MARCH 1990

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M.S. DEGREE EXAMINATION, MARCH 1990.

Branch I — General Surgery

Part I

APPLIED BASIC SCIENCES

(Common to Branch II — Orthopaedic Surgery)

Part I - Paper I

Time : Three hours.

Each Section should be answered in separate answer book.

SECTION A — ANATOMY

Answer any TWO questions.

1. Describe the surgical anatomy of the thyroid gland. Describe its development and blood supply.

2. Describe the surgical antamy of the spleen.

3. Write notes on :
   (a) Deep palmar spaces.
   (b) Femoral cannal.

SECTION B — PHYSIOLOGY

Answer any ONE question.

4. Outline the pancreatic function tests and their importance in surgery.

5. Write briefly on :
   (a) Maximal acid output.
   (b) Gall stone formation.

SECTION C — BIOCHEMISTRY

Answer any ONE question.

6. Discuss the surgical importance of gut hormones

7. Write briefly on :
   (a) Total parenteral nutrition.
   (b) Potassium depletion.

SECTION D — PATHOLOGY

Answer any ONE question.

8. Describe the surgical pathology and spread of renal carcinoma.

9. Write notes on :
   (a) Immunohistochemistry.
   (b) Frozen section biopsy.

SECTION E — MICROBIOLOGY

Answer any ONE question.

10. Discuss anaerobic infections in surgery.

11. Describe the laboratory diagnosis and surgical manifestations of actinomycosis.

SECTION F — PHARMACOLOGY

Answer any ONE question.

12. Discuss anti-tubercular drug therapy.

13. Write briefly on :
   (a) Ranitidine.
   (b) Neomercazole.

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M.S. DEGREE EXAMINATION, OCTOBER 1990.

Branch I — General Surgery

Part I

APPLIED BASIC SCIENCES

(Common to Branch II — Orthopaedic Surgery
Part I — Paper I)

Time : Three hours.

Each Section should be answered in separate answer books.

SECTION A — (ANATOMY)

Answer any TWO questions.

1. Describe the Surgical Anatomy of the Kidney and outline its development.

2. Describe the surgical anatomy of subphrenic spaces.

3. Write notes on :

(*a*) Genu Valgum.

(*b*) Patent Ductus Artereosum.

SECTION B — (PHYSIOLOGY)

Answer any ONE question.

4. Outline the Thyroid function tests.

5. Write briefly on :

(*a*) Lower Esophageal Sphincter.

(*b*) Oliguria.

SECTION C — (BIOCHEMISTRY)

Answer any ONE question.

6. Discuss the biochemical problems in Diabetic Keto-acidosis.

7. Write briefly on :

(*a*) H_2 antagonists.

(*b*) Catecholamines.

SECTION D — (PATHOLOGY)

Answer any ONE question.

8. Describe the pathology of malignant tumours of bone.

9. Write briefly on :

(*a*) Fine needle aspiration cytology.

(*b*) Dry gangrene.

SECTION E — (MICROBIOLOGY)

Answer any ONE question.

10. Discuss monitoring and diagnosis of post-operative infection.

11. Write briefly on :

(*a*) Acid fast bacilli.

(*b*) Gram negative septicaemia.

SECTION F — (PHARMACOLOGY)

Answer any ONE question.

12. Discuss antithyroid drugs.

13. Write briefly on :

(*a*) Lugol's Iodine.

(*b*) Cyclosporine.

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M.S. DEGREE EXAMINATION, MARCH 1991.

Branch I — General Surgery

Part I

APPLIED BASIC SCIENCES

(Common to Branch II — Orthopaedic Surgery — Part I — Paper I)

Time : Three hours.

Each Section to be answered in a separate book.

SECTION A — (ANATOMY)

Answer any **TWO** questions.

1. Discuss the surgical anatomy, including development of the thyroid gland and the parathyroids.

2. Discuss the surgical anatomy of the hip joint.

3. Write notes on :

(a) Midpalmar space.

(b) Dentate line.

SECTION B — (PHYSIOLOGY)

Answer any ONE question.

