

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

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

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

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

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

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

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.

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

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