

Name:



Enrolment No:

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, December 2023**

**Course: Technology Management**

**Semester: III**

**Program: MBA (Operations Management)**

**Time: 03 hrs.**

**Course code: LSCM8019**

**Max. Marks: 100**

**Instructions:** Allow a simple calculator in the exam.

**SECTION A**  
**10Qx2M=20Marks**

1. Instruction: Select the correct answer(s)/answer.

S. No.	Question	Marks	CO
Q1.1	In technology management, what is the "first-mover advantage"? a) The advantage of being the first to enter a new market with a technology b) The advantage of patenting a technology before competitors c) The advantage of having the most innovative technology d) The advantage of reducing costs through early adoption	2	CO1
Q1.2	What is the term for the process of systematically gathering and analysing information about competitors' technologies and products? a) Technology benchmarking b) Technology forecasting c) Technology scouting d) Technology standardisation.	2	CO1
Q1.3	What is the term for a strategy that involves creating a new product or technology by combining existing technologies or ideas? a) Cross-licensing b) Technology convergence c) Patent pooling d) Technology transfer	2	CO1
Q1.4	Management of technology is an interdisciplinary field that integrates science, engineering, and management knowledge and practice. a) True b) False	2	CO1
Q1.5	Technology is the only factor in a wealth-creation system. a) True b) False	2	CO1
Q1.6	In technology management, what is the role of a technology roadmap? a) Guiding the development of new technologies b) Planning technology infrastructure c) Aligning technology investments with business goals d) Documenting intellectual property	2	CO1

Q1.7	What is the term for the process of intentionally delaying the introduction of a new technology to extend the lifecycle of an existing product? a) Planned obsolescence b) Technological convergence c) Disruptive innovation d) Cross-licensing	2	CO1
Q1.8	In technology management, what is the primary focus of a technology roadmap? a) Identifying new technology trends b) Allocating research and development resources c) Prioritizing patent applications d) Aligning technology investments with business goals	2	CO1
Q1.9	Which type of innovation involves improving internal processes and operations to increase efficiency? a) Product innovation b) Process innovation c) Business model innovation d) Service innovation	2	CO1
Q1.10	What is the term for a technology considered essential for the basic functioning of an industry or market? a) Core technology b) Peripheral technology c) Emerging technology d) Niche technology	2	CO1
<b>SECTION B (4X5=20 MARKS)</b>			
Question 2. Answer the below questions in max. Up to 200 words (each).			
Q2.1	Identify a particular development project you are familiar with. What kinds of methods do you believe were used to assess the project?	5	CO3
Q2.2	For the above project, what kinds of methods do you believe should have been used to assess the project?	5	CO3
Q2.3	Consider a firm that is considering marketing its innovation in multiple countries. List three factors this firm should consider in formulating its protection strategy.	5	CO3
Q2.4	List a few differences between patents, copyrights, and trademarks.	5	CO4
<b>SECTION C (10X3= 30 MARKS)</b>			
Question 3: Answer the below questions in max. Up to 400 words (each).			
Q3.1	What are the factors that contribute to the wealth creation system? Why technology management is the most influential factor in a wealth-creation system.	10	CO2
Q3.2	Explain the S-curve of technology progress with a multiple generation technology.	10	CO2

Q3.3	What are some of the advantages and disadvantages of having formalised procedures for improving the effectiveness or efficiency of innovation?	10	CO2
<b>SECTION D</b> <b>(15X2= 30 MARKS)</b>			
Question 4: Answer the below questions in max. Up to 700 words (each).			
Q4.1	For an industry example of your choice, write and compare the red ocean Vs blue ocean strategy.	15	CO3
Q4.2	If a firm decides it is in its best interest to collaborate on a development project, how would you recommend the firm choose a partner, a collaboration mode, and a governance structure for the relationship?	15	CO3