SHIVAJI COLLEGE, UNIVERSITY OF DELHI

DEPARTMENT OF ECONOMICS

CONTINUOUS ASSESMENT-I

CLASS TEST

(Academic Year- 2023-24)

Name of the Course: B.A.Economics (H) Semester: II

Name of the Paper: Intermediate statistics for economics Faculty Name: Ms. Kavita Yadav

Unique paper code: 2272101203 Maximum Marks: 15

Duration : One Hour

Date of Test : 12th April '24

QUESTION-

If $\mu_1 = 30$, $\mu_2 = 40$, $\mu_1 = 50$, $\sigma^2 = 15$, $\sigma^2, = 25$, and $o^2, = 5$ are mean values and variance of three independently and normally distributed random variables X_1, X_2, and X,, respectively.

(a) Calculate P($24 \leq X \leq 39$), $where\ X = 0.3X_1 - X_2 + 1.7\,X_3$

(b) Calculate P(X_1-2X, $\leq 3X_3$). Can you find this probability if population is not normal and sample size is 3? Why/ Why not?

Kavita Yadav