



**SUBJECT CODE AND NAME: 1131 – BASIC SCIENCES – PHYSIOLOGY**

**UNIT 1: CELL AND BLOOD**

**Reference: The Tamilnadu Dr.M.G.R Medical University Pervious Year Question Papers**

**I. Elaborate On:**

**10 marks**

| S.No | Questions                                                                                                                                                                | Reference  | Bloom's Taxonomy |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------|
| 1    | Classify Carbohydrates. Explain Glucose metabolism.                                                                                                                      | (Aug 2015) | Analyze          |
| 2    | Write the Composition of Blood and its Functions.                                                                                                                        | (Aug 2019) | Analyze          |
| 3    | Draw and Label a neat diagram of Animal cell, Write the functions of the cell organelles.                                                                                | (Feb 2020) | Analyze          |
| 4    | Write in detail about the causes and mechanism of Cell injury.<br>Add a note on Irreversible cell Injury.                                                                | (Feb 2016) | Analyze          |
| 5    | Explain about the cell under the following headings with suitable diagrams: a) Structure and functions of cell membrane b) Mitochondria c) Golgi apparatus d) Lysosomes. | (Aug 2016) | Analyze          |
| 6    | What are Blood groups? Discuss their importance.                                                                                                                         | (Aug 2016) | Analyze          |
| 7    | Explain the structure and functions of cell organelles with suitable diagrams.                                                                                           | (Aug 2019) | Analyze          |
| 8    | Describe in detail the mechanism of regulation of blood pH.                                                                                                              | (Aug 2016) | Analyze          |
| 9    | Explain the process of blood clotting and its clinical significance.                                                                                                     | (Mar 2021) | Analyze          |

**II. Write notes on:**

**5 marks**

| S.No | Questions                                         | Reference            | Bloom's Taxonomy |
|------|---------------------------------------------------|----------------------|------------------|
| 1    | Functions of Protein.                             | (Aug 2015, Feb 2016) | Understand       |
| 2    | Functions of Blood.                               | (Aug 2015)           | Understand       |
| 3    | Clotting Mechanism.                               | (Feb 2020)           | Understand       |
| 4    | Explain the functions of plasma proteins.         | (Aug 2016)           | Understand       |
| 5    | Erythroblastosis fetalis.                         | (Aug 2016)           | Understand       |
| 6    | General Characteristics features of Inflammation. | (Feb 2020)           | Understand       |
| 7    | Cell membrane structure and functions.            | (Aug 2016)           | Understand       |
| 8    | Composition of Blood.                             | (Mar 2021)           | Understand       |
| 9    | Functions of Blood Cells.                         | (Nov 2022)           | Understand       |
| 10   | Blood groups and their significance.              | (Aug 2016)           | Understand       |
| 11   | Functions of Mitochondria.                        | (Aug 2015)           | Understand       |
| 12   | Reversible and Irreversible Cell Injury.          | (Aug 2017)           | Understand       |
| 13   | Role of Blood in Immunity.                        | (Nov 2023)           | Understand       |



**III. Write a short note on:**

**3 marks**

| <b>S.No</b> | <b>Questions</b>                                                                 | <b>Reference</b>               | <b>Bloom's Taxonomy</b> |
|-------------|----------------------------------------------------------------------------------|--------------------------------|-------------------------|
| 1           | Functions of Calcium.                                                            | (Aug 2015, Feb 2016)           | Remember                |
| 2           | Functions of Mitochondria and Golgi Apparatus.                                   | (Aug 2015)                     | Remember                |
| 3           | Classification of Enzymes.                                                       | (Aug 2015, Feb 2016)           | Remember                |
| 4           | Cell death.                                                                      | (Aug 2015, Feb 2016)           | Understand              |
| 5           | Functions of plasma.                                                             | (Aug 2019)                     | Remember                |
| 6           | Essential Amino Acids.                                                           | (Aug 2019)                     | Remember                |
| 7           | Normal values of Lung volumes.                                                   | (Aug 2015)                     | Remember                |
| 8           | Buffers.                                                                         | (Aug 2015, Feb 2016, Aug 2019) | Understand              |
| 9           | Hyperkalemia.                                                                    | (Aug 2015, Feb 2016, Aug 2019) | Understand              |
| 10          | Functions of CSF.                                                                | (Aug 2015, Feb 2016)           | Remember                |
| 11          | Define a) Blood pressure b) Systolic Blood Pressure c) Diastolic Blood Pressure. | (Aug 2015, Feb 2016)           | Remember                |
| 12          | Classify leucocytes and write its normal percentage.                             | (Aug 2016)                     | Remember                |
| 13          | Blood clotting factors.                                                          | (Feb 2020)                     | Understand              |
| 14          | Functions of Hemoglobin.                                                         | (Nov 2022)                     | Understand              |
| 15          | Types of Blood Cells.                                                            | (Mar 2021)                     | Remember                |
| 16          | Role of Platelets.                                                               | (Nov 2023)                     | Understand              |
| 17          | Erythrocyte Sedimentation Rate.                                                  | (Nov 2023)                     | Understand              |
| 18          | Blood pH regulation.                                                             | (Aug 2016)                     | Understand              |
| 19          | Action of Parathormone on Bone.                                                  | (Aug 2016)                     | Understand              |
| 20          | Functions of Vitamin-K.                                                          | (Aug 2019, Aug 2016)           | Remember                |