

X

NPTEL

reviewer2@nptel.iitm.ac.in ▼

Courses » Strategy: An Introduction to Game Theory

Announcements Course Ask a Question Progress

Unit 4 - Week 3



Course outline

How to access the portal

Week 1

Week 2

Week 3

- Rationality, Choice and Common Knowledge
- Iterated Elimination of Dominated Strategies
- Auction
- Auction : As a Normal Form Game
- Traffic at Equilibrium and Braess Paradox
- Spatial Competition
- Extensive Form Games
- Quiz : Assignment-3

Week 4

Week 5

Week 6

Week 7

Week 8

Assignment-3

The due date for submitting this assignment has passed. **Due on 2017-02-14, 23:59 IST**
As per our records you have not submitted this assignment.

Consider following 2*3 game

		Player 2		
		X	Y	Z
Player 1	X	15, 5	0, 0	-5, 10
	Y	0, 0	5, 15	0, 10

1) Strictly dominated action of player 1 is

1 point

- X
- Y
- Neither
- Can't be determined

No, the answer is incorrect.**Score: 0****Accepted Answers:***Neither*

2) Action X of player 2 is strictly dominated by

1 point

- Z
- Y
- Both
- None

No, the answer is incorrect.**Score: 0****Accepted Answers:***Z*

3) The action pair that survives the iterated elimination of strictly dominated strategies is

1 point

- (X, Y)
- (X, Z)
- (X, X)
- (Y, Y)

No, the answer is incorrect.**Score: 0****Accepted Answers:***(Y, Y)*

Consider following game

		Player 2		
		X	Y	Z
Player 1	X	8, 6	0, 0	4, 2
	Y	0, 0	6, 8	2, 2

4) Action Z of the player 2 is dominated by

1 point

- X
- Y
- Mixed strategies that assign positive probabilities to X and Y
- none

No, the answer is incorrect.

Score: 0

Accepted Answers:

Mixed strategies that assign positive probabilities to X and Y

In the variant of Hotelling's linear market model that captures competing firms choices of product characteristics as per the consumers' likings. There is a continuum of consumers (uniformly distributed over $[0, 1]$), each with a favorite characteristic liking

5) When there are two firms

1 point

- There will be infinitely many Nash Equilibria over $[0, 1]$
- There will be no Nash Equilibrium
- There will be finitely many Nash Equilibria over $[0, 1]$
- There will be a unique Nash Equilibrium $(1/2, 1/2)$

No, the answer is incorrect.

Score: 0

Accepted Answers:

There will be a unique Nash Equilibrium $(1/2, 1/2)$

6) When there are three firms

1 point

- There will be infinitely many Nash Equilibrium over $[0, 1]$
- There will be no Nash Equilibrium
- There will be finitely many Nash Equilibria over $[0, 1]$
- There will be a unique Nash Equilibrium $(1/3, 1/3, 1/3)$

No, the answer is incorrect.

Score: 0

Accepted Answers:

There will be no Nash Equilibrium

Suresh and Nitin are competing in a second price sealed bid auction to obtain a valuable object. The bids must be in multiples of \$ 2 and the maximum that they can bid is \$ 10. The valuations of the object to Suresh and Nitin are \$ 8 and \$ 6 respectively. Write down the strategic form of the game (In case of a tie, Suresh gets the object)

7) What is the value of payoffs corresponding to actions of both players when they bid their maximum valuation **1 point**

- (0, 0)
- (8, 0)
- (0, 6)
- (2, 0)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(2, 0)

8) Which one of the following is a Nash Equilibrium of this game

1 point

- (0, 0)
- (2, 0)
- (4, 2)
- (8, 6)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(8, 6)

9) This game has

1 point

- A unique Nash Equilibrium
- Infinitely many Nash Equilibria
- Finitely many NEs
- Two Nash Equilibria

No, the answer is incorrect.

Score: 0

Accepted Answers:

Finitely many NEs

10) Which action is not weakly dominated for Suresh

1 point

- 0
- 6
- 2
- 10

No, the answer is incorrect.

Score: 0

Accepted Answers:

6

11) Which action is not weakly dominated for Nitin

1 point

- 0
- 10
- 8
- 2

No, the answer is incorrect.

Score: 0

Accepted Answers:

8

Now consider the same auction in First price sealed bid auction scenario and answer following questions

12) What is the value of payoffs corresponding to actions of both players when they bid their maximum valuation

1 point

- (0, 0)
- (8, 0)
- (0, 6)
- (2, 0)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(0, 0)

13) Which one of the following is a Nash Equilibrium of this game

1 point

- (0, 0)
- (8, 6)
- (4, 4)
- (6, 4)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(4, 4)

In following extensive form game Challenger has to decide whether it wants to enter the market (In) or to remain out (Out) whereas the Incumbent has to decide whether it will Fight or accommodate Challenger (Acquiesce)



14) What is (are) the pure strategy Nash Equilibrium of the normal form game corresponding to this entry game 1 point

- (In, Acquiesce)
- (Out, Fight)
- Both
- None

No, the answer is incorrect.

Score: 0

Accepted Answers:

Both

15) What is the equilibrium of this game by the technique of backward induction

1 point

- (In, Acquiesce)
- (Out, Fight)
- Both
- None

No, the answer is incorrect.

Score: 0

Accepted Answers:

(In, Acquiesce)

Previous Page

End



Funded by

Government of India
Ministry of Human Resource Development

Powered by

