

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

PATHOLOGY
PAPER – II
(Systemic pathology)

Q.P. Code: 1214

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

Question Number	Marks
ESSAY QUESTIONS:	10 X 10 = 100
1. A 6-year-old male presents with recently developed subcutaneous nodules over the arms, whole body has jerky movement and painful knee joints. On questioning, the parents reveal a history of acute pharyngitis three weeks back. a) What is the diagnosis? b) What is the criteria for diagnosis of this condition. c) Describe the gross and microscopic lesions of the same. d) Enumerate the complications of the same.	(1+2+4+3)
2. A 51-year old woman presented with cough, flushing, diarrhoea, hypotension and hematemesis for the past 6 months. Bronchial lesion was noted and investigated. a) What is the diagnosis? b) Discuss the microscopy with IHC markers used. c) Discuss the recent changes in the classification of the lesion.	(2+4+4)
3. Describe the Immunological mechanisms in glomerular injury.	
4. Enumerate and discuss the Giant cell lesions of bone.	(4+6)
5. Discuss non-Seminomatous germ cell tumors of testis.	
6. A 45-year-old female presented with post coital bleeding and foul smelling vaginal discharge since 2 months. a) What is the diagnosis? b) Describe the etiopathogenesis and morphological features of the above condition. c) Discuss early diagnosis and prevention of above condition.	(1+6+3)
7. Classify thyroid tumours and discuss the pathology of papillary carcinoma of thyroid with a note on its variants.	(4+6)
8. Discuss Automation in cytology.	
9. A 51-year-old female presented with generalized weakness, polyuria, polyphagia, polydipsia since 10 years. There is facial puffiness since 2 months. a) What is the diagnosis? b) Discuss the pathogenesis and pathology of the above condition.	(1+5+4)
10. Discuss the approach to diagnosis of jaundice in pediatric age group.	

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

MICROBIOLOGY (PAPER – II)
(Systematic Bacteriology)

Q.P. Code: 1218

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

Question Number	Marks
ESSAY QUESTIONS:	
10 X 10 = 100	
1. What is significant bacteriuria? Explain the various methods for urine sample collection. Enumerate the various rapid diagnostic tests available for diagnosis of UTI.	(2+4+4)
2. A five-year-old child was brought to the emergency department with a history of seizures following high-grade fever with 1-2 episodes of projectile vomiting. On examination, he had altered sensorium, and neck rigidity with a positive Kernig's sign. Gram stain of CSF sample showed the presence of gram-positive diplococci. a) Classify the various organisms causing meningitis. b) Describe in detail the pathogenesis, laboratory diagnosis and vaccines available for the same.	(2+2+3+3)
3. A 20-year-old woman presented with a soft, painless swelling on her left jaw, with a discharging sinus following trauma to the jaw. Gram stain of the granule showed the presence of filamentous, branching, gram-positive bacilli. a) What is the probable diagnosis? b) Explain in detail its laboratory diagnosis.	(1+9)
4. A 15-year-old boy began vomiting 6-7 hours after consuming a pineapple pastry at a birthday party. He had loose stools but no fever. Other children who attended the party also had similar symptoms. a) Classify the organisms causing food poisoning. b) Enumerate the steps in investigating a case of food poisoning.	(4+6)
5. Enumerate the organism causing Acute Bacterial Conjunctivitis. Discuss clinical manifestations, lab diagnosis and treatment of Acute Bacterial Conjunctivitis.	(2+2+4+2)
6. An adult male was admitted to the ICU following a road traffic accident. He was put on a ventilator due to severe respiratory distress. On the third day, his condition worsened with symptoms of high fever, and features of pneumonia seen on chest X-ray. His blood culture yielded lactose-fermenting mucoid colonies. a) Enumerate the probable causative agents in this situation. b) Explain in detail the steps in laboratory diagnosis of such infections.	(3+7)
7. A 33-year-old man who worked at a cattle farm presents with complaints of intermittent fever, anorexia, profuse sweating, malaise, headache, muscle pains, and arthralgia for three weeks. He was treated by a local practitioner with antipyretics. Blood culture revealed gram negative coccobacilli a) What is the probable diagnosis? b) Enumerate in detail the steps in diagnosing this condition?	(2+8)
8. Classify Leprosy. Discuss the laboratory diagnosis of Lepromatous leprosy and mention the interpretation of slit skin smear examination.	(2+4+4)
9. Discuss in detail the pathogenesis and laboratory diagnosis of Syphilis.	(4+6)
10. A 50-year-old man met with a road traffic accident in which he sustained multiple fractures with open wounds and a crush injury of the leg. There was edema and pain at the site of injury with increased discoloration and a serous discharge with crepitus on palpation. a) Enumerate the organisms causing this condition. b) Explain its pathogenicity and laboratory diagnosis.	(2+4+4)

