

APRIL - 2001

[KD 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

Branch V — Paediatric Surgery

(Revised Regulations)

Paper I — BASIC SCIENCES AS APPLIED TO
PAEDIATRIC SURGERY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss Wilms' tumour with respect to (30)
Staging. (6)
Histopathology. (6)
Associated anomalies/syndromes. (8)
Affects of preoperative chemotherapy on
histopathology. (10)
2. Discuss the (30)
Development of biliary tract (6)
Biochemical changes in biliary atresia. (8)
Histological changes in liver in case of biliary
atresia. (7)
Role of imaging in biliary atresia. (9)

3. Write briefly on : (40)
(a) Biochemical changes in a case of congenital
pyloric stenosis. (10)
(b) embryological basis for oesophageal atresia.
(10)
(c) Rotation of midgut and classification of
malrotation. (10)
(d) Physiology of CSF production and absorption.
(10)

NOVEMBER - 2001

[KE 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch V — Paediatric Surgery

**Paper I — BASIC SCIENCES AS APPLIED TO
PAEDIATRIC SURGERY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions

1. Discuss about Mediastinal Masses in paediatric age group under following : (30)

- (a) Surgical anatomy of Mediastinum (6)
- (b) Causes for Mediastinal Masses (6)
- (c) Diagnosis and Investigations (8)
- (d) Surgical tactics and techniques for the treatment (10)

2. How do you manage a boy of 10 yrs. with severe degree of hypospadias under following : (30)

- (a) Embryology of the Geneto-Urinary system. (6)
- (b) Clinical classification and presentation (6)
- (c) Principles of surgical management (10)
- (d) Complication (8)

Write briefly or

- (a) Agenesis of the diaphragm (10)
- (b) Rectal Atresia (10)
- (c) Necrotising enteritis in children (10)
- (d) Arrested hydrocephalus (10)

[KE 048]

MARCH - 2002

[KG 048]

Sub. Code : 1701

3

Write short notes on :

- (a) Burns in children (10)
- (b) Wilms tumour associated syndromes (10)
- (c) Embryology of malrotation of gut (10)
- (d) First arch syndrome. (10)

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch V — Paediatric Surgery

Paper I — BASIC SCIENCES AS APPLIED TO
PAEDIATRIC SURGERY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the Anorectal malformations under the following headings :

- (a) Embryology (5)
- (b) Types and classification (5)
- (c) Diagnosis and associated malformations (5)
- (d) Principles of surgery (10)
- (e) Post operative assessment. (5)

2. Describe the duplications of kidney and ureters under the following headings :

- (a) Embryology (10)
- (b) Types and clinical presentation (5)
- (c) Diagnosis (5)
- (d) Management. (10)

SEPTEMBER - 2002

[KH 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

Branch V — Paediatric Surgery

(Revised Regulations)

Paper I — BASIC SCIENCES AS APPLIED TO
PAEDIATRIC SURGERY

Time : Three hours

Maximum : 100 marks

1. Describe Hirschsprung's disease under the following headings :

- (a) Embryology (5)
- (b) Clinical presentation and diagnosis. (10)
- (c) Surgical management (10)
- (d) Post operative assessment. (5)

2. Describe the testis and its anomalies under the following headings :

- (a) Development of testis (10)
- (b) Factors influencing the descend of testes (10)
- (c) Management of undescended testis (10)

3 Write short notes on

- (a) Total parenteral nutrition (10)
- (b) Tumour markers in Neuroblastoma (10)
- (c) Embryology of cleft lip and palate and classification. (10)
- (d) Ectopia vesicae. (10)

APRIL - 2004

[KK 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch V — Paediatric Surgery

Paper I — BASIC SCIENCES AS APPLIED TO
PAEDIATRIC SURGERY

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.

A. Essay : (2 × 15 = 30)

(1) Describe the various types of developmental anomalies of the malrotation of the gut.

(2) Discuss the basis of pelvic musculature in relation to anorectal malformations.

B. Short notes : (10 × 5 = 50)

(1) Role of urodynamics in neurogenic bladder.

(2) Pathology of Biliary Atresia.

(3) Genetics in Wilm's Tumor.

(4) Relevance of segments in surgery of liver.

(5) Cephalhematoma.

