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**Arid Agriculture University, Rawalpindi**

**Object Oriented Analysis and Design (CS-552)**

**Mid Exam / Spring 2023 (BSSE-6B Eve)**

**Time Allowed: 60 min: Total Marks: 12**

**Answer the following questions.**

**Question No 01 (3 Points)**

An automated ticket-issuing system sells rail tickets. Users select their destination and input a credit card and a personal identification number. The rail ticket is issued and their credit card account charged. When the user presses the start button, a menu display of potential destinations is activated, along with a message to the user to select a destination. Once a destination has been selected, users are requested to input their credit card. Its validity is checked and the user is then requested to input a personal identifier. When the credit transaction has been validated, the ticket is issued.

1. Rewrite requirements in the above system by removing ambiguities.

**Question No 02 (3 Points)**

Consider Auto Patrol pump with specifications given below.

* An unattended petrol (gas) pump system that includes a credit card reader. The customer swipes the card through the reader then specifies the amount of fuel required. The fuel is delivered and the customer’s account debited.
* The cash-dispensing function in a bank ATM.
* The spelling-check and correcting function in a word processor.

Prepared the **USE case model** for the above system.

**Question No 03 (6 Points)**

You have been asked to develop a system that will help with planning large-scale events and parties such as weddings, graduation celebrations, birthday parties, etc. Draw following design artefacts for this system.

1. Write fully dressed use case for Create New Event (booking a venue, organizing invitations, planning party etc.)
2. Draw System Sequence Diagram for Create New Event.
3. Design Domain Model for the System.
4. Write Operation Contract for Request Event operation.