Department of Artificial Intelligence and Data Science

II Year III Semester

3AID4-07- Software Engineering

Note: Each assignment of Maximum Marks 10.All question carries equal marks.

ASSIGNMENT-I

Q1) What is software engineering? Explain difference between application software and system software.	BLT-1	CO-1
Q2) Explain software requirement specification (SRS).	BLT-3	CO-1
Q3) Explain SDLC with their Phases?	BLT-1	CO-1
Q4) Differentiate between the following - a. Waterfall and spiral model b. Verification and validation	BLT-2	CO-1
Q5) Explain spiral and RAD model with Advantage And Disadvantage?	BLT-2	CO-1

ASSIGNMENT-2

Q1) Explain Project Manager and its responsibilities.	BLT-2	CO-2
Q2) Give difference between following. LOC AND FP b. Analysis VS Design	BLT-4	CO-2
Q3) a) Explain COCOMO model with their category of each Project Types? b) A company needs to develop digital signal processing software for one of its inventions. The software is expected to have 33,200 lines of code. The company needs to determine the effort in person-months needed to develop this software using the basic COCOMO model And Development Time And no of persons required.	BLT-5	CO-2
Q4) Explain Project Scheduling with their process?	BLT-2	CO-2
Q5) What is Risk analysis? Explain in details.	BLT-2	CO-2

ASSIGNMENT-3

Q1) What is Data Dictionary?	BLT-1	CO-3
Q2) Explain CFD and DFD.	BLT-2	CO-3
Q3) Explain in detail the characteristics of the SRS .	BLT-2	CO-3
Q4) Draw a data flow graph or DFD of the system of student admission in your university, showing a justifiable man-machine boundary.	BLT-4	CO-3
Q5) Describe structured analysis model with diagram?	BLT-1	CO-3

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ASSIGNMENT-4

Note: First, Second question carries 4 marks and third carries 2 marks.

Q1) What is modularity.	BLT-1	CO-4
Q2) Explain the various type of software design.	BLT-2	CO-4
Q3) Differentiate between Coupling and cohesion with detailed classification?	BLT-4	CO-4
Q4) Describes effective modular design in detail.	BLT-1	CO-4
Q5) List software design fundamentals and explain each giving suitable diagram?	BLT-2	CO-4

ASSIGNMENT-5

Q1) Explain the class diagram.	BLT-2	CO-5
Q2) Differentiate between OOA and OOD? Write short notes on object oriented design.	BLT-4	CO-5
Q3) Sequential diagram in UML vs deployment diagram.	BLT-4	CO-5
Q4) Explain the difference between structural and object oriented analysis. Structured Analysis vs. Object Oriented Analysis.	BLT-4	CO-5
Q5) What is the object oriented design methods? List them	BLT-1	CO-5
Q6) What are the element of an object model? How does software engineering identify these elements?	BLT-1	CO-5

*BLT: BLT shows the **Bloom's taxonomy** levels.