(6) Anomalies of thyroglossal tract.

(7) Sexual differentiation.

(8) Vitello intestinal duct anomalies.

(9) Dynamics of CSF flow.

(10) Principles of conservative management of splenic trauma.

FEBRUARY - 2005

[KM 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch V — Paediatric Surgery

Paper I — BASIC SCIENCES AS APPLIED TO
PAEDIATRIC SURGERY

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 in detail thermoregulation in the new born and consequence of Hypothermia.

(2) Describe the development of abdominal wall and its defects and discuss the management of omphalocele.

II. Write Short notes on :

(10 × 5 = 50)

(a) Descent of Testis and abnormality in its descent.

(b) Embryology of cleft lip and palate.

(c) Cell biology in Hodgkins lymphoma.

(d) Biochemical markers in Neuroblastoma

(e) Segmental hepatic anatomy and its clinical application related to Paediatric Surgery.

(f) Chemotherapy in Rhabdomyo sarcoma.

(g) Non-surgical management of Haemangioma.

(h) Remnants of second branchial cleft and its management.

(i) Endodermal sinus tumor.

(j) Caudal anaesthesia.

FEBRUARY - 2006

[KO 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch V — Paediatric Surgery

Paper I — BASIC SCIENCES AS APPLIED TO
PAEDIATRIC SURGERY

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 principles of total parenteral nutrition as applied to Paediatric Surgery.

(2) Describe the development of esophagus and embryology of congenital anomalies of the esophagus.

II. Write short notes on :

(10 × 5 = 50)

- (a) Chemotherapy in Wilms tumour
- (b) Management options in lymphangioma
- (c) Postobstructive diuresis
- (d) Normal pathway of cerebrospinal fluid and levels of block in congenital hydrocephalus
- (e) Alpha feto protein
- (f) Barotrauma
- (g) Nesidioblastosis
- (h) Metabolic disturbances in hypertrophic pyloric stenosis
- (i) Meconium ileus
- (j) Normal intestinal rotation and fixation in fetus.

AUGUST - 2006

[KP 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch V — Paediatric Surgery

**Paper I — BASIC SCIENCES AS APPLIED TO
PEDIATRIC SURGERY**

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 :

**(1) Discuss Space Occupying Lesion (SOL) in the
liver in the Paediatric age group under the following :**

- (a) Surgical anatomy of liver**
- (b) Causes of SOL in the liver**
- (c) Diagnosis and investigations**
- (d) Treatment options and surgical
techniques. (3 + 3+ 4 + 10)**

**(2) Discuss the management of congenital
adrenals hyperplasia (CAH) under the following :**

- (a) Enzyme pathway in CAH**
- (b) Diagnosis and investigations**
- (c) Management in the newborn period**
- (d) Techniques of surgical repair. (15)**

**(3) Discuss the management of 2 year old child
with severe gastroesophageal reflux under the
following :**

- (a) Pathophysiology of lower esophageal
sphincter**
- (b) Consequences of reflux and clinical
presentation**
- (c) Investigations**
- (d) Principles of surgical management and
role of laparoscopy. (15)**

AUGUST - 2006

II. Write briefly on : (6 × 5 = 30)

- (a) Augmentation cystoplasty**
 - (b) Tethered cord syndrome**
 - (c) Tumor markers**
 - (d) Causes and management of hyponatremia**
 - (e) Principles of pulse oximetry**
 - (f) Post obstructive diuresis.**
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FEBRUARY - 2007

[KQ 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch V — Paediatric Surgery

Paper I — BASIC SCIENCES APPLIED TO
PAEDIATRIC SURGERY

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 :

1. Discuss congenital hydrocephalus under the following : (20)

- (a) Cerebrospinal fluid pathway
- (b) Anatomy of ventricles
- (c) Etiology of hydrocephalus
- (d) Diagnosis and Investigations
- (e) Treatment.

2. Discuss the management of acute intestinal obstruction in children. (15)

- (a) Causes of intestinal obstruction
- (b) Clinical presentation
- (c) Metabolic disturbances
- (d) Management.

3. Discuss the management of 2 year old male child with unilateral undescended testis under the following : (15)

- (a) Normal testicular descent
- (b) Theories of undescended testis
- (c) Complications of undescended testis
- (d) Management.