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

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PHARMACOLOGY

PAPER – II

*(Systemic Pharmacology – I: Autonomic and central nervous system,
cardio vascular systems, respiratory and gastrointestinal systems
including diuretics and blood)*

Q.P. Code: 1222

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number	Marks
LONG ESSAY QUESTIONS:	10 X 10 = 100
1. Discuss the pharmacology and clinical utility of newer neuromuscular blockers	(7+3)
2. A 70-year-old man with a history of diabetes presents with severe eye pain, headache, nausea, and blurred vision. His intraocular pressure is significantly elevated. Discuss the pharmacological management of acute congestive (angle-closure) glaucoma.	
3. Discuss the structure activity relation of catecholamine's.	
4. A 50-year-old man with chronic pain due to liver cancer is receiving morphine injection. Because of severe pain, he takes 2 ampules of morphine by himself. After few minutes he becomes drowsy, with pinpoint pupils, and shows signs of respiratory depression. Outline the management of this emergency condition. Discuss the drugs administered.	(5+5)
5. Discuss the extrapyramidal syndromes induced by Conventional Antipsychotics. Add a note on their management.	(7+3)
6. A 58 -year-old man with a history of diabetes and smoking, arrives at the emergency department with severe, crushing chest pain radiating to his left arm and jaw, along with shortness of breath and sweating. ECG shows inverted T-wave in antero-lateral leads. Cardiac markers are raised. Discuss the pharmacological management of acute myocardial infarction with long-term management strategies to prevent recurrence.	(6+4)
7. Discuss the clinical status of Endothelin receptor antagonists	
8. Discuss the pharmacology of Fibrates. Add a note on guidelines for the use of hypolipidemics	(5+5)
9. A 55-year-old woman experiences chronic joint pain, stiffness, swelling, and inflammation characteristic of rheumatoid arthritis. Discuss the pharmacotherapy of Rheumatoid arthritis.	
10. Discuss the pharmacology of Adjunctive diuretics	

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

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FORENSIC MEDICINE
(Basics of Forensic Medicine)

PAPER – II

Q.P. Code: 1226

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. A dead body of a young women aged 21 years is recovered from a burning hut. Discuss how will you establish whether the death has occurred due to burns.
2. Discuss "Euthanasia" – need of the hour.
3. Discuss & evaluate The Workmen's Compensation Act. (5+5)
4. What is a Legitimate Child? Why is Legitimacy necessary? Describe its medico legal importance. (2+2+6)
5. What are the Cleavage Lines of Langer? Discuss its medico legal importance. (5+5)
6. Describe the method of taking consent and medico legal examination, evidence collection, and opinion formation in a case of drunken driving when a 34 years old male is arrested and brought to for examination and the accused is not volunteering for consent? (5+3+2)
7. Discuss the Consummation of Marriage.
8. A 60-year-old male person is locked up in a closed room for over **THREE** weeks and ultimately dies due to starvation. Differentiate Dry Starvation from Wet Starvation. Discuss the postmortem findings. (5+5)
9. Discuss rights and privileges of AIDS patient. (5+5)
10. Define Human Experimentation. Mention its salient features. Add a note on its ethical issues. (2+4+4)

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

COMMUNITY MEDICINE

PAPER – II

(Diet and nutrition in health and diseases, epidemiology of communicable and non-communicable diseases, occupational health)

