# Department of Computer Science and Engineering University of Liberal Arts Bangladesh Mid-Term Examination (Fall 2020)

Course: Software Engineering (CSE 404)

Section: 1 --- Duration: 1 Hour

## PLEASE ANSWER ALL QUESTIONS.

**Total 25 Marks** 

## **QUESTION 1**

Why is software engineering different from other engineering principles? "Software doesn't wear out." -Explain

(2+3=5 Marks)

### **QUESTION 2**

Zahid and Jewel were having a conversation on software development. Zahid stated, "Getting any ideas regarding the quality of the software is impossible before it is developed." Do you agree? Explain your opinion.

Define the terms "verification" and "validation". How are they different?

(2+3=5 Marks)

### **QUESTION 3**

Consider the following usage scenario for PGDApply:

PGDApply is used for prospective students to apply for the PGDIT program online. At first the program chairperson will upload the admission circular on the website. Afterwards, the site used for submitting application forms will be activated on the starting date mentioned in the circular. Interested candidates will be able to apply for admission online by filling up the application form. The application form will contain these fields: Name of Applicant, Father's Name, Mother's Name, E-mail Address, Mobile Number, Permanent Address, Date of Birth, Nationality, and academic information.

An applicant needs to upload his/her photo to enable the "Submit" button. Image size must be less than 100 KB. Image must be in JPEG (.jpg extension) format and the resolution must be (350 pixels \* 400 pixels). After the applicant confirms the correctness of the information and agrees to the terms and conditions of the program, he/she will click the "Submit" button to continue. Then the software will generate a 6-digit application ID. The software will also store the given information in the database. The applicant will receive the application ID and the submitted information.

Prepare the use case diagram and the activity diagram for PGDApply.

(5+5=10 Marks)

#### **QUESTION 4**

What are the various types of testing activities proposed in the V-Model? How are they different from one another?

(5 Marks)

\*\*END OF QUESTIONS\*\*