

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

PATHOLOGY

PAPER – IV

(Systemic Pathology – Central and peripheral nervous system, endocrine system, Musculo-skeletal system, reticulo-endothelial system (lymph nodes, spleen and Thymus), Dermatopathology and ophthalmic pathology, bone, joints and soft tissues. Recent advances and applied pathology)

Q.P. Code: 1216

Answers should be specific to the Questions asked.
Draw neat labeled diagrams and flow charts wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Explain vesiculobullous lesions of skin in detail.
2. Describe various giant cell lesions of skeletal system. Enumerate different methods in differentiating these lesions.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Melanocytic lesions of skin.
4. Immuno pathogenesis of rheumatoid arthritis.
5. Discuss role of synovial fluid analysis.
6. Describe desmoplastic small round cell tumors. (DSRC).
7. Discuss the skin changes in different types of Hansen's Disease.
8. Classify Gliomas. Write a role of molecular markers in diagnosis of it.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

MICROBIOLOGY

PAPER – IV

(Parasitology)

Q.P. Code: 1220

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number	Marks
LONG ESSAY QUESTIONS:	2 X 20 = 40
1. Classify Nematodes. Describe morphology, life cycle and pathogenesis of <i>Wuchereria bancrofti</i> . Write laboratory diagnosis of Filariasis.	(2+10+8)
2. Classify Cestodes. Discuss the morphology life cycle and clinical presentation of <i>Echinococcus granulosus</i> . Write laboratory diagnosis of Hydatid disease.	(2+10+8)
SHORT ESSAY QUESTIONS:	6 X 10 = 60
3. Describe Protozoal keratitis.	
4. Discuss complications of <i>Falciparum malaria</i> .	
5. What is Larva migrans? Describe its pathogenesis and laboratory diagnosis.	
6. List the parasites causing malignancy. Describe the life cycle & pathogenesis of <i>Clonorchis sinensis</i> .	
7. Enumerate parasites causing opportunistic infections in AIDS. Describe in detail about <i>Cryptosporidium parvum</i> .	
8. Enumerate the parasites causing Anaemia. Describe the life cycle and laboratory diagnosis of <i>Ancylostoma duodenale</i> .	

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

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Max. Marks: 100

PHARMACOLOGY

PAPER – IV

(Recent advances, therapeutics and experimental pharmacology)

Q.P. Code: 1224

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Enumerate the salient features of biological response modification in therapeutics with suitable examples.
2. Discuss the recent advances in treatment and management of osteoporosis. (12+8)
Add a note on drugs that cause osteoporosis with suitable examples.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Enumerate the recent advances in treatment and management of hypertension.
4. Discuss the role of HMGCo-A reductase inhibitors in treatment and management of atherosclerosis in various conditions.
5. Enumerate the various methods of treatment and management of Nosocomial infection.
6. Explain the recent advances in treatment and management by using anti-psychotic medication.
7. Discuss the various newer drug delivery system with suitable examples.
8. Enumerate the salient features of pharmacology of vasopressin analogues.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

FORENSIC MEDICINE

PAPER – IV

Q.P. Code: 1228

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. A 27 year old woman is stopped by airport security after a flight attendant reported suspicious behavior on the plane. She presents to you for medical clearance. The flight attendant became concerned when she noted that the patient appeared anxious and diaphoretic and did not eat for the entire duration of twelve hours flight from Colombia. The patient is reporting vomiting, constipation and abdominal pain and transported to the hospital.
a) The patient's behavior on the plane and presentation are concerning for what?
b) What diagnostic testing, if any, would be useful in this situation?
c) What management strategy would you employ once the diagnosis is confirmed?
2. Discuss analytical challenges in forensic screening of drugs of abuse. Write salient features of NDPS act.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Describe internet sex addiction.
4. Define lucid-interval. Write the salient differentiating features between Psychosis and Neurosis.
5. How will you test Nystagmus in intoxicated individuals?
6. What are the advantages and disadvantages of Digital Autopsy?
7. What are the pitfalls and cautions in analysis of drugs and poisons?
8. Discuss your autopsy approach to a victim of alleged fatal poisoning, with particular reference to the collection of specimens.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

COMMUNITY MEDICINE

PAPER – IV

(Health and hospital administration, health care delivery including national programmes, public health legislation, genetics and counseling, mental health, international health, Voluntary health organizations, NGOs.)

