## **BLDE (DEEMED TO BE UNIVERSITY)**

## M.Sc. Allied Health Sciences (Medical Microbiology)

[Time: 3 Hours]

[Max.Marks:80]

# I SEMESTER PAPER – I (Anatomy) OP CODE: 9171

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

## Long Questions

10X3 = 30 Marks

- Describe shoulder joint under following headings a) Type and articular surfaces b) Capsule and ligaments c) Relations d) Movements and muscles producing movements e) Applied Anatomy.
   (1+3+2+3+1)
- 2. Describe the gross anatomy of thyroid gland under following headings a) Coverings b) Presenting parts and relations c) Blood Supply d) Applied Anatomy. (1+4+3+2)
- 3. Describe lateral wall of nose in detail. Add a note on blood supply and nerve supply.

#### **Short Essays:**

- 4. Deltoid origin, insertion, nerve supply, action and structures under cover of deltoid.
- 5. Describe Bronchopulmonary segments.
- 6. Describe the microscopic structure of Thymus.
- 7. Primitive streak.
- 8. Synovial joints- Types and components.
- 9. Describe the microscopic structure of thin skin.
- 10. Describe the Effects of Fertilization.
- 11. Carotid triangle of neck- boundaries and contents.
- 12. Pericardial sinuses.
- 13. Extra ocular muscles- origin, insertion and nerve supply.

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# I SEMESTER PAPER – II (Physiology) OP CODE: 9172

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### **Long Questions**

 $10 \times 3 = 30 \text{ Marks}$ 

- 1. Define arterial blood pressure. Give normal values of its components. Discuss various mechanisms of its regulation
- 2. What is a receptor? Enlist properties of receptors. Explain any THREE of them in detail
- 3. With the help of neat & labeled diagrams, explain morphology & functions of WBCs.

#### **Short Essays:**

- 4. What is meant by cardiac cycle? Draw a neat & labeled diagram to depict a normal cardiac cycle. Discuss various left ventricular pressure changes that occur during cardiac cycle.
- 5. Define human menstrual cycle. Discuss various endometrial & ovarian changes that occur during a normal menstrual cycle
- 6. With the help of a neat & labeled diagram, discuss about visual pathway
- 7. What is meant by sarcomere? With the help of a neat & labeled diagram, explain its morphology
- 8. What is lung surfactant? Discuss about its composition & significance
- 9. Functions of saliva
- 10. With the help of a neat & labeled diagram to depict innervation of urinary bladder, explain process of micturition
- 11. Active transport across cell membrane
- 12. Functions of growth hormone
- 13. With the help of a neat & labeled diagram showing organization of respiratory neurons in brain, explain neural regulation of respiration

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# I SEMESTER PAPER – III (Biochemistry) OP CODE: 9173

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

### **Long Questions**

10X3 = 30 Marks

- 1. What are Proteins? Write in detail about the structural organization of proteins.
- 2. Enumerate the Fluid mosaic Model of Cell Membrane. Add a note on various mechanisms of transport across cell membrane.
- 3. Define Lipids Classify them with suitable examples. Give importance of Lipids.

## **Short Essays:**

- 4. Disaccharides.
- 5. Gene, Genetic code. What is Chargaff's Rule?
- 6. Mucopolysachharides
- 7. Isoeleectric pH and its importance
- 8. Write the name, principle and significance of any five precipitation reactions of proteins.
- 9. Types and functions of RNA
- **10.** Structure and functions of Ribosome, Nucleolus, Centrosome, chromosomes, Nucleosomes, Histones.
- 11. Define with suitable examples:
  - 1. Reducing and nonreducing sugars and 2. Saturated and Unsaturated Fatty acids
- 12. Explain the Watson & Crick Model of DNA
- 13. Define pH, Acids and Bases. What are buffers?

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#### I SEMESTER

## PAPER - IV (Research Methodology & Biostatistics) **OP CODE: 9174**

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

### **Long Questions**

10X3 = 30 Marks

- 1. Classify Research designs and explain the steps of Random control trial
- 2. Write different types of sampling designs. Explain any one sampling technique with example.
- 3. Classify and explain measurement scales in research with suitable examples.

### **Short Essays:**

- 4. Describe Normal distribution curve
- 5. Explain multistage sampling design
- **6.** What is pilot study
- 7. Write differences in Qualitative & Quantitative data
- 8. Discuss the objectives & purpose of the research
- 9. Write precautions for writing research reports
- 10. Discuss the need of study designs
- 11. Discuss Bias in research with examples
- 12. Explain Interval & Ratio scales with examples
- 13. What is the concept of Blinding in RCT