INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal-500043, Hyderabad

B.Tech VI SEMESTER END EXAMINATIONS (REGULAR) - JULY 2023
Regulation: UG-20
SOFTWARE PROJECT MANAGEMENT

Time: 3 Hours   (Common to CSE | CSE(CS) | CSIT | IT)   Max Marks: **70**

Answer ALL questions in Module I and II
Answer ONE out of two questions in Modules III, IV and V
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

MODULE – I

1. (a) Mention the characteristics of a good software estimation. Explain its role and significance in pragmatic software cost estimation. [BL: Understand| CO: 1|Marks: 7]

   (b) What are the major phases of the waterfall model of software development? Which phase consumes the maximum effort for developing a typical software product?
   [BL: Understand| CO: 1|Marks: 7]

MODULE – II

2. (a) Differentiate between reverse and forward engineering processes. Describe transitioning to an iterative process. [BL: Understand| CO: 2|Marks: 7]

   (b) Discuss the top risks involved in conventional software process and how can a modern software process resolve these risks. [BL: Understand| CO: 2|Marks: 7]

MODULE – III

3. (a) Summarize about management perspective and technical perspective in software architecture.
   [BL: Understand| CO: 3|Marks: 7]

   (b) Explain the goal of inception phase, elaboration phase, construction phase and transition phase. Compare and contrast elaboration and construction phase. [BL: Understand| CO: 3|Marks: 7]

4. (a) Elucidate the artifacts of management and engineering set and discuss their evaluation process.
   [BL: Understand| CO: 4|Marks: 7]

   (b) Outline the importance of software project management. Construct a software project model of ticket booking system. [BL: Understand| CO: 4|Marks: 7]

MODULE – IV

5. (a) Classify various categories of software quality metrics with suitable examples. Explain the importance of project organizations. [BL: Understand| CO: 5|Marks: 7]

   (b) Write about quality indicators used for managing software process. Explain the various characteristics of good software metric. [BL: Understand| CO: 5|Marks: 7]

6. (a) Elucidate about line-of-business organization. Give an example to distinguish small scale project and large scale project. [BL: Understand| CO: 5|Marks: 7]

   (b) Elaborate the purpose of seven core metrics used in software project management. Describe the seven core metrics used for project management. [BL: Understand| CO: 5|Marks: 7]

MODULE – V

7. (a) Describe the different views of a software project in practical environment. Write the challenges in software implementation. [BL: Understand| CO: 6|Marks: 7]

   (b) What social factors are observed on software projects? How does a modern process framework exploit several critical approaches to resolve recurring issues in the conventional projects? Give illustrative example. [BL: Understand| CO: 6|Marks: 7]

8. (a) Discuss about next-generation software economics. Explain automation of construction process in next generation environments. [BL: Understand| CO: 6|Marks: 7]

   (b) List the important cultural shifts to be prepared in order to avoid frictions in transitioning successfully to a modern process. [BL: Understand| CO: 6|Marks: 7]

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