

**BACHELOR OF SCIENCE (LABORATORY SCIENCES) (CBCS - 2019 COURSE)**  
**B.Sc. (Lab Sci) Sem-III : WINTER :- 2021**  
**SUBJECT: HEMATOLOGY & CLINICAL PATHOLOGY**

**Day : Friday**  
**Date 11/2/2022**

**W-22557-2021**

**Time : 10:00 AM-12:00 PM**  
**Max. Marks: 60**

**N.B.**

- 1) There are **THREE** section as  
Section A :- Objective Type questions : 20 marks  
Section B :- Long Answer Questions : 20 marks  
Section C :- Short Answer Questions : 20 marks
- 2) Section A is given on **SEPARATE** sheet and has to be answered on **SAME** sheet. This sheet should be completed within **first 20 minutes** of starting of the examination. The sheet with **section A** will be collected by Supervisor at the end of 20 minutes.
- 3) You have to make  such kind of mark in the box of the appropriate answers.

Seat No. : \_\_\_\_\_

**SECTION – A**

**M.CQ.'s**

**(20)**

**Q.1** Total RBC count for men?

- 4.0-5.0
- 4.6-6.0
- 4.2-6.5
- 4.0-6.0

**Q.2** Macrocytic anemia is caused because of

- Iron
- Vitamin B12
- Calcium
- Riboflavin

**Q.3** Production of RBC in bone marrow is regulated by

- Renin
- Calcium
- Erythropoietin
- Angiotensin

**Q.4** What is the life span of platelets?

- 4-11 days
- 3-5 days
- 15-20 days
- 1-2 days

**PTO**

**Q.5** Which vacutainer is used for coagulation studies?

- Citrate
- EDTA
- Sodium fluoride
- Plain

**Q.6** Megakaryocytes give rise to

- Erythrocytes
- Granulocytes
- Thrombocytes
- Lymphocyte

**Q.7** Most of the volume of normal human blood is composed of:

- red cells
- hemoglobin
- plasma
- white cells

**Q.8** Causes of microcytic hypochromic anemia are all except

- Iron deficiency
- Folic acid deficiency
- Thalassemia
- Sideroblastic anemia

**Q.9** Where does haematopoiesis take place?

- Lungs
- Pancreas
- Liver
- Bone marrow.

**Q.10** The best source of active bone marrow from a 20-year old would be:

- Iliac Crest (hip)
- Femur (thigh)
- Distal radius (forearm)
- Tibia (shin)

Total Marks obtained : \_\_\_\_\_

Signature of Invigilator

Signature of Examiner

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- 1) There are **THREE** section as  
Section A :- Objective Type questions : 20 marks  
Section B :- Long Answer Questions : 20 marks  
Section C :- Short Answer Questions : 20 marks
  - 2) Section B has four long answer questions and **ANY TWO** questions have to be answered.
  - 3) Section C has six short answer questions and **ANY FIVE** questions have to be answered.
  - 4) Section B and C should be written in **SAME** answer sheet.
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**SECTION – B**

**Long answer questions (attempt ANY TWO) (20)**

- 1) Define anemia, classify & add a note on laboratory diagnosis of anemia.
- 2) Write a note on chemical examination of urine.
- 3) Write procedure, indications, and contraindications for bone marrow examination.
- 4) Mention different Romanowsky stains add a note on ideal peripheral smears.

**SECTION – C**

**Short answer questions (attempt ANY FOUR) (20)**

- 1) Uses of Anti coagulations in hematology.
- 2) Benedict test- Principle, method and interpretations
- 3) Write a note on composition of bone marrow
- 4) Draw neutrophil
- 5) Microscopic examination of urine.
- 6) Sahli's Hb estimation

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