

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2024
ENTREPRENEURSHIP AND STARTUP**

[Maximum Marks: 75]

[Time: 3 Hours]

PART-A

I. Answer all the following questions in one word or one sentence. Each question carries 'One' mark.

(9 x 1 = 9 Marks)

	Module Outcome	Cognitive level
1.	Name any two successful start ups in Kerala Entri app, Xylem	.5*2=1 mark
2.	Name any two e-commerce platforms Amazon, Flipkart	1 mark
3.	Who is an intrapreneur? Intrapreneurs are individuals who are tasked with creating new and innovative products within an already-established business	1 mark
4.	What is a dark factory? The dark factory, or dark manufacturing — refers to the idea of fully automated production without the on-site presence or intervention of human workers	1 mark
5.	What is the full form of ODOP One District One Product	1 mark
6.	What is the job role of chief technology officer? A Chief Technology Officer (CTO) is a senior executive who manages an organization's technical operations and research and development (R&D).	1 mark
7.	What is the full form of MSME? Micro, Small and Medium Enterprises.	1 mark
8.	What is the fail fast approach? The fail fast approach is a philosophy that involves testing ideas and assumptions quickly and cheaply to learn what works and what doesn't	1 mark
9.	What is succession planning? Succession planning is the process of identifying the critical positions within your organization and developing action plans for individuals to assume those positions. A succession plan identifies future staffing needs and the people with the skills and potential to perform in these future roles.	1 mark

PART-B

II. Answer any eight questions from the following. Each question carries 'three' marks.

(8 x 3 = 24 Marks)

Module Outcome Cognitive level

1.	<p>What do you mean by fablab?</p> <p>Fab Lab - Digital Fabrication Laboratory is a place where anyone can make (almost) anything, using digital design, 3D printers, laser cutting and other advanced technological means.</p>	3marks
2.	<p>What is benefits of joining an incubator?</p> <p>The benefits of joining an incubator include:</p> <ul style="list-style-type: none">• Guidance on developing a product from your idea• Help running experiments to prove product-market fit• On-demand access to resources• Legal consultation• A workspace shared with other entrepreneurs• Networking and mentorship opportunities	3 marks
3.	<p>What do you mean by accelerator?</p> <p>Startup accelerators are short, intensive programs that provide education, resources, and mentorship if you're an early- or mid-stage founder.</p> <p>Often cohort-based, accelerators are more structured than incubators and outline specific tracks to turn your startup into a scalable business. Some offer multiple programs targeted at different industries or venture stages.</p> <p>Whereas incubators provide the environments and resources to help your ideas succeed, accelerators compress years' worth of learning and growth into the span of a few months.</p> <p>The benefits of joining an accelerator include:</p> <ul style="list-style-type: none">• Funding in return for a stake in your company• Immersive education on fundraising, product development, and growth marketing• Access to an alumni network and investor connections• Networking and bonding with your cohort• Intensive mentorship from industry leaders	3 marks
4.	<p>What is Urban entrepreneurship?</p> <p>Urban entrepreneurship is a type of entrepreneurial activity that focuses on improving the well-being of urban communities through innovation and entrepreneurship. It involves creating products and services to address community needs, and can lead to economic and non-economic gains for the public, private sectors, and the entrepreneur</p>	

