

**BRAC UNIVERSITY**  
**Department of Computer Science and Engineering**

Examination: Quiz 2  
Semester: Summer 2023

Duration: 20 min  
Full Marks: 10

**CSE 470: Software Engineering**

**Name:**

**ID:**

**Section:**

**Set-B**

Once upon a time, in the city of MedTechville, situated in the kingdom of HealLand, there existed a renowned hospital known as MedCare. Today, MedCare with its Hospital Management System (HMS), is a leading medical institution that provides exceptional healthcare services to the people of the kingdom. The HMS is being designed to streamline the management of patients, doctors, and medical resources. Each patient in the system is represented by their unique Patient ID, along with essential information such as their name, age, and medical history. The HMS ensured efficient tracking of patient records, diagnoses, treatments, and progress throughout their healthcare journey. Patients can consult with multiple doctors according to their preferences. In addition to patients, the system also managed the profiles of the hospital's esteemed doctors. Each doctor has their own Doctor ID, which contains details like their name, specialization, and availability. The HMS enables seamless scheduling of appointments, assignment of doctors to specific cases, and tracking of their professional development and certifications. To support the diverse medical services offered by MedCare, the HMS had a section dedicated to Medical Departments with some of its basic information. The departments include specialties such as Cardiology, Orthopedics, and Neurology, each with its own unique Department ID and resources. The system ensures the efficient allocation of medical equipment, supplies, and personnel to the respective departments, facilitating smooth operations and timely patient care. Moreover, the system facilitates the integration of medical records with the Pharmacy section. The Pharmacy maintains a database of medications, dosages, and inventory levels. The HMS enables automatic prescription generation, medication administration records, and real-time stock monitoring, minimizing errors and ensuring the availability of essential drugs. By leveraging the above technology, MedCare become a beacon of medical excellence in the kingdom of HealLand,

1.	CO2	a. Let's explore the system and create a class diagram. [10]	10
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