## **SEMESTER II**

BES-C204

Max. Marks =100 Time allowed: 3Hrs Theory = 70 Marks + Internal Assessment = 30 Marks

### **KINESIOLOGY**

### **UNIT-I**

Definition& Meaning of Kinesiology Aims & objectives of kinesiology Scope of Kinesiology in physical Education and Sports Role of Kinesiology in physical Education and Sports

#### **UNIT-II**

Fundamental concepts: Centre of gravity, line of gravity Axis and planes Fundamental movements of human body joints Meaning & definition of motion around various joints

## **UNIT-III**

Introduction of Bones Composition of bones Types of bones Classification of bones

# **UNIT-IV**

Introduction of Muscles
Types of muscles
Classification of muscles
Structure of Skeletal muscles

# **SUGGESTED BOOKS**

Hamill, J. and Knutzen, K.M. (2003). Biomechanical Basis of Human Movement. Lippincott Williams and Wilkins, USA.

Hay (1993). The biomechanics of sports techniques prentice hall inc New Jersey.

McGinnis, P. (2004). Biomechanics of Sports & Exercise. Human Kinetics, USA.

Oatis, C.A. (2008). Kinesiology. 2nd Ed. Lippincott, Williams & Wilkins, USA.

Parmeswar ram P.(2001) Essentials of Kinesiology and Biomechanics New Delhi.

Rai Ramesh(2003) Biomechanics mechanical aspects of human motion, Agrim publication, Mohali.