HARINGHTA MAHAVIDYALAY

SEMESTER – 2, INTERNAL EXAMINATION MAY, 2019

DEPARTMENT OF STATISTICS

SUBJECT – STATGCC-1B

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(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.