

APRIL 2001

[KD 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

(New Regulations)

Part I

Paper I — BASIC SCIENCES RELATED TO
PEDIATRICS

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Discuss the development of Kidney — Write about congenital abnormalities of Kidney and Urinary tract. (25)
 2. Discuss the Bilirubin metabolism and mention causes of neonatal Hyperbilirubinimia. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Digoxin
 - (b) Bromide partition test
 - (c) Congenital Pyloric stenosis
 - (d) Non dysjunction
 - (e) Methyl prednisolone.
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NOVEMBER 2001

[KE 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

(New Regulations)

Part I

Paper I — BASIC SCIENCES RELATED TO
PAEDIATRICS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the normal defense mechanism of an infant and the changes occurring in paediatric AIDS. How would you investigate a child with AIDS. (25)
 2. Discuss aetiopathogenesis and laboratory diagnosis of syndrome of inappropriate ADH secretion (SIADH). Briefly outline the principles of management of SIADH. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Renal regulation of acid–base balance.
 - (b) Pulse oximeter.
 - (c) Salmeterol.
 - (d) Undescended testis.
 - (e) Peripheral blood smear in various diseases.
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MARCH 2002

[KG 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

(New Regulations)

Part I

Paper I — BASIC SCIENCES RELATED TO
PAEDIATRICS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss role of hormones in growth and development of children. (25)
 2. Discuss briefly etiopathogenesis of Portal Hypertension in children and their management. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Fragile X syndrome.
 - (b) Lead Poisoning.
 - (c) Micronutrients.
 - (d) Stem cell transplantation.
 - (e) Monoclonal antibodies.
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SEPTEMBER 2002

[KH 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

(New Regulations)

Part I

Paper I — BASIC SCIENCES RELATED
TO PAEDIATRICS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Draw and describe the microscopic picture of glomerulus and discuss the pathogenesis of nephrotic syndrome. (25)
 2. Describe the physiology of vitamin D metabolism and the pathophysiology of Rickets. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) macrolides.
 - (b) Mantoux testing.
 - (c) Metabolic acidosis.
 - (d) Nosocomial infections.
 - (e) Pathogenesis of acute Diarrhoea.
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APRIL 2003

[KI 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

(New Regulations)

Part I

**Paper I — BASIC SCIENCES RELATED
TO PAEDIATRICS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Describe Process of Coagulation. How would you investigate a child with recurrent purpura? Briefly mention management of Idiopathic thrombocytopenic purpura. (25)
 2. Describe briefly clinical features, causes of coma in a child and how do you manage? (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Osteopetrosis
 - (b) Hazards of Blood Transfusion
 - (c) Toxic effects of Vitamins
 - (d) Methaemoglobin
 - (e) Cell Mediated immunity.
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OCTOBER 2003

[KJ 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

(New Regulations)

Part I

**Paper I — BASIC SCIENCES RELATED
TO PAEDIATRICS**

Time : Three hours Maximum : 100 marks

**Theory : Two hours and Theory : 80 marks
forty minutes M.C.Q. : 20 marks**

M.C.Q. : Twenty minutes

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

Answer ALL questions.

Draw suitable diagrams wherever necessary.

Essay Questions : (2 × 15 = 30)

**1. Describe respiratory failure and the
pathophysiology of different types of respiratory failure.
How would you clinically evaluate and monitor a child
in severe respiratory failure. (15)**

**2. Discuss the various metabolic functions of liver.
How will you evaluate a patient with possible liver
dysfunction? (15)**

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

- (1) Erythropoietin**
- (2) Consanguineous marriages**
- (3) Persistent foetal circulation**
- (4) Diagnosis of malaria**
- (5) Normal CSF pathway**
- (6) Life cycle of ankylostoma duodenale**
- (7) Myopia in children**
- (8) Albendazole**
- (9) Cryptorchidism**
- (10) Peak flow meter.**

AUGUST 2004

[KL 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

(New Regulations)

Part I

**Paper I — BASIC SCIENCES RELATED TO
PAEDIATRICS**

Time : Three hours Maximum : 100 marks

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

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

Answer ALL questions.

