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Program: B.Sc.C.S.E 2nd Semester
Semester: Summer

Date: September 12, 2025 (Friday)
Time: 10:00 AM –12:00 PM

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

Examination: Semester Final Examination
Course Number: Hum 4241
Course Title: Islamic History Science and Culture

Academic Year: 2023 - 2024
Full Marks: 80
Time: 2.00 Hours

There are 4 (four) questions. Answer all of them. The symbols have their usual meaning.

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| 1. | a) | If Al-Khwarizmi's "al-jabr" shaped algebra, how does his legacy live on every time you use an algorithm in coding? | 10 | CO2 | PO2 |
| | b) | What role did the introduction of zero and Indian numerals play in shaping modern computer engineering? | 10 | CO1 | PO1 |
| 2. | a) | Al-Biruni estimated Earth's radius within 50 km accuracy. Explain how his triangulation methods could guide modern satellite engineering. | 10 | CO4 | PO8 |
| | b) | The Qur'an describes the division of the atom. Discuss the lessons that nuclear engineers can learn from this early reference. | 10 | CO3 | PO6 |
| 3. | a) | If Al-Mamun's "House of Wisdom" was a hub of global knowledge exchange, what would its equivalent look like in today's digital age of engineering? | 10 | CO2 | PO2 |
| | b) | In the light of lā ḡarar wa lā ḡirār ("no harm, no reciprocating harm"), explain how you would decide on a project that risks environmental damage. | 10 | CO3 | PO6 |
| 4. | a) | Discuss the role that young Muslim engineers should play in turning 'brain drain' into 'brain gain' for their nations. | 10 | CO1 | PO1 |
| | b) | If the Muslim Golden Age once lit the world with innovation, how can today's Engineers rekindle that flame in AI and renewable energy? | 10 | CO4 | PO8 |