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Total Number of Pages : 01

B.Tech  
PCS31104

3<sup>rd</sup> Semester Regular / Back Examination 2018-19

SOFTWARE ENGINEERING

BRANCH : CSE

Time : 3 Hours

Max Marks : 100

Q.CODE : E661

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

Q1 Short Answer Type Questions (Answer All-10) (2 x 10)

- What are the fundamental activities of a software process?
- What is legacy software? Explain.
- Explain Software Crisis.
- What are non-functional requirements?
- List the principles of a software design.
- Differentiate between data flow diagram and state transition diagram.
- What is the role of cyclomatic complexity in software testing?
- Distinguish between reactive and proactive risk management.
- Define maintenance. What are the types of software maintenance?
- Differentiate between verification and validation.

Part- II

Q2 Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- Elaborate on the changing nature of software in detail.
- Explain software development life cycle. Discuss various activities during SDLC
- Give the advantages of prototyping model of software.
- What is the goal of requirements analysis phase? Give reasons why the requirements analysis phase is a difficult one.
- Differentiate between functional and non-functional requirements with suitable examples.
- Write short notes on Project scheduling and Staffing.
- Explain Unit and Integration testing methods.
- Discuss Risk management and planning with examples.
- Prepare the SRS for College Library management system.
- Distinguish between the functional oriented design and object-oriented design.
- What is black box testing? What is boundary value Analysis? Explain the technique specifying rules and its usage with the help of an example.
- Explain the COCOMO model for estimation.

Part-III

Q3 Long Answer Type Questions (Answer Any Two out of Four) (16)

Explain Spiral model with a neat sketch. What can you say about the software that is being developed or maintained as you move outward along the spiral process flow?

Q4 Define the term project management. Discuss in detail various project scheduling techniques. (16)

Q5 What do you mean by cohesion and coupling? Briefly explain different types of cohesion and coupling techniques. (16)

Q6 Explain the terms software reverse engineering and software reengineering. (16)