

ISLAMIC UNIVERSITY OF TECHNOLOGY  
ORGANISATION OF ISLAMIC COOPERATION  
DEPARTMENT OF MECHANICAL AND PRODUCTION ENGINEERING

Mid-Semester Examination  
Course No. Hum 4817  
Course Title: Industrial Management

Summer Semester, A.Y. 2021-2022  
Time : 1½ hours  
Full Marks : 75

There are 3 (THREE) Questions. Answer all of them in credible manner. Marks in the Margin indicate the full marks. Abbreviations and symbols carry their standard meanings.

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- 1 a) These days engineering education needs to fulfill the **12 programme outcomes** (POs) that were briefed in your class. An engineering graduate must attain these POs to become a *knowledge-worker*. Towards that end one should **put heart-brain-and-body together** to become a dynamic and successful engineer. In this context, relate the following statement from the perspectives of the aforesaid ground for acquiring the right knowledge that will bring positive impact to the profession and society, “*Verily, it is not the eyes that grow (human) blind, but it is the hearts (inner core that takes knowledge inside) which are in the breasts that grow blind*”.
- b) Describe **strategic thinking** for a manufacturing or service organization (mention a type of organization and write either on a manufacturing or service company) viewing the major key points on how it might facilitate strategic planning.
- c) Enlighten the reason that SWOT analysis is an unavoidable requirement for strategic planning. Construct a diagram to translate strategy into current implementation decisions for IUT or a manufacturing company.
- 2 a) Describe the main ideas of **scientific management**. Suppose you are going to produce an engineering product employing people for making components and the final assembly. Illustrate how you are going to apply these ideas.
- b) Write short but focused answers on the following:
- Organizational structures vs organizational charts.
  - Chain of command vs span of control.
  - Workers vs supervisors in manufacturing.
  - Japanese production system vs a production system in your country.
- c) Explain social responsibility. Contrast social responsiveness and social obligation.
- 3 a) Construct a procedure to apply the **expected monetary value (EMV)** method in a make-to-order product-mix manufacturing environment. Show all steps along with the essential data or information, states of nature and payoff matrix.

8  
CO1  
PO8

8  
CO1  
PO10

9  
CO1  
PO10

8  
CO2  
PO9

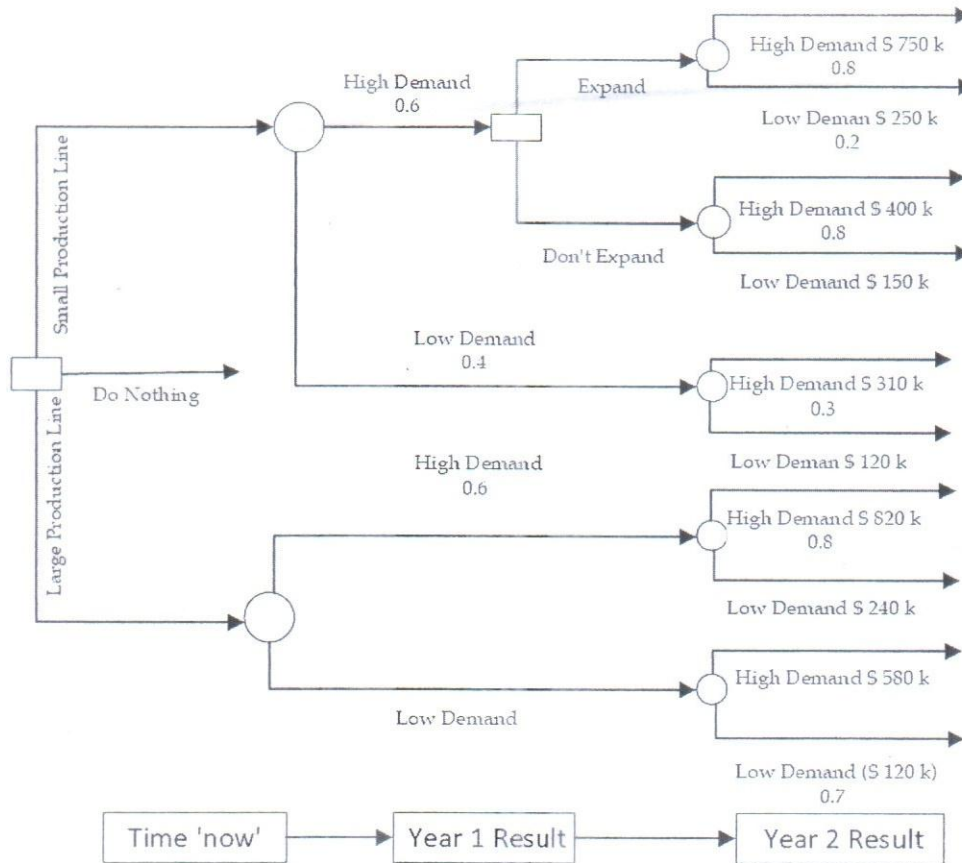
10  
CO2  
PO9

7  
CO3  
PO6

10  
CO1  
PO11

- b) The following tree-diagram has adequate information to make a decision whether to go for small or large production line. Apply the relevant method and procedure for calculations and evaluate the proposals to make the appropriate decision. Show all steps along with the figure in your answer booklet to make the decision.

15  
CO1  
PO11



--- End of the Question Paper ---