5.	<p>Name any 3 technology-based products and service</p> <p>A technology product or service is a product or service that utilizes technology as a key component in its delivery or operation.</p> <p>PRODUCTS smartphones, personal computers, virtual reality headsets, intelligent home appliances, 3D printing.</p> <p>SERVICES Cloud services Cybersecurity AI Technical Support Backup solutions Software Internet of things Monitoring</p>	1+1+1=3marks
6.	<p>What is industry4.0?</p> <ol style="list-style-type: none"> 1. Industry 4.0 can be defined as the integration of intelligent digital technologies into manufacturing and industrial processes. It encompasses a set of technologies that includes 1. Big Data & Analytics 2. Autonomous Robots 3. Simulation/Digital Twins 4. Horizontal and Vertical Systems 5. Industrial IoT (IIoT) 6. Cybersecurity Technology 7. The Cloud 8. Additive Manufacturing 9. Artificial Intelligence 10. Augmented Reality 	3 marks
7.	<p>What is ODOP? What are its benefits?</p> <p>One District One Product (ODOP) initiative is aimed at fostering balanced regional development across all districts of the country.</p> <p>The initiative aims to select, brand, and promote at least One Product from each District (One District - One Product) of the country for enabling holistic socioeconomic growth across all regions.</p> <p>The ODOP Initiative has identified a total of 1102 products from 761 districts across the country.</p> <ol style="list-style-type: none"> 1. Numerous micro-enterprises will benefit through access to information, better exposure to the market, and formalization. 2. It will enable them to formalize, grow and become competitive in national and global space. 3. The project is likely to generate valuable skilled and semi-skilled jobs. 4. The scheme envisages increased access to credit by existing micro food processing entrepreneurs, women entrepreneurs, and entrepreneurs in the Aspirational Districts. 5. There will be better integration with organized markets, boosting the artisans and local vendors. 6. Increased access to common services like sorting, grading, processing, packaging, storage, etc. will be added advantage. 	3 marks

8.	<p>Write about innovation grant from KSUM</p> <p>Idea Grant - For startups who are in Ideation & Designing Stage/Proof of Concept Stage to the Minimum viable prototype. The grant amount is upto Rs.3 lakhs.</p> <ul style="list-style-type: none"> • Idea Grant (Student Innovator) - For students who are in Ideation & Designing Stage/Proof of Concept Stage to the Minimum Viable Prototype Development. The grant amount is upto Rs.2 lakhs • Productization Grant - For startups who are looking to convert the Minimum viable prototype into the final product with early traction/ early revenue. The grant amount is upto Rs.7 lakhs. • Women/Transgender Productization Grant - For women/transgender startups who are looking to convert the Minimum viable prototype into the final product. This grant will be an additional to the existing productization grant. The grant amount is upto Rs.12 lakhs. • Market Acceleration Grant - For startups who are looking for accelerating their revenue. The grant amount is upto Rs.10 lakhs • Scale-up Grant - For startups who are looking for scaling up and maximising revenue. The grant amount is upto Rs. 15 lakhs. 	.5*6= 3 marks
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9.	<p>What are types of intellectual property right?</p> <p>TYPES - copyright, trademarks,</p> <p>patents,</p> <p>geographical indications,</p> <p>plant varieties,</p> <p>industrial designs</p> <p>semiconductor integrated circuit layout designs</p>	1 3 marks

10.	<p>What is product validation?</p> <p>Product validation is the process of evaluating a product during its development to ensure it meets specific requirements.</p> <p>The product validation process involves testing the product's functionality, performance, and suitability for market. With product validation, you can identify and fix issues before market release, thereby enhancing customer satisfaction and reducing product failure risks</p>	<p>1.5*2=</p> <p>3 marks</p>
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PART-C

Answer all questions. Each question carries 'seven' marks

(6 x 7 = 42 Marks)

