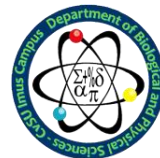Republic of the Philippines
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DEPARTMENT OF BIOLOGICAL AND PHYSICAL SCIENCES

ASYNCHRONOUS ACTIVITY #2
STAT 2A (Applied Statistics)

GENERAL DIRECTIONS: Read and answer each item as instructed. Write your computations on a sheet of yellow paper.

1. Suppose a die is to rolled three times, how many possible outcomes are possible to be formed?
2. On a school canteen, there are 5 possible choices for viands, 3 variants of rice, 4 beverages, and 7 side dishes. In how many ways can a meal be prepared if for every meal, one viand, one rice, one side dish, and one beverage are to be included?
3. In a movie theater, 5 couples are seated in a row. In how many ways can they be arranged if every couple must sit next beside their respective partners?
4. In how many ways can a student answer a 5-item quiz if none of the items are left unanswered and if:
    a. the items are all "true or false" type of questions; and
    b. the items are all multiple choices with four choices in each item?
5. On a vacation trip of 9 people, the capacities of their hotel rooms are 2, 3, and 4, respectively. In how many ways can the rooms be assigned to them?
6. How many distinct permutations are possible to be formed from the letters of the word "MISSISSIPPI"?
7. Suppose a 7-member family will be seated in a circular dining table, in how many ways can they be seated if:
    a. there are no restrictions; and
    b. the mother and father must be seated next to each other?
8. How many "full house" poker hand can be made out of a standard 52-card deck?
   Note: a full house is a 5-card combination made up of a triple (three of a kind) and a pair (two cards of the same rank)
9. How many possible plate numbers can be formed out of five letters (A, B, C, D, E) and 3 numbers (5, 7, 9) if each plate is made up of 3 letters followed by 3 numbers and repetition of letters and numbers is allowed?
10. How many three-digit odd numbers can be formed using the digits 0, 1, 2, 3, 4, 5, and 6 if no digit can be used more than once?