

HARINGHTA MAHAVIDYALAY

SEMESTER – 2, INTERNAL EXAMINATION MAY, 2019

DEPARTMENT OF STATISTICS

SUBJECT – STATGCC- 2B & 3B (GENERAL ELECTIVE)

TOTAL MARKS – 10, TIME – 1 HOUR AND 15 MINUTES

- **ANSWER ANY FIVE QUESTIONS : EACH QUESTIONS HAVE 2 MARKS
5*2 = 10**
- 01. Prove that for any event 'A', $P(\bar{A}) = 1 - P(A)$.**
- 02. Prove that for any two events 'A' & 'B', $P(A + B) = P(A) + P(B) - P(AB)$.**
- 03. A unbiased coin is tossed 3 times. What is the sample space. Find the probability one tail.**
- 04. Two dice are thrown. Find the probability that the sum of the upper face value is 10.**
- 05. An urn contains 7 red and 3 black balls. 3 balls are drawn at random. What is the probability that one of the 3 chosen is red and the other two are black.**
- 06. Give example of two discrete and continuous random variable.**
- 07. Write down the p.m.f. (Probability mass function) of Binomial distribution and the p.d.f. (Probability density function) of Normal distribution.**
- 08. What is expectation and variance of a discrete random variable.**