Q.P. Code: 1232

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss Indian Public Health Standards (IPHS) for primary health center.
2. Discuss role of Non-government Organizations (NGOs) in health care delivery system in India with a suitable example. Add a note on “Public Private Partnership.”

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Explain health system research with a suitable example.
4. Discuss WHO theme for the year 2023.
5. Discuss smart cities mission 2015.
6. Describe HMIS. (Health Management Information System) and its applications.
7. Explain Genetic counseling with suitable examples.
8. Describe ILO (International Labour Organization). – Structure and functions.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

ANAESTHESIOLOGY
PAPER – IV
(Applied medicine in relation to Anaesthesia)

Q.P. Code: 1236

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss the management options for chronic pain relief. Discuss the management of Trigeminal neuralgia. (10+10)
2. Complete the criteria for brain death. Discuss its clinical significance in organ transplant. (10+10)

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Noninvasive cardiac output monitoring.
4. Classify types of patient controlled analgesia. Critique its merits and demerits.
5. Informed consent.
6. Outline the WHO regime for chronic pain management. Write in brief about the drugs used for chronic pain.
7. Analyze the systemic response of sepsis and write in brief its management.
8. Ventilator associated pneumonia.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

DERMATOLOGY, VENEREOLOGY AND LEPROSY

PAPER – IV

*(Dermatology in relation to other systemic diseases, dermato-therapeutics,
dermato-surgery and recent advances in Dermatology, Venereology & Leprosy)*

Q.P. Code: 1240

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss clinical features, diagnosis and management of Dermatomyositis. (6+6+8)
2. Write an account of cutaneous manifestation of diabetes mellitus and their management. (10+10)

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Surgical treatment of Vitiligo.
4. Write an account of Botulinum Toxin injection and fillers.
5. Uses of cryotherapy in dermatology.
6. Cutaneous manifestation of hypothyroidism.
7. Write an account of TACRILIMUS and its uses in dermatology.
8. Write briefly about biological treatment of psoriasis.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

GENERAL MEDICINE

PAPER – IV

*(Nephrology, endocrinology and metabolism, haematology, oncology,
dermatology and psychiatry, poisoning, environmental and occupational hazards)*

Q.P. Code: 1244

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Describe etiopathogenesis, discuss clinical features, investigations, (4+5+4+4+3)
treatment and complications of Hypothyroidism.
2. Discuss the principles and procedure of haemodialysis. List the (5+5+5+5)
indications and write the complications during haemodialysis,

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Describe clinical features, investigations and treatment of Diabetic
nephropathy.
4. Discuss etiopathogenesis, clinical features and management of
thrombocytopenia.
5. Describe investigations and discuss management of multiple myeloma.
6. Describe etiology; discuss clinical features and management of metabolic
syndrome.
7. Describe clinical features and management of Pediculosis.
8. Define Alcohol Dependence and discuss about Alcohol De-addiction.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

PAEDIATRICS

PAPER – IV

*(Ambulatory OPD Pediatrics, community and social pediatrics,
emergency and critical care pediatrics)*

Answers should be specific to the

Q.P. Code: 1248

Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Enumerate “Millennium Development Goals.” Describe briefly the national Health programmes to achieve “Millennium Development Goals” in India. (5+15)
2. Discuss the pathogenesis and management of COVID infection in children. (10+10)

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Advantages and clinical implications of Randomized control trials.
4. Discuss etiology and management of septic shock.
5. Indications and evaluation of stem cell transplant.
6. Discuss Baby friendly hospital initiative .
7. Discuss the components and advantages of IMNCI.
8. Management of raised intracranial pressure.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

PSYCHIATRY

PAPER – IV

*(Recent Advances in Psychiatry and applied Psychiatry related to
Neurology and Medicine)*

Q.P. Code: 1252

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss clinical features, differential diagnosis, assessment and management of frontotemporal dementia. (4+4+4+8)
2. What are neurocutaneous disorders? Discuss in detail about the neuropsychiatric aspects of Tuberous sclerosis. (8+12)

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Discuss about Cariprazine.
4. Discuss neuropsychiatric aspects of head injury and its management.
5. Discuss psychiatric disorders commonly seen in LGBTQIA. Add a note on legal status of LGBTQIA in India.
6. Discuss neuropsychiatric aspects of Complex partial seizure.
7. Transcranial magnetic stimulation (TMS).
8. Discuss about newer drugs in treatment of negative symptoms in Schizophrenia.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

