

**Agricultural and Food Engineering Department  
Indian Institute of Technology, Kharagpur**

**End-Term Semester Examination Spring- 2012  
M.Tech (ASM)**

**Date of Examination:  
Subject No. AG 60062  
Subject: Management and Productivity  
No of Students: 20**

**Max. Marks: 50  
Time: 3 hrs**

**Instructions: Attempts all questions. Use separate answer sheets for Part-A and Part-B**

**Part-A**

1. What are different types of product- product relationship? Explain with the help of a suitable example how to determine the optimum combinations of two competitive products to maximize the net return? How does the change of product price affect the optimum combinations of output? (8)
2. Draw a layout and cropping scheme for 5 hectares farm situated near a city with canal irrigation facility. Indicate the factors that are taken into consideration while preparing a cropping programme. (4)
3. Calculate the cost of production and net profit of one hectare of wheat or potato. Take necessary assumption of cost of different inputs. (4)
4. Define agricultural labour. How labour efficiency index is measured in developing country? How to increase the efficiency of a farm labour? (4)
5. Write short notes on any two: (5)
  - a) Strategic decision
  - b) Farm budgeting
  - c) Expansion path

## Part-B

### Instructions: Total marks 25. Each questions carry equal marks (2.5)

1. How do you map the customer service portfolio of Wal-Mart on “Responsiveness v/s Efficiency” paradigm? Summarize the various elements of Wal-Mart’s service portfolio.
2. “Productivity improvement is not just doing things better : more importantly, it is doing the right things better” – Evaluate & Justify
3. “A set of values conducive to higher productivity should be developed in order to bring about changes in the attitude of managers, engineers and workers”- Evaluate & Justify
4. Enlist and critically explain the roll of following factors in reducing the productivity.
  - a. Work content added due to product
  - b. Work content added due to process
  - c. Work content added due to management
5. Propose a measurement typology for Unit of analysis (Individual, Work group, Department, Function and Plant) and Measurement scope (Weeks, Qtr, Months, Semi – annual, Annual).
6. A company is manufacturing 30,000 components per month by employing 150 workers in 8 hour shift. The company gets additional order from Government to supply additional 9000 components. The management decides to employ additional workers. What will be production and productivity level when the number of additional workers employed are: 20, 35, 50
7. Interpret each one of the following terminology for a case of “student in an education system”.
  - a. Strategic capability
  - b. Threshold resources
  - c. Threshold competences
  - d. Unique resources
  - e. Core competences
8. What is the relationship between Acceptable Performance Level (APL) & Motivated Performance Level (MPL)?
9. What is the difference between strategic management and operational management? Identify at least five criteria on which these two domains can be differentiated. Based on this comparison, define the scope of “The strategic position and Strategic Choices”
10. It appears that many organizational performance management systems are not designed and developed in a rational, systematic fashion, nor well thought-out in a design sense. Managers are often not really sure what they are measuring or why”. – Evaluate & Justify