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**Malla Reddy University**

**School of Engineering**

**B.Tech. IV Year II Semester - Department of CSE, CS, DS, AIML, IT & IoT**

**Start-ups, Innovation and Entrepreneurship (MR20-1CS0135)**

**SIE Faculty Members:**

1. CSE Department - Dr. Ravi Kanth Makarla
2. CS Department - Dr. Sathri John Moses
3. DS Department - Dr. K. Srikanth
4. AI & ML Department - Dr. Ranjith Uppula
5. IT Department - Dr. Lakshmi Narahari Chunduru
6. IoT Department - Mrs. Shravani Devatha

**Course Syllabus**

**UNIT-I**

Startup Requirements: The Big Idea, Generate Ideas with Brainstorming, Business Startup, Ideation Venture Choices. Estimating Startup Cash Requirements, Developing Financial Assumptions.

The Entrepreneur and Mindset: Meaning – The skills required being an Entrepreneur and Entrepreneurial Decision Process - Entrepreneurial Stress – Challenges of Startups – Entrepreneurial Motivation, Innovation, Imaginations & Creativity.

**UNIT-II**

Innovation & Creativity: Innovation: Meaning, Concept, Characteristics, Importance, Principles of Innovation, Process of Innovation. Creativity: Meaning, Concept, Importance, Creativity Process, Entrepreneurship – Role models of Entrepreneurship – Common Entrepreneurial Characteristics.

**UNIT-III**

Business Planning and FundRaising: Identifying, Assessing and Validation of the Idea, Identifying the target segment and market share, Creating an Effective B-Plan, Market Research, Financial, Market and Technical Feasibility, FundRaising and Valuation, Idea Pitching.

**UNIT-IV**

Legal and Financial Aspects: Legal Aspects: Permits, Registrations and Compliances, Intellectual Property Rights, Contracts.

Financial Aspects: Working Capital Management – Financial Management and Long-term Investments, Capital Structure and Taxation, Break Even Analysis.

**UNIT-V**

Contemporary Issues: Legal forms of Entrepreneurial Organizations – Debt, Equity, Angle and Venture Capital Markets for Startups, Growth and Development Stages – New Venture Finance – Initial Public Offer (IPO).

Government Initiatives to Encourage Startups – Business Incubations and its Benefits – Protection of Intellectual Property.

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**Question Bank for Semester End Examination**

