SOMAIYA
VIDYAVIHAR UNIVERSITY

Semester: August 2022 – December 2022 (Jan-2023)	
Maximum Marks: 100	**Examination: ESE Examination (Re-Exam) Duration: 3 hrs.**
Programme code: 116U01 **Programme: BTech Computer Engineering**	**Class: TY** **Semester: V (SVU 2020)**
Name of the Constituent College: **K. J. Somaiya College of Engineering**	**Name of the department:** **COMPUTERS**
Course Code: 116U01C501	**Name of the Course: Software Engineering**
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary	

Question No.		Max. Marks
Q1 (a)	Draw the Use Case diagram and activity diagram for Online Job Portal System in which an administrator generates vacancy details and gets them approved and uploads them on the website. The job seeker first registers himself to see the vacancy and uploads his CV which will be notified to the administrator. OR Develop a class diagram for a doctor who records the details of the patient after each visit and updates it with recent details and saves it. An attendee is given access to see the details for printing if necessary and see the details of the prescribed drugs.	10
Q1 (b)	Explain the Agile process with its advantages. Explain any one Agile process model?	10
Q2 (a)	Create a Software Requirement Specification for an online shopping system. SRS should include the following: (a) Product perspective (b) Scope and objective (c) Functional requirements (d) Non-functional requirements OR Draw Sequence and Collaboration diagrams for an online food ordering system.	10
Q2 (b)	List different metrics used for software measurement. Explain the function point-based estimation technique in detail.	10

Q3 (a)	Explain what is cyclomatic complexity and the different methods to calculate it. Find the cyclomatic complexity of the following code:
	int x, y, power;
	float z;
	input (x, y);
	if (y<0)
	power = -y;
		10

	``else
	power = y;
	z = 1;
	while (power! = 0) {
	z =z * x;
	power = power - 1;
	if (y<0)
	z = 1/z;
	output (z);
	end```	

Q3 (b)	Assume that the library Management system is deployed in a client-server architecture. Explain the various components and their deployment using a diagram.	10
Q4 (a)	What is the significance of User interface in system development? Draw a graphical user interface for an online shopping system. OR Explain cohesion and coupling. What are the benefits of high cohesion and low coupling?	10
Q4 (b)	Prepare a risk identification checklist and RMMM plan for creating a UID with biometrics (Unique identification number) for a highly populated country.	10
Q5 (a)	How will Map Object Model to Database Schema? Explain with a suitable example. OR Explain steps in version and change control.	10
Q5 (b)	What is FTR? Explain the review guidelines considered during FTR.	10