

GOVERNMENT POLYTECHNIC NAYAGARH

LECTURE NOTES ON EM&ST THEORY

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# Unit 1: Entrepreneurship

## Concept / Meaning

- Entrepreneurship is the process of starting, organizing, and managing a new business venture.
- An **entrepreneur** is a person who identifies an opportunity and takes the risk to start a business.

## Need of Entrepreneurship

- Economic development
- Job creation
- Innovation and technology advancement
- Improvement of standard of living

## Characteristics of an Entrepreneur

- Risk-taking ability
- Leadership quality
- Creativity and innovation
- Decision-making
- Visionary thinking

## Qualities of an Entrepreneur

- Self-confidence
- Goal-oriented
- Hardworking
- Persistence
- Communication skills

## Types of Entrepreneurs

- **Innovative:** Creates new products/services.
- **Imitative:** Copies successful innovations.
- **Drone:** Resistant to change.
- **Fabian:** Very cautious.

## Functions of an Entrepreneur

- Idea generation

- Organizing resources
- Risk bearing
- Innovation
- Decision-making

### Barriers in Entrepreneurship

- Lack of capital and infrastructure
- Poor knowledge and skills
- Fear of failure
- Government regulations

### Entrepreneur vs Manager

Entrepreneur	Manager
Creates business	Runs existing business
Takes risks	Minimizes risks
Owner	Employee
Innovation	Execution

### Forms of Business Ownership

1. **Sole Proprietorship** – Owned and managed by one person.
2. **Partnership** – Owned by two or more persons.
3. **Joint Stock Company**
4. **Cooperative Society**
5. **Private and Public Enterprises**

### Types of Industries

- **SSI** – Small Scale Industry
- **Tiny Unit** – Very small unit with limited capital
- **Ancillary Unit** – Supports large industries
- **Service Sector Unit**

### Start-Ups

- New ventures with innovation and growth potential.

### Entrepreneurial Support Agencies

- **DIC** – District Industries Centre

- **NSIC** – National Small Industries Corporation
  - **OSIC** – Odisha Small Industries Corporation
  - **SIDBI** – Small Industries Development Bank of India
  - **NABARD** – Rural development bank
  - **KVIC** – Khadi and Village Industries Commission
  - **Commercial Banks**
  - **TBI** – Technology Business Incubator
  - **STEP** – Science & Technology Entrepreneurs Park
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## **Unit 2: Market Survey & Opportunity Identification**

### **Business Planning**

- Business plan is a written document describing the business idea, goals, and strategy.

### **Types of Units**

- SSI, Tiny, Service, Ancillary

### **Assessment**

- Demand and Supply analysis
- Identifying market gaps and potential growth

### **Project Implementation Plan**

- Time Schedule
- Agencies: DIC, Banks, KVIC, NSIC, etc.

### **Product Selection**

- Based on market demand, skills, resources, and feasibility
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## **Unit 3: Project Report Preparation**

### **Preliminary Project Report**

- Brief outline of business idea

### **Detailed Project Report (DPR)**

- Detailed analysis covering technical, financial, and managerial aspects

### **Techno-Economic Feasibility**

- Evaluates technical feasibility and economic viability

### **Project Viability**

- Judgement of success/failure of the business
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# Unit 4: Principles of Management

## Definition

- Management is planning, organizing, directing, and controlling organizational resources efficiently.

## Principles (Henry Fayol)

- Division of work, authority, discipline, unity of command, scalar chain, etc.

## Functions

- Planning, Organizing, Staffing, Directing, Controlling

## Levels of Management

- **Top Level** – Policy making (CEO)
  - **Middle Level** – Execution & coordination
  - **Lower Level** – Supervision
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## Unit 5: Functional Areas of Management

### a) Production Management

- **Functions:** Planning, Scheduling, Quality control
- **Productivity:** Output/Input ratio
- **Quality Control:** Ensuring defect-free products
- **Production Planning & Control:** Ensures timely production

### b) Inventory Management

- Maintain stock levels to meet production
- Techniques: EOQ, ABC analysis

### c) Financial Management

- Financial planning, budgeting, fund management

### *Working Capital*

- Short-term capital for daily operations

### *Costing*

- Determining cost of production (only concept)

### *Break-Even Analysis*

- Point where total cost = total revenue

### d) Accounting Terminologies (Concepts only)

- **Book Keeping** – Record of financial transactions
- **Journal Entry** – Daily transaction record
- **Petty Cash Book** – Small daily expenses
- **P&L Account** – Profit & Loss statement
- **Balance Sheet** – Summary of assets & liabilities

### e) Marketing Management

- Marketing: Understanding and satisfying customer needs
- 4P's: Product, Price, Place, Promotion



## f) HR Management

- Functions: Recruitment, Selection, Training
  - **Recruitment Sources:** Internal & External
  - **Selection Methods:** Tests, Interviews
  - **Training Methods:** On-job & Off-job
  - **Wage Payment Systems:** Time rate, Piece rate
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# Unit 6: Leadership & Motivation

## Leadership

- Influencing people to achieve goals

## *Qualities of a Leader*

- Confidence, Vision, Integrity, Communication

## *Functions*

- Guidance, Decision-making, Motivation

## *Styles*

- Autocratic, Democratic, Participative

## *Leader vs Manager*

Leader	Manager
Inspires	Controls
Long-term focus	Short-term tasks

## Motivation

- Internal drive to act

## *Characteristics*

- Continuous process, goal-directed

## *Importance*

- Increases productivity and job satisfaction

## *Theories:*

- **Maslow's Hierarchy:** Needs from physiological → self-actualization

## *Methods of Motivation*

- Incentives, Recognition, Promotion

### *Importance of Communication*

- Effective communication boosts motivation
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# Unit 7: Work Culture, TQM & Safety

## Work Culture

- Human behavior, peer relations, teamwork

## TQM (Total Quality Management)

- Quality Policy, Systems, Management

## Safety in Workplace

- Causes of Accidents: Human error, machine fault
  - Prevention: Training, proper PPE
  - **PPE (Personal Protective Equipment)**: Helmets, gloves, goggles, etc.
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# Unit 8: Legislation

## Intellectual Property Rights (IPR)

- **Patent** – Invention
- **Copyright** – Artistic work
- **Trademark** – Brand/logo

## Factories Act 1948 (Salient Features)

- Safety, welfare, health of workers

## Payment of Wages Act 1936

- Timely payment, no unauthorized deductions
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# Unit 9: Smart Technology (IoT)

## Concept of IoT

- Network of physical devices connected via internet

## How It Works

- Devices → Sensors → Network → Cloud → User

## Components

- Sensors, Network, Data Processing, Application

## Characteristics

- Automation, Connectivity, Efficiency

## Categories

- Consumer, Industrial, Infrastructure

## Applications

- Smart Cities, Transport, Home, Healthcare, Agriculture, Energy, Industry