Q.P. Code: 126007 **Reg. No.:……**

First Professional BUMS Degree Regular/Supplementary Examinations March 2025
Munafeul Aza – Paper I
(2022 Scheme)

Time: 3 hrs **Max Marks: 100**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***

1. **Multiple Choice Questions** **(20x1=20)**

The Answers to MCQ questions (Q.No.i to Q.No.xx) shall be written continuously on the first two writing sheets (ie Page No. 3 & 4) only

i. What percentage of body weight is plasma
a) 5% b) 8% c) 15% d) 20%

ii. Oxygen enters a cell via
a) Diffusion b) Filtration c) Osmosis d) Active Transport

iii. ICF volume decreases when dehydration is:
a) Isotonic b) Hypertonic c) Hypotonic d) None

iv. Gap junctions are present in:
a) Choroid plexus b) Skin c) Erythrocytes d) Smooth muscle

v. The most powerful system of body's acid-base regulatory systems is:
a) Kidneys b) Lungs c) Buffers system d) None

vi. Which is main protein of collagen fibers
a) Type I collagen b) Type II collagen c) Type III collagen d) Type IV

vii. Which organ contains stratified squamous epithelium with keratinization
a) Larynx b) Oesophagus
c) Skin d) Mucosa of oral cavity

viii. Myelin in CNS is formed by:
a) Astrocytes b) Scwann cells c) Microglia d) Oligodendrocytes

ix. What is a precursor cell of macrophages
a) Langerhans cell b) Dendritic c) Kupffer d) Monocyte

x. Crypts of Lieberkühn (intestinal glands) are example of:
a) Composed tubular gland b) Composed acinar gland
c) Simple tubular gland d) Simple acinar gland

xi. What is the most common blood type in the general population
a) A b) B c) AB d) O

xii. What is the maximum time allowed for a blood transfusion to be completed
a) 2 hours b) 4 hours c) 6 hours d) 8 hours

xiii. Which factor is known as prothrombin
a) Factor I b) Factor II c) Factor III d) Factor IV

xiv. Which of the following structures is found within platelets and is crucial for their shape change during activation
a) Microtubules b) Ribosomes c) Nucleus d) Mitochondria

xv. Which type of leukocyte is primarily involved in the adaptive immune response
a) Neutrophils b) Eosinophils c) Monocytes d) B&T lymphocytes

(PTO)

xvi. Which of the following is the main site of hematopoiesis in adults
a) Liver b) Bone marrow c) Spleen d) Thymus

xvii. What is the primary determinant of blood viscosity
a) Temperature b) Blood volume c) Hematocrit d) Plasma protein

xviii. Which of the following conditions can lead to a decrease in blood volume
a) Dehydration b) Hypervolemia c) Anaemia d) Fluid overload

xix. What is the primary function of albumin in the blood
a) Immune response b) Blood coagulation
c) Transporting oxygen d) Maintaining oncotic pressure

xx. Which form of haemoglobin has a higher affinity for oxygen
a) Deoxyhaemoglobin b) Carboxyhaemoglobin
c) Oxyhaemoglobin d) Methaemoglobin

Short Answer Questions **(8x5=40)**

2. Explain the significance of homeostasis
3. Explain the applied physiology of ESR
4. Define and classify Immunity
5. Explain the functions of reticulo-endothelial System
6. Define baroreceptors and explain their role on heart rate
7. Describe stroke volume
8. Write down the sources, functions and daily requirement of Vitamin E
9. Describe the disorders related to Vitamin B

Long Answer Questions **(4x10=40)**

10. Describe the structure and functions of Epithelial tissues
11. Describe coagulation of blood and explain blood clotting factors
12. Describe foetal circulation
13. Explain in detail about the synthesis and degradation of cholesterol

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