

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
 ORGANISATION OF ISLAMIC COOPERATION (OIC)
 DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT

Mid-Semester Examination

Summer Semester, A. Y. 2021-2022

Course No. : BTM 4633

Time : 1.5 hours

Course Title : Strategic Operations Management

Full Marks : 75

Answer **all 3 (three)** questions. All questions carry equal marks. Marks of each question and corresponding CO and PO are written in the right margin with brackets.

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| 1. a) | Identify the three major functional areas of business organizations and briefly describe how they interrelate. | 7 | (CO1)
(PO1) |
| b) | Briefly discuss each of these terms related to the historical evolution of operations management:
i. Industrial Revolution
ii. Scientific management
iii. Interchangeable parts
iv. Division of labor | 10 | (CO1)
(PO1) |
| c) | Why is it important to go beyond the organization-specific, input/ processes/output model in modern-day operations management? | 8 | (CO2)
(PO2) |
| 2. a) | It is sometimes easy to overlook the importance of productivity. National figures are often reported in the media. They may seem to be ho-hum; there's nothing glamorous about them to get our attention. But make no mistake; they are key economic indicators—barometers, if you will, that affect everybody. How? High productivity and a high standard of living go hand-in-hand. If a country becomes more service-based, as the United States has become, some (but not all) high-productivity manufacturing jobs are replaced by lower-productivity service jobs. That makes it more difficult to support a high standard of living. Productivity levels are also important for industries and companies. For companies, a higher productivity relative to their competitors gives them a competitive advantage in the marketplace. With a higher productivity, they can afford to undercut competitors' prices to gain market share or charge the same prices but realize greater profits! For an industry, higher relative productivity means it is less likely to be supplanted by foreign industry. | 12 | (CO2)
(PO2) |

Questions:

- i. Why is high productivity important for a nation?
- ii. Why do you suppose that service jobs have lower productivity than manufacturing jobs?
- iii. How can a company gain a competitive advantage by having higher productivity than its competitors have?

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| b) | A health club has two employees who work on lead generation. Each employee works 40 hours a week, and is paid \$20 an hour. Each employee identifies an average of 400 possible leads a week from a list of 8,000 names. Approximately 10 percent of the leads become members and pay a onetime fee of \$100. Material costs are \$130 per week, and overhead costs are \$1,000 per week. Calculate the multifactor productivity for this operation in fees generated per dollar of input. | 8 | (CO2,
CO3)
(PO2,
PO4) |
| c) | List some factors that can affect productivity and some ways that productivity can be improved. | 5 | (CO1)
(PO1) |
| 3. a) | How much inventory should the organization have? What happens if you have too much inventory? What happens if you have too little inventory? | 9 | (CO2)
(PO2) |
| b) | Explain why the economic order quantity model is not appropriate for modern business. | 7 | (CO1)
(PO1) |
| c) | Who needs to be involved in inventory decisions involving holding costs? Setting inventory levels? Quantity discount purchases? | 9 | (CO2)
(CO2) |