

**BACHELOR OF ARTS EXAMINATION, 2023**

(3rd Year, 6th Semester, Supplementary)

**ECONOMICS****TOPICS IN MICROECONOMICS II**

Time : Two Hours

Full Marks : 30

**Attempt question no. 1 and any one from the rest:****Attempt Question 1 and any one from the rest:**

(1). Suppose there are two gambles. In gamble 1 an individual has to pay Rs. 100 in order to win Rs. 500 with probability  $p$  or win Rs. 100 with probability  $(1-p)$ . In gamble 2 an individual has to pay Rs. 100 for the chance of winning Rs. 325 with probability  $p$  and Rs. 136 with probability  $(1-p)$ . Suppose there are two individuals. Both are expected utility maximizers. Individual A has Bernoulli utility function  $u(w) = \sqrt{w}$  and Individual B has Bernoulli utility function  $u(w) = w$ . Check who prefers which gamble and find out the conditions (if any).

(8+7)

(2). Consider the following one shot game:

		<u>Player 2</u>	
		X	Y
<u>Player-1</u>	X	4, 4	-2, 4
	Y	4, -2	0, 0

- (i). What will be the pure strategy Nash equilibrium of this game? What kind of Nash equilibrium is it?
- (ii). If the game is played for **2 periods** then how many elements will be there in each player's strategy set?
- (iii). Suppose the players play the game for **6 periods**. What will be the pure strategy Nash equilibrium of the game in each period? Argue.

[ Turn over

[ 2 ]

(iv). Is it possible to support any other payoff(s) as an equilibrium if the players play repeatedly? (Make proper assumptions to solve and argue properly)

(3+3+3+6)

(3). Write short notes on the following:

(A). Hidden Information. (B). Simple lottery and compound lottery.

(8+7)