Q.P. Code: 1230

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. Describe the strategies and implementation of National Tobacco Control Program. Add a note on Tobacco Control Legislations in India. (6+4)
2. Critically evaluate India Newborn Action Plan (INAP).
3. Describe briefly the mechanism of action of various types of 'intra uterine contraceptive devices' (IUCDs). Also comment on their advantages, disadvantages and failure rates. (6+4)
4. 'Ageing is a challenge to social and health care system' – explain and suggest preventive and control measures taken to improve health of aged in India.
5. Discuss various diet therapies for non-communicable diseases.
6. Discuss the bacteriological quality of drinking water. Explain the medical, social and cultural issues in the demand and supply of bacteria free water. (3+7)
7. An Urban Health Centre catering to a population of 23,458 has history of repeated dengue outbreaks. There are 400 households. As a medical officer, discuss how to conduct larval survey and create awareness in the population.
8. Discuss the roles and responsibilities of District Health Authority
9. SWOC analysis of Primary health care in India
10. Discuss the magnitude of the problem and the factors causing iron deficiency anaemia in India. What strategies are adopted by Government of India to reduce Iron Deficiency anaemia in the community? (4+6)

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

ANAESTHESIOLOGY
PAPER – II
(Clinical Practice of Anaesthesia)

Q.P. Code: 1234

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. A 80-year-old patient with a permanent pacemaker is posted for TURP. Discuss the anesthetic considerations.
2. Discuss the anesthetic considerations in a 16 year old female patient with obstructive sleep apnoea undergoing surgery under general anaesthesia
3. List the different endotracheal tubes used for laser surgery. Describe anyone with the help of a neat labelled diagram. (3+7)
4. Explain in detail about oculo-cardiac reflex and its anaesthetic implications. (4+6)
5. Explain the anaesthetic considerations while anaesthetising a patient suffering from HIV.
6. Discuss the anaesthetic management of a 35 years old pregnant woman with dilated cardiomyopathy for emergency LSCS
7. Discuss the anaesthetic management of a patient posted for electroconvulsive therapy.
8. Discuss in brief the management of 15 years old girl posted for scoliosis repair. Include a note on wake up test. (6+4)
9. Discuss the anesthetic considerations during anaesthesia for an adult patient in the dental chair.
10. Describe the anaesthetic management of a 35 years old patient with obstructive jaundice posted for ERCP.

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

DERMATOLOGY, VENEREOLOGY AND LEPROSY

PAPER – II

(Dermatology)

Q.P. Code: 1238

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

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|-----|---|---------|
| 1. | A 15-year-old female comes with well demarcated blisters over the trunk, upper limbs and lower limbs sparing the back since TWO months. Patient has history of depression since his low performance in 10 th standard examination. What is the diagnosis and justify it? What are the morphologic presentations seen in this condition? Add a note on management of this case | (2+4+4) |
| 2. | Classify panniculitis and discuss biopsy finding in lupus panniculitis. | (8+2) |
| 3. | A 2-months old male child diagnosed with haemangioma over trunk is brought by the parents to the casualty with tenderness and enlargement of the same. Interpret and justify the diagnosis. Discuss the evaluation and treatment plan of this case. | (2+2+6) |
| 4. | Explain the infectious causes leading to hyperpigmentation of skin. Add a note on management of hyperpigmentation of skin. | (6+4) |
| 5. | A 50-year-old male presents with keratotic umbilicated papules over the lower extremities and buttocks associated with itching. He is a known case of uncontrolled hypertension. Koebnerization was observed. What are the differential diagnosis for this case? Design an approach towards its investigation and management. | (2+4+4) |
| 6. | Discuss approach in a case of hand eczema. Add a note on patch test. | (6+4) |
| 7. | A 40-year-old male presented with asymptomatic non scaly annular plaques over the upper extremities since 6 months duration. Histopathology revealed palisaded granulomas with central necrosis and mucin deposition. What is the diagnosis and justify it? What are the clinical variants of above condition? Enlist other conditions showing mucin deposits in the dermis. | (2+4+4) |
| 8. | Discuss the various clinical presentation of basal cell carcinoma along with its histological features. Enlist the non-surgical management of the same. | (6+4) |
| 9. | Classify urticaria. Add a note on acquired causes of angioedema. | (6+4) |
| 10. | Discuss precancerous lesions of oral cavity. Add a note on retinoids in chemoprevention. | (6+4) |

