**ASSIGNMENT-1**

**(Based on unit-1&2)**

**Subject-Software Engineering**

**Subject Code-ETCS 303**

**Note: 1. Last date to submit assignment is 15th October 2021.**

**2. Submit assignment directly on moodle link**

**Question 1.** Define software, software engineering and software process.

**Question 2.** 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.

**Question 3.** Why should you develop both logical and physical DFDs for systems? What advantage is there for drawing a logical DFD before a physical DFD for a new information system?

**Question 4.** Choose a transaction that you are likely to encounter, perhaps ordering a cap and gown for graduation, and develop a high-level DFD, or context diagram. Decompose this to a level-0 diagram.

**Question 5.** A new project with estimated 400 KLOC embedded system has to be developed. Project manager has a choice of hiring from two pools of developers. Very highly capable with very little experience in the programming language being used or developers of low quality but a lot of experience with the programming language. What is the impact of hiring all developers from one or the other pool?

**Question 6.** Compare the Walston-Felix model with the SEL model on a

software development expected to involve 8 person-years of effort.

Software Project Planning

(a)Calculate the number of lines of source code that can be produced.

(b)Calculate the duration of the development.

(c)Calculate the productivity in LOC/PY

(d)Calculate the average manning

**Question 7.** An airline reservation is an association between a passenger, a flight, and a seat. Select a few pertinent attributes for each of these entity types and represent a reservation in an E-R diagram.

**Question 8.** Describe the types of situations where iterative enhancement model might lead to difficulties.

**Question 9.** Differentiate between the followings

1. Deliverables and milestones
2. Product and Process
3. Measures, Metrics and measurement