

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

B.Tech Degree S2 (R) Examination May 2025 (2024 Scheme)

**Course Code: UCEST206****Course Name - ENGINEERING ENTREPRENEURSHIP & IPR**

Max. Marks: 40

Duration: 2 hours 30 minutes

**PART A***(Answer all questions. Each question carries 2 marks)*

		CO	Marks
1	Explain the term ideation.	CO1	(2)
2	Discuss about the different frameworks for innovation.	CO1	(2)
3	Elaborate the concept and need of customer profiling.	CO2	(2)
4	Highlight the role of marketing and operations strategies in ensuring business sustainability.	CO3	(2)
5	What are the key components of a business plan?	CO4	(2)
6	Explain about the components of a stakeholder engagement strategy.	CO5	(2)

**PART B***(Answer any one full question from each module, each question carries 7 marks)***Module -1**

- 7 A group of students at an engineering college developed an AI-based plagiarism detection tool as part of their final-year project. A large ed-tech company has shown interest in their project and wants to collaborate, but they fear losing control over their innovation. CO1 (7)
- a) Which Intellectual Property Rights (IPR) strategies should the students use to protect their idea?
- b) Explain the differences between patents, copyrights, trademarks, and trade secrets in this context.
- c) How can IPR help the students secure funding and gain a competitive advantage?
- 8 A group of students aims to start a drone delivery business. (a) Identify the statutory requirements they need to comply with. (b) Propose how they can validate their idea in the market. (c) Discuss the importance of team roles in executing their plan effectively. CO2 (7)



**Module -2**

- 9 a Outline the steps involved in preparing a problem canvas. CO3 (3)
- b Discuss how regulatory and legal considerations influence market entry strategies. CO3 (4)
- 10 A student startup is working on a mobile health monitoring unit for remote villages. Develop a compelling value proposition and outline a strategy to validate the market need using pilot testing and user interviews. CO3 (7)

**Module -3**

- 11 Discuss the essential components of a business plan. How do marketing and operational strategies contribute to the long-term sustainability of a business? CO4 (7)
- 12 A tech startup is developing a wearable fitness tracker targeting urban professionals. Design a business plan framework outlining the product strategy, customer segmentation, and funding model. CO4 (7)

**Module -4**

- 13 A startup is building a precision agriculture platform using drones and AI for crop monitoring.
- (a) Propose a strategy to engage early adopters, such as progressive farmers or agri-cooperatives, and gather useful feedback. CO5 (7)
- (b) Design a product differentiation strategy to make the platform stand out in the agri-tech market.
- (c) List suitable tools or methods for maintaining version control in software and hardware development cycles.
- 14 a) Illustrate the significance of strategic resource allocation during the prototype development phase of a startup project. CO5 (3)
- b) Analyze how iterative feedback from stakeholders can drive improvements in prototype design and functionality. CO5 (4)

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