Module Outcome Cognitive level

III.	<p>Explain about the traits of an entrepreneur</p> <ol style="list-style-type: none"> 1. Risk-Taking Propensity: <ul style="list-style-type: none"> • Entrepreneurs are willing to take calculated risks to pursue opportunities, even in the face of uncertainty. 2. Innovative Thinking: <ul style="list-style-type: none"> • Entrepreneurs are known for their ability to think creatively and introduce new ideas or solutions to problems. 3. Vision and Planning: <ul style="list-style-type: none"> • Successful entrepreneurs have a clear vision for their ventures and develop strategic plans to achieve their goals. 4. Adaptability: <ul style="list-style-type: none"> • Entrepreneurs are adaptable and can navigate through changes and challenges in the dynamic business environment. 5. Proactiveness: <ul style="list-style-type: none"> • Entrepreneurs are proactive in identifying opportunities, making decisions, and taking the initiative to achieve their objectives. 6. Persistence: <ul style="list-style-type: none"> • Entrepreneurial ventures often face obstacles, and persistence is crucial for overcoming challenges and ensuring long-term success. 7. Customer Focus: <ul style="list-style-type: none"> • Entrepreneurs understand the importance of meeting customer needs and continuously seek ways to add value to their offerings. 8. Networking Skills: <ul style="list-style-type: none"> • Building and maintaining effective networks is vital for entrepreneurs to access resources, partnerships, and market insights. 9. Passion: <ul style="list-style-type: none"> • Entrepreneurs are passionate about their ventures, which fuels their commitment and determination. 10. Leadership Qualities: <ul style="list-style-type: none"> • Entrepreneurs exhibit leadership qualities, inspiring and guiding their teams toward achieving common goals. <p style="text-align: center;">OR</p>	7*1=7marks
IV	<p>What are the motivating factors of women entrepreneur</p> <p>Empowerment: Women entrepreneurs seek empowerment and financial independence through their businesses.</p> <p>Passion and Skill: Pursuing businesses aligned with their passion and skills.</p> <p>Impact: Making a positive impact on their communities and addressing societal</p>	7 marks

	<p>challenges.</p> <p>Flexibility: Entrepreneurship offers flexibility, allowing women to manage work and family commitments.</p> <p>Role Models: Inspirational role models and success stories encourage women to pursue entrepreneurship.</p>	
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V.	<p>Write about the problems faced by women entrepreneurs</p> <p>Gender Bias: Women entrepreneurs may face gender bias in accessing funding, resources, and opportunities.</p> <ul style="list-style-type: none"> • Work-Life Balance: Balancing business responsibilities with family obligations can be challenging. • Limited Access to Networks: Women may have limited access to professional networks critical for business growth. • Societal Expectations: Societal norms and expectations can impact women's choices and opportunities in entrepreneurship. 	<p>7 marks</p>

VI.	<p>Compare entrepreneur with manager</p> <p>Entrepreneurs and Managers:</p> <ol style="list-style-type: none"> 1. Focus on Innovation: <ul style="list-style-type: none"> ● Entrepreneurs: Prioritize innovation and the development of new products or services. ● Managers: Focus on optimizing existing processes and maintaining operational efficiency. 2. Risk-Taking: <ul style="list-style-type: none"> ● Entrepreneurs: Embrace calculated risks to pursue growth opportunities. ● Managers: Tend to be more risk-averse, focusing on stability and minimizing operational risks. 3. Ownership: <ul style="list-style-type: none"> ● Entrepreneurs: Often the founders or primary owners of the business. ● Managers: Typically employees responsible for executing organizational strategies. 4. Decision-Making Authority: <ul style="list-style-type: none"> ● Entrepreneurs: Have ultimate decision-making authority, especially in small businesses. ● Managers: Follow organizational hierarchies and report to higher management. 5. Long-Term Vision: <ul style="list-style-type: none"> ● Entrepreneurs: Focus on long-term vision and strategic planning. ● Managers: Concentrate on achieving short-term goals and operational objectives. 6. Flexibility: <ul style="list-style-type: none"> ● Entrepreneurs: Tend to be more flexible and adaptive to changes. ● Managers: Follow established processes and may be resistant to change. 7. Leadership Style: <ul style="list-style-type: none"> ● Entrepreneurs: Exhibit visionary and transformational leadership styles. ● Managers: Display more transactional and task-oriented leadership styles. 8. Resource Mobilization: <ul style="list-style-type: none"> ● Entrepreneurs: Actively seek and mobilize resources to fuel business growth. ● Managers: Implement resource allocations within the framework set by entrepreneurs or organizational leadership. 9. Organizational Growth: <ul style="list-style-type: none"> ● Entrepreneurs: Aim for rapid business growth and expansion. ● Managers: Focus on maintaining and improving existing operations. 10. Intrapreneurship: <ul style="list-style-type: none"> ● Entrepreneurs: Encourage intrapreneurship within the organization. ● Managers: May be intrapreneurs themselves, driving innovation within their specific roles. 	7*1=7 marks
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VII.	<p>List pillars of industry4.0</p> <ul style="list-style-type: none"> • Data analytics: Unlocks insights from large amounts of production data • Industrial Internet of Things (IoT): Makes production data accessible • Autonomous systems: Robots work with humans to perform complex tasks and provide real-time information • Cloud: Centralizes data and facilitates communication • Cyber security: Ensures the security of interconnected systems • Simulation: Used in product design and prototyping • Horizontal and vertical integration: Eliminates organizational disconnects • Augmented reality: Used in product design and prototyping • Advanced manufacturing: Includes additive manufacturing and supply chain digitization 	7 Marks