I. Essay Questions : (2 × 15 = 30)

**(1) What is cardiac output? How it is regulated?
How do you assess the cardiac output?**

**(2) How is aldosterone synthesised? What are
the effects of aldosterone? What are the consequences of
21-Hydroxylase deficiency?**

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

- (a) Foramen ovale.**
- (b) Ductus venosus.**
- (c) Meckel's diverticulum.**
- (d) Functions of bile.**
- (e) Glomerular filtration rate.**
- (f) Bioavailability of a drug.**
- (g) Acyclovir.**
- (h) Sampling for blood culture and sensitivity.**
- (i) Cesticereal larva.**
- (j) Proteinuria in nephrotic syndrome.**

MARCH 2006

[KO 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

BASIC SCIENCES RELATED TO PEDIATRICS

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.

I. Essay : (2 × 15 = 30)

(1) Discuss the fetal circulation and changes in the newborn circulation after birth. How will you evaluate a cyanosed newborn?

(2) Discuss the various liver function tests. How will you evaluate a child with ascites?

II. Write notes on : (10 × 5 = 50)

(a) BCG test

(b) Pseudoparalysis

(c) Beriberi

(d) CSF circulation

(e) Life cycle of *Ascaris lumbricoides*

(f) Anamnestic reaction

(g) Aschoff nodule

(h) Lyon's hypothesis

(i) Osmotic fragility test

(j) Newer antimalarial drugs.

[KQ 1511] MARCH 2007 Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION

Paper I — BASIC SCIENCES RELATED TO
PAEDIATRICS

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. Write Essay on :

1. Describe Glomerular Filtration. Discuss the Aetiology and management of Acute Renal Failure in children. (20)

2. Describe Acid-Base Regulation. write in detail the management of Diabetic ketoacidosis in children. (15)

3. Describe the structure of Human Immuno deficiency Virus. Write in detail the Laboratory Diagnosis of HIV infection. (15)

II. Write Short notes on : (6 × 5 = 30)

- (a) Fulminant Hepatic Failure.
 - (b) Intractable Congestive Heart Failure.
 - (c) Tuberculosis – HIV Co-infection
 - (d) Newer anticonvulsants
 - (e) Intra venous Immunoglobulin (IvIg)
 - (f) Chikungunya Fever.
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MARCH 2008

[KS 1511]

Sub. Code : 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

Paper I – BASIC SCIENCES RELATED TO PAEDIATRICS

Common to all regulations

Q.P.Code : 343013

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw diagram's wherever necessary.

- I. Write Essay on : (2 × 20 = 40)
1. Briefly discuss iron metabolism. What are the causes of iron deficiency anaemia? How do you investigate and manage iron deficiency Anaemia? (20)
 2. Discuss formation and circulation of C.S.F in a child – causes and management of Hydrocephalus in a child. (20)
- II. Write Short notes on : (10 × 6 = 60)
1. Single Umbilical artery.
 2. Schick test.
 3. M.R.I in children.
 4. Anti retroviral therapy (A.R.T).
 5. Pulse polio.
 6. Trace elements.
 7. Pre and Pro biotics.
 8. Broad spectrum anti helmenthics.
 9. Chelating agents.
 10. Hypothemia in new born.
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September 2008

[KT 1511]

Sub. Code: 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

**Paper I – BASIC SCIENCES RELATED TO PAEDIATRICS
(Common to all candidates)**

Q.P. Code : 343013

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 X 20 = 40)

1. Discuss the embryology related to development of kidneys, ureter and urinary bladder. Discuss the anomalies of male and female external genitalia in view of embryology.
2. Discuss the composition of body fluids, regulation of osmolality and volume. Also discuss sodium metabolism and common causes of hypernatremia.