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| **Q. No.** | **Questions** | **Marks** | **Section** | **Un it** |
| 1 | Define the term Brainstorming. Explain the steps involved in the brainstorming technique in detail. | 12 | Section-I | 1 |
| 2 | Examine the various types of venture choices available to an entrepreneur | 12 | Section-I | 1 |
| 3 | “Characteristics of an entrepreneur mindset is key to the success of a startup” Explain. | 12 | Section-I | 1 |
| 4 | Running a successful business startup is a challenge”. Explain | 12 | Section-I | 1 |
| 5 | Critically evaluate the skills required to become a successful entrepreneur. | 12 | Section-I | 1 |
| 6 | Examine the various methods and techniques for ideation? Explain in brief | 12 | Section-I | 1 |
| 7 | Define the tools or models that can be used to validate financial assumptions? | 12 | Section-I | 1 |
| 8 | Define entrepreneur decision making. Explain the stages involved in the Entrepreneurial Decision Process. | 12 | Section-I | 1 |
| 9 | Entrepreneur stress refers to physical and emotional pressure “Explain the various causes of entrepreneurial stress. | 12 | Section-I | 1 |
| 10 | Describe the key financial assumptions needed to create a startup budget? | 12 | Section-I | 1 |
| 11 | Define Innovation. Explain the Characteristics of innovation. | 12 | Section-II | 2 |
| 12 | Examine the Principles of Innovation in Entrepreneurship. | 12 | Section-II | 2 |
| 13 | Distinguish between creativity and innovation. Explain the process of creativity in detail. | 12 | Section-II | 2 |
| 14 | ‘Innovation is the key for entrepreneurship’. Explain the steps of the innovation process in entrepreneurship? | 12 | Section-II | 2 |
| 15 | Define Creativity. Explain its Characteristics. | 12 | Section-II | 2 |
| 16 | ‘Six Hats technique involves looking at a problem from six different perspectives’. Explain the six hat technique in detail. | 12 | Section-II | 2 |
| 17 | ‘Creativity- Innovation- Entrepreneurship are interwoven and contribute to the growth and development of every sphere of economic activity on earth.’ Discuss. | 12 | Section-II | 2 |
| 18 | Critically evaluate the roles of an entrepreneur in a business environment? | 12 | Section-II | 2 |
| 19 | ‘No single model of entrepreneurship is the solution to all enterprises’. Discuss the various models of entrepreneurship. | 12 | Section-II | 2 |
| 20 | ‘Entrepreneurs have varied virtues to lead the enterprise successfully’. Critically examine various characteristic virtues in detail. | 12 | Section-II | 2 |
| 21 | **"Validation is the bridge between an idea and a successful start-up."**  Describe the process of idea validation. How can an entrepreneur use minimum viable products (MVPs), customer feedback, and pilot testing to validate their business idea? Provide examples of successful start-ups that effectively validated their ideas. | 12 | Section-III | 3 |
| 22 | How do market, financial, and technical feasibility studies interrelate in the context of a start-up? Discuss the importance of integrating these three aspects to create a comprehensive business plan. Provide examples of how neglecting any one of these feasibilities can lead to start-up failure. | 12 | Section-III | 3 |
| 23 | **"Market segmentation and targeting are the foundation of a successful marketing strategy."**  Elaborate on the various bases for market segmentation (demographic, geographic, psychographic, and behavioral). How can a start-up use these segmentation strategies to identify its target audience and estimate its potential market share? Support your answer with relevant examples. | 12 | Section-III | 3 |
| 24 | Explain the concept of 'dilution of equity' in the context of start-up funding. How does it impact the ownership and control of the founders? Discuss strategies entrepreneurs can adopt to minimize dilution while raising funds. | 12 | Section-III | 3 |
| 25 | **"A well-structured business plan is the foundation of a successful start-up."**  Discuss the key components of an effective business plan and explain how each component contributes to the overall success of a start-up venture. | 12 | Section-III | 3 |
| 26 | **Idea Pitching:** What are your strategies and considerations for effectively pitching your business Plan? | 12 | Section-III | 3 |
| 27 | Describe the significance of Financial and Technical feasibility in an entrepreneurial journey. | 12 | Section-III | 3 |
| 28 | Discuss the various stages of fund-raising for a start-up. Explain the types of investors typically involved at each stage and the key considerations for entrepreneurs while raising funds. | 12 | Section-III | 3 |
| 29 | Explain the key elements of a successful idea pitch. Discuss how an entrepreneur can effectively communicate their vision, market opportunity, and business model to potential investors. | 12 | Section-III | 3 |
| 30 | **"The role of technology in modern market research."**  Explain how technological advancements, such as big data analytics, artificial intelligence, and social media platforms, have transformed market research practices. Discuss how start-ups can leverage these technologies to gain a competitive edge. Provide examples to illustrate your points. | 12 | Section-III | 3 |
| 31 | Discuss the legal requirements to be submitted to the concerned department for starting a business in India. | 12 | Section-IV | 4 |
| 32 | Explain the process of registering a start-up in India under the "Start-up India" initiative. Highlight the benefits provided by the government to registered start-ups and the compliance requirements they must adhere to. | 12 | Section-IV | 4 |
| 33 | Define Working capital. Discuss the factors determinants of working capital requirements. | 12 | Section-IV | 4 |
| 34 | **"Innovation is the lifeblood of start-ups, and intellectual property rights are the tools to protect and monetize that innovation."**  Discuss how start-ups can use IPRs to monetize their innovations through licensing, franchising, and partnerships. Explain the role of contracts in formalizing these business arrangements and ensuring mutual benefits. | 12 | Section-IV | 4 |
| 35 | Examine the key aspects of a Legal Contract. Explain the significance of Legal Contract in a business entity. | 12 | Section-IV | 4 |
| 36 | Define capital structure. Discuss the factors affecting the capital structure decision in a company. | 12 | Section-IV | 4 |
| 37 | Explain the importance of intellectual property protection for businesses and innovators | 12 | Section-IV | 4 |
| 38 | Critically examine the break-even analysis and how it helps the entrepreneur to make informed decisions such as pricing, production levels and Margin of safety. | 12 | Section-IV | 4 |
| 39 | Analyze the role of taxation in shaping the capital structure decisions of a startup. How do tax benefits associated with debt financing influence a startup's financial strategy? | 12 | Section-IV | 4 |
| 40 | Explain the tools meant for financial / commercial appraisal of star-ups. | 12 | Section-IV | 4 |
| 41 | Discuss the various legal forms of entrepreneurial organizations, highlighting their key features, advantages, and disadvantages. Which legal form would you recommend for a tech-based start-up and why? | 12 | Section-V | 5 |
| 42 | Evaluate the challenges faced by entrepreneurs in selecting an appropriate legal form for their start-up. How do factors like liability, taxation, and governance influence this decision? | 12 | Section-V | 5 |
| 43 | Discuss about the government schemes for start-ups in India. | 12 | Section-V | 5 |
| 44 | Discuss the role of angel investors in the startup ecosystem. How do they differ from venture capitalists, and what are the key factors that angel investors consider before investing in a startup? | 12 | Section-V | 5 |
| 45 | Define incubation. Discuss the services offered by incubators. | 12 | Section-V | 5 |
| 46 | Describe the step-by-step process involved in launching an IPO. Highlight the roles of investment bankers, regulatory bodies, and other stakeholders in ensuring a successful IPO. | 12 | Section-V | 5 |
| 47 | Discuss the various stages of growth and development in a start-up. Explain the challenges faced by entrepreneurs at each stage and suggest strategies to overcome these challenges. | 12 | Section-V | 5 |
| 48 | Discuss the importance of Intellectual Property (IP) protection for startups and entrepreneurs. How can effective IP management contribute to the long-term success of a business? Provide examples to support your answer. | 12 | Section-V | 5 |
| 49 | Describe the significance of venture finance in all stages of business development. | 12 | Section-V | 5 |
| 50 | Discuss the various sources of funding available for new ventures. Explain the advantages and disadvantages of each source, and suggest which source might be most suitable for a tech-based start-up. | 12 | Section-V | 5 |

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