



# HAEMATOLOGY AND BLOOD BANKING HSSC-II

## SECTION – A (Marks 10)

96

Time allowed: 10 Minutes

Version Number 4 4 0 1

Note: Section – A is compulsory. All parts of this section are to be answered on the separately provided OMR Answer Sheet which should be completed in the first 10 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q. 1 Choose the correct answer A / B / C / D by filling the relevant bubble for each question on the OMR Answer Sheet according to the instructions given there. Each part carries one mark.

- 1) Normal pH of blood is:  
A. 6.4  
B. 7.4  
C. 8.2  
D. 9.0
- 2) Variation in size of red blood cells is called:  
A. Hyperchromia  
B. Polychromia  
C. Anisocytosis  
D. Poikilocytosis
- 3) The adult haemoglobin is mainly:  
A. HbA  
B. HbF  
C. HbS  
D. HbD
- 4) How many  $\beta$ -chains are present in haemoglobin A:  
A. 4  
B. 1  
C. 2  
D. 6
- 5) Anaemia may be defined as the:  
A. Low level of Hb  
B. Low level of RBCs  
C. Low level of WBCs  
D. None of these
- 6) Formation of white blood cells is called:  
A. Erythropoiesis  
B. Myelopoiesis  
C. Haemopoiesis  
D. None of these
- 7) Which antibody is present in 'B-Positive blood'?  
A. Antibody B only  
B. Antibody A only  
C. Antibody A and B  
D. None of these
- 8) Platelets are stored at temperature:  
A. 12 ° C  
B. 22 ° C  
C. 37 ° C  
D. None of these
- 9) What is gauge of needle used for collecting blood in blood bank?  
A. 24  
B. 20  
C. 12  
D. 26
- 10) Reverse grouping is performed to detect:  
A. Antigen  
B. Antibody  
C. Allergen  
D. None of these





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97

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

**NOTE:** Answer any twelve parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

## SECTION – B (Marks 24)

**Q. 2** Answer any TWELVE parts. The answer to each part should not exceed 2 to 4 lines. ( 12 x 2 = 24 )

- (i) Write down two functions of blood.
- (ii) Write down composition of adult haemoglobin.
- (iii) Write down principle of cyanamet method of Hb estimation.
- (iv) How haemoglobin transports oxygen?
- (v) Define microcyte and target cells.
- (vi) What is clinical significance of ESR?
- (vii) Enumerate blood granulocytes.
- (viii) Define thrombopoiesis and erythropoiesis.
- (ix) What is haemparasite?
- (x) Write down other name of Coomb's serum.
- (xi) What is Bombay blood group?
- (xii) What is lab diagnosis of multiple myeloma?
- (xiii) Calculate the Volume of ruled area of improved neubauer counting chamber.
- (xiv) What is difference between serum and plasma?
- (xv) Differentiate between direct and indirect antiglobulin test.
- (xvi) Write down composition of blood.
- (xvii) Differentiate between bicytopenia and pancytopenia.

## SECTION – C (Marks 16)

**Note:** Attempt any TWO questions. All questions carry equal marks.

( 2 x 8 = 16 )

- Q. 3** Define reticulocyte. Write down procedure of reticulocyte count, normal values and importance.
- Q. 4** What is prothrombin time? Describe its procedure and conditions in which PT is prolonged.
- Q. 5** Write down the procedure and interpretation of major cross match.



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