II. Write short notes on :

(10 X 6 = 60)

1. Non immunological responses to viral infections.
 2. Morphology of vibrio cholerae.
 3. Pharmacological actions of aspirin.
 4. Major pathways of carbohydrate metabolism.
 5. Specific anatomic structure of fetal circulation.
 6. Development of Breasts.
 7. Pathogenesis of infectious mononucleosis.
 8. Classification of human helminthes.
 9. Life cycle of tenia solium.
 10. Physiological functions of thyroid stimulating hormone.
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MARCH -2009

[KU 1511]

Sub. Code: 3013

**DIPLOMA IN CHILD HEALTH EXAMINATION.
Paper I – BASIC SCIENCES RELATED TO PAEDIATRICS**

(Common to all candidates)

Q.P. Code : 343013

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

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

1. Discuss formation and circulation of C.S.F in a child – causes and management of Hydrocephalus in a child.
2. Describe the management of severe dehydration in a 4 year old child. Mention the common electrolyte disorders seen in diarrheal dehydration and discuss the management.

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

1. Digoxin toxicity.
2. Life cycle of plasmodium falciparum.
3. Pathogenesis and pathology of acute glomerulo rephritis .
4. Management of barbiturate poisoning.
5. Fetal circulation.
6. Development of cardio vascular system.
7. Trichuriasis.
8. Prevention of perinatal transmission of HIV.
9. Physiological jaundice.
10. Potassium sparing diuretics.

September - 2009

[KV 1511]

Sub. Code: 3013

DIPLOMA IN CHILD HEALTH EXAMINATION.

**Paper I – BASIC SCIENCES RELATED TO PAEDIATRICS
(Common to all candidates)**

Q.P. Code : 343013

Time : Three hours

Maximum : 100 marks

**Draw suitable diagram wherever necessary.
Answer ALL questions.**

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

1. Discuss Peripheral smear.
2. Discuss important lung function test in paediatric practice.

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

1. Macroglossia
2. Newer anti convulsants
3. Congenital cataract in both eyes
4. Enuresis
5. Cyanotic spell
6. Newer vaccines
7. Advantages of breast milk
8. Coomb's test
9. Vital capacity
10. Clotting mechanism of blood

March 2010

[KW 1511]

Sub. Code: 3013

DIPLOMA IN CHILD HEALTH EXAMINATION

Paper I – BASIC SCIENCES RELATED TO PAEDIATRICS

(Common to all candidates)

Q.P. Code : 343013

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary

Answer ALL questions

I. Essay questions :

(2 x 20 = 40)

1. Discuss liver function tests. How will you differentiate obstructive from hepato cellular jaundice?
2. Discuss vitamin D metabolism. Describe clinical features and management of nutritional rickets.

II. Write short notes on :

(10 x 6 = 60)

1. Omega 3 fatty acids.
2. Surfactant.
3. Antiviral drugs.
4. Cold chain.
5. Genetics of Down's syndrome.
6. Inhalation therapy.
7. Folic acid in human health.
8. Zinc deficiency.
9. Digoxin.
10. Central cyanosis.

September 2010

[KX 1511]

Sub. Code: 3013

DIPLOMA IN CHILD HEALTH (D.C.H) EXAMINATION.

**Part I for Candidates admitted upto 2003-04 & Candidates admitted
from 2008-09 onwards**

And

Paper I for Candidates admitted from 2004-05 to 2007-08

BASIC SCIENCES RELATED TO PAEDIATRICS

Q.P. Code : 343013

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

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

1. Discuss the development of brain and Aetiology of Hydrocephalus.
2. Discuss the Biochemical changes in Protein Energy Malnutrition (PEM).

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

1. Genetics of Downs Syndrome.
2. Structures in the Anterior Mediastinum.
3. Course of the Seventh Cranial Nerve.
4. Newer Diagnostic Tests for Tuberculosis.
5. Peripheral Blood smear findings in Acute Lymphoblastic Leukaemia.
6. Actions of Insulin.
7. Serum Alkaline phosphatase.
8. Karyotyping.
9. Factors influencing calcium metabolism.
10. Fetal Circulation.

