

# National Board of Examinations

**Question Paper Name :** DrNB Clinical Hematology Paper1

**Is this Group for Examiner? :** No

**Enable Mark as Answered Mark for Review and Clear Response :** Yes

## **Question Number : 1 Question Type : SUBJECTIVE**

- a) Describe the principles of working of automated blood cell counters. [5]
- b) Utility of red cell indices in the work up of a patient with anemia. [5]

## **Question Number : 2 Question Type : SUBJECTIVE**

- a) Describe briefly the principle of CAR-T therapy? [3]
- b) Classify and differentiate various generations of CARs. [3]
- c) Enumerate the use of CAR-T therapy in various hematologic malignancies. [4]

## **Question Number : 3 Question Type : SUBJECTIVE**

- a) Classify the antineoplastic drugs based on its mechanism of action. [5]
- b) Enumerate the toxicities of chemotherapeutic drugs used to treat lymphomas. [5]

## **Question Number : 4 Question Type : SUBJECTIVE**

- a) What are the outliers in a dataset and how do you find them? [4]
- b) Enumerate problems which arise due to outliers. [3]
- c) How do you tackle problems caused by the outliers? [3]

## **Question Number : 5 Question Type : SUBJECTIVE**

- a) Describe the elements of bone marrow microenvironment. [4]
- b) What is the impact of the bone marrow microenvironment on the natural history of multiple myeloma? [3]
- c) What is the role of the bone marrow microenvironment on the therapeutics of multiple myeloma? [3]

**Question Number : 6 Question Type : SUBJECTIVE**

- a) Enumerate common hemoglobinopathies found in India. [3]
- b) Role of antenatal screening for detection of hemoglobinopathies in India. [3]
- c) Discuss hematology care required for homozygous SCD planned for hip replacement due to avascular necrosis. [4]

**Question Number : 7 Question Type : SUBJECTIVE**

A 27-year-old female presented with rash and gangrene of the right great toe.

- a) What are the clinical possibilities? [4]
- b) Enumerate the investigations. [3]
- c) Outline the management strategy. [3]

**Question Number : 8 Question Type : SUBJECTIVE**

- a) Enumerate the causes of macrothrombocytopenia (Giant Platelet Disorders). [3]
- b) Discuss the differentials and evaluation in a child of hereditary thrombocytopenia with acute myeloid leukemia. [3]
- c) Discuss the management issues in the above-mentioned patient. [4]

**Question Number : 9 Question Type : SUBJECTIVE**

- a) Classify types of haematopoietic stem cell transplantation (HSCT). [3]
- b) Write in brief about the role of anti-HLA antibodies in haploidentical transplantation. [3]
- c) Elaborate on the role of post-transplant cyclophosphamide in haploidentical transplantation. [4]

**Question Number : 10 Question Type : SUBJECTIVE**

A 27-year-old male presented with intermittent headache and erythrocytosis.

- a) Enumerate the possible etiologies. [3]
- b) Describe the diagnostic approach. [4]
- c) Outline the management based on the etiology. [3]