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

1. Congenital anomalies of thyroid.
2. Renal scintigraphy.
3. Craniophagus.
4. Spina bifida occulta.
5. Horseshoe kidney.
6. Nesidoblastoma.

August-2007

[KR 048]

Sub. Code : 1701

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch V — Paediatric Surgery

Paper I — BASIC SCIENCES APPLIED TO
PAEDIATRIC SURGERY

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 :

(1) Describe the clotting mechanism. What are the common bleeding disorders encountered in paediatric practice? (20)

(2) A 9 years old child is admitted with pheochromocytoma and hypertension. Discuss under the following :

(a) Biochemical and anatomical localization studies.

(b) Peri-operative medical management.

(c) Surgical approach.

(d) Role of chemotherapy. (3 + 4 + 4 + 4 = 15)

(3) Describe foetal circulation and its transition in the postnatal life. Write briefly on persistent foetal circulation. (15)

II. Write briefly on : (6 × 5 = 30)

(a) Cardiopulmonary effects during laparoscopic fundoplication in a 1 year old child.

(b) Role of capnography.

(c) Complications of central line placement and its management.

(d) Ventilator induced lung injury.

(e) Care of preterm baby in peri-operative period.

(f) Investigative modalities useful in neuroblastoma.

August 2008

[KT 048]

Sub. Code: 1701

M.Ch. DEGREE EXAMINATION

**(Higher Specialities)
(Revised Regulations)**

Branch V – Paediatric Surgery

**Paper I – BASIC SCIENCES APPLIED TO PAEDIATRIC
SURGERY**

Q.P. Code: 181701

Time: Three hours

Maximum: 100 Marks

ANSWER ALL QUESTIONS

Draw suitable diagrams wherever necessary.

I. Essays:

(2 x 20 = 40)

1. Acid base and electrolyte disturbances in upper gastro intestinal tract obstructions and management.
2. Anatomy and physiology of faecal continence and assessment of continence in post-operative anorectal malformations.

II. Write short notes on:

(10 x 6 = 60)

1. Congenital mesocolic hernia.
 2. Testicular descent.
 3. Post-operative analgesia in neonate.
 4. Chylous ascitis.
 5. High frequency ventilation.
 6. Anatomy and development of diaphragm.
 7. Ureterocele.
 8. Ventilatory support in neonatal diaphragmatic hernia.
 9. Aetiopathology of necrotizing enterocolitis in neonate.
 10. Uterus didelphis
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August 2009

[KV 048]

Sub. Code: 1701

MASTER OF CHIRURGIAE (M.Ch.) DEGREE EXAMINATIONS

(Higher Specialities)

Branch V – Paediatric Surgery

(Revised Regulations)

Paper I – BASIC SCIENCES APPLIED TO PAEDIATRIC SURGERY

Q.P. Code: 181701

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

(2 x 20 = 40)

1. Describe the normal development of abdominal wall and discuss the etiopathogenesis, clinical features, associated malformations and management of exomphalos major and exomphalos minor.
2. Describe the normal embryology of diaphragm and discuss about congenital diaphragmatic hernia, under the following headings:
a) Etiopathogenesis b) Clinical features c) Investigations d) Treatment.

II. Write short notes on:

(10 x 6 = 60)

1. Spina bifida cystica.
2. Congenital lobar emphysema.
3. Mesoblastic nephroma.
4. Mixed gonadal dysgenesis.
5. Meckel's diverticulum.
6. Thermoregulation in new born children.
7. Principles of conservative management of liver trauma.
8. Neonatal host defense mechanism.
9. Central venous access.
10. Malignant hyperthermia

February 2011

[KY 048]

Sub. Code: 1701

MASTER OF CHIRURGIAE (M.Ch.) DEGREE EXAMINATIONS

(Super Specialities)

Branch V – Paediatric Surgery

(Revised Regulations)

Common to all Candidates

Paper I – BASIC SCIENCES APPLIED TO PAEDIATRIC SURGERY

Q.P. Code: 181701

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

(2 x 20 = 40)

1. Describe the development of Lung. Discuss the Etiopathogenesis, Diagnosis and Management of Malformations of Lung.
2. Describe the Histo-chemical basis of Laterality and Clinical implications of Heterotaxy. Discuss the management of Blunt Trauma in a child with Situs Inversus Abdominis.