4. Discuss the functions of the liver.

5. Write briefly on :

(a) Kidney function tests.

(b) The role of parasympathetic nervous system.

SECTION C — (BIOCHEMISTRY)

Answer any ONE question.

6. Discuss the biochemical problems in maintaining a patient on parenteral nutrition.

7. Write briefly on :

(a) Milk-Alkali syndrome.

(b) 5-hydroxy tryptamine.

SECTION D — (PATHOLOGY)

Answer any ONE question.

8. Discuss multiple Endocrine Neoplasia.

9. Write briefly on :

(c) Cystic mammary dysplasia.

(b) Pathology of the solitary thyroid nodule.

SECTION E — (MICROBIOLOGY)

Answer any ONE question.

10. Discuss the life cycle of Taenia Echinococcus, and mention the lesions found in man.

11. Write briefly on :

(a) Clostridium tetani.

(b) Role of prophylatic antibiotics in surgery.

SECTION F — (PHARMACOLOGY)

Answer any ONE question.

12. Classify anti-malignant chemotherapeutic agents, with special mention of recent advances.

13. Write notes on :

(a) Acetyl salicylic acid.

(b) Ketamine.

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1 A

M.S. DEGREE EXAMINATION, MARCH 1991

Branch I — General Surgery

Part I

Paper I — APPLIED BASIC SCIENCES

(New Regulations)

(Common to Branch II — Orthopaedics)

Time : One and a half hours Maximum : 90 marks

SECTION B

Answer ALL questions.

Each Section to be answered in separate Answer-Books.

Section I—ANATOMY

Write short notes on :

1. Patey's facio-venous plane.
2. Boundaries of inguinal canal.
3. Lymphatic drainage of the stomach. (3 × 5 = 15 marks)

Section II—PHYSIOLOGY

1. Name the laboratory tests that can be done to assess thyroid function.
2. What is Rh factor and mention its importance.
3. Define airway resistance. Name three different factors that may affect airway resistance. (3 × 5 = 15 marks)

Section III — BIOCHEMISTRY

1. Discuss briefly the role of isotopes in diagnosis and therapy.
2. Explain the role of the kidney in the regulation of pH of blood.
3. Discuss briefly the synthesis of T_3 and T_4. (3 × 5 = 15 marks)

Section IV—PHARMACOLOGY

1. Classify drugs used in the treatment of peptic ulcer with their mechanism of action.
2. Enumerate antiamoebic drugs. Write the doses and side effects of drugs used in luminal amoebiasis.
3. Write briefly on Non-Steroidal Anti-inflammatory Drugs (NSAID). (3 × 5 = 15 marks)

Section V—PATHOLOGY

Write short notes on :

1. Carcinoid tumour
2. Collar-stud abscess
3. Phaeochromocytoma. (3 × 5 = 15 marks)

Section VI—MICROBIOLOGY

Discuss briefly on :

1. Hydatid cyst
2. AIDS
3. Nosocomial infections (3 × 5 = 15 marks)

M.S. DEGREE EXAMINATION, SEPTEMBER 1991

Branch I — M.S. General Surgery

Part I — New Regulations

APPLIED BASIC SCIENCES

Time : One and a half hours Maximum : 90 marks

SECTION B

ANATOMY

1. Short notes on carpal tunnel syndrome
2. Short notes on vitello-intestinal duct
3. Discuss briefly the anatomy of groin hernias.

PHYSIOLOGY

1. Short notes on blood brain barrier
2. Short notes on tumours of thymus gland
3. Discuss briefly functions of spleen.

BIOCHEMISTRY

1. Short notes on glucagon
2. Short notes on colloid osmotic pressure
3. Discuss briefly iodine metabolism.

PHARMACOLOGY

1. Short notes on succinyl choline
2. Short notes on immuno-suppression
3. Discuss briefly the role of oestrogen in malignancy.

