ourdiu.com | Shared by Unknown_Guy

# Daffodil International University

**Faculty of Science & Information Technology**
**Department of Software Engineering**
**Midterm Examination, Summer 2026**

## Course Code: SE 447; Course Title: Human Computer Interaction

**Sections & Teachers: 44(A-D), 44(E) (DSM & FT)**

**Time: 1 Hour 30 Mins** **Marks: 25**

**Answer ALL Questions**

***[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]***

| | | | | |
|---|---|---|---|---|
| **1.** | | Dr. Ayesha Rahman develops an AI powered hospital appointment kiosk for a public hospital in Bangladesh. The system is technically advanced: it can recognize patient IDs, schedule appointments automatically, and sync with doctors' calendars in real time. However, after deployment, many patients' especially elderly users struggle to interact with it. They become confused by the interface, cannot understand the on-screen instructions, and often require assistance from staff. Some users abandon the system entirely and return to manual registration. Despite its technical success, the system is not being effectively used in real world conditions. Based on this scenario, answer the following question, explore the issue, and justify in the prospect of Human Computer Interaction (HCI). | | |
| | **a.** | **Describe** the involvement of Human Computer Interaction (HCI) with multiple disciplines and the remaining challenges in HCI design related to usability and user diversity. | **[Marks-5]** | **CLO-01** *Level-1* |
| | **b.** | **Describe** Sensory memory (SM) and Long-term memory (LTM). | **[Marks-5]** | |
| **2.** | **a.** | **Explore** the core cognitive aspects of user model in details. | **[Marks-5]** | **CLO-02** *Level-3* |
| | **b.** | On 12 August 2024, a massive flood struck South Asia, severely affecting Bangladesh and parts of India and Nepal due to continuous heavy monsoon rains and upstream river overflow. The disaster led to widespread destruction, with over 30,000 people reported displaced and hundreds of villages submerged underwater. Critical infrastructure including roads, bridges, schools, and healthcare centers were heavily damaged, leaving many communities isolated without access to basic services. In response, international humanitarian organizations such as the Red Crescent and UNICEF launched urgent relief campaigns, collecting millions in emergency aid within a short time. Temporary shelters were set up in safer zones, while rescue teams worked day and night to evacuate affected families. However, due to recurring after effects of rainfall and rising river levels, the situation remained unstable, increasing the urgency for coordinated support and real-time information dissemination.<br>As a software developer, your task is to design and implement an easy to use, interactive web platform that provides real-time disaster updates, displays verified news and official statements from government and global leaders, shows live affected area maps, and enables secure online fundraising to support relief and rehabilitation efforts for the affected communities.<br><br>**Construct** a prototype of the website. | **[Marks-5]** | |
| | **c.** | **Illustrate** the evaluating designs for Human Computer Interaction evaluation techniques. | **[Marks-5]** | |