

**UNIVERSITY OF SWAZILAND**  
**FACULTY OF SOCIAL SCIENCE**  
**DEPARTMENT OF ECONOMICS**  
**SUPPLEMENTARY EXAMINATION, JULY 2015**

**TITLE OF PAPER : ECONOMIC AND SOCIAL  
ANALYSIS OF PROJECTS**

**COURSE CODE : ECON 309**

**TIME ALLOWED : THREE (3) HOURS**

**INSTRUCTIONS : ANSWER ANY FOUR  
QUESTIONS.**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS  
BEEN GIVEN BY THE INVIGILATOR.**

### Question 1

- a) Externalities result in market failure. Explain. (5 marks)
- b) Various ways are used to correct for externalities that arise as projects are implemented. Discuss any four. In your opinion which is most effective. Explain. (10 marks)
- c) Use a diagram to show how taxes can be used to correct for negative externalities. Be sure to outline the effect on price, quantity, consumer and producer surplus. (10 marks)

### Question 2

- a) Discuss the significance and objectives of social cost benefit analysis. (10 marks)
- b) Discuss the various stages of the UNIDO approach used in social cost benefit analysis. Highlight significance of the various stages. (15 marks)

### Question 3

- a) Construct a hypothetical pay-off matrix assuming three states of nature (A, B, C) and three strategies (1, 2, 3). (5 marks)
- b) Calculate the maximax, minimax, Hurwicz and Laplace' criteria. Begin with definitions for each criterion. Indicate optimal strategies under each criterion. Set  $\alpha = 0.8$ . (20 marks)

### Question 4

Discuss, in detail, the various stages of the L-M approach in social cost benefit analysis. What are the similarities and differences between the L-M and UNIDO approaches. (25 marks)

### Question 5

- a) Discuss the concepts of shadow wage rate and shadow rate of interest. (5 marks)
- b) Define pecuniary and technological externalities. Which one leads to resource misallocation? (5 marks)
- c) Explain how social cost benefit analysis differs from cost benefit analysis. (5 marks)
- d) Discuss the Coarse Theorem and its limitations. (10 marks)