INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal, Hyderabad - 500 043

MODEL QUESTION PAPER -I

B.Tech VI 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)   Contrast between TSP and PSP.   **[7M]**
       b)   Discuss various steps involved in software development life cycle.   **[7M]**

2.   a)   Explain about the agile process in detail.   **[7M]**
       b)   Describe the Unified processes with diagram.   **[7M]**

UNIT – II

3.   a)   Explain the different elicitation techniques.   **[7M]**
       b)   What is QAW? Give the brief explanation of QAW.   **[7M]**

4.   a)   Explain the different stages in ACDM with neat diagram .   **[7M]**
       b)   What is requirement traceability? What is the purpose of it?   **[7M]**

UNIT – III

5.   a)   Describe Planning Poker Estimation Technique.   **[7M]**
       b)   Write in detail about the earned value method (EVM).   **[7M]**

6.   a)   Explain about COCOMO II in details.   **[7M]**
       b)   With diagram explain about working of WBS.   **[7M]**

UNIT – IV

7.   a)   Explain in details about Fagan inspection.   **[7M]**
       b)   Discuss the Naming Convention in detail.   **[7M]**

8.	a)	Describe the Quality assurance techniques.	**[7M]**
	b)	What is testing? Explain different types of testing methods.	**[7M]**

UNIT – V

9.	a)	List out the various levels of CMMI model.	**[7M]**
	b)	Explain methodologies of six sigma.	**[7M]**

10.	a)	Write in detail about the ETVX.	**[7M]**
	b)	Explain the process architecture in detail.	**[7M]**

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 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 articrafts 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	AIT512.03	Analyze the concepts of Personal Software Process (PSP), Team Software Process (TSP).	CO 1	Understand
	b	AIT512.01	Describe the basic concepts of Software Development Life Cycle.	CO 1	Understand
2	a	AIT512.04	Use the concept of agile processes in real-world problems.	CO 1	Understand
	b	AIT512.02	Summarize the concept of processes.	CO 1	Understand
3	a	AIT512.06	Understand elicitation techniques, Quality Attribute Workshop (QAW).	CO 2	Understand
	b	AIT512.06	Understand elicitation techniques, Quality Attribute Workshop (QAW).	CO 2	Remember
4	a	AIT512.08	Use Architecture Centric Development Method (ACDM).	CO 2	Understand
	b	AIT512.10	Describe the change management and traceability of requirements.	CO 2	Understand
5	a	AIT512.14	Understand the planning poker ,wideband Delphi	CO 3	Understand
	b	AIT512.15	Summarize the tracking the plan ,Earned Value Method (EVM)	CO 3	Understand
6	a	AIT512.12	Understand the concept of function points, COCOMO II, estimations	CO 3	Understand
	b	AIT512.13	Understand the Work break down structure, macro and micro plans	CO 3	Understand
7	a	AIT512.18	Summarize the concept of peer reviews, Fagan inspection	CO 4	Understand
	b	AIT512.16	Identifying articrafts to be configured, naming conventions	CO 4	Understand
8	a	AIT512.17	Understand the version control, configuration control, quality assurance techniques.	CO 4	Understand
	b	AIT512.19	Apply testing of unit, registration, system, and acceptance, test data and test cases..	CO 4	Understand
9	a	AIT512.23	Use of the process definition techniques ETVX, CMMI, six sigma.	CO 5	Understand
	b	AIT512.23	Use of the process definition techniques ETVX, CMMI, six sigma.	CO 5	Understand
10	a	AIT512.23	Use of the process definition techniques ETVX, CMMI, six sigma.	CO 5	Understand
	b	AIT512.21	Use Process elements, process architecture.	CO 5	Understand

Signature of Course Coordinator   **HOD, IT**