Shri Vile Parle Kelavani Mandal's
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC Accredited with "A" Grade (CGPA : 3.18)

Academic Year (2021-22)
Year: 3 Semester: VI

Program: B. Tech. (Computer Engg.) **Max. Marks: 75**
Subject: Software Engineering **Time: 10:30 am to 1:30 pm**
Date: 30/06/2022 **Duration: 3 Hours**

REGULAR EXAMINATION

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover page of the Answer Book, which is provided for their use.

(1) This question paper contains 02 pages.
(2) All Questions are Compulsory.
(3) All questions carry equal marks.
(4) Answer to each new question is to be started on a fresh page.
(5) Figures in the brackets on the right indicate full marks.
(6) Assume suitable data wherever required, but justify it.
(7) Draw the neat labelled diagrams, wherever necessary.

Question No.		Max. Marks
Q1 (a)	What do you mean by Task Network or Activity Network? Draw a WBS for Online Education System that uses Spiral process model for developing.	[05]
Q1 (b)	i. Explain Function Point estimation technique in detail.	[06]
	ii. Find function points for an E-commerce application with the following data, No. of User inputs 50 No. of User outputs 30 No. of User inquiries 35 No. of User files 06 No. of external interfaces 04 Assume average complexity for adjustment factors and weighting factors.	[04]
	OR	
	Explain the COCOMO II models of empirical estimation.	[10]
Q2 (a)	Differentiate between the following: i. Verification and Validation ii. White box testing and black box testing	[05]
Q2 (b)	Explain Basis Path Testing in detail	[10]
	OR	
	Explain the different testing strategies used.	[10]

Q3 (a)	When should one use a Spiral model? Discuss the advantages and disadvantages of the prototype model. **OR** Explain Kanban model in brief. Distinguish between Scrum and Kanban model	[05] [05]
Q3 (b)	Explain the various software engineering paradigms.	[10]
Q4 (a)	Explain the contents of repository with diagram.	[05]
Q4 (b)	What are the different categories of Risks? Explain the steps in developing RMMM plan. **OR** Explain in detail the change control mechanism and version control mechanism for software change management.	[10] [10]
Q5 (a)	Explain DevOps Architecture with neat and labelled diagram	[05]
Q5 (b)	i. Explain the abstraction, information hiding, functional independence and refinement by clearly mentioning the differences and similarity between them. ii. Explain "Reduce the user memory load" golden rule for user interface design. **OR** What do you understand by Transform mapping? Explain the design steps involved in map a DFD into software architecture with help of suitable diagrams	[05] [05] [10]

All the Best!