SEMESTER S7

PROJECT MANAGEMENT : PLANNING, EXECUTION,EVALUATION AND CONTROL

Course Code	**UEHUT704**	**CIE Marks**	50
Teaching Hours/Week (L: T:P: R)	2:0:0:0	**ESE Marks**	50
Credits	1	**Exam Hours**	2 Hrs. 30 Min.
Prerequisites (if any)	None	**Course Type**	Theory

Course Objectives:

1. Understand and apply project management concepts and tools, including project planning, scheduling, and resource allocation, to manage project scope, cost, and time effectively.
2. Develop practical skills in project execution, risk management, and the use of project management software to ensure successful project evaluation, performance tracking, and closure.

SYLLABUS

Module No.	Syllabus Description	Contact Hours
1	**Introduction to Project Management:-** Concept of a project-importance and challenges- classification of projects; Project management essentials-importance of project management-attributes of a good project manager-comparison: project management vs. general management; The project life cycle-phases of project life cycle; Establishing project priorities (scope, cost, time); Work break down structure; Capital budgeting process-planning-analysis- selection- financing-implementation-review.	**6**
2	**Project Initiation and Planning**:- Generation and screening of project ideas; Market and demand analysis-demand forecasting techniques-Qualitative and Quantitative; Market planning and marketing research process; Technical and financial analysis; Forms of Project organization; Human aspects of project management.	**6**

3	**Project Scheduling and Resource Management**:- Project time and cost estimation; Time Management- Developing Project Plan -Network Analysis using PERT/ CPM technique; Resource Management and Cost Management: Resource levelling- Scheduling and allocating project resources and costs.	**6**
4	**Advanced Project Management and Closure**:-Reducing Project duration - crashing project activities to speed up a project; Project Risk Management; Project Evaluation; Project progress and performance Management; Project closure and oversight; Introduction to various Project management software.	**6**

Course Assessment Method
(CIE: 50 marks , ESE: 50 marks)

Continuous Internal Evaluation Marks (CIE):

Attendance	Case Study/ Microproject	Internal Examination-1 (Written)	Internal Examination- 2 (Written)	Total
5	**15**	**15**	**15**	**50**

End Semester Examination Marks (ESE)

In Part A, all questions need to be answered and in Part B, each student can choose any one full question out of two questions

Part A	Part B	Total
• Minimum 1 and Maximum 2 Questions from each module. • Total of 6 Questions, each carrying 3 marks **(6x3 =18marks)**	2 questions will be given from each module, out of which 1 question should be answered. Each question can have a maximum of 3 sub divisions. Each question carries 8 marks. **(4x8 = 32 marks)**	**50**

Course Outcomes (COs)

At the end of the course students should be able to:

Course Outcome		Bloom's Knowledge Level (KL)
CO1	Explain the essential concepts of project management, including project classification, the project life cycle, and the capital budgeting process.	**K2**
CO2	Perform market and demand analyses, apply forecasting techniques, and carry out technical and financial assessments for project viability.	**K3**
CO3	Develop detailed project schedules using PERT/CPM techniques and effectively manage project resources and costs.	**K3**
CO4	Apply methods for reducing project duration, manage project risks, and utilize project management software for project evaluation and closure.	**K3**

Note*: K1- Remember, K2- Understand, K3- Apply, K4- Analyse, K5- Evaluate, K6- Create*

CO-PO Mapping Table:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1							1		2	
CO2	3	1							1		2	
CO3	3	2							1		2	
CO4	3	2			1				1		2	

Text Books				
Sl. No	**Title of the Book**	**Name of the Author/s**	**Name of the Publisher**	**Edition and Year**
1	Projects Planning, Analysis, Selection, Implementation and Review	Prasanna Chandra	Tata McGraw –Hill	10th Edition, 2024
2	Project Management: The Managerial Process	Erik W. Larson and Clifford F. Gray	McGraw-Hill Education	8th Edition, 2020
3	Project Management	Dennis Lock	Gower	10th Edition, 2013

Reference Books				
Sl. No	**Title of the Book**	**Name of the Author/s**	**Name of the Publisher**	**Edition and Year**
1	Project Management for Engineering, Business, and Technology	John M. Nicholas and Herman Steyn	Routledge	6th Edition, 2021
2	Text book of Project management	Gopalakrishnan P & Ramamoorthy V E	Laxmi Publications	1st Edition, 2022
3	Fundamentals of Project Management	K. Nagarajan	New Age International Publishers	6th Edition, 2019
4	Production and Operations management	R. Panneerselvam	PHI Learning Pvt. Ltd	3rd Edition, 2012

