

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 Hyperbilirubinemia. (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.
-

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 thrombocyto penic 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.
-

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
forty minutes**

Theory : 80 marks

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
forty minutes**

Theory : 80 marks

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 is it 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.

FEBRUARY 2005

[KM 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 forty minutes	Theory : 80 marks
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M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

I. Essay : (2 × 15 = 30)

(1) Discuss the anatomy and physiology of the CSF pathway. How will you evaluate a child with a large head?

(2) Discuss the various functions of the kidney. How will you investigate a child with anuria?

II. Write notes on : (10 × 5 = 50)

- Laboratory diagnosis of filariasis.
- Probiotics.
- Vitamin D.
- Talipes equino varus*.

- (e) Foramen ovale.
- (f) Liver enzymes.
- (g) Pulmonary function tests.
- (h) Karyo typing.
- (i) Measurement of blood pressure in neonates.
- (j) Life cycle of the Malarial parasite.

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 : $(2 \times 20 = 40)$
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 : $(10 \times 6 = 60)$
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 hyponatremia.

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.
-

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 (Max.)	Time (Max.)	Marks (Max.)
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- | | | | |
|---|----|---------|----|
| 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.

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

Q. P. Code: 343013

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the life cycle and clinical features of plasmodium falciparum.
2. Describe the etiopathogenesis of acute post infectious glomerulonephritis.

II. Write notes on:

(10 x 7 = 70)

1. Transplacental infections.
2. Cytogenetics of Downs syndrome.
3. SMR staging in a girl.
4. Breast feeding reflexes in the mother.
5. Innocent murmurs.
6. Imprinting.
7. Pathogenesis of asthma.
8. Biophysical profile scoring.
9. Grades of VUR.
10. Mechanisms of diarrhea.

[LH 1511]

OCTOBER 2015

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

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. Describe with illustrations the CSF pathways. List the causes of hydrocephalus.
2. What is a pedigree? Discuss the various modes of inheritance.

II. Write notes on:

(10 x 7 = 70)

1. Hearing assessment in a child.
2. Microcytic hypochromic anemia.
3. CSF analysis in newborns.
4. Fetal diagnosis.
5. Gene Therapy.
6. Neurocutaneous markers.
7. Clotting mechanism of blood.
8. Neonatal reflexes.
9. Growth charts.
10. Surfactant.

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. Enumerate the Liver function tests and its clinical application in paediatric practice.
2. Classify 'shock'. Describe the Etiopathogenesis and diagnosis of septic shock.

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

1. Normal renal development and developmental abnormalities of renal system.
2. Stages of lung maturation and its clinical implication.
3. Investigations for carbohydrate malabsorption.
4. Modified Glasgow coma scale.
5. Clinical application of Renal function tests.
6. Urine metabolic screening.
7. Recent advances in diagnosis of Tuberculosis.
8. Colony stimulating factors in clinical practice.
9. Bony changes in vitamin D deficiency.
10. Interpretation of peripheral smear.

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. Discuss the metabolism and mechanism of action of vitamin D. List the clinical features of nutritional rickets and its diagnosis and management.
2. Discuss the pathogenesis, clinical features and management of tuberculous meningitis.

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

1. Drugs used in treatment of Acute severe Asthma.
2. Megaloblastic anemia.
3. Prothrombotic conditions in children.
4. Pathogenesis of respiratory distress syndrome.
5. Drugs used for persistent pulmonary hypertension in neonates.
6. Stem cell transplantation.
7. DMSA (dimercaptosuccinic acid) scan.
8. Interferon – gamma release assays.
9. Multidrug resistant salmonella typhi.
10. Biochemical tests in the diagnosis of Wilson disease.

(LK 1511)

MAY 2017

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:

(2 x 15 = 30)

1. Discuss the life cycle of *Taenia solium* and its clinical importance.
2. Discuss the cytogenetics, antenatal diagnosis and counseling in Down syndrome.

II. Write notes on:

(10 x 7 = 70)

1. Methicillin resistant staphylococcus aureus.
2. Secretory diarrhoea.
3. Diagnosis of Thalassemia major.
4. Features of distinguishing glomerular from non glomerular proteinuria.
5. Pathogenesis of diabetic ketoacidosis.
6. Drugs used in the management of refractory status epilepticus.
7. Lab diagnosis of Dengue fever.
8. Indications for IVIg in Paediatric practice.
9. X linked dominant inheritance.
10. Serological tests in chronic hepatitis B infections.

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. Describe respiratory failure and the different types of respiratory failure. How would you clinically evaluate a child with severe respiratory failure?
2. Discuss the coagulation cascade and the interpretation of tests of bleeding disorders and coagulation disorders.

II. Write notes on:

(10 x 7 = 70)

1. Uses of steroid in children.
2. Hypokalemia in children.
3. Hepatitis E virus.
4. Bone marrow biopsy and its interpretation.
5. Embryology of cleft lip and cleft palate.
6. Electrolyte imbalance in Idiopathic Hypertrophic Pyloric Stenosis and its management.
7. Immuno florescent technique and its application.
8. Anti-retroviral drugs in children.
9. Development of neural tube defects.
10. Hand washing.

(LM 1511)

MAY 2018

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:

(2 x 15 = 30)

1. Discuss the fetal circulation, its physiology and changes that occur after birth in a neonate.
2. Describe the CSF pathways. List the classifications and causes of hydrocephalus.

II. Write notes on:

(10 x 7 = 70)

1. Peripheral arterial pulse and its importance in Clinical Practice.
2. Pleural fluid findings in various disease conditions.
3. CBNAT.
4. Life cycle of malarial parasite.
5. Breastfeeding reflex in the mother.
6. Growth charts.
7. Liver function test.
8. Broncho pulmonary segments.
9. Probiotics and its uses.
10. Levitracetam.

