D. Abhilsher JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -1 EXAMINATION- September 2019

M.Sc Ist Semester

COURSE CODE: L-18MS1BT114

MAX. MARKS: 15

COURSE NAME: Research Methodology and Inferential Statistics

COURSE CREDITS: 3

MAX. TIME: 1.0 Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Use of calculator is allowed.

Q.1 Answer the following Questions. [2x5]

a) Explain the need and functions of review of literature.

[CO-1]

b) Explain the nature and functions of a hypothesis in a research process.

[CO-1]

c) Briefly outline research process.

[CO-1]

d) Distinguish between Research methods and Research methodology.

[CO-1]

e) Define and write standard statistical formulae of following measures a) quartile deviation and coefficient of quartile deviation b) mean deviation about mean and coefficient of mean deviation. [CO-3]

Q.2 Do any two of following

[CO-3]

 $2 \times 2.5 = 5$

- a. Three samples based on 20, 30, 50 number of observations has mean 50, 60, 40 and SD 5, 10, 8. Find the S.D. of combined sample of 100 values.
- b. If the variance of the two variates X and Y are 3 and 6 respectively. Find the standard deviation of the variates i) 3X ii) 6Y iii) X+Y, iv) X-Y, v) 3X-6Y.
- c. From given frequency distribution compute following measures: i) Standard deviation, ii) Coefficient of variance.

Size of Item	10	11	12	13	14	15	16
Frequency	2	7	11	15	10	4	1