PG CBCS M.Sc. Semester-I Examination, 2020 NUTRITION & DIETETICS PAPER: NUD 101 PHYSIOLOGICAL ASPECTS OF NUTRITION I

Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet <u>UNIT-1</u> Biostatistics in Nutrition

Answer any two questions from the following: (250 Words) 2X10=20

- Describe the structural characteristics of gastrointestinal wall with a suitable diagram? What do you mean by Myenteric and Meissner's plexus?
 6+4
- Define resting membrane potential? What is the function of intercalated disc? Define absolute refractory period and explain the significance of long refractory period in cardiac muscle? What is end plate potential?
 2+2+4+2
- 3. Mention the name of principal and peripheral lymphoid components? What is Bursa of Fabricius? What is thymocyte? Describe the immune function of lymph nodes and spleen? 3+2+1+4
- 4. Describe the ultrastructure of glomerular membrane with a suitable diagram? What is the function of Juxtaglomerular cells? What do you mean by tubular reabsorption and secretion? 4+2+4
- 5. What do you mean by conducting and respiratory zone of respiratory system? Define functional residual capacity and mention about its significance? What is pulmonary surfactant and how it helps in preventing pulmonary edema?
- 6. Describe mechanism of breathing with suitable diagram? What do you mean by lung compliance?
 7+3

UNIT 2 Physiological aspects of nutrition II

Answer any two questions from the following: (250 Words) 2X10=20

- Describe the stages of humoral Immune response with a suitable diagram? What do you mean by agglutination and cytolysis?
 7+3
- What is the site of synthesis of thyroxine and calcitonin? Describe elaborately about the biosynthesis and storage of thyroid hormones?
 2+8
- Describe the role of thyroid hormone in protein synthesis? Describe the aetiology of Graves disease? Mention about any four signs and symptoms of hypothyroidism? 3+3+4

- 4. What is Broca's area and mention its function? How hypothalamus regulates the circadian rhythmicity in human? Describe about four functions of basal ganglia? 3+3+4
- Define spermatogenesis and describe different phases of spermatogenesis with suitable diagram? Mention the name of different naturally occurring oestrogens?
 7+3
- 6. What do you mean by fungiform and filiform papillae? Describe the taste pathways with a suitable diagram? Define ageusia?3+6+1