RADIO-DIAGNOSIS

PAPER – IV

(CNS including head and neck, Interventional radiology and Recent advances)

Q.P. Code: 1256

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Role of Intervention Radiology in Hypernephroma.
2. Discuss radio isotope scan in Liver Diseases.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Describe Gadolinium contrast.
4. B Scan in orbital pathologies.
5. Explain Tissue Harmonic imaging.
6. Explain principles of PET-CT.
7. Various side effects of ionic and non-ionic contrast media.
8. Newer contrast media available for ultrasound study.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

RESPIRATORY MEDICINE

PAPER – IV

*(Recent Advance in Respiratory Medicine including
Critical Care aspects)*

Q.P. Code: 1260

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss smoking related pulmonary diseases and smoking cessation.
2. Discuss various modes and complications of mechanical ventilation.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Airway stents.
4. EBUS (Endobronchial Ultrasound)
5. New GINA guidelines.
6. Vaccination in COVID-19.
7. Pathophysiology of COVID-19 pneumonia.
8. Role of USG in chest medicine.

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

**GENERAL SURGERY
PAPER – IV**

Q.P. Code: 1264

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. a) Physiology of micturition.
 b) Lower urinary tract symptoms (LUTS).
 c) Principle of medical treatment of BPH.
2. In a patient with head injury, what are the
 - a) Indications for admission.
 - b) Indications and types of imaging studies of head.
 - c) Principles of initial management of head injury.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Classification and management of hydrocele.
4. Use of contrast media in imaging studies of urinary system.
5. a) Immunosuppressive agents used after renal transplant.
 b) Types of rejection after renal transplant and their management.
6. Give a brief account of types of fractures and principles of treatment of the same.
7. Spaces of hand: Anatomy and significance.
8. Describe the clinical features and treatment of cervical rib.

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

OBSTETRICS AND GYNAECOLOGY

PAPER – IV

(Recent advances)

Q.P. Code: 1268

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All the questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss role of newer insulin's and current trends in management of gestational diabetes mellitus. (10+10)
2. What is chronic pelvic pain? How will you evaluate a case of chronic pelvic pain. (5+15)

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Laparoscopy in infertility.
4. Discuss the POP-Q classification of prolapse uterus.
5. Role of magnesium sulphate in obstetric practice.
6. Discuss the role of Doppler in fetal growth restrictions.
7. Laparoscopic Sterilization.
8. PPTCT.

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

OPHTHALMOLOGY

PAPER – IV

*(Surgical ophthalmology, community ophthalmology,
Ophthalmic research and recent advances)*

Q.P. Code: 1272

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss the recent advances in the management of age related macular degeneration.
2. Discuss the diagnosis and management of postoperative endophthalmitis.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. IOL in children.
4. Neuroprojection in Glaucoma.
5. Lasers in Glaucoma.
6. Retinoblastoma.
7. Vitreous floaters.
8. Cherry-red spot.

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

ORTHOPAEDICS
PAPER – IV
(Recent advances in orthopaedics)

Q.P. Code: 1276

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss in brief various bearing surface in Hip arthroplasty.
2. Discuss in brief damage control orthopaedics.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Discuss the indications and complications of reverse shoulder arthroplasty.
4. Describe the newer classification and clinical features of Heterotopic ossification in a patient with head injury.
5. Describe the muscles used as Neurograft.
6. Discuss in brief the use of navigation in orthopedic surgeries.
7. Discuss in brief the use of Lamellar airflow in orthopedic theatres.
8. Describe in brief about vertebroplasty.

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JULY 2023

Time: 3 Hours

Max. Marks: 100

OTORHINOLARYNGOLOGY

PAPER – IV

(Pharyngology and Broncho-oesophagology including recent advances)

Q.P. Code: 1280

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Describe the indications, surgical procedure, complications and contra- (5+5+5+5)
indications of wide field total laryngectomy.
2. Illustrate the surgical anatomy of parapharyngeal space. Discuss the (10+10)
management of benign neoplasms of parapharyngeal space.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Explain the clinical anatomy of Sulcus Vocalis and add a note on clinical
importance.
4. Describe secondary TEP. Write its importance.
5. Discuss the clinical features and management of oral Leukoplakia.
6. Summarize the clinical features, management and complications of
Recurrent Respiratory Papillomatosis.
7. Explain endoscopic thyroidectomy as indications. advantages and
disadvantages.
8. Describe Sonotubometry in ENT practice.