PATHOLOGY

1. Short notes on amoebomas
2. Discuss briefly fibro-adenosis of breast
3. Discuss briefly healing of fractures.

MICROBIOLOGY

1. Short notes on tumour immunity
2. Short notes on disturbed intestinal flora
3. Short notes on mycetoma foot.

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[311] **MARCH 1992**

M.S. DEGREE EXAMINATION, MARCH 1992

Branch I — Part I

APPLIED BASIC SCIENCES

(Common to Branch II — Orthopaedics)

Time : Three hours.

Use separate answer books for each Section.

SECTION A

(ANATOMY)

Answer any TWO questions.

1. Diagrammatic representation of structures entering the hilum of Right lung.

2. Describe the anatomy of Urethra and Prostate.

3. Short notes on :

(a) Perforators of the leg

(b) Development of thyroid and its anomalies.

SECTION B — (PHYSIOLOGY)

Answer any ONE question.

4. Describe the structure and functions of Juxta Glomerular apparatus ?

5. What is exophthalmos ? and how is it produced ?

MARCH 1992

BIOCHEMISTRY

Answer any ONE question.

6. What are the laboratory findings in a case of obstructure Jaundice.

7. Short notes on :

(a) Serum Alkaline Phosphatase

(b) Gastric tetany.

SECTION D — (PATHOLOGY)

Answer any ONE question.

8. What are complications of Typhoid fever ?

9. Mycetoma.

SECTION E — (MICROBIOLOGY)

Answer any ONE question.

10. Short notes on :

(a) Malignant pustule.

(b) Negri bodies.

11. Describe briefly :

(a) B.C.G. Vaccine.

(b) Functions of Immunoglobulins.

SECTION F — (PHARMACOLOGY)

Answer any ONE question.

12. What are drugs used in treatment of non-specific diarrhoea.

13. Uses and misuses of drugs used in the treatment of non-specific diarrhoea.

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March-1992

[311A]

M.S. DEGREE EXAMINATION, MARCH 1992.

GENERAL SURGERY

Part I

APPLIED BASIC SCIENCES

Time : Two hours. Maximum : 90 marks.

SECTION B

Write short notes on :

ANATOMY

1. (*a*) Scalenus anterior muscle.

(*b*) Hypospadias.

(*c*) Femoral canal. (3 × 5 = 15 marks)

PHYSIOLOGY

2. (*a*) Proton pump in gastric secretion.

(*b*) Secondary hyperparathyroidism.

(*c*) Coagulation defects in haemophilia. (3 × 5 = 15 marks)

BIOCHEMISTRY

3. (*a*) Calcitonin.

(*b*) Biochemical changes in obstructive jaundice.

(*c*) Biochemical changes in low small bowel obstruction. (3 × 5 = 15 marks)

PHARMACOLOGY

4. (*a*) Pharmacokinetics.

(*b*) Carbimazole.

(*c*) Adjuvant chemotherapy in cancer breast. (3 × 5 = 15 marks)

PATHOLOGY

5. (*a*) Fnac in thyroid malignancy.

(*b*) Pathology of Ewing's sarcoma.

(*c*) Local factors influencing wound healing. (3 × 5 = 15 marks)

MICROBIOLOGY

6. (*a*) Madura mycosis.

(*b*) Post operative tetanus.

(*c*) Post splenectomy sepsis. (3 × 5 = 15 marks)

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October-1992

[311A]

M.S. DEGREE EXAMINATION, OCTOBER 1992.

BASIC SCIENCES

Time : Three hours. Maximum : 90 marks.

Write short notes on : (5 × 18 = 90)

1. ANATOMY :
   (a) Anatomy of the inguinal canal.
   (b) Lymphatic drainage of the colon.
   (c) Anatomy of fascial spaces of hand.

2. PHYSIOLOGY :
   (a) Short bowel syndrome.
   (b) Physiological aspects of cardiac cycle.
   (c) Barrington reflexes.

3. PHARMACOLOGY :
   (a) TUFTSIN.
   (b) CISPLATIN.
   (c) FLAXADIL.

4. BIOCHEMISTRY :
   (a) Prostaglandins.
   (b) 5 hydroxytryptamine.
   (c) Biochemical changes in diabetic foot syndrome.