Video Links (NPTEL, SWAYAM…)	
Module No.	**Link ID**
1	https://www.youtube.com/watch?v=obzp6biyAN0
2	https://www.youtube.com/watch?v=dAJy-3A6lPM
3	https://onlinecourses.nptel.ac.in/noc24_mg01
4	https://onlinecourses.nptel.ac.in/noc24_mg01

MODEL QUESTION PAPER

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

SEVENTH SEMESTER B. TECH DEGREE EXAMINATION, MONTH AND YEAR

Course Code: UEHUT704

Course Name: PROJECT MANAGEMENT PLANNING EXECUTION , EVALUATION AND CONTROL

Max. Marks: 50 **PART A** Duration: 2 hours 30 minutes

			CO	Marks
		Answer all questions. Each question carries 3 marks		
1		What are the attributes of a good project manager?	CO1	(3)
2		Differentiate between Project Management and General Management.	CO1	(3)
3		Summarize the differences between qualitative and quantitative forecasting approaches.	CO2	(3)
4		Explain the human aspects of project management.	CO2	(3)
5		Outline the difference between resource levelling and resource allocation.	CO3	(3)
6		Explain the concept of crashing project activities.	C04	(3)

PART B

Answer any one full question from each module. Each question carries 8 marks

Module 1

9	a)	Explain the concept of project life cycle. Outline the different phases of project life cycle.	CO1	(4)
	b)	What do you mean by a project? What are the different types of projects?	CO1	(4)
10	a)	Discuss the various phases of capital expenditure of projects.	CO1	(3)
	b)	What do you mean by work break down structure in a project?	CO1	(3)
	c)	How do scope, cost and time interrelate in project management?	CO1	(2)

Module 2

11	a)	What do you mean by technical analysis in a project?	CO2	(3)
	b)	The sales particulars of a company for a period of 8 years are given below:	CO2	(5)

Year	1	2	3	4	5	6	7	8
Sales	1160	1360	990	1270	1460	1450	1530	1480

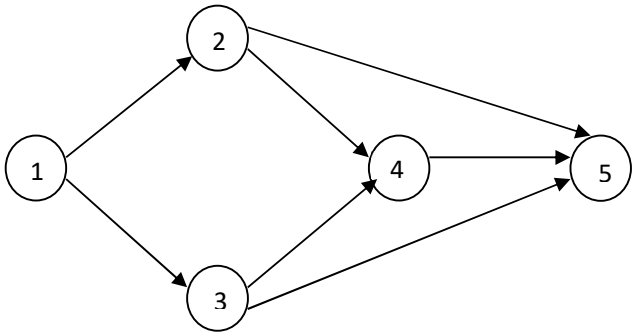
Fit a simple regression for the above data. Forecast the demand for the 9^{th} year.

12	a)	Explain briefly about the key steps in market and demand analysis in project management.	CO2	(4)
	b)	Discuss the process of generating and screening the project ideas.	CO2	(4)

Module 3

13	a)	Explain total float and free float.	CO3	(2)
	b)	For the network shown below, determine the critical path, duration and the probability of completing the project in 35 days. Compute the slacks also.	CO3	(6)

Activity	a	m	B
1-2	6	9	18
1-3	5	8	17
2-4	4	7	22
3-4	4	7	16
4-5	4	10	22
2-5	4	7	10
3-5	2	5	8



14 a) Differentiate between CPM and PERT. CO3 (2)

b) A project schedule has the following characteristics. CO3 (6)

Activity	A	B	C	D	E	F	G	H	I	J
	-	A	A	A	D	D	E	F, G	C, H	B
Time(days)	6	4	2	2	3	3	2	1	3	5

From the above information, you are required to:

(i) Construct a network diagram.

(ii) Determine the critical path and total project duration.

(iii) Find out EST, EFT, LST and LFT

Module 4

15 a) Explain the significance of a project closure report and list its key components. CO4 (2)

b) Consider the following project details CO4 (6)

Activity	Normal time (days)	Normal cost (Rs)	Crash time (days)	Crash cost (Rs)
1-2	6	700	4	840
1-3	12	300	10	First day Rs 60 Second day Rs 90
1-4	4	200	2	360
2-3	8	900	6	1000
2-4	4	600	2	760
2-5	15	100	8	380
3-5	8	500	8	-
4-5	6	400	4	500

If the indirect cost/day is Rs 150, find the optimal crashed project completion time

16 a) Mention any two project management software and explain how they differ? CO4 (3)

b) What are the techniques used to measure the risk in investment? CO4 (3)

c) What is the primary purpose of monitoring project progress? CO4 (2)

*****