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

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GENERAL MEDICINE

PAPER – II

(Cardio-vascular system, gastro intestinal system, Hepatobiliary, pancreatic disorders, infectious diseases including tropical medicine)

Q.P. Code: 1242

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. A 50-year-old patient presents with abdominal discomfort, jaundice and elevated liver enzymes. Compare additional laboratory and imaging features to differentiate between acute and chronic liver disorders. (5+5)
2. A 28 year old male working in warehouse presented with acute onset fever, renal failure and hepatic failure. Write the provisional diagnosis, investigations and management of the case. (3+3+4)
3. Discuss the intra-intestinal and extra-intestinal manifestations of Inflammatory Bowel Disease. (4+6)
4. A 83 year old man presented to Emergency Department with altered sensorium since **two** days. Patient is a known case of hypertension past 6 years. He is on Tab Telmesartan 40 mg and Hydrochlorothiazide 12.5mg once daily. No history of diabetes, Chronic Kidney Disease, Asthma. On examination patient was drowsy, arousable, in a confused state, pulse rate 74bpm, BP 130/70 mm Hg. On CNS examination, plantar bilateral extensors, Deep Tendon Reflex sluggish. Give the provisional diagnosis. Write the Investigation and Management for the above case. (2+3+5)
5. Define chronic fatigue syndrome. Discuss risk factors and approach to patients with chronic fatigue syndrome. (2+3+5)
6. Explain the pathogenesis, clinical features and management of amoebic liver abscess. (3+2+5)
7. An 82-year-old woman is admitted to the hospital for hip replacement surgery following a fall. Post-operatively, she develops sudden-onset confusion, agitation, and fluctuating levels of consciousness. Her medical history includes hypertension, diabetes. The family reports that her confusion began the day after surgery. On Examination she was disoriented to time and place, unable to follow commands, but no focal neurological deficits. CBC: Mild leukocytosis Electrolytes: Normal; Renal Function: Slightly elevated creatinine; Urine Analysis: No significant abnormalities. What are the clinical features of delirium that differentiate it from dementia. (3+2+5)
8. Discuss the biomarkers and molecular methods for diagnosis of bacterial sepsis and fungal sepsis. (5+5)
9. Discuss the differential diagnosis for a patient with isolated unconjugated hyperbilirubinemia. Write clinical features and specific tests to confirm the differential diagnosis. (3+3+4)
10. Define Brain death, write the criteria for the diagnosis of brain death. Describe the clinical features and investigation for diagnosis of brain death. (3+3+4)

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

PAEDIATRICS

PAPER – II

(General Pediatrics I)

Q.P. Code: 1246

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. A 9-year-old girl comes with history of fever, altered sensorium for **two** days and seizures since today morning. Analyse the history, discuss the differential diagnosis, evaluation and management of this child. (2+4+4)
2. Define and classify Acute respiratory failure. Explain the common causes of acute respiratory failure in a 2-year-old child. Describe the various methods of oxygen therapy in children. (2+4+4)
3. Classify hearing loss in children. Discuss the screening for hearing loss and the tools. Briefly describe the management plan. (3+3+4)
4. A 4-year-old child with history of recurrent epistaxis and gum bleeding. Explain coagulation cascade. Discuss laboratory diagnosis and management of coagulation disorders. Add a note on differentiating a bleeding disorder from a coagulation disorder. (3+4+3)
5. A 3-year-old male child comes with history of bony pain. Mother noticed gum bleeding. X-ray revealed sub periosteal hemorrhages. Identify the condition. Discuss the sources and clinical features of the said condition. Add a note on radiological changes and treatment. (1+4+5)
6. A 4-year-old boy weighing 12 kg presents with polyuria and polydipsia. Blood glucose was 345 mg/dl. Discuss the investigations and Construct an ambulatory management plan. (2 +8)
7. Describe components of innate immune system. Discuss the approach to diagnosis and management of a child with suspected immune deficiency. (3+3+4)
8. Discuss the steps in evaluation of chronic asthma in children. Classify and discuss the drugs used in the treatment of chronic asthma. Explain briefly targeted delivery systems in treatment of asthma. (3+3+4)
9. A 6-year-old boy is brought to the neurology OPD with complaints of **not** sitting in one place in the school. He wanders in all the corridors and has poor cognition. Mother says that he is very stubborn and beats other children at school. Identify the condition. Describe the diagnostic criteria and management. (1+4+5)
10. Discuss the various bedside and laboratory tests used in the evaluation of inborn errors of metabolism. Briefly explain Tandem Mass spectrometry with urinary GC-MS (Gas Chromatography- Mass Spectrometry). (5+5)

