

Hall Ticket No

Question Paper Code: CMBB06



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

## MODEL QUESTION PAPER

MBA I Semester End Examinations, November- 2019

**Regulations: R18**

**Management of Technology**

(Common to MBA)

**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) Examine the role of technological innovation in manufacturing concerns. Define technology innovation and explain technology innovation chain. [7M]  
b) What is the importance of management of technology for business? What are the factors contributing to successful technological innovation? [7M]
2. a) Innovation of technology can be treated as a conversion process” Explain [7M]  
b) Employees have always viewed technological innovation as a threat. Do you agree for this statement? [7M]

### UNIT – II

3. a) Discuss the role of government and military in R&D. Explain how R&D plays a significant role in the new product development with suitable examples. [7M]  
b) Define technology and explain ‘strategic technical area’ for a telecommunications products business unit. [7M]
4. a) Explain the role of R&D in supporting the organization to with a hand in the changing environment [7M]  
b) Discuss the factor influencing the selection and implementation of R&D strategy. [7M]

### UNIT – III

5. a) Explain various steps involved in creative problem solving process. [7M]  
b) What is brainstorming? Explain the process of brainstorming in creative problem solving [7M]
7. a) What do you understand by creative process? Discuss the techniques for solving, creative problems. [7M]  
b) Discuss any three techniques of creative problem solving along with their merits and limitations. [7M]

#### **UNIT – IV**

7. a) Examine the various factors that determine the project selection and allocation of resources. [7M]  
b) Explain the DCF and other techniques for evaluating R&D ventures. [7M]
8. a) What is project formulation? Give a detailed flow chart of the project formulation and analysis process. [7M]  
b) Financial considerations affect all technology decisions' - analyze the statement. [7M]

#### **UNIT – V**

9. a) Explain the differences between internal and external project controls [7M]  
b) How firms should focus on portfolio playing during the recession periods. Describe the ways technology projects may be terminated. [7M]
10. a) Explain the key elements of the project portfolio plan. What is meant by project termination? Explain the procedure involved in project planning and control. [7M]  
b) What do you mean by portfolio planning? Examine its significance in R&D programme planning and control. [7M]



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## COURSE OBJECTIVES:

The course should enable the students to:

I	Develop the ability to design innovation strategies that can successfully take advantage of innovation opportunities
II	Able to examine the patterns and sources of technological change and the mechanisms for capturing the economic benefits from innovation
III	Identify the strategic and organizational challenges involved in managing technological innovation.
IV	Explores the challenges, tools and principles involved in managing innovation and technology.

## COURSE OUTCOMES (COs):

CMBB06.01	Able to design and implement innovation strategies in organizations, corporate foresight and technology with the aim of detecting sources of competitive advantage for evaluating and selecting R&D proposals.
CMBB06.02	Examine product failures and try to understand the causes of product failures.
CMBB06.03	Understand the cost effectiveness in financial aspects of Research and Development in new product development
CMBB06.04	Identify the discounted cash flow techniques and other techniques for evaluating research and development projects.
CMBB06.05	Explain the need and importance of research and development in new product development.
CMBB06.07	Able to manage innovation activities (new product and process development) for decision making, management and early cancellation.
CMBB06.07	Understand the major forecasting tools and techniques tools that are used in technological forecasting to know the current status.
CMBB06.08	Explain the role of technological forecasting and examine technology role in decision making with regard to technological issues.
CMBB06.09	Why should company go in for technology transfer to manufacture a new product or implementing a new product?
CMBB06.10	Utilise high level interpersonal skills to negotiate and communicate effectively with both technical and non-technical stakeholders verbally and in writing skills.

## MAPPING OF SEMESTER END EXAMINATION - COURSE OUTCOMES

SEE Question No	Course Outcomes		Course Outcomes	Blooms Taxonomy Level	
1	a	CMBB06.01	Understand the role of technological innovation in manufacturing concerns. Define technology innovation and explain technology innovation chain.	CO 1	Remember
	b	CMBB06.01	Illustrate the importance of management of technology for business? What are the factors contributing to successful technological innovation?	CO 1	Understand

2	a	CMBB06.02	Explain the Innovation of technology can be treated as a conversion process.	CO 2	Apply
	b	CMBB06.02	Discuss about Employees are always view technological innovation as a threat.	CO 2	Evaluate
3	a	CMBB06.04	Discuss the role of government and military in R&D. and signigicant role in the new product development with suitable examples.	CO 3	Understand
	b	CMBB06.03	Evaluate 'strategic technical area' for a telecommunication products business unit.	CO 3	Apply
4	a	CMBB06.03	Analyze the role of R&D in supporting the organization to withhand in the changing environment.	CO 4	Create
	b	CMBB06.03	Discuss the factor influencing the selection and implementation of R&D strategy.	CO 4	Remember
5	a	CMBB06.05	Understand the various steps involved in creative problem solving process	CO 5	Remember
	b	CMBB06.07	Explain the process of brainstorming in creative problem solving	CO 5	Apply
7	a	CMBB06.07	Elucidate the techniques for solving creative problems..	CO 6	Evaluate
	b	CMBB06.5	Discuss any three techniques of creative problem solving along with their merits and limitations	CO 6	Understand
7	a	CMBB06.7	Examine the various factors that determine the project selection and allocation of resources.	CO 7	Apply
	b	CMBB06.7	Understand the DCF and other techniques for evaluating R&D ventures.	CO 7	Evaluate
8	a	CMBB06.7	Understand and analyze the detailed flow chart of the project formulation and analysis process.	CO 8	Understand
	b	CMBB06.8	Express the Financial considerations affect all technology decisions'	CO 8	Remember
9	a	CMBB06.9	Explain the differences between internal and external project controls.	CO 9	Remember
	b	CMBB06.9	Discuss the focus on portfolio playing during the recession periods. Describe the ways technology projects may be terminated	CO 9	Understand
10	a	CMBB06.9	Explain the key elements of project portfolio planning.whai are meant by project termination? Explain the procedurc involved in project planning and control.	CO 10	Apply
	b	CMBB06.10	Examine its significance in R&D programme planning and control.	CO 10	Analyze

**Signature of Course Coordinator**

**HOD, MBA**