5. PATHOLOGY :
   (a) Hypernephroma.
   (b) Hydatid disease.
   (c) Myoscitis ossificans progressiva

6. MICROBIOLOGY :
   (a) Campylobacter duodenii.
   (b) Clostridium tetani.
   (c) AIDS.

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M.S. DEGREE EXAMINATION, MARCH 1993.

BASIC SCIENCES

Time : Three hours. Maximum : 90 marks.

SECTION B

Write short notes on : (5 × 18 = 90 marks)

ANATOMY

1 (a) Anatomy of femoral canal.

(b) Lymphatic drainage of the stomach.

(c) Left suprarenal gland.

PHYSIOLOGY

2. (a) Obesity.

(b) Renal function tests.

(c) Gastrin.

BIOCHEMISTRY

3. (a) Toxic goitre.

(b) Kreb's cycle.

(c) Biochemical changes in gangrene.

PHARMACOLOGY

4. (a) Cyclo phosphamide.

(b) Thiopentone sodium.

(c) Pentoxifylline.

PATHOLOGY

5. (a) Tumour markers.

(b) Filariasis.

(c) Salivary neoplasms.

MICROBIOLOGY

6. (a) Syphilis.

(b) Madurafoot.

(c) Uropathogens.

November-1995

[MB 223]

M.S. DEGREE EXAMINATION

Branch General Surgery

(Old/New/Revised Regulations)

Part

Paper I — APPLIED BASIC SCIENCES

(Common to Branch I — General Surgery and Branch II — Orthopaedic Surgery)

Time : Three hours Maximum 180 marks

Answer ALL questions

Answer each subject in a separate answer book

Write short notes on :

ANATOMY

Metaphysis

2 Palmar Spaces

3. Notochord

4 Synovial joint

5 Periosteum (5 × 6 = 30)

[MB 223]

PHYSIOLOGY

6 Brown-Sequard Syndrome.

7. Broadman's Areas 5 & 7.

8 Oxygen toxicity.

9 Functions of Parathhormone.

10. Artificial respiration. 5 × 6 = 30)

BIOCHEMISTRY

11 Renal rickets.

12. Functions of Vitamin C.

13. Isoenzymes of alkaline phosp

14 Trace minerals

15 Mineralo corticoids (5 × 6 = 30)

PHARMACOLOGY

16 Bruprenorphine.

17 Ranitidine.

18 Antiseptics

19. Omeprazole.

20. 5-Amino Salicylic acid (5 × 6 = 30)

November-1995

[MB 223]

PATHOLOGY

21 Pathogenesis of deep vein thrombosis.

22 Types of gangrene with suitable examples.

23. Pathogenesis of different types of shock.

24. Cardinal features of acute inflammation

25 Iron deficiency Anemia (5 × 6 = 30)

MICROBIOLOGY

26. Blood transfusion associated infections.

27 Prophylaxis of tetanus.

28. Immunoglobulin.

29 Infection of Prosthetic joints

30. Blood culture. (5 × 6 = 30)

April-1997

-[MP 188]

M.S. DEGREE EXAMINATION.

Branch I General Surgery

(Old/New/Revised Regulations)

Part I

Paper I APPLIED BASIC SCIENCES

Time : Three hours Maximum : 180 marks

Answer each subject in a separate answer book

Answer ALL questions

Write briefly on each topic

All questions carry equal marks

ANATOMY

1. Anatomical basis for 'Foot drop' and 'Wrist drop'
2. Pectinate line of anal canal.
3. Congenital anomalies of the diaphragm.
4. Fascial and neurovascular relations of the thyroid gland

PHYSIOLOGY

5. Mechanism of Na^+ absorption in renal tubules.
6. Mechanism of coagulation.
7. Movements of small intestine.
8. Synthesis of thyroid hormones.

BIOCHEMISTRY

9. Disorders of calcium metabolism.
10. Inulin clearance test.
11. Cystinuria.
12. Serotonin.

PHARMACOLOGY

13. Cefotaxim.
14. Preanaesthetic medication.
15. Ketorolac.
16. Methotrexate.

PATHOLOGY

17. Chemical carcinogens.
18. Medullary carcinoma of thyroid.
19. Kaposi sarcoma.
20. Complications of Cirrhosis liver.

MICROBIOLOGY

21. Tetanus.
22. Nosocomial infections.
23. Normal bacterial flora of mouth and gut.
24. AIDS virus.

[SV 198]

M.S. DEGREE EXAMINATION.