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

PSYCHIATRY
PAPER – II
(Clinical Psychiatry)

Q.P. Code: 1250

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

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| 1. | A 28-year-old male is brought to the hospital after being found wandering several miles from his home. He was disoriented and was not able to recollect details about the incident. What could be the possible diagnoses in this case? Explain evaluation and treatment plans in this condition | (3+7) |
| 2. | Classify personality disorders. Explain the non-pharmacological management of emotionally unstable personality disorder. | (4+6) |
| 3. | A 25-year-old female presents with severe depression, expressing feelings of hopelessness and thoughts of suicide. She has a history of a suicidal attempt in the past. How to conduct risk assessment of suicide and what would the immediate and long term management for this patient? | (4+6) |
| 4. | A 40-year-old war veteran presents with severe anxiety, flashbacks, hyper vigilance and nightmares following a traumatic combat experience 2 years ago. What could be the possible diagnosis? Describe the evaluation and management of this case. | (1+4+5) |
| 5. | A 22-year-old male comes with increased anxiety and paranoia after abusing cannabis for the past 6 months. He is struggling with his studies and relationships as a result of this. How to evaluate his substance abuse and what treatment strategies are recommended to address his cannabis abuse and associated symptoms? | (4+6) |
| 6. | Enumerate non-pharmacological management of auditory hallucination and describe AVATAR therapy. | (4+6) |
| 7. | Discuss clinical features, course and management of Schizoaffective disorders | (3+2+5) |
| 8. | Describe etiopathogenesis, clinical features and management of NMS. | (2+4+4) |
| 9. | Discuss etiology and management of Premature Ejaculation. | (4+6) |
| 10. | Describe IPSS. | |

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

RADIO-DIAGNOSIS

PAPER – II

(Cardiovascular system, respiratory system, GIT including hepato biliary, endocrine, chest mammography, lymphatic system, arteriography, phlebography)

Q.P. Code: 1254

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. Define Sarcoidosis. Describe chest radiography and HRCT findings in Sarcoidosis. (2+3+5)
2. Enumerate the causes of palpable lumbar mass in a 5-year-old child. Describe the imaging features of any **two** conditions. (4+3+3)
3. A 55-year-old male patient presents with left opaque hemithorax. List the likely causes and discuss the imaging features in **two** common conditions. (3+7)
4. List the most common cause of a 6-year-old male presenting with hepatomegaly, ascites and features of portal hypertension. Discuss imaging modalities employed to investigate such patients along with various imaging features. Briefly discuss the role of interventional radiology in its management. (2+5+3)
5. Abdominal radiograph shows pneumoinestinalis in a 55 years old male patient. List various causes. Discuss the role of MDCT and imaging features in such conditions. (2+8)
6. Briefly discuss the embryological development of pancreas. Describe various anomalies and variations. (5+5)
7. An adult male presents with recurrent chest infections and a cavitating lung lesion in the lower zone on a chest radiograph. Discuss the differential diagnosis and imaging features in **two** most likely causes. (5+5)
8. Briefly discuss the etiopathology and imaging findings of ileo-caecal tuberculosis. Discuss the features that are useful to differentiate it from Crohn's disease. (6+4)
9. Discuss various causes of Acute pancreatitis. Briefly discuss various terms used in description of imaging findings of acute pancreatitis and indicate its severity. (2+6+2)
10. Discuss the imaging complexities involved in Breast MR imaging. Add a note on advantages and limitations. (5+5)

POST-GRADUATE DEGREE (M.D.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

RESPIRATORY MEDICINE

PAPER – II

(Non-tubercular Respiratory Diseases)

