14

## 2023

# M.Sc.

### **Third Semester**

#### DISCIPLINE SPECIFIC ELECTIVE - 01

### ANTHROPOLOGY

Course Code: MAND 3.11(A) (Medical Genetics)

Total Mark: 70 Pass Mark: 28 Time: 3 hours Answer five questions, taking one from each unit. UNIT\_I 1. Discuss the history and development of medical genetics. 14 2. Explain the interaction of gene and environment in hypertension. 14 UNIT\_II 3. Discuss the pathophysiology of familial hypercholesterolemia. Mention the symptoms and treatment. 8+3+3=144. Define haemoglobinopathies. Discuss the haemoglobin disorder with reference to sickle cell anemia. 2+12=14UNIT-III 5. "Oncogenes are the molecular drivers of cancers." Elaborate. 14 6. Discuss the genetics of familial cancer with special reference to breast 14 cancer. **UNIT-IV** 7. Discuss the relevance and application of prenatal diagnosis and genetic counselling in health care system. 14 8. Examine the applied aspects of population screening and community

genetics citing some examples.

# UNIT-V

9.	Write notes on the following:	$7 \times 2 = 14$
	(a) Inborn error metabolism	
	(b) Environmental factors in cancer	
10.	Write notes on the following:  (a) Impact of genetics in medicine  (b) Innate immunity	7×2=14