APRIL 2011

[KY 1511]

Sub. Code: 3013

**DIPLOMA IN CHILD HEALTH (DCH)
EXAMINATION
BASIC SCIENCES RELATED TO PAEDIATRICS**

Q.P. Code : 343013

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. A ten year old child presented in the casualty with history of puffiness of face and headache associated with diminished urine output. Discuss the pathophysiology of the case.	11	35	15
2. Discuss fetal circulation and changes that happen soon after birth.	11	35	15

II. Write notes on :

1. Azithromycin.	4	10	7
2. Embryology of heart chambers formation.	4	10	7
3. Molecular mimicry in Rheumatic fever.	4	10	7
4. Liver function tests.	4	10	7
5. Life cycle of Hookworm.			
6. Rapid diagnosis using Bactec versus conventional culture media.	4	10	7
7. Stool examination in Lactose intolerance.	4	10	7
8. Hypocalcemia during neonatal and infantile period.	4	10	7
9. Drug therapy for seizure disorders.	4	10	7
10. Cold stress versus hypothermia.	4	10	7

October 2011

[KZ 1511]

Sub. Code: 3013

**DIPLOMA IN CHILD HEALTH (DCH) EXAMINATION
BASIC SCIENCES RELATED TO PAEDIATRICS**

Q.P. Code : 343013

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

**Pages Time Marks
(Max.) (Max.) (Max.)**

- | | | | |
|---|----|---------|----|
| 1. Discuss embryology of septums of the heart with special emphasis on foramen ovale and its role in fetal circulation. | 11 | 35 min. | 15 |
| 2. Discuss enteral feeding of newborns. | 11 | 35 min. | 15 |

II. Write notes on :

- | | | | |
|--|---|---------|---|
| 1. Rationale of drug therapy in acute respiratory infection. | 4 | 10 min. | 7 |
| 2. Pathogenesis of tubercular meningitis. | 4 | 10 min. | 7 |
| 3. Comment upon fluid balance in newborn. | 4 | 10 min. | 7 |
| 4. Neural Crest. | 4 | 10 min. | 7 |
| 5. CSF analysis in newborns. | 4 | 10 min. | 7 |
| 6. Life cycle of malarial parasite. | 4 | 10 min. | 7 |
| 7. Causes of hepatosplenomegaly. | 4 | 10 min. | 7 |
| 8. Anthelmintics. | 4 | 10 min. | 7 |
| 9. Diagnosis of Hepatitis infection. | 4 | 10 min. | 7 |
| 10. Discuss factors determining the gender of the fetus. | 4 | 10 min. | 7 |

April 2012

[LA 1511]

Sub. Code: 3013

DIPLOMA IN CHILD HEALTH (DCH) EXAMINATION

BASIC SCIENCES RELATED TO PAEDIATRICS

Q.P. Code : 343013

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Discuss the clinical and laboratory evaluation of Hemostatic Disorders.	16	35	15
2. Describe Cerebro Spinal Fluid formation and circulation. Discuss the classification and etiology of Hydrocephalus.	16	35	15

II. Write notes on :

1. Karyotyping and its indications.	4	10	7
2. Mechanism of action of Calcium channel Blockers.	4	10	7
3. Applied anatomy of Facial nerve.	4	10	7
4. Peritoneal Dialysis and its indications in Acute Renal Failure.	4	10	7
5. Clinical features and pathology of Tuberculous Lymphadenitis.	4	10	7
6. Eosinophilia in peripheral smear and its clinical relevance.	4	10	7
7. Pathogenesis of septic shock.	4	10	7
8. Life cycle of Plasmodium falciparum.	4	10	7
9. Developmental defects of Diaphragm.	4	10	7
10. Pathophysiology of Hyaline Membrane Disease.	4	10	7

[LB 1511]

OCTOBER 2012

Sub. Code: 3013

**DIPLOMA IN CHILD HEALTH (DCH) EXAMINATION
BASIC SCIENCES RELATED TO PAEDIATRICS**

Q.P. Code : 343013

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Discuss the fetal circulation, its physiology and changes that occur after birth in a neonate.	16	35	15
2. Discuss the pathophysiology of Nephrotic syndrome and renal biopsy findings in Idiopathic Nephrotic syndrome.	16	35	15