Branch I — General Surgery — Part I

(Old/New/Revised Regulations)

Paper I — APPLIED BASIC SCIENCES

Time : Three hours Maximum : 180 marks

Answer each subject in a separate answer book.

Answer any FOUR short notes in each subject.

All questions carry equal marks.

ANATOMY

1 Meckel's diverticulum.

2 Structures passing through the diaphragm

3 Supports of the arches of the human foot.

4 Congenital anomalies of kidney.

5 Cervical rib.

PHYSIOLOGY

6. Hazards of mismatched blood transfusion.

7. Defaecation reflex.

8. Water reabsorption in the nephron.

9. Hormones involved in growth.

10 Peripheral vascular resistance.

BIOCHEMISTRY

11 Gamma carboxy glutamic acid.

12 Respiratory acidoeis.

13 Nitric oxide.

14 Amylase enzymes.

15 Cyclic 3' 5' AMP.

PHARMACOLOGY

16 Use of antibiotics in surgical prophylaxis

17 Monovalent insulin

18 Atracurium.

19 Clonidine.

20. Clindamycin.

PATHOLOGY

21 Complications of peptic ulcer.

22 Classification of Hodgkin's disease.

23 Routes of metastases.

24 Chronic cholecystitis.

25 Factors influencing wound healing.

MICROBIOLOGY

26 Cryptococcosis

27 Filariasis.

28 Extra pulmonary tuberculosis.

29. Hepatitis B virus.

30. Gas gangrene.

[SM 198]

M.S. DEGREE EXAMINATION.

Branch I — General Surgery — Part I

(Old/New/Revised Regulations)

Paper I — APPLIED BASIC SCIENCES

Time : Three hours Maximum : 180 marks

Answer each subject in a separate answer book.

Answer any FOUR short notes in each subject.

All questions carry equal marks.

1. Anatomy :
   (a) Ischiorectal fossa
   (b) Midpalmar and thenar space
   (c) Erb's point
   (d) Lymphatic drainage of breast
   (e) Descent of the testis.

2. Physiology :
   (a) Bile pigments
   (b) Hypoxic Hypoxia
   (c) Physiological basis of lymphoedema
   (d) Role of kidneys in regulating blood volume after blood loss
   (e) Transport across cell membrane.

3. Biochemistry :
   (a) Metabolic acidosis
   (b) Hyper uricemia
   (c) Dietary fibre
   (d) Polyunsaturated fatty acids
   (e) Carcinoid tumour.

4. Pharmacology :
   (a) Ketamine
   (b) Diazepam
   (c) Thiopentol sodium
   (d) Rationale use of antibiotics
   (e) β–lactamase–inhibitors.

5. Pathology :
   (a) Chemical mediators of inflammation
   (b) Pathogenesis of acute pancreatitis
   (c) Mycetoma foot
   (d) Pre neoplastic lesions of the colon
   (e) Role of H pyloric in ulcer and carcinoma of stomach.

6. Microbiology
   (a) Cysticercosis
   (b) Anaphylaxis
   (c) Anaerobic myonecrosis
   (d) Universal precautions against HIV and HBV
   (e) Actinomycosis.

October-1999

[KA 198] Code : 9000

M.S. DEGREE EXAMINATION

Branch - General Surgery Part I

(Old/New/Revised Regulations)

Paper I - APPLIED BASIC SCIENCES

Three hours Maximum : 180 marks

Answer each subject in a separate answer book

Answer any FOUR short notes in each subject

All questions carry equal marks.

Anatomy :

(a) Lymphatic drainage of stomach

(b) Male urethra

(c) Stomach bed

(d) Superficial perineal space

(e) Meckel's diverticulum.

2. Physiology :

(a) Role of sacral parasympathetic nerves

(b) Physiological basis of non surgical treaty for peptic ulceration

(c) Role of fibrinolytic system

(d) Mechanism of deglutition

(e) Periodic breathing.

