



INTERNAL EXAMINATION I - I YEAR - 2024 BATCH (03/02/2025)

PAPER I – BASIC SCIENCES

Time: 3 Hours

Subject Code: 1131

Marks: 100 marks

I. Elaborate On:

10 x 3 = 30 marks

1. Define cardiac cycle. Discuss in detail about the various phases with diagram
2. Explain in detail about acute and chronic inflammation with suitable examples and diagrams
3. Draw and label a neat diagram of animal cell. Write the functions of the cell membranes

II. Write notes on:

5 x 8 = 30 marks

1. External features and chambers of the heart in detail with suitable diagram
2. Write the composition of blood and its functions
3. Discuss in detail the different stages of erythropoiesis
4. Classification of protein
5. Causes and types of cell injury
6. Classify epithelial tissue with neat diagram
7. Write note on hemoglobin estimation procedure and clinical significance
8. Heart sounds and its clinical significance

III. Write a short note on:

3 x 10 = 30 marks

1. Functions of plasma
2. Landsteiner's law
3. Classification of carbohydrates
4. Differentiate hypertrophy and hyperplasia with examples
5. Differentiate saturated and unsaturated fatty acids with examples
6. Anatomical position with neat diagram
7. Essential amino acids and non-essential amino acids
8. Write the normal value – HB, Bleeding time, WBC, RBC, ESR
9. Regions of abdomen with neat diagram
10. **i. (NEET 2023)** Which organelle is primarily responsible for regulating the transport of materials into and out of the cell?
A. Mitochondria B. Endoplasmic reticulum C. Plasma membrane D. Golgi apparatus
- ii. (JIPMER 2022)** Which component of blood is primarily responsible for initiating the clotting process?
A. Red blood cells B. Platelets C. Plasma proteins D. White blood cells
- iii. (AIIMS 2021)** Which of the following is a characteristic feature of irreversible cell injury?
A. Cellular swelling B. Mitochondrial dysfunction C. Nuclear pyknosis D. Fatty change