

Plot No. 2, Knowledge Park-III, Greater Noida (U.P.) –201306

**POST GRADUATE DIPLOMA IN MANAGEMENT (2024-26)
END TERM EXAMINATION (TERM -IV)**

Subject Name: **Management of Technology, Innovation and Change**

Time: **02.00 hrs**

Sub. Code: **PGO44**

Max Marks: **40**

Note: All questions are compulsory. Section A carries 12 marks: 6 questions of 2 marks each, Section B carries 18 marks having 3 questions (with internal choice question in each) of 6 marks each and Section C carries 10 marks one Case Study having 2 questions of 5 marks each.

Kindly write the all the course outcomes as per your TLEP in the box given below:

COs	Statement of Course Outcomes	Bloom's Taxonomy
CO-1	Understand and remember the strategic applications of Technology mixes	Remember-L-1 Understand- L-2
CO-2	Apply the strategies for innovation	Apply- L-3
CO-3	Examine diffusion strategies to be adopted by different marketers	Evaluate- L-5
CO-4	Develop the value chain plan based on internal and external environment to assess the strategic gaps in the organization	Create- L-6
CO-5	Analyze the contemporary issues and emerging trends in strategic innovation	Analyze -L-4

SECTION - A

Attempt all questions. All questions are compulsory.

2×6 = 12 Marks

Questions	CO	Bloom's Level
Q. 1: (A) Discuss some of the challenges of technology in an organization	CO1	L1
Q. 1: (B). How technology is beneficial to a company. Explain with the help of examples.		
Q. 1: (C). Explain the role of innovation in technology management	CO2	L2
Q. 1: (D). Discuss some factors responsible for technology diffusion		
Q. 1: (E). What are various supporting activities in value chain analysis		
Q. 1: (F). Discuss the role of leaderships in technology management		

SECTION – B

All questions are compulsory (Each question has an internal choice. Attempt anyone (either A or B) from the internal choice)

6 x 3 = 18 Marks

Questions	CO	Bloom's Level
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<p>Q. 2: (A). A manufacturing company is facing delays in production because raw materials often arrive late, and the after-sales service team receives frequent complaints regarding product defects. Using Porter’s Value Chain model, analyze how the company can restructure primary and support activities to improve operational efficiency and customer satisfaction.</p>	CO3	L3
<p>Or</p>		
<p>Q. 2: (B). Two technology firms plan to jointly develop a new software product. Based on the elements and challenges of collaborative arrangements, recommend how they should structure their collaboration agreement to avoid conflicts related to roles, IP ownership, and dispute resolution. Provide practical examples.</p>	CO3	L3
	CO4	L4
<p>Q. 3: (A). A hospital is planning to introduce telemedicine services to improve patient access. Using the five characteristics of innovation—relative advantage, compatibility, complexity, trialability, and observability—evaluate the factors that will influence the diffusion and adoption of telemedicine among doctors and patients.</p>	CO4	L4
<p>Or</p>		
<p>Q. 3: (B). An educational institution wants to implement an online learning platform. Apply the five-stage adoption process (knowledge, persuasion, decision, implementation, confirmation) to explain how teachers and students will move through these stages during the adoption of the new technology. Provide relevant</p>	CO5	L5
<p>Q. 4: (A). A software company is facing rapid technological changes and wants to stay competitive in the market. Using the concepts of innovation dynamics such as creative destruction, collaboration networks, and organizational processes, analyze how the company can adapt and continuously innovate to survive in a competitive environment.</p>	CO5	L5
<p>Or</p>		
<p>Q. 4: (B). A large organization is planning to launch a new product line and must restructure its technology department. Apply the principles of organizational structure (functional, matrix, centralized, decentralized, product-based) to recommend the most suitable structure for supporting innovation and efficient resource management during the new product development process.</p>		
<p><u>SECTION - C</u></p>		
<p>Read the case and answer the questions</p>	<p>5×02 = 10 Marks \</p>	
<p>Questions</p>	<p>CO</p>	<p>Bloom’s Level</p>

<p>Q. 5: Case Study: Digital Transformation at NovaTech Manufacturing</p> <p>NovaTech Manufacturing is a mid-sized company that produces industrial machinery for the automotive sector. For decades, the company relied on traditional manufacturing processes, manual quality checks, and paper-based documentation. As competition increased globally, NovaTech began facing delays in production, higher defect rates, and customer complaints regarding slow after-sales service.</p> <p>To address these issues, the management decided to adopt Industry 4.0 technologies, including IoT-enabled machines, automated quality inspection systems, and a centralized digital dashboard for real-time monitoring. They also introduced a cloud-based service portal to improve customer interaction and maintenance scheduling.</p> <p>However, the transition was not smooth. Many employees resisted the change, fearing job loss and lacking skills to use the new systems. The company also struggled with integrating old legacy machines with the new digital tools. Additionally, the decentralized organizational structure led to confusion regarding who was responsible for overseeing the technology upgrade.</p> <p>Despite these challenges, early results showed that automated inspections reduced defects by 30%, and the digital dashboard improved decision-making speed. The management realized the need for structured technology management, focusing on innovation adoption, organizational restructuring, and skill development.</p> <p>Questions</p> <ol style="list-style-type: none"> 1. Analyze how NovaTech can use principles of technology management—such as innovation adoption, organizational structure alignment, and resource management—to overcome employee resistance and successfully implement Industry 4.0 technologies. 2. Based on the challenges faced by NovaTech, recommend a suitable organizational structure for managing technological transformation. Justify your answer with reference to technology management concepts. 	CO5	L1
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Kindly fill the total marks allocated to each CO's in the table below:

COs	Question No.	Marks Allocated
CO1	1	6
CO2	2	6
CO3	3	6
CO4	4	6
CO5	5	16

(Please ensure the conformity of the CO wise marks allocation as per your TLEP.)

Blooms Taxonomy Levels given below for your ready reference:

- L1= Remembering**
- L2= Understanding**
- L3= Apply**
- L4= Analyze**
- L5= Evaluate**
- L6= Create**