

**First Professional BUMS Degree Regular/Supplementary
Examinations March 2026
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 responses for 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. Sodium, potassium, calcium, and hydrogen are transported. across the cell membrane by this transport mechanism
 - a) Primary active transport
 - b) Secondary active transport
 - c) Osmosis
 - d) Diffusion
- ii. Maintenance of the constant internal environment of the body is called as
 - a) Milieu intérieur
 - b) Normal body temperature
 - c) Homeostasis
 - d) Normal PH
- iii. Total water in the body is about
 - a) 70 liters
 - b) 60 liters
 - c) 50 liters
 - d) 40 liters
- iv. The structural and functional unit of skeletal muscle is called as
 - a) Sarcoplasmic reticulum
 - b) Sarcomere
 - c) Actin filament
 - d) Myosin filament
- v. Bicarbonate buffer system is present in
 - a) Kidney
 - b) Lungs
 - c) Plasma
 - d) Liver
- vi. This cell organelle is responsible for the synthesis of Nonprotein substances
 - a) Smooth endoplasmic reticulum
 - b) Rough endoplasmic reticulum
 - c) Golgi apparatus
 - d) Nucleus
- vii. This Cell organelle is called a garbage system
 - a) Golgi apparatus
 - b) Mitochondria
 - c) Lysosome
 - d) Endoplasmic reticulum
- viii. It is the basic hereditary unit of the cell.
 - a) Gene
 - b) Chromosome
 - c) DNA
 - d) RNA
- ix. The structural and functional unit of compact bone is called as
 - a) Osteon
 - b) Osteocyte
 - c) Osteoclast
 - d) Osteoblast
- x. This type of connective tissue is found in fluid form
 - a) Blood
 - b) Plasma
 - c) Lymph
 - d) All of the above
- xi. Percentage of plasma in total blood is
 - a) 75%
 - b) 65%
 - c) 55%
 - d) 45%
- xii. This plasma protein plays an important role in acid base regulation in blood
 - a) Globulin
 - b) Albumin
 - c) Fibrinogen
 - d) Prothrombin

(PTO)

- xiii. Average lifespan of RBC is about
 - a) 130 days b) 120 days c) 110 days d) 100 days
- xiv. From 3rd month of intrauterine life this is the chief organ of RBC production
 - a) Kidney b) Spleen c) Liver d) Bone marrow
- xv. Increase in total WBC count is called as
 - a) Leucopenia b) Anemia c) Polycythemia d) Leukocytosis
- xvi. It is a large tissue cell resembling a basophil
 - a) Macrophage b) Histocyte c) Mast cell d) Helper T cell
- xvii. Thrombosthenin Contractile protein is present in this cell
 - a) Platelet b) WBC
 - c) RBC d) All of the above
- xviii. Average lifespan of a platelet is
 - a) 9 days b) 10 days c) 11 days d) 12 days
- xix. Heparin is produced by these cells.
 - a) Platelet b) WBC c) RBC d) Mast cell
- xx. A, B, and H. Antigens are absent in this blood group
 - a) Bombay group b) O negative blood group
 - c) O positive blood group d) AB negative blood growth

Short Answer Questions

(8x5=40)

2. Bicarbonate buffer system.
3. ABO system of blood group.
4. Sequence of events in the intrinsic pathway of blood coagulation.
5. Write a short note on the first Heart sound.
6. Bipolar limb lead.
7. Define vitamins and enumerate their general characters.
8. Composition of lymph.
9. Write a note on sources of vitamin C. Daily dosage and deficiency signs

Long Answer Questions

(4x10=40)

10. Classify simple epithelial tissue and write a detailed note on the structure, distribution, and function of columnar epithelial tissue.
11. Write in detail the functions of the spleen.
12. Write in detail the different stages of development of RBCs in the bone marrow and also mention their function.
13. Write in detail about the ABO blood group mismatched blood transfusion reaction.
