R20

SET - 1

III B. Tech I Semester Regular Examinations, Dec/Jan – 2022-23
SOFTWARE PROJECT MANAGEMENT
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
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UNIT-I

1. a) Give the Theoretical implications of Waterfall Model.   [7M]
    b) Explain about the five basic parameters that most software   [7M]
        models can be abstracted into.

(OR)

2. a) Illustrate a software cost estimation process.   [7M]
    b) Explain in details the generations of software development.   [7M]

UNIT-II

3. a) Explain about the Engineering and production stages in the   [7M]
        Software Life cycle process.
    b) What are design set artifacts? How are they evaluated?   [7M]

(OR)

4. a) Explain the essential activities of the Inception and the   [7M]
        Elaboration phases.
    b) Why artifact sets are classified into engineering and   [7M]
        management sets? Explain .

UNIT-III

5. a) Explain the Software Architecture from the management   [7M]
        perspective.
    b) What is a workflow? Explain in detail the process workflows.   [7M]

(OR)

6. a) State the heuristics that describe objectively an architecture   [7M]
        baseline.
    b) What is a milestone? Explain Major and Minor Milestones with   [7M]
        respect to the software process.

UNIT-IV

7. a) Explain the roles and responsibilities of the default line-of-   [7M]
        business organization.
    b) What is Automation? Explain the building blocks for process   [7M]
        automation.

(OR)

8. a) Illustrate the software project team evolution over the life cycle [7M]
    b) Explain about the four Quality indicators used in the software   [7M]
        process.

UNIT-V

9. a) What is Agile methodology? Explain the properties of Agile   [7M]
        methodology.
    b) What is DevOps? Explain the DevOps delivery pipelining.   [7M]

(OR)

10. a) What is SCRUM model? Focus on its cycles.   [7M]
    b) Explain the tools that support implementation of DevOps.   [7M]

1 of 1

R20

SET - 2

III B. Tech I Semester Regular Examinations, Dec/Jan – 2022-23
SOFTWARE PROJECT MANAGEMENT
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
*****

UNIT-I

1. a) Explain Water fall model. Explain its implications to software project management. [7M]
    b) Give the characteristics of a successful software project. [7M]

(OR)

2. a) Describe the steps in the cost estimation process of software. Also focus on the roles involved in it. [7M]
    b) Explain the principles of Modern software management. [7M]

UNIT-II

3. a) Compare the activities of Engineering and production stages in the Software Life cycle process. [7M]
    b) What is the impact of iterative development on artifact evolution? [7M]

(OR)

4. a) Explain the objectives and essential activities of the Inception and Elaboration Phases. [7M]
    b) Give the classification of Engineering artifacts along with their formats. [7M]

UNIT-III

5. a) Explain the software architecture from the Technical perspective. [7M]
    b) Elaborate on the Iteration Planning Process with a neat diagram [7M]

(OR)

6. a) What is the sequence of individual iteration workflows? [7M]
    b) Explain the typical Minor Milestones in the life cycle iterations. [7M]

UNIT-IV

7. a) Explain the roles and responsibilities of the default line-of-business organization. [7M]
    b) Explain about the four Quality indicators used in the software process. [7M]

(OR)

8. a) Explain in detail the default project organization and responsibilities. [7M]
    b) Give the Seven Core metrics that are used in managing the software process. [7M]

UNIT-V

9. a) What are the disadvantages of traditional methodology over Agile methodology? How to transit to SCRUM model? [7M]
    b) Compare the tools that support implementation of DevOps. [7M]

(OR)

10. a) What is Agile methodology? Explain the properties of Agile methodology. [7M]
    b) Give the significance of various components of DevOps eco system. [7M]

R20

SET - 3

III B. Tech I Semester Regular Examinations, November -2022
SOFTWARE PROJECT MANAGEMENT
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
*****

UNIT-I

1. a) Explain the waterfall model and its significance in software project management. [7M]
   b) Explain the pragmatic cost estimation process. [7M]

(OR)

2. a) Describe the three generations of software economics. [7M]
   b) Explain the trends in improving software economics. [7M]

UNIT-II

3. a) Explain the evolution of life cycle of artifact sets. [7M]
   b) Describe the two stage of life cycle to achieve economies of scale and higher returns. [7M]

(OR)

4. a) Explain the essential activities of the Elaboration and Construction. [7M]
   b) Give an overview on the artifact sets. [7M]

UNIT-III

5. a) "Architecture is the most critical product of a software project". Justify. [7M]
   b) Explain the types of management reviews that are conducted throughout the process. [7M]

(OR)

6. a) What is a workflow? Explain in detail the process workflows. [7M]
   b) What is a work breakdown structure? How is it significant in process planning? [7M]

UNIT-IV

7. a) Illustrate the software project team evolution over the life cycle. [7M]
   b) What is Round Trip Engineering? Explain. [7M]

(OR)

8. Explain the responsibilities of the four component teams in a line of business organization with a neat diagram. [14 M]

UNIT-V

9. a) What are the five principles of SCRUM? Explain them [7M]
   b) What are the four key components of DevOps? Explain them. [7M]

(OR)

10. a) What is Agile methodology? Explain the properties of Agile methodology. [7M]
    b) What is the difference between Agile and DevOps? Give the principles of DevOps. [7M]

1 of 1

R20

SET - 4

III B. Tech I Semester Regular Examinations, Dec/Jan – 2022-23
SOFTWARE PROJECT MANAGEMENT
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
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UNIT-I
1. a) Give Boehm's "Industrial Software Metrics top 10 list".   [7M]
    b) How to reduce software product size? Explain   [7M]
    (OR)
2. a) Classify the three levels of processes and their attributes in improving software process.   [7M]
    b) Describe the process of improving automation through software environments.   [7M]

UNIT-II
3. a) Explain the essential activities of the construction and Transition phases.   [7M]
    b) Give the format of release description and release specifications.   [7M]
    (OR)
4. a) Explain the primary objectives of the Inception and the Elaboration phases.   [7M]
    b) Give the format of software change order. Explain its components.   [7M]

UNIT-III
5. a) Explain the types of management reviews that are conducted throughout the process.   [7M]
    b) Describe about Initial capability mile stone and product release milestone in detail.   [7M]
    (OR)
6.   Discuss the compatibility of views to that of the seven work flows with a neat diagram.   [14 M]

UNIT-IV
7. a) Describe the automation and tool support for process workflows.   [7M]
    b) What are the management indicators recommended for a software project? Explain them   [7M]
    (OR)
8. a) Illustrate the software project team evolution over the life cycle.   [7M]
    b) Give the Seven Core metrics that are used in managing the software process.   [7M]

UNIT-V
9. a) How is SCRUM different from other process models? Explain.   [7M]
    b) How will you approach a project that needs to implement DevOps? Explain   [7M]
    (OR)
10. a) What are the technical support required for DevOps integration into software industry?   [7M]
    b) Mention some of the core benefits of DevOps.   [7M]