VIII.	<p style="text-align: center;">OR</p> <p>Explain Social Entrepreneurial Initiative</p> <p>Social entrepreneurship involves applying entrepreneurial principles to address social and environmental issues. Social entrepreneurs seek innovative and sustainable solutions to problems such as poverty, inequality, and environmental degradation. These individuals and organizations often prioritize social impact alongside financial sustainability. Social entrepreneurship can manifest in various forms, from nonprofit organizations to for-profit enterprises with a strong social mission.</p> <p>In the intersection of these areas, you might find startups that leverage emerging technologies for social entrepreneurship. For example, a startup could use artificial intelligence to develop solutions for improving access to education in underserved communities or employ blockchain technology to enhance transparency in social impact initiatives.</p> <p>These topics are interconnected and often overlap, creating a dynamic landscape where innovation and entrepreneurship thrive. Stay updated on the latest developments in emerging technologies, keep an eye on innovative startup ventures, and explore opportunities to contribute to social entrepreneurship for a well-rounded understanding of the tech and business landscape.</p>	<p style="text-align: center;">7 marks</p>
IX.	<p>What are Mahatma Gandhi's list of Social sins</p> <ol style="list-style-type: none"> 1. Wealth without work. 2. Pleasure without conscience. 3. Knowledge without character. 4. Commerce without morality. 5. Science without humanity. 6. Religion without sacrifice. 7. Politics without principle <p style="text-align: center;">OR</p>	<p style="text-align: center;">7*1=7 marks</p>