II. Write notes on :

1. Bilirubin Metabolism and its significance.	4	10	7
2. Applied Anatomy of Circle of Willis.	4	10	7
3. Physiological anemia of Infancy.	4	10	7
4. Biochemical changes in Rickets.	4	10	7
5. Serum Tumor Markers and its relevance.	4	10	7
6. Probiotics and its uses.	4	10	7
7. Antiviral therapy for Herpes virus Infection.	4	10	7
8. Applied Anatomy of Meckel's Diverticulum.	4	10	7
9. Investigations to diagnose Streptococcal infection.	4	10	7
10. Peripheral arterial Pulse and its importance in Clinical Practice.	4	10	7

(LC 1511)

APRIL 2013

Sub. Code: 3013

**DIPLOMA IN CHILD HEALTH (DCH) EXAMINATION
BASIC SCIENCES RELATED TO PAEDIATRICS**

Q. P. Code: 343013

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Discuss the interpretation of peripheral blood smear in practice.
2. Discuss the protective mechanisms available to prevent a child from respiratory tract infection.

II. Write notes on:

(10X7=70)

1. Pyramidal tract and its clinical implications.
2. Liver function test and its interpretations.
3. Biochemical composition of human milk and its importance.
4. Inotropic agents and its uses.
5. CSF findings in Tuberculous meningitis.
6. Insensible water loss in children.
7. Causes of Proteinuria.
8. Polymerase Chain Reaction and its importance.
9. Staging of Wilm's tumour.
10. Physiology of Jugular Venous Pulse.

(LD 1511)

OCTOBER 2013

Sub. Code: 3013

**DIPLOMA IN CHILD HEALTH (DCH) EXAMINATION
APPLIED BASIC SCIENCES RELATED TO PAEDIATRICS**

Q. P. Code: 343013

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Development of Heart and its various congenital anomalies.
2. Etiopathogenesis of Dengue Fever, Dengue Hemorrhagic Fever and Dengue Shock Syndrome.

II. Write notes on:

(10X7=70)

1. Temporary and Permanent Dentition.
2. Physiology of Lactation.
3. Glucose Tolerance Test.
4. Lipid Profile.
5. Macrolides.
6. Oral Iron Chelating Agents.
7. Mantoux Test.
8. Diagnosis of Dengue Fever.
9. Pleural Fluid Findings in various Disease conditions.
10. Pathology of Hyaline Membrane Disease.

(LE 1511)

APRIL 2014

Sub. Code:3013

DIPLOMA IN CHILD HEALTH (DCH) EXAMINATION

BASIC SCIENCES RELATED TO PAEDIATRICS

Q.P.Code: 343013

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. How are lipids digested and absorbed? What are the abnormalities found in digestion and absorption of lipids.
2. Etiopathogenesis of nephrotic syndrome.

II. Write notes on:

(10X7=70)

1. BacT/ALERT.
2. Interferon-Gamma Release Assays (IGRAs).
3. Pathophysiology of Eisenmenger syndrome.
4. Embryology of inguinal hernia.
5. Peripheral smear.
6. Metallo-beta-lactamase-1 (NDM-1).
7. Adverse events following Immunisation.
8. Epinephrine.
9. Teratogens.
10. Newborn screening.

DIPLOMA IN CHILD HEALTH (DCH) EXAMINATION
APPLIED BASIC SCIENCES RELATED TO PAEDIATRICS

Q.P.Code: 343013

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2 x 15 = 30)

1. List the Anticonvulsants commonly used in paediatrics and describe their mechanisms of action.
2. Discuss the transition of fetal circulation to the neonatal circulation.

II. Write notes on:

(10 x 7 = 70)

1. SIRS.
2. Conduct disorder.
3. Hypocalcemia in infancy.
4. BMI.
5. Neural tube defects.
6. Bronchoalveolar lavage.
7. Hand washing.
8. X linked inheritance.
9. Physiology of normal puberty.
10. Quantiferon Gold test.
