

# SYLLABUS - MSE1

## **1. HSMC-103 (PEEM) SECTION: CSA**

Basic concepts and Def., Demand Theory and Cost Sheet

## **2. HSMC-103 (PEEM) SECTIONS: CSB, CSC, CSD, CEA, CEB, EEA**

- 1) **Basic Concepts and Definitions**- Definition of Economics, Demand, Cost, Price, Profit, Marginal Productivity, TP, AP, TC, MC, AC, AFC, AVC, TVC, TFC
- 2) **Theory Of Demand**- Law of Demand, Indifference Curve Analysis, Elasticity of Demand, Engel's Law, Giffen Paradox
- 3) **Theory of Production and Cost**-Law of Variable Proportions, Law of returns to scale, Economies & Diseconomies of scale, Cost
- 4) **Cost Sheet**

## **3. BSC-103 (MATH-I) SECTION: CSA**

Differential equations up to variation of parameter

## **4. BSC-103 (MATH-I) SECTIONS: CSB, CSC, CSD, CEA, CEB, EEA**

- 1) Ordinary differential equations
- 2) Linear differential Equations of higher orders

## **5. BSC-101 (PHYSICS)**

**CSA and CEA** - Laser and Optical fibers

**EEA** - Laser and Optical fibers and numericals based on divergence n curl of a vector field.

**CSB, CSC, CSD, CEB** - EM waves, stimulated n spontaneous emission, population inversion, Einstein Theory, Components of a Laser.

## **6. BSC-104 (MATH-II) SECTIONS: MEA, MEB, ECA, ECB, ITA, ITB, ITC**

Fourier Series, Partial Differentiation and two applications

## **7. BSC-105 (CHEMISTRY) SECTIONS: MEA, MEB, ECA, ECB, ITA, ITB, ITC**

Water & its treatment

UV-visible spectroscopy

## **8. ESC-104 (PPS): SECTIONS: MEA, MEB, ECA, ECB, ITA, ITB, ITC**

**UNIT -1** (Introduction to programming)

**UNIT-2** (Arithmetic expressions and precedence)

**UNIT-3** (Arrays)

## **9. ESC-103 (EGD) SECTIONS: CSA, CSB, CSC, CSD, CEA, CEB, EEA**

Introduction, Letter Writing, Conventions, Principles of Dimensioning

Projection of points, Projection of a plane.

## **10. ESC-101 (BEE) SECTIONS: CSA, CSB, CSC, CSD, CEA, CEB, EEA**

**MODULE 1:** DC CIRCUITS

**MODULE2:** AC CIRCUITS

**MODULE6:** BASIC INSTRUMENTS

## **11. HSMC-101 (ENGLISH) SECTIONS: MEA, MEB, ECA, ECB, ITA, ITB, ITC**

### **1) INTRODUCTION TO COMMUNICATION IN ENGLISH**

- Importance of Communication
- Importance of Communication in English
- Communication, Concept of Communication, Process of Communication, Modes of Communication, Formal & Informal Communication, Oral and Written Communication, Verbal & Non-verbal Communication
- Classification of Non-Verbal Communication- Kinesics, Proxemics and Paralanguage
- Basics of Effective Communication
- Language as a tool of communication
- Characteristics of Language
- Barriers to Communication

### **2) LISTENING SKILLS**

- Importance of Listening in Communication
- Poor Listening habits
- Types of Listening
- Qualities of a good Listener
- Barriers to Effective Listening

### **3) READING SKILLS**

- Reading process
- Purpose of Reading
- Types of Reading- Active & Passive Reading
- Difference between Efficient & Inefficient reading