AJEENKYA
D Y PATIL UNIVERSITY

End Term Examination (December 2019)

School: School of Engineering **Program:** B. Tech Computer Engineering

Course: Software Engineering and Design **Course Code:** CSC332

Semester: V **Max Marks:** 40 **Duration (mins.):** 90

Attempt any 4 of the following:

1. Answer the following : [10]

   (Each question carries 2 Marks each)

   a. How is a software and a program different?

   b. What is alpha and beta testing in acceptance testing?

   c. Draw software engineering as layered technology.

   d. How is spiral model different from waterfall model in terms of technology?

   e. Describe design phase of SDLC. What are different types of modeling?

2. Answer the following: [10]

   (Each question carries 2 Marks each)

   a. Explain RAD model for software development. Use proper diagram to support your answer.

   b. What is SRS? What are characteristics of good SRS?

3. Answer the following: [10]

   (Each question carries 2 Marks each)

   a. Why software testing is important? What are the different strategies of software testing?

b. Explain with diagram, how software is different from hardware.

4. Answer the following: [10]

   (Each question carries 2 Marks each)

   a. Explain boundary value analysis and equivalence partitioning using example..

   b. Why software quality assurance is important in software development and design. State and explain the different activities involved in SQA. What are the advantages of SQA?

5. Answer the following: [10]

   What is COCOMO model? Explain in detail the different modes of development in COCOMO model.

   Analyze and solve the following using given data:

A new project with estimated 400 KLOC semi-detached system has to be developed. The Project manager has a choice of hiring from 2 pools of developers. First pool consists of very highly capable application developers and with less programming language knowledge. Second pool consists of low skilled application developers but with high programming knowledge. Compute and find which is better choice amongst two pool. Also compute how many people need to be hired from selected pool.

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Semi Detached	3.0	1.20	2.5	0.32

Cost Drivers	Ratings					
	Very Low	Low	Nominal	High	Very High	Extra High
Personnel attributes						
Analyst capability	1.46	1.19	1.00	0.86	0.71	
Applications experience	1.29	1.13	1.00	0.91	0.82	
Software engineer capability	1.42	1.17	1.00	0.86	0.70	
Virtual machine experience	1.21	1.10	1.00	0.90		
Programming language experience	1.14	1.07	1.00	0.95		

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