**OCTOBER 2003**

**[KJ 1508]** **Sub. Code : 3010**

DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION.

(New Regulations)

Paper III — HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY

Time : Three hours — Maximum : 100 marks

Theory : Two hours and forty minutes — Theory : 80 marks

M.C.Q. : Twenty minutes — M.C.Q. : 20 marks

M.C.Q. must be answered **SEPARATELY** on the Answer Sheet provided as per the instructions given on the first page of M.C.Q. Booklet.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

1. Discuss the etiopathogenesis of chronic myeloid leukaemia. What are peripheral smear findings in CML. (15)

2. How will you diagnose megaloblastic anaemia? (15)

3. Write short notes : (10 × 5 = 50)

(1) Reactive lymphoid hyperplasia.

(2) Significance of pap stain.

(3) Features of CIN III on smear.

(4) Diagnostic tests for HIV infection.

(5) Widal test.

(6) Transfusion reaction.

(7) Prothrombin time.

(8) Haematologic findings in DIC (Disseminated Intravascular Coagulation)

(9) FNAC features of Fibroadenoma of breast.

(10) Indications of bone marrow aspiration.

---

AUGUST 2004

**[KL 1508]** **Sub. Code : 3010**

DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION.

(New Regulations)

Paper III — HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Discuss the etiopathogenesis of megaloblastic anemia. What are the peripheral smear and bonemarrow findings in megaloblastic anemia?

(2) How will you diagnose a case of multiple myeloma?

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

(a) Barr body.

(b) Coombs test.

(c) Immune Thrombocytopenic Purpura.

(d) Cytochemical stains in leukemia.

(e) Leukemoid reaction.

(f) FNAC of papillary carcinoma of thyroid.

(g) Prothrombin time.

(h) Agranulocytosis.

(i) Automation in cytology.

(j) Benedict test.

---

FEBRUARY 2005

**[KM 1508]** **Sub. Code : 3010**

DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION.

(New Regulations)

Paper III — HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY

Time : Three hours — Maximum : 100 marks

Theory : Two hours and forty minutes — Theory : 80 marks

M.C.Q. : Twenty minutes — M.C.Q. : 20 marks

Answer ALL questions.

Draw diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Define and classify Haemolytic anaemias and discuss the laboratory findings in a case of $\beta$ -Thalassaemia.

(2) Discuss the aetiopathogenesis and laboratory diagnosis of disseminated intravascular coagulation.

II. Write short notes : (10 × 5 = 50)

(a) Semen analysis

(b) F.I.S.H.

(c) Urinary sediments

(d) Leukaemoid reaction

(e) Coomb's test

(f) Pap smear findings in Trichomonas vaginitis

(g) Liver function tests

(h) Hypersplenism

(i) FNAC findings in tuberculosis lymphnode

(j) Normal C.S.F. findings and in pyogenic meningitis.

---

**MARCH 2006**

**[KO 1508]** **Sub. Code : 3010**

DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION.

Paper III — HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Discuss the etiology and laboratory findings in a case of Megaloblastic anemia.

(2) Discuss the investigations done in a case of coagulation disorder and write briefly on classic Hemophilia.

II. Short notes : (10 × 5 = 50)

(a) Pap Smear findings in invasive carcinoma of cervix.

(b) FNAC findings in non–neoplastic thyroid disorders.

(c) Renal function tests.

(d) Burkitts' lymphoma.

(e) Philadelphia chromosome.

(f) Investigations in a case of azoospermia.

(g) Heinz bodies.

(h) Automated cell counters.

(i) CSF findings in tuberculous meningitis and viral meningitis.

(j) Platelet dysfunction disorders.

———————

SEPTEMBER 2006

**[KP 1508]** **Sub. Code : 3010**

DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION.

(New Regulations)

Paper III — HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw diagrams wherever necessary.

I. Essay :

(1) Define and classify anemias. Discuss the aetiopathogenesis and laboratory investigations perinicious anemia? (20)

(2) Discuss in detail how would you proceed investigating a case of bleeding disorder. (15)

(3) Define and classify Acute Myeloid Leukaemias. Discuss the laboratory findings in a case of acute myeloid leukaemia. (15)

II. Write short notes : (6 × 5 = 30)

(a) Microalbuminuria.

(b) Hematocrit.

(c) Urinary casts.

(d) Indications for bone marrow aspiration.

(e) Applications of PCR technique.

(f) Significance of pleural fluid examination in various diseases.