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. Discuss the pathophysiology of peripheral circulatory failure and management of septic shock.
2. Discuss the Pathophysiology of nephrotic syndrome and renal biopsy findings in nephrotic syndrome.

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

1. Peripheral smear in pediatric practice.
2. Glasgow coma scale.
3. Trace the optic nerve.
4. Autosomal dominant inheritance.
5. Bilirubin metabolism and its significance.
6. Pulsus paradoxus.
7. Micronutrients.
8. Physiology of lactation.
9. Hypocalcemia in infancy.
10. Innocent murmurs.

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. How to monitor a child with dengue fever during critical period and identify the complications. How will you manage dengue shock syndrome?
2. Enumerate in detail on approach to Inborn Errors of Amino acid metabolism?

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

1. Trace the Facial Nerve and its applied anatomy.
2. Zika virus.
3. Growth hormone therapy.
4. Procalcitonin and its clinical significance.
5. Digenic inheritance.
6. Enumerate the various methods for fetal diagnosis and assessment.
7. Surfactant therapy.
8. Describe the clotting mechanism and add a note on Hemophilia –C.
9. Lung function tests.
10. Monoclonal antibodies.

(LP 1511)

OCTOBER 2019

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: **(2 x 15 = 30)**

1. Describe CSF circulation. Discuss the etiopathogenesis, clinical features and management of hydrocephalus in children.
2. Enumerate the inotropes used in the management of sick children. Elaborate on the use of each one of them.

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

1. Prevention of Nosocomial infection in newborn.
2. Iron poisoning.
3. Hybernatiemia.
4. H1N1 Virus.
5. CSF analysis.
6. Embryology of anorectal defects.
7. Electrolyte disturbances in Acute Diarrhoeal disease with persistent vomiting and its management.
8. RT-PCR and its application.
9. Disease modifying drugs in Nephrotic Syndrome.
10. Histopathology of chronic active hepatitis.

(LQ 1511)

**AUGUST 2020
(MAY 2020 SESSION)**

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: **(2 x 15 = 30)**

1. Physiology of lactation and discuss about lactational problems.
2. Iron metabolism and discuss about microcytic and hypochromic anemia in children

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

1. Newer anticonvulsants.
2. Importance of urine examination in paediatric practice.
3. Role of zinc in paediatric practice.
4. Resistant rickets.
5. COVID-19.
6. Investigations and management of leptospirosis.
7. Descent of testis and its abnormalities.
8. Different grades of resistance in malaria and note on drug resistant malaria.
9. Serological markers for hepatitis B.
10. Teratogens.

[LS 1511]

**NOVEMBER 2020
(OCTOBER 2020 SESSION)**

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:

(2 x 15 = 30)

1. Process of coagulation. Approach to a child with purpura.
2. Development of heart and various congenital abnormalities.

II. Write notes on:

(10 x 7 = 70)

1. Iron chelators
2. Anti retro viral therapy.
3. Von Willebrand disease
4. Erb's and Klumpke's paralysis.
5. Importance of reticulocyte count.
6. Nosocomial Infection.
7. Rapid diagnostic tests for malaria and enteric fever.
8. Dengue fever – virological and serological diagnosis.
9. Haemodynamics of cyanotic spell and its management.
10. Renal function tests

(DCH 0721)

**JULY 2021
(MAY 2021 SESSION)**

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: **(2 x 15 = 30)**

1. Describe coagulation pathway. Discuss the evaluation and management of a child with bleeding disorder.
2. Discuss vitamin d metabolism. Discuss the clinical features, investigation and management of vitamin d deficiency rickets in a child.

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

1. Descent of testes and its abnormalities.
2. Pyramidal tract and applied anatomy.
3. Peripheral smear examination.
4. Pathophysiology of Diabetic Keto Acidosis.
5. Methemoglobinemia.
6. Urine Metabolic Screening.
7. Hand washing.
8. Physiology of lactation.
9. Screening tests for Blood Transfusion.
10. Newer anti edema drugs.

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

[DCH 1121]

**NOVEMBER 2021
(OCTOBER 2021 SESSION)**

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:

(2 x 15 = 30)

1. Classification of hemolytic anaemia and write in detail about clinical manifestations and management of thalassemia.
2. Proteinuria in children.

II. Write notes on:

(10 x 7 = 70)

1. Vitamin K deficiency.
2. Pulmonary function Testing.
3. HodgkinsLymphoma.
4. Portal circulation and portal hypertension.
5. Adrenal steroid biosynthesis.
6. Nontuberculous Mycobacteria.
7. Anaphylaxis.
8. Carbapenams.
9. Karyotyping in Down Syndrome.
10. Gastroesophageal Reflux.

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

(DCH 0522)

MAY 2022

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:

(2 x 15 = 30)

1. Describe Portal venous system. Discuss the Classification, aetiology, clinical features and diagnosis of Portal hypertension in a child.
2. Describe the fetal circulation and the changes that occur after birth. Discuss the evaluation of a newborn baby with cyanosis.

II. Write notes on:

(10 x 7 = 70)

1. Liver function tests and its interpretation.
2. Inotropic agents.
3. Visual pathway.
4. Serological markers for Hepatitis B.
5. Fetal diagnosis.
6. Breast feeding reflexes in the mother.
7. Glomerular filtration rate.
8. Cleft lip and cleft palate.
9. Anti viral drugs.
10. Pathogenesis of asthma.