II. Write short notes on:

(10 x 6 = 60)

1. Dyselectrolytemia of Pyloric Obstruction.
2. Wandering Spleen.
3. Neonatal Appendicitis.
4. Shah-Waardenburg Syndrome.
5. Neurenteric Cyst.
6. Spontaneous Regression.
7. Surgery in a Child with Trisomy-21.
8. Small Round Cell Tumours.
9. Potter's Sequence.
10. Yolk Sac Tumour.

August 2011

[KZ 048]

Sub. Code: 1701

MASTER OF CHIRURGIAE (M.Ch.) DEGREE EXAMINATION
(SUPER SPECIALITIES)

BRANCH V – PAEDIATRIC SURGERY

BASIC SCIENCES APPLIED TO PAEDIATRIC SURGERY

Q.P. Code: 181701

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. Describe pathological anatomy, Embryology symptoms and signs and management of gastric duplication. | 11 | 35 | 15 |
| 2. Describe Embryology, pathological anatomy symptoms and signs, and management of proximal jejunal atresia. | 11 | 35 | 15 |

II. Write notes on :

- | | | | |
|---|---|----|---|
| 1. Embryology of cloacal exstrophy. | 4 | 10 | 7 |
| 2. Atrial natriuretic peptide. | 4 | 10 | 7 |
| 3. Chylous Ascitis. | 4 | 10 | 7 |
| 4. Urethral duplication. | 4 | 10 | 7 |
| 5. Body water composition in prenatal, postnatal and infancy. | 4 | 10 | 7 |
| 6. Liquid ventilation. | 4 | 10 | 7 |
| 7. Neuroblastoma - factors affecting prognosis. | 4 | 10 | 7 |
| 8. Congenital Oesophageal stenosis. | 4 | 10 | 7 |
| 9. Embryology of Testicular descent. | 4 | 10 | 7 |
| 10. Achalasia (Oesophageal) | 4 | 10 | 7 |

[LB 048]

AUGUST 2012

Sub. Code: 1701

M.Ch – PAEDIATRIC SURGERY

Paper – I BASIC SCIENCES APPLIED TO PAEDIATRIC SURGERY

Q.P. Code: 181701

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 Meconium Ileus under the following headings i) Genetics ii) Pathogenesis iii) Clinical features iv) Diagnosis v) Non operative management.	16	35	15
2. Discuss Intestinal trans plantation under the following headings i) Indications for Transplantation ii) Operative procedure iii) Post operative management.	16	35	15

II. Write notes on :

1. What is the role of gene therapy in alpha -1-antitrypsin deficiency?	4	10	7
2. Write a short note on video endoscopic foetal surgery.	4	10	7
3. Write a short note on skin maturation and trans epithelial water loss in a pretum neonate?	4	10	7
4. What is the cytokines responses to injury in an infant.	4	10	7
5. Write a short note on capnometry.	4	10	7
6. Write a short note on high frequency ventilation.	4	10	7
7. Write a short note on the complications of extra corporeal membrane oxygenation?	4	10	7
8. Write a short note on cardiac catheterization usefulness?	4	10	7
9. Write a short note on nitric oxide?	4	10	7
10. How will you treat Systemic Inflammatory Response Syndrome?	4	10	7

(LD 048)

AUGUST 2013

Sub. Code:1701

M.Ch. – PAEDIATRIC SURGERY
Paper – I BASIC SCIENCES APPLIED TO PAEDIATRIC SURGERY
Q.P.Code: 181701

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. The pathophysiology, diagnosis, investigations and management of Necrotising Enterocolitis.
2. The pathophysiology, clinical manifestations, diagnosis and treatment of Gastroesophageal Reflux.

II. Write notes on:

(10X7=70)

1. Nitric oxide.
2. Pathological anatomy of Pelvi Ureteric Junction obstruction.
3. Paradoxical aciduria in Pyloric stenosis.
4. Alpha fetoprotein.
5. Lipomeningomyelocele.
6. Empyema.
7. Rhabdomyosarcoma.
8. Testicular torsion.
9. Congenital Adrenal Hyperplasia.
10. Hemangioma.
