Investigate the probability of winning the game? 2. Re-design the same game with the intention to make the house profitable by 60 %. 3. Propose a strategy to make the probable game fair and Perform its technical analysis. | 3 | 3 | 4 | 5+5+6 |