Q.P. Code: 1258

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

Question Number	Marks
LONG ESSAY QUESTIONS:	
10 X 10 = 100	
1. What is VAP? What are the risk factors, etiological factors, diagnosis and treatment of VAP? What are the preventive strategies of VAP?	(2+4+4)
2. What is SARS? What is etiopathogenesis of SARS? Describe diagnosis and management of SARS.	(2+3+5)
3. What is acute pulmonary embolism? Describe the etiopathogenesis, clinical features, diagnosis and management of acute pulmonary embolism.	(3+7)
4. What is mechanical ventilation? Discuss various modes of mechanical ventilation. Discuss the newer modes of ventilation. What are the lung injuries due to ventilation?	(2+3+3+2)
5. Enumerate aerolised antibiotics used in respiratory tract infection. Discuss the mechanism of actions, dosage, indication, contraindication, side effect of aerolised antibiotics used in respiratory tract infection.	(3+7)
6. A 40-year-old female patient, nonsmoker, non-alcoholic comes with right sided massive pleural effusion. Discuss the diagnosis and management of this case?	(3+7)
7. What are the lung manifestations in liver diseases? Write a short note on hepatic hydrothorax	(5+5)
8. A 45-year-old male mine worker for last 10 years comes to OPD with the complaints suggestive of obstructive airway diseases. He wants the certificate for change in his workplace. Discuss the evaluation of this case.	
9. A 60-year-old male COPD patient with Cor pulmonale and congestive cardiac failure is on ventilator for four days. He is having bacterial pneumonia which is responding to antibiotics. Discuss the weaning in this patient.	
10. A 60-year-old male patient with Diabetes Mellitus, hypertension and a known case of cerebro-vascular accident is on home treatment, came to the emergency department with acute onset of breathlessness and fever for two days with room air oxygen saturation of 80%. What will be the differential diagnosis and management in this case.	(4+6)

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

**GENERAL SURGERY
PAPER – II**

Q.P. Code: 1262

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

Question Number	Marks
LONG ESSAY QUESTIONS:	
10 X 10 = 100	
1. Explain the role of plastic and reconstructive surgery in correcting congenital anomalies. Discuss common procedures used to address conditions such as cleft lip and palate.	(3+3+4)
2. Explain the components and clinical significance of the Glasgow Coma Scale (GCS). Describe how the Glasgow Coma Scale is used in the initial assessment and ongoing management of patients with traumatic brain injury.	(3+3+4)
3. A 50-year-old female patient presents with painless lump in her left breast that was detected during routine self-examination. On examination, there are no palpable axillary lymph nodes. Mammography reveals a suspicious mass with microcalcifications. Describe the next steps in diagnostic workup and outline the initial management approach for this patient.	(5+5)
4. Explain the pathophysiology and genetic basis of Multiple Endocrine Neoplasia (MEN) syndrome. Discuss the clinical manifestations and diagnostic criteria for MEN types 1 and 2 and their management.	(3+3+4)
5. A 70-year-old man presents with increased frequency and straining during micturition. Explain the pathophysiology of benign prostatic hyperplasia (BPH) and its clinical manifestations. Discuss the diagnostic criteria and various management options for patients with BPH.	(5+5)
6. Explain the clinical features, diagnostic approach and management options for carcinoid tumours of the appendix.	(3+3+4)
7. Discuss the pathophysiology and clinical presentation of mesenteric ischaemia. Write a note on investigations and management.	(3+3+4)
8. Describe the etiopathology, clinical features, Investigations and management of choledochal cyst.	(2+2+2+4)
9. Define hernia. List the various inguinal hernia classification. A 25-year male patient presents with an obstructed inguinal hernia (omentocoele). Describe the investigations and management in this patient.	(2+2+2+4)
10. A 55-year-old male patient with severe epigastric pain radiating to the back for 12 hours presents to the casualty. Examination reveals tenderness, and guarding of abdomen. The elevated serum lipase and amylase confirm acute pancreatitis. Outline the initial approach for this patient, focusing on immediate intervention, diagnostic steps and early treatment strategies.	(3+3+4)

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

OBSTETRICS AND GYNAECOLOGY

PAPER – II
(Clinical Obstetrics)