---

MARCH 2007

**[KQ 1508]** **Sub. Code : 3010**

DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION. (DCP)

Paper III — HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY

Common to

(Candidates admitted from 1993–94 onwards)

and

(Candidates admitted from 2004–05 onwards)

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Classify lymphomas. Discuss in brief Hodgkin's lymphoma. (20)

2. What are myeloproliferative disorders? Discuss polycythemia vera in detail. (15)

3. Discuss the etiopathogenesis and laboratory diagnosis of sickle cell anemia. (15)

II. Write short notes : (6 × 5 = 30)

(a) Applications of flow cytometry.

(b) Glycosylated haemoglobin.

(c) Cyanmethemoglobin method.

(d) Apheresis.

(e) Stains used in cytology.

(f) Dengue fever.

---

# MARCH 2008

**[KS 1508]** **Sub. Code : 3010**

DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION.

Paper III — HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY

(Common to all regulations)

## Q.P. Code : 343010

Time : Three hours Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (2 × 20 = 40)

1. Classify hemolytic anaemias and discuss in detail about Thalassemia syndromes.
2. Write the WHO classification of the Lymphoid Neoplasms and discuss in detail about Hodgkin's Lymphoma.

II. Short notes : (10 × 6 = 60)

1. Classification of Acute myelogenous leukemia
2. Chronic myeloproliferative disorders
3. Platelet therapy and aphoresis
4. Fresh frozen plasma.
5. Exfoliative cytology.
6. Seminal analysis.
7. Cryostat.
8. Immunophenotyping.
9. Write immune cell antigens detected by monoclonal antibodies
10. Write cytopathological findings in thyroid lesions.

---

**September 2008**

**[KT 1508]** **Sub. Code: 3010**

**DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION.**

**Paper III – HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**

**(Common to all candidates)**

***Q.P. Code : 343010***

**Time : Three hours** **Maximum : 100 marks**

**Draw suitable diagram wherever necessary.**

**Answer ALL questions.**

**I. Essay questions :** **(2 X 20 = 40)**

1. Write etiological classification of anaemia and discuss in detail about iron deficiency anaemia?

2. Discuss the laboratory diagnosis of bleeding disorder. What is the etiopathogenesis of immune thrombocytopenic purpura.

**II. Write short notes on :** **(10 X 6 = 60)**

1. Sickle cell disease.
2. Paroxysmal nocturnal hemoglobinuria.
3. Bone marrow study
4. Etiological and pathogenetic factors in white cell neoplasms.
5. Agranulocytosis.
6. Hairy cell leukemia.
7. Anaplastic large cell lymphoma.
8. Clinical staging of Hodgkin and Non-Hodgkin Lymphomas.
9. Myelodysplastic syndromes.
10. Write cytopathological findings in breast lesions.

———————

**MARCH -2009**

**[KU 1508]** **Sub. Code: 3010**

**DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION.**

**Paper III – HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**

**(Common to all candidates)**

***Q.P. Code : 343010***

**Time : Three hours** **Maximum : 100 marks**

**Draw suitable diagram wherever necessary.**

**Answer ALL questions.**

**I. Essay questions : (2 X 20 = 40)**

1. Discuss the laboratory diagnosis of haemolytic anemias and describe pathophysiology of sickle cell anemia.
2. Describe the pathology, classification and immunophenotyping of Hodgkin's Lymphoma.

**II. Write short notes on : (10 X 6 = 60)**

1. Myelodysplastic syndromes.
2. Bethsda system in cervical cytology.
3. Paroxysmal nocturnal hemoglobinuria.
4. Cytospin.
5. Automation in Hematology.
6. Monoclonal gammopathy.
7. Cytomorphology of salivary gland tumors.
8. Cytochemistry in haematology.
9. Urinary sediment.
10. Ineffective erythropoiesis.

*****

March 2010

[KW 1508] Sub. Code: 3010

**DIPLOMA IN CLINICAL PATHOLOGY EXAMINATION**

**Paper III – HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**

**(Common to all candidates)**

***Q.P. Code : 343010***

**Time : Three hours** **Maximum : 100 marks**

**Draw suitable diagram wherever necessary**

**Answer ALL questions**

**I. Essay questions :** **(2 x 20 = 40)**

1. Classify haemolytic anaemia and discuss in detail about the laboratory investigations to diagnose a case of haemolytic anaemia.

2. What is disseminated intra vascular coagulations? Discuss the laboratory investigations necessary for the diagnosis of DIC.

**II. Write short notes on :** **(10 x 6 = 60)**

1. Exfoliative cytology.
2. Micro angiopathic hemolytic anaemia.
3. Sickling test.
4. Peripheral smear and bone marrow findings of megaloblastic anaemia.
5. Indications for bone marrow aspirations.
6. Semen analysis.
7. Immune markers in acute leukemia.
8. Classify myelodysplastic syndromes.
9. LE cell phenomenon.
10. Cerebrospinal fluid (CSF) findings in various types of meningitis.

*****

**APRIL 2011**

**[KY 1508]** **Sub. Code: 3010**

**DIPLOMA IN CLINICAL PATHOLOGY (DCP)**

**EXAMINATION**

**HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**

***Q.P. Code : 343010***

**Time : 3 hours** **Maximum : 100 marks**
**(180 Min)**

**Answer ALL questions in the same order.**

| **I. Elaborate on :** | **Pages (Max.)** | **Time (Max.)** | **Marks (Max.)** |
|---|---|---|---|
| 1. Discuss the etiopathogenesis, morphology and diagnosis of Multiple Myeloma. | 11 | 35 | 15 |
| 2. Describe the technique of aspiration of a nodule in Thyroid. Discuss the FNAC findings of thyroid lesions. | 11 | 35 | 15 |
| **II. Write notes on :** | | | |
| 1. Urine cytology. | 4 | 10 | 7 |
| 2. Leukemoid reaction. | 4 | 10 | 7 |
| 3. Osmotic fragility. | 4 | 10 | 7 |
| 4. Hereditary spherocytosis. | 4 | 10 | 7 |
| 5. Disseminated intravascular coagulation. | 4 | 10 | 7 |
| 6. Morphology of Hodgkin's Lymphoma. | 4 | 10 | 7 |
| 7. Cytospin. | 4 | 10 | 7 |
| 8. Haemoparasites. | 4 | 10 | 7 |
| 9. Immune Thrombocytopenic purpura. | 4 | 10 | 7 |
| 10. Anticoagulants. | 4 | 10 | 7 |

********

**April 2012**

**[LA 1508]** **Sub. Code: 3010**

**DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION**
**HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**
***Q.P. Code : 343010***

**Time : 3 hours** **Maximum : 100 marks**
**(180 Min)**

**Answer ALL questions in the same order.**

| **I. Elaborate on :** | **Pages (Max.)** | **Time (Max.)** | **Marks (Max.)** |
|---|---|---|---|
| 1. Define pancytopenia and tabulate its differential diagnosis. Describe etiopathogenesis and laboratory diagnosis of Aplastic Anemia. | 16 | 35 | 15 |
| 2. A 12 year old boy presented with fever, loss of appetite and weight, multiple enlarged lymph nodes and moderate hepatosplenomegaly. Discuss the differential diagnosis and possible microscopic pathology of a lymph node biopsy. | 16 | 35 | 15 |

**II. Write notes on :**

| | | | |
|---|---|---|---|
| 1. Describe briefly liquid based cytology. | 4 | 10 | 7 |
| 2. Outline principle and methodology of FISH. Discuss its usefulness in diagnosis. | 4 | 10 | 7 |
| 3. What are the tests done in investigating a case of Rh incompatibility? | 4 | 10 | 7 |
| 4. What are the factors that can precipitate sickling in a patient with sickle cell syndromes? | 4 | 10 | 7 |
| 5. Describe the abnormality of the Red Blood Cell in Hereditary Spherocytosis. | 4 | 10 | 7 |
| 6. What is antiphospholipid antibody syndrome? | 4 | 10 | 7 |
| 7. Explain the principle of PCR. | 4 | 10 | 7 |
| 8. Cutaneous T cell lymphomas. | 4 | 10 | 7 |
| 9. Cytological findings of benign salivary gland neoplasms. | 4 | 10 | 7 |
| 10. Measures of glycemic control. | 4 | 10 | 7 |

*******

**[LB 1508]** **OCTOBER 2012** **Sub. Code: 3010**

**DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION**

**HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**

***Q.P. Code : 343010***

**Time : 3 hours** **Maximum : 100 marks**

**(180 Min)**

**Answer ALL questions in the same order.**

| **I. Elaborate on :** | **Pages (Max.)** | **Time (Max.)** | **Marks (Max.)** |
|---|---|---|---|
| 1. Discuss adverse reactions to Blood Transfusion. What are the Laboratory tests that may be done in investigating a case of transfusion reaction. | 16 | 35 | 15 |
| 2. Classify Jaundice. Describe the various laboratory tests that can be done for establishing the etiology in a patient with Jaundice. | 16 | 35 | 15 |

