

M. Sc. CLINICAL RESEARCH
SEMESTER - II EXAMINATION, JUNE – 2026
(2025 Batch)

(GEMS102) INNOVATION, BUSINESS MODELS AND ENTREPRENEURSHIP

[Time Allotted: 3:00 Hours]

[Max. Marks: 100]

Note: Read all the instructions carefully

Answer all questions in serial order, Draw suitable diagrams wherever necessary

Q. 1. Objective type questions: (Attempt All)

(10 x 02 = 20)

(Very short/ Short answer/ MCQ/ One liners/ Fill in the blanks/ True/False)

Write **True or False** for the following statements:

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| a. Business model innovation can improve the scalability of a start-up. | [CO1, PO3] |
| b. Clinical research enterprises do not require informed consent from trial participants. | [CO3, PO3] |
| c. Financial leverage refers to the use of borrowed funds in business operations. | [CO4, PO5] |
| d. Food technology start-ups must comply with food quality and labelling standards. | [CO1, PO3] |
| e. Entrepreneurship contributes to employment generation and economic development. | [CO4, PO5] |
| f. Biotechnology companies often require long research and development cycles. | [CO4, PO4] |
| g. Customer acquisition cost has no impact on start-up profitability. | [CO5, PO5] |
| h. Angel investors usually invest during later stages of business expansion only. | [CO1, PO3] |
| i. Product diversification can reduce business risk. | [CO3, PO4] |
| j. Clinical trial protocols are essential documents in clinical research entrepreneurship. | [CO2, PO1] |

Q. 2. Short notes / Short Answer Type (Attempt any five out of seven)

(5 x 4 = 20)

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|----------------------------|------------|
| a. Seed Funding | [CO1, PO5] |
| b. Clinical Ethics | [CO5, PO3] |
| c. Brand Equity | [CO3, PO4] |
| d. Venture Funding | [CO4, PO5] |
| e. Business Sustainability | [CO3, PO3] |
| f. Technology Transfer | [CO1, PO2] |
| g. Start-up Incubation | [CO1, PO5] |

Q. 3. Structured Question (Attempt any three out of four)

(3 x 10 = 30)

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| a. Explain the importance of innovation and product differentiation in entrepreneurship. | [CO3, PO2] |
| b. Why does intellectual property management in biotechnology and healthcare start-ups play a key role? | [CO2, PO4] |
| c. Describe the significance of quality assurance and regulatory compliance in food science entrepreneurship. | [CO5, PO5] |
| d. Describe the role of ethics and regulatory compliance in clinical research and healthcare entrepreneurship. | [CO1, PO4] |

Q. 4. Long Answer/Essay type (Attempt any two out of three)

(2 x 15 = 30)

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| a. Discuss the major challenges faced by start-ups in clinical research and biotechnology sectors and suggest suitable strategies to overcome them. | [CO1, PO2] |
| b. Explain the role of entrepreneurial leadership, decision-making, and team management in achieving business growth and sustainability. | [CO3, PO1] |
| c. Describe the unique start-up idea that you have presented or plan to present in the “Pitch Your Startup” competition. | [CO5, PO2] |