X.	<p>Define design thinking and list the stages in design thinking</p> <p>Design thinking is an iterative, non-linear process which focuses on a collaboration between designers and users. It brings innovative solutions to life based on how real users think, feel and behave</p> <p>Empathize</p> <ol style="list-style-type: none"> 1. Define 2. Ideate, 3. Prototype 4. Test. 	<p>7 marks</p>
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XI.	<p>Explain types of business ownership</p> <p>1 Sole Proprietorship</p> <ul style="list-style-type: none"> • A form of business wherein one person owns all the assets of the business. The owner reports income/loss from this business along with his personal income tax return. <p>2 Partnership Firm</p> <ul style="list-style-type: none"> • Partnership firms are created by drafting a partnership deed among the partners. The partnership deed is registered to make a firm. • A partnership firm cannot have more than 50 members. <p>3 Limited Liability Partnership (LLP)</p> <p>A limited liability partnership is a partnership in which some or all partners have limited liabilities. It therefore can exhibit aspects of both partnerships and corporations</p> <p>5 Co-operative Society</p> <p>A cooperative organization is an association of persons (usually of limited means) who have voluntarily joined together to achieve a common economic end. Democratically controlled organization</p> <p>6 Section 8 Company</p> <ul style="list-style-type: none"> • Section 8 company is a company established for promoting commerce, art, science, sports, education, research, social welfare, religion, charity, protection of environment or any such other object provided the profits (if any) or other income is applied for promoting only the objects of the company. • No dividend is paid to its members Section 8 Companies are registered under the Companies Act, 2013. <p>7 One Person Company</p> <p>An OPC means a company with:</p> <ul style="list-style-type: none"> <input type="checkbox"/> only 1 person as a member • Share holder can make only 1 nominee who shall become a shareholder in case of death/incapacity of original stakeholder. <p>8 Private Company</p> <p>Private company is a company which has the following characteristics:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Shareholders right to transfer shares is restricted. • Minimum number of 2 members in company. • Number of shareholders is limited to 200. • An invitation to the public to subscribe to any shares or debentures or any type of security is prohibited. <p>9 Public Company</p>	7*1=7 marks
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XII.	<p>A public company is a company which has the following characteristics:</p> <ul style="list-style-type: none"> □ • Shareholders right to transfer share; is not restricted. • Minimum 7 members. • An invitation to the public to subscribe to any shares or debentures or any type of security is permitted <p style="text-align: center;">OR</p> <p>Explain Startup Funding Options</p> <p>Bootstrapping Bootstrapping is when an entrepreneur starts a company with personal savings, including borrowed or invested funds from FFF and income from initial sales.</p> <p>Seed Funding Also known as seed financing, company shares are offered to investors so that they acquire a part of the business in exchange for capital</p> <p>Public Funds Public funds are government expenditures focused on public goods and services programs.</p> <p>Crowdfunding In such type of funding, you reach out to a crowd who can collectively provide the necessary amount to fund your venture. Crowdfunding is about raising small amounts of money from many different sponsors to get the overall sum you need.</p> <p>Angel Investors An “angel” investor offers capital and knowledge to a company or startup through financing. In exchange, you will receive a profit in the future, which usually translates into a shareholding in the company. Angel investments are normally the second financing round for startups with high growth potential.</p> <p>Bank Financing There are different bank financing instruments that a company can resort to have the necessary capital flow in its daily operations. However, to receive this type of loan, a company must meet many requirements and conditions before becoming a financing creditor and offer guarantees that guarantee the amount. Finally, the interest rate on this type of loan is high, so it is advisable to think carefully if a company wants to assume this type of financing.</p> <p>Venture Capital Venture capital financing is provided by private funds to companies or ventures with high growth potential. These funds manage and contribute capital from individuals, companies or institutions, investing in innovative companies or startups with great possibilities to be successful.</p>	7 marks
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XIII.	<p>What is business harvesting .Explain about business harvesting options</p> <p>During the harvesting process, the entrepreneur recovers value through the sale of an entrepreneurial entity or its assets.</p> <p>1.Buyouts</p> <p>Buyouts or an outright sale of entity results in the establishment of a new independent entity owned and controlled by managers and sometimes by a private equity entity</p> <p>2.Business mergers</p> <p>Merging a business is a process where the smaller entity is absorbed, often by a larger entity</p> <p>3.Outright sale</p> <p>The entrepreneur who opts for an outright sale of his firm as the harvesting option sells the entire business to any person who is willing to pay for the asking price</p> <p>4.Employee share ownership scheme (ESOS)</p> <p>it's a program where employees are granted the option to purchase a specific number of shares at a pre-determined price (exercise price) within a certain timeframe (vesting period)</p> <p>5. Initial public offering (IPO)</p> <p>The entrepreneur who chooses initial public offering as a harvesting option enlist the entity on a public stock exchange and have its shares publicly traded</p>	7 Marks
XIV	<p style="text-align: center;">OR</p> <p>Illustrate Strategies for Validating Idea/Product</p> <ol style="list-style-type: none"> 1. Make some sales 2. Conduct competitive analysis 3. Research existing demand 4. Create a feedback survey 5. Start a crowdfunding campaign 6. Gauge interest on social media 7. Create a pre-launch landing 	7 marks