**II. Write notes on :**

| | | | |
|---|---|---|---|
| 1. Describe the blood and bone marrow findings in Lead poisoning. | 4 | 10 | 7 |
| 2. What is acute nephritic syndrome? | 4 | 10 | 7 |
| 3. Discuss Bethesda system of reporting Cervical Smears. | 4 | 10 | 7 |
| 4. Describe the Urinary sediment in health and disease. | 4 | 10 | 7 |
| 5. Enumerate the indications for a diagnostic bone marrow biopsy with a brief mention of the microscopic features of the bone marrow in each of the conditions. | 4 | 10 | 7 |
| 6. What is a reticulocyte? How is it counted? Discuss the significance of its presence in the peripheral blood. | 4 | 10 | 7 |
| 7. Classify Non Hodgkin's Lymphomas. | 4 | 10 | 7 |
| 8. Discuss indications, methodology and interpretation of Semen Analysis. | 4 | 10 | 7 |
| 9. Define pancytopenia and tabulate its differential diagnosis. | 4 | 10 | 7 |
| 10. Antiphospholipid syndrome. | 4 | 10 | 7 |

*******

**(LC 1508)** **APRIL 2013** **Sub. Code: 3010**

**DIPLOMA IN CLINICAL PATHOLOGY (D.C.P) EXAMINATION**

**HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**

***Q.P. Code: 343010***

**Time: Three Hours** **Maximum: 100 marks**

**I. Elaborate on:** **(2X15=30)**

1. Enumerate the Microcytic anemias. What are the etiopathogenetic factors, and morphology of the peripheral blood and bone marrow in Iron Deficiency Anemia. List the laboratory tests that can be done for a definitive diagnosis of Iron deficiency anemia?

2. What is FNAC? Discuss the indications, methodology and usefulness of the technique.

**II. Write notes on:** **(10X7=70)**

1. What are the tests that can be done to categories Acute Leukemias?
2. What is Prothrombin time?
3. How is Hemoglobin electrophoresis useful in establishing hematological disorders?
4. Discuss indications, methodology and interpretation of Semen Analysis.
5. Enumerate Myeloproliferative disorders. Discuss etiopathogenesis and microscopic pathology of the bone marrow in myelofibrosis.
6. Classify Non Hodgkin's Lymphomas.
7. Transfusion associated GVHD.
8. Indications for bone marrow trephine biopsy.
9. Antiphospholipid syndrome.
10. Hereditary qualitative platelet disorders.

*******

**[LE 1508]** **APRIL 2014** **Sub. Code: 3010**

**DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION**

**HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**

***Q.P. Code :343010***

**Time : Three hours** **Maximum : 100 marks**

**I. Elaborate on:** **(2 X 15=30)**

1. 18/M had a huge splenomegaly has suffered recurrent bone pain. His Hb is 5.2g/deciliter.
   a) What is the most probable diagnosis? (3)
   b) Enumerate the various laboratory tests.(6)
   c) Discuss the pathogenesis and the molecular basis. (6)

2. Discuss the various methods of study of Cervical Cytology. With special reference to liquid based Cytology.

**II. Write notes on:** **(10 X 7 = 70)**

1. Cord Blood.
2. Incomplete anti bodies in Hemolytic Disorders.
3. Principles of PCR.
4. Pre Diabetes.
5. Macrophages in the bone marrow.
6. Anti Phospolipid antibody syndrome.
7. Laboratory Diagnosis of DIC.
8. Dyserythropoietic anemia.
9. Myeloma Cells.
10. Cytology of Proliferative Breast Disease.

*******

**[LF 1508]** **OCTOBER 2014** **Sub. Code: 3010**

**DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION**

**HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY**

***Q.P. Code :343010***

**Time : Three Hours** **Maximum : 100 marks**

**I. Elaborate on:** **(2 x 15 = 30)**

1. Classify hemolytic anaemias. Discuss the laboratory investigations in hemolytic anemia.

2. Discuss the role of FNA in the diagnosis of salivary lesions.

**II. Write notes on:** **(10 x 7 = 70)**

1. Types of Reed Sternberg giant cells.
2. Polycythaemia vera.
3. WHO classification of myelodysplastic syndromes.
4. Anticoagulants.
5. Squamous intra epithelial lesions.
6. Principles of PCR.
7. Transfusion reactions.
8. POEMS syndrome.
9. Burkitt lymphoma.
10. Crystals in urine.

*******