MATH-G-DSE-T-2A

(Linear Programming)

Answer the following question.

1. Solve the L.P.P. by graphical method

   Maximize, $z = x_1 + 3x_2$

   Subject to $x_1 + x_2 \leq 5$

   $6x_1 - x_2 \leq 30$

   $9x_1 + 2x_2 \geq 24$, $x_1 \geq 0$, $x_2 \geq 0$.

2. Find the dual of the L.P.P.

   Maximize, $z = x_1 + 3x_2$

   Subject to $x_1 + x_2 \leq 5$

   $6x_1 - x_2 \leq 30$

   $9x_1 + 2x_2 \geq 24$, $x_1 \geq 0$, $x_2 \geq 0$.

3. Find the value of the game

<div align="center">Player A</div>

Player B		B_1	B_2	B_3
	A_1	4	-2	1
	A_2	3	4	2
	A_3	-3	4	0

4+3+3

Submit answer sheet to the following Mail id:
mathematics@nvc.ac.in

MATH-G-SEC-T-4A

(Probability and Statistics)

Answer the following question.

1. There are 3 boxes with the following composition:
   Box I : 7 Red + 5 White + 4 Blue balls
   Box II: 5 Red + 6 White + 3 Blue balls
   Box III: 4 Red + 3 White + 2 Blue balls

One of the boxes is selected at random and a ball is drawn from it. What is the probability that the drawn ball is red?

2. A number is selected at random from a set containing the first 100 natural numbers and another number is selected at random from another set containing the first 200 natural numbers. What is the expected value of the product?

$$5 + 5$$

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