**MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY**

**Department of Computer Science and Engineering**

**Software Engineering**

**CIC-309**

**2023-2024**

**ASSIGNMENT 1**

Date: 1.09.2023

**Ques 1**. “Component-based Software Engineering allows faster delivery”. State whether

this statement is true or false. Justify your answer. [CO1] 3 marks

**Ques 2.** Propose the most appropriate generic software process model that might be used as

a basis for the development of following systems. Give reasons for answers.

a) A complex real-time system whose requirements can be relatively easily identified and

are stable.

b) A website for a local library. Requirements are vague and are likely to change in the

future

c) An order processing system with a web-site for a local business. Requirements

are vague but stable (i.e., unlikely to change in the near future). [CO1, CO2] 2 marks each

**Ques 3.** You have been appointed as a project manager within an information system

organization. Your job is to build an application that is quite similar to others your team has

built, although this one is larger and more complex. Requirements have been thoroughly

documented by the customer. What team structure would you choose and why? What

software process model(s) would you choose and why? [CO1, CO2] 2marks

**Ques 4.** Compute the function point value for a project with the following information domain

characteristics:

Number of user inputs: 32

Number of user outputs: 60

Number of user inquiries:24

Number of files: 8

Number of external interfaces: 2

Assume that all complexity adjustment values are average. [CO3]3marks

**Ques 5.** Write advantage for drawing a logical DFD before a physical DFD for a new

information system? [CO2, CO3] 3marks

**Ques 6.** Differentiate between the followings

(a) Requirement Analysis & Requirement Engineering

(b) Product, Process and project

(c) Black box Testing and White Box Testing [CO3, CO4] 3 marks

**Ques 7.** When you know programming, what is the need to learn software engineering

concepts? How you can relate the E-R Diagrams with Database Management System. Explain with the help of examples? [CO2, CO3] 2 marks

**Ques 8.** Which process model will you suggest for a new railway reservation system that

will generate useful statistics and solutions to the railway administration? Give justifications[CO2]2 marks