Q.P. Code: 1266

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. A G3P2L1 presents to the antenatal OPD with Rh negative blood group and ICT positive status. Discuss the management of this case. Add a note on intrauterine transfusion. (6+4)
2. A 32-year-old G2P1L1 with full term pregnancy has come in labor. On examination, the fetus is in breech presentation. What are the risks associated with vaginal breech delivery? Discuss about External cephalic version. (4+6)
3. A P1L1 presents with fecal incontinence after vaginal delivery. Discuss the management and post-operative care of this case. Add a note on prevention. (4+4+2)
4. Discuss the pathophysiology, clinical presentation, management, and long-term outcomes of birth asphyxia. (2+3+2+3)
5. Describe the role of antihypertensive in the management of hypertension during pregnancy.
6. What are the risk factors associated with amniotic fluid embolism? Discuss the management and treatment strategies for amniotic fluid embolism. Discuss the potential complications of amniotic fluid embolism for both the mother and the fetus (3+4+3)
7. What are the clinical features of complete molar pregnancy? Write the differences between partial and complete mole. What are the key management strategies for a patient diagnosed with complete molar pregnancy? (3+3+4)
8. Discuss the various criteria to allow a woman for trial of labor after a previous cesarean section. What are the risks associated with a trial of labor after a previous caesarean section (TOLAC), as compared to elective repeat caesarean delivery (ERCD)? (5+5)
9. Write the definition, classification and risk factors of fetal growth restriction. Discuss the role of Doppler's in the antepartum surveillance. (6+4)
10. A 24-year-old woman is pregnant with monochorionic diamniotic twins. What are the risks associated with this type of pregnancy? Discuss the management of each complication? (3+7)

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

OPHTHALMOLOGY

PAPER – II

(Clinical Ophthalmology covering diseases of the eye: disorders of conjunctiva, cornea, sclera, uvea, lens, glaucoma, retina, optic nerve and clinical ophthalmology covering diseases of the adnexia: disorders of lids, lacrimal system, orbit)

Q.P. Code: 1270

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. A 60-year-old patient presents with nodulo-ulcerative lesion involving central lower lid. Discuss differential diagnosis, evaluation and management of such a case. (2+3+5)
2. A 40-yr-old male underwent DCR one month back now complains of watering of eye. List out causes & management in such a case. (4+6)
3. Discuss the etiology, clinical picture and management of epidemic keratoconjunctivitis. (2+4+4)
4. Discuss the clinical features, complications and management of a case of Herpes Zoster Ophthalmicus. (4+2+4)
5. Give indications of surgery for pediatric cataract. Outline complete management and specific surgical challenges in a 2-year- old child with unilateral cataract. (4+4+2)
6. A 27-year-old driver developed left eye hypertropia following an accident. How will you diagnose and manage him? (4+6)
7. Describe the clinical features, investigations and management of Pigment Dispersion Syndrome. (2+2+6)
8. Describe signs, symptoms and management of pars planitis. (2+2+6)
9. Discuss the etiology, methods of evaluation and management of macular hole. (3+3+4)
10. Describe clinical features and management of Traumatic Optic-neuropathy. (5+5)

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

ORTHOPAEDICS

PAPER – II

(Musculo skeletal trauma)

Q.P. Code: 1274

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. A 28-year-old male comes with twisting injury to the ankle. How do you evaluate, classify and treat ankle fractures? (3+3+4)
2. Define open fracture. Discuss its classification and principles of management. (2+3+5)
3. A 8 year old child comes with Pulseless pink hand following a fracture around distal humerus. How do you evaluate and manage this case (5+5)
4. Discuss: a) ATLS guidelines in polytrauma management. (5+5)
b) Early Total Care (ETC) in polytrauma & its indications.
5. Discuss mechanism of injury, classification and management of AC joint injuries. (2+3+5)
6. What is bone remodeling? Describe factors and drugs influencing the bone healing. (2+8)
7. A 20-year-old male presents with fracture around hip joint, what are the treatment options available, advantages & disadvantages of each method. (5+5)
8. Classify calcaneal fractures. Management principles and complications of calcaneal fractures. (5+5)
9. How will you transport a limb of a 25-year-old patient after traumatic amputation to a sterilized centre for re-implantation? What is the order of reimplantation in a below elbow amputation? (5+5)
10. Classification of Salter Harris epiphyseal injuries and its relevance to skeletal growth. (5+5)

