

3

**Program:** B.Sc.T.E. 2 Years 2<sup>nd</sup> Semester  
**Semester:** Summer

**Date:** 17 February 2023 (Friday)  
**Time:** 10:00 am – 11:30 am

**ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)**  
**ORGANISATION OF ISLAMIC COOPERATION (OIC)**  
**DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)**

**Exam:** Mid Semester Examination  
**Course Number:** Hum 4229  
**Course Title:** Engineering Management

**Academic Year:** 2021 - 2022  
**Full Marks:** 75  
**Duration:** 90 minutes

There are 4 (four) questions. Answer 3 (three) questions. Question 3 is compulsory. The symbols have their usual meaning.

1. a) Define the following terminologies in relation with engineering management. 06
  - i. Engineering,
  - ii. Management, and
  - iii. Engineering Management. CO1
- b) Is engineering a profession? Justify your answer from a Socratic point of view. 12
- c) Explain the different roles that an engineer needs to play in a firm in addition to the traditional roles of design, development, and testing? 07
2. a) Name the types of management levels. 03
- b) Mr. Md. Abdul Qalam has been recently assigned a duty of a foreman at ABC Company LTD in Board Bazar to supervise the construction of a female canteen (shop) at IUT. The company has instructed Mr. Qalam and his crew (non-managers) to start construction by following the plan and design as given by the company's engineer. With reference to the above description, answer the following questions: CO2
  - i. Explain the basic managerial responsibilities that Mr. Qalam needs to manage his crew and achieve the goals of his higher managers (company engineer). 18
  - ii. Which managerial skills does Mr. Qalam require most to succeed? Explain your answer. 04
3. a) How would faulty designs produced or approved by engineers today affect their career? Provide examples from news reports or case studies you have come across. Was the situation any different for engineers in ancient times? 12
- b) The development of cotton and woolen mills in the mill cities of England, and later New England, caused tremendous sociological change as potential workers (especially women) swarmed from rural areas to the growing industrial cities. Cite examples of similar occurrences in more recent times in developing countries. 08 CO2
- c) Between the three management techniques that you know, which one would you use right now if you were to establish your own company? Justify your answer with relevant examples. 05
4. a) "If you fail to plan, you plan to fail". Explain this statement with valid examples? 05
- b) Explain the five (5) principles of management functions according to H. Fayol. 15 CO3
- c) List five (5) disadvantages of planning. 05