3 Biochemistry

(a) Lipase — Clinical significance

(b) Parathyroid Hormone

(c) Etiology and lab findings of obstructive jaundice

(d) Bence Jones Protein

(e) Hypoglycaemia

4 Pharmacology

(a) General features of Aminoglycoside antibodies

(b) Alkyating agents

(c) Buprenorphine

(d) Adverse effects of Gluco–corticoids

(e) Halothane – Status in General Anaesthesia

5 Pathology

(a) Malignant Tumours of the Kidney

(b) Pathology of Crohn's Disease

(c) Aetiopathogenesis of Colorectal Carcinoma

(d) Chemical Carcinogens

(e) Alcoholic Hepatitis

6 Microbiology

(a) Major Histocompatibility complex

(b) Safety measures in operation theater prevent hospital cross infection

(c) Nephelometry

(d) Erysipelas

(e) Present status of AIDS vaccine.

April-2000

[KB 98 Sub. Cod 9000

M.S. DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Branch I — General Surgery Part

Paper APPLIED BASIC SCIENCES

Time Three hours Maxim 80 marks

Answer each subject in separate answ book

Answer any FOUR short notes each subject

All questions carry equal marks

(ANATOMY)

Hepato renal pouch

Surgical Anatomy of Vagus Nerve

Perfora of thigh

Surgical paces the Neck

Surgical importance ymphati Drainage

(PHYSIOLOGY)

2 (a) Intrinsic mechanism of coagulation

(b) Parathormone

(c) Tests for diagnosis of Jaundice

(d) Effect of hemisection of spinal cord

(e) Touch pathway.

(BIOCHEMISTRY)

3 (a) Gaucher's disease

(b) Obstructive jaundice

(c) Proteoglycans

(d) Free radicals

(e) Hyperkalemia

(PHARMACOLOGY)

4 (a) Succinylcholine

(b) Desflurane

(c) Glibenclamide

(d) Vinblastine

(e) Bleomycin

(PATHOLOGY)

5. (a) Shock Lung

(b) Pyogenic osteomyelitis

(c) Fine needle aspiration cytology

(d) Oncogenic viruses

(e) Disseminated intravascular coagulation

(MICROBIOLOGY)

6 (a) Extra Intestinal Amoebiasis

(b) Antibiogram (or) Antibutic sensitivity test

(c) Pathogenesis of Tetanus

(d) Normal flora of Geniotourinary tract

(e) Leptospirosis.

October-2000

[KC 198] **Sub. Code : 9000**

M.S. DEGREE EXAMINATION.

Branch I — General Surgery — Part I

(Old/New/Revised Regulations)

Paper I — APPLIED BASIC SCIENCES

Time : Three hours Maximum : 180 marks

Answer each subject in a separate answer book.

Answer any FOUR short notes in each subject.

All questions carry equal marks.

1. Anatomy

(a) Spaces around Ano Rectal Junction

(b) Fascia of colles

(c) Openings in the Abdominal Diaphragm their surgical importance

(d) Foot drop

(e) Torticollis

2. Physiology

(a) Anticoagulants and their actions

(b) Juxtaglomerular apparatus

(c) Micturition reflex

(d) Pancreatic function tests

(e) Regulation of respiration

3. Biochemistry

(a) Multiple myeloma

(b) Glucose Tolerence test

(c) 1,2, 5 dihydroxy cholecalciferol

(d) Ketone bodies

(e) Essential aminoacids

4. Pharmacology

(a) Surgical prophylaxis

(b) Heparin

(c) Pre-anaesthetic medication

(d) Anti-pseudomonal penicillins

(e) Protease inhibitors

5. Pathology

(a) Phagocytosis

(b) Healing by first intention

(c) Types of infarct

(d) Gas gangrene

(e) Characteristics of benign and Malignant tumours

6. Microbiology

(a) Sterilisation by Radiation

(b) Passive immunity

(c) Delayed hypersensitivity reactions

(d) Guinea worm

(e) IgG.
