

Hall Ticket No

Question Paper Code: AIT512



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

## MODEL QUESTION PAPER-II

B.TechVI Semester End Examinations, April - 2020

Regulations: R16

### SOFTWARE PROCESS AND PROJECT MANAGEMENT

(Information Technology)

Time: 3 hours

Max. Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

#### UNIT- I

1. a) Explain with diagram different phases involved in unified process. [7M]  
b) Discuss various steps involved in software process. [7M]
2. a) Explain about choosing the right process in detail. [7M]  
b) List out the various applications which follow agile process. [7M]

#### UNIT - II

3. a) Explain the Functional requirements and quality attributes. [7M]  
b) What is change management? Give the brief explanation of change management. [7M]
4. a) Explain the analysis, prioritization, and trade off mechanisms. [7M]  
b) Describe requirement requirements documentation and specification. [7M]

#### UNIT - III

5. a) Describe wideband DelphiTechnique. [7M]  
b) Write in detail about the various estimation techniques. [7M]
6. a) Explain about macro and micro plansin detail. [7M]  
b) With diagram explain about documenting and tracking the project plan. [7M]

#### UNIT - IV

7. a) Explain in details about bug tracking, casual analysis. [7M]  
b) Discuss the version controlin detail. [7M]

8. a) Describe about the peer reviews. [7M]  
b) Explain about test data and test cases with examples. [7M]

**UNIT – V**

9. a) List out the various levels of process model. [7M]  
b) Explain different process defined techniques. [7M]
10. a) Write in detail about the process base lining. [7M]  
b) Explain the process assessment and improvement in detail. [7M]



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## COURSE OBJECTIVES:

The course should enable the students to:

I	Understand overall software development life cycle and adopt suitable processes..
II	Analyze, prioritize, and manage both functional and quality requirements.
III	Estimate efforts required, plan, and track the plans.
IV	Understand and apply configuration and quality management techniques.

## COURSE OUTCOMES (COs):

CO 1	Describe the concept of Software Development Life Cycle and analyze the concepts of processes, TSP, PSP
CO 2	Determine the functional requirements, elicitation techniques and Quality Attribute workshop, ACDM, documentation, and specification, change management and traceability of requirements
CO 3	Understand Estimation, Planning, And Tracking
CO 4	Explore the concept of Configuration And Quality Management.
CO 5	Use of Software Process Definition And Management.

## COURSE LEARNING OUTCOMES (CLOs):

AIT512.01	Describe the basic concepts of Software Development Life Cycle.
AIT512.02	Summarize the concept of processes.
AIT512.03	Analyze the concepts of Personal Software Process (PSP), Team Software Process (TSP).
AIT512.04	Use the concept of unified, agile processes in real-world problems.
AIT512.05	Determine the Functional requirements and quality attributes,.
AIT512.06	Understand elicitation techniques, Quality Attribute Workshop (QAW).
AIT512.07	Determine the analysis, prioritization, and trade off
AIT512.08	Use Architecture Centric Development Method (ACDM).
AIT512.09	Illustrate the documentation, and specification.
AIT512.10	Describe the change management and traceability of requirements.
AIT512.11	Explain software risks.
AIT512.12	Understand the concept of function points, COCOMO II, estimations
AIT512.13	Understand the Work break down structure, macro and micro plans
AIT512.14	Understand the planning poker ,wideband Delphi
AIT512.15	Summarize the tracking the plan ,Earned Value Method (EVM)
AIT512.16	Identifying artifacts to be configured, naming conventions

AIT512.17	Understand the version control, configuration control, quality assurance techniques.
AIT512.18	Summarize the concept of peer reviews, Fagan inspection
AIT512.19	Apply testing of unit, registration, system, and acceptance, test data and test cases..
AIT512.20	Understand the bug tracking, casual analysis.
AIT512.21	Use Process elements, process architecture.
AIT512.22	Usage of Process relationship between elements, process modeling.
AIT512.23	Use of the process definition techniques ETVX, CMMI, six sigma.

### MAPPING OF SEMESTER END EXAMINATION - COURSE OUTCOMES

SEE Question No	Course Learning Outcomes		Course Outcomes	Blooms Taxonomy Level	
1	a	AIT512.04	Use the concept of unified, agile processes in real-world problems.	CO 1	Understand
	b	AIT512.02	Summarize the concept of processes.	CO 1	Understand
2	a	AIT512.04	Use the concept of unified, agile processes in real-world problems.	CO 1	Remember
	b	AIT512.02	Summarize the concept of processes.	CO 1	Understand
3	a	AIT512.05	Determine the Functional requirements and quality attributes,.	CO 2	Understand
	b	AIT512.10	Describe the change management and traceability of requirements.	CO 2	Remember
4	a	AIT512.07	Determine the analysis, prioritization, and trade off	CO 2	Understand
	b	AIT512.09	Illustrate the documentation, and specification.	CO 2	Understand
5	a	AIT512.14	Understand the planning poker ,wideband Delphi	CO 3	Remember
	b	AIT512.12	Understand the concept of function points, COCOMO II, estimations	CO 3	Understand
6	a	AIT512.13	Understand the Work break down structure, macro and micro plans	CO 3	Remember
	b	AIT512.15	Summarize the tracking the plan ,Earned Value Method (EVM)	CO 3	Understand
7	a	AIT512.20	Understand the bug tracking, casual analysis.	CO 4	Understand
	b	AIT512.17	Understand the version control, configuration control, quality assurance techniques.	CO 4	Remember
8	a	AIT512.18	Summarize the concept of peer reviews, Fagan inspection	CO 4	Understand
	b	AIT512.19	Apply testing of unit, registration, system, and acceptance, test data and test cases..	CO 4	Remember
9	a	AIT512.22	Usage of Process relationship between elements, process modeling.	CO 5	Understand
	b	AIT512.23	Use of the process definition techniques ETVX, CMMI, six sigma.	CO 5	Remember
10	a	AIT512.23	Usage of Process relationship between elements, process modeling	CO 5	Understand
	b	AIT512.21	Use Process elements, process architecture.	CO 5	Understand

Signature of Course Coordinator

HOD, IT