

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0524]

MAY 2024

Sub. Code: 4007

M.D. DEGREE EXAMINATION

BRANCH III – PATHOLOGY

**PAPER III – HAEMATOLOGY, TRANSFUSION MEDICINE
(BLOOD BANKING) AND LABORATORY MEDICINE**

Q.P. Code: 204007

Time : Three Hours

Maximum : 100 Marks

I. Essay: (2 x 15 = 30)

1. Discuss laboratory investigation and prognostic factors in Acute lymphoblastic leukemia.
2. Discuss the pathogenesis and diagnostic work-up of Sickle-cell Anemia.

II. Write short notes on: (10 x 5 = 50)

1. Heparin-induced thrombocytopenia.
2. Myelodysplastic syndrome.
3. Autologous Blood transfusion.
4. Congenital Dyserythropoietic anemia.
5. Coagulation profile.
6. G6 PD deficiency.
7. Lab diagnosis of hemoglobinopathies.
8. Quality control in blood banking.
9. Hematologic manifestations of HIV infection.
10. Hemolytic uremic syndrome.

III. Reasoning Out: (4 x 5 = 20)

1. A 43-year-old male presents with fatigue, lightheadedness and recurrent episodes of passage of dark, smoky urine for last one and half years. O/E: Mild pallor with mild hepatomegaly.
 - a) What is your provisional diagnosis?
 - b) What are other possibilities?
 - c) What is the pathophysiology?
 - d) How can you confirm your diagnosis? What are the complications?

2. A 22-year male comes to emergency with epistaxis. He has similar attacks before. O/E- small raised telangiectatic spots are seen over oral mucosa. Family history reveals bleeding manifestations in older brother.
 - a) What is your provisional diagnosis?
 - b) What is the genetic abnormality seen?
 - c) How will you confirm your diagnosis?

3. A 40 yr old female came to the medical outpatient department with a history of tiredness and fatigue on mild exertion. On examination she had pallor of the conjunctiva and tongue and her pulse was 84/min. There were no other positive findings.
 - a) What is the most likely diagnosis?
 - b) What are the common reasons for this condition in a female?
 - c) How do you classify this condition?
 - d) List the first line of investigation?

4. 30 year old male presented to the OPD with recurrent hemarthrosis with progressive crippling deformity of the right knee joint.
 - a) What is your diagnosis?
 - b) What is the pattern of inheritance and mutation?
 - c) What are the laboratory investigations performed to confirm the diagnosis?

[MD 0524]