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

BIOCHEMISTRY

PAPER – II

(Otology including recent advances)

Q.P. Code: 1278

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. Indicate **two** general ways in which an allosteric effector can influence catalytic activity. Explain with suitable example
2. Justify the statement: Chemiosmotic theory links to electron transport for ATP Synthesis.
3. In preparation for a trip to an area of India where malaria is endemic, a young man is given primaquine prophylactically. Soon he developed a haemolytic condition. What is the most likely cause of the hemolysis? Explain why homozygous for the above condition affects the erythrocytes (RBC) than in other cells. (2+8)
4. A 3-month-old baby was brought to the hospital with the complaints of the child being unable to fix the gaze. On examination the baby had pale skin, blonde hair and the colour of the iris was pink. Eye examination of the child showed absence of pigment in the retina. (2+8)
 - a) What is the likely diagnosis?
 - b) Discuss the metabolic pathway affected and mention the defective enzyme.
5. A 64-year-old obese male visited the medicine OPD for a routine health check-up. He was evaluated for routine investigations. What would be the lipid profile if it was familial hypercholesterolemia. Mention the biochemical defect. Outline the biosynthesis of Cholesterol. (5+2+3)
6. Discuss the catabolism of Heme. Add a note on congenital hyperbilirubinemia. (8+2)
7. Describe the clinical and biochemical findings in a child with Kwashiorkor. Discuss the causes for Kwashiorkor and the diet prescribed. (7+3)
8. A 59-year-old man with a history of heavy alcohol use presents with mental confusion, ataxia, and ophthalmoplegia. Physical examination revealed signs of peripheral neuropathy, including diminished reflexes. Which of the nutrient could be deficient? Discuss its metabolism. (2+8)
9. Discuss calcium metabolism and its regulation. (8+2)
10. Discuss in detail the catabolism of purine. Add a note on its related disorders. (8+2)

POST-GRADUATE DEGREE (M.S.) EXAMINATION – JANUARY 2025

Time: 3 Hours

Max. Marks: 100

OTORHINOLARYNGOLOGY

PAPER – II

(Otology including recent advances)

Q.P. Code: 1278

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

Question Number

Marks

LONG ESSAY QUESTIONS:

10 X 10 = 100

1. A middle aged female comes with history of anosmia bilateral nasal obstruction, excessive nasal crusting and epistaxis, her attenders complained of foul smell emitting from her nose past 3 years. What is the probable diagnosis? Discuss the management of this case. (5+5)
2. A 30-year-old male comes to ENT OPD with watery nasal discharge following road traffic accident. The analysis of the nasal discharge showed sugar level of 35mg/dl and presence of beta 2 transferrin. Discuss the interpretation and management of this case. (2+8)
3. A 40-year-old female came with the history of right ear discharge of 1-year duration. Patient has developed high grade fever which is intermittent and severe headache for the past 5 years. Patient looks pale. Heamogram showed hb of 6gm% and leucocyte count was 20,000 , contrast enhanced CT showed delta sign. Interpret the clinical scenario, investigations and give the diagnosis. Discuss the management of this case. (4+6)
4. A middle aged female has come with history of severe vertigo since 1 day and has got past history of recurrent attacks of vertigo, tinnitus and fluctuating hearing loss along with fullness in the ears. On examination she has normal tympanic membrane and nystagmus. Design a plan to investigate and treat the case. (4+6)
5. Describe in detail the histopathology of inverted papilloma. Discuss the clinical features and management of the same. (4+2+4)
6. Name the complications of stapedotomy and describe their management. (2+8)
7. Describe the clinical importance of electrocochleography.
8. Describe the clinical features and management of facio-maxillary injuries. (4+6)
9. Discuss the etiopathogenesis, clinical features and management of Bell's Palsy. (3+3+4)
10. Describe the etiopathogenesis of nasal polyps. Discuss in detail the differences between ethmoidal polyp and antrochoanal polyp. (5+5)