P5125

RAN-2406120301010501

RAN-2406120301010501

Doctor of Medicine Examination August - 2026

Dermatology, Venereology & Leprology (Paper - I) (Set - 3)

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. Discuss hair cycle. Write in detail about pathogenesis and management of androgenic alopecia. **(20 marks)**

Q. 2. Discuss pathogenesis and classification of porphyria. Disease in detail about congenital erythropoitic porphyria. **(20 marks)**

Q. 3. Describe anatomy of male urethra and it's involvement in various STI. **(15 marks)**

Q. 4. Describe skin of full term neonate. Write about physiological changes in newborn and transient skin disorders. **(15 marks)**

Q. 5. **Write short notes on**

a. Skin and Vitamin D. **(5 marks)**
b. Histopathology of warts. **(5 marks)**
c. Vaccine for herpes zoster. **(5 marks)**
d. Blaschko's lines. **(5 marks)**
e. Mikulicz cell **(5 marks)**
f. Excited skin state (ESS) **(5 marks)**

RAN-2406120301010502

RAN-2406120301010502

Doctor of Medicine Examination August - 2026

Dermatology, Venereology & Leprology (Paper - 2)

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. Discuss in detail about skin and endocrine disorders. **(20 marks)**

Q. 2. Discuss about perforating dermatosis with transepidermal elimination. Give detail about Kyrle's disease. **(20 marks)**

Q. 3. Discuss skin manifestations associated with covid -19 infection. **(15 marks)**

Q. 4. Write about cutaneous manifestations in nutritional disorders and their management. **(15 marks)**

Q. 5. **Write short notes on**

a. Bed side procedures in STD patients. **(5 marks)**
b. Lazy Leukocyte syndrome. **(5 marks)**
c. Lazarine Leprosy. **(5 marks)**
d. Topical Immunomodulators in dermatology. **(5 marks)**
e. Annular Erythemas. **(5 marks)**
f. Tuberculids **(5 marks)**

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RAN-2406120301010503

RAN-2406120301010503

Doctor Of Medicine Examination August - 2026

Dermatology, Venereology & Leprology (Paper - III)

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss about NLEP programme. Write about high prevalence areas in India. Problems and solutions. **(20)**

Q.2. Write in detail about interaction of Human Immunodeficiency Virus and sexually transmitted diseases. **(20)**

Q.3. Impact of STI on fertility and it's management. **(15)**

Q.4. Describe extracutaneous manifestations of leprosy. **(15)**

Q.5. **Write short notes on**

a. Bacterial vaginosis. **(5)**
b. Recent changes in NLEP. **(5)**
c. Thalidomide in dermatology. **(5)**
d. Kaposi's sarcoma. **(5)**
e. MCR footwear. **(5)**
f. Non veneral genital dermatosis. **(5)**

RAN-2406120301010504

RAN-2406120301010504

DOCTOR OF MEDICINE
(DERMATOLOGY, VENEREOLOGY & LEPROLOGY)
Examination August - 2026
Paper - IV

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss cutaneous manifestations of immunodeficiency. Write in detail about Leiner's syndrome. **(20 marks)**

Q.2. Classify dermatosis in HIV infection/AIDS. Describe non-infectious dermatosis of HIV infection / AIDS. **(20 marks)**

Q.3. Write in detail about regenerative therapies for non healing wounds. **(15 marks)**

Q.4. Write about biologics and biosimilars. Write in detail about biologics used in India for moderate to severe psoriasis. **(15 marks)**

Q.5. **Write short notes on**

a. Photodynamic therapy. **(5 marks)**
b. Upadacitinib in dermatology. **(5 marks)**
c. PASI score and NAPSI score. **(5 marks)**
d. Dermabrasion. **(5 marks)**
e. Hyaluronic acid. **(5 marks)**
f. Cleansers and soaps in dermatology. **(5 marks)**

P5161

RAN-2406121001010501

RAN-2406121001010501

Doctor of Medicine (M.D.) Examination August - 2026

Basic Sciences Related to Psychiatry (Paper - I) (Set - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. What is neuroplasticity, and how does it contribute to learning and memory formation? **30**

Q. 2. **Write short notes on -** **40**

a. Describe the "mirror neuron system." How does it contribute to social cognition and empathy?
b. The role of basal ganglia contributes to motor control and cognition

Q. 3. **Write short notes on any three -** **30**

a. Explain statistical significance
b. Motivation and ways to improve it
c. Default mode network
d. Precision psychiatry

P5162

RAN-2406121001010502

RAN-2406121001010502

Doctor of Medicine (M.D.) Examination August - 2026

General Adult Psychiatry and related (Paper - II) (Set - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. A 20-year-old boy has been brought by his family with altered behavior for one month without any obvious reason. His mother too, has a similar history of muttering to self, suspicious, and lacking self-care. How will you manage the patient, and what is the prognosis of this boy? **30**

Q. 2. **Write short notes -** **40**
a. Behavioural addiction
b. Management of Panic disorder

Q. 3. **Write short notes on any Three -** **30**
a. Xanomeline with Trospium Chloride
b. Neuropsychiatric manifestations of Hypothyroidism
c. Admission process to an inpatient setting as described in MHCA
d. Complex PTSD

RAN-2406121001010503

RAN-2406121001010503

Doctor Of Medicine Examination August - 2026

Psychiatry (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Describe the assessment and management of a 45-year-old widow who seeks help to stop her increasing and continuous alcohol intake. **30**

Q.2. **Write short notes -** **40**

a. Juvenile Justice Act
b. Geriatric depression

Q.3. **Write short notes on any Three -** **30**

a. Decreasing cognitive side effects with ECT treatment
b. Management of migraine
c. Separation Anxiety
d. Assessment and certification of recipient and donor of kidney transplant

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RAN-2406121001010504

RAN-2406121001010504

Doctor of Medicine (Psychiatry) Examination August - 2026

PAPER - IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Describe the emerging role of Telepsychiatry, Discuss the process and laws governing establishing a Tele centre. **30**

Q.2. **Write short notes -** **40**

a. Use of Apps in Psychiatry
b. Pharmacogenomics in psychiatry

Q.3. **Write short notes on any 3** **30**

a. Deep Brain Stimulation
b. Vortioxetine
c. Mindfulness-based Cognitive Therapy
d. Debate on the development of Super specialization in Psychiatry

P5149

RAN-2406120601010501

RAN-2406120601010501

Doctor Of Medicine Examination August - 2026

Pathology (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory.

(3) Write Legibly

(4) Figures to the right indicate full marks.

Seat No.:

Student's Signature

Q.1. Describe the effects of growth factors and their receptors in neoplasia. **(20)**

Q.2. Define obesity and discuss its etiopathogenesis and consequences. **(20)**

Q.3. **Write Short Notes on each** **(10×6=60)**

a) Endothelial cell in health and disease.

b) Acute phase reactants.

c) Mechanisms of generation and removal of free radicles.

d) Genomic imprinting in human disease.

e) Hazards of smoking in health.

f) AIDS defining opportunistic infections.

P5150

RAN-2406120601010502

RAN-2406120601010502

Doctor Of Medicine Examination August - 2026

Pathology (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Write Legibly
(4) Figures to the right indicate full marks.

Seat No.:

Student's Signature

Q.1. Discuss the pathology of polypoidal lesions of colon. **(20)**

Q.2. Describe the recent WHO classification of lung tumors. Discuss about etiopathogenesis, morphology and molecular diagnosis of lung carcinoma **(20)**

Q.3. **Write Short Notes on each.** **(6×10=60)**

a) Describe the Bethesda system for cervical cytology and pitfalls in diagnosis of HSIL on pap smear.
b) Cardiac valve vegetations -type, example and implications.
c) Role of IHC in spindle cell tumors.
d) Autoimmune hepatitis- pathophysiology and histomorphology.
e) Castlemans disease.
f) Papillary urothelial lesions.

RAN-2406120601010503

RAN-2406120601010503

M.D. (Pathology) Examination August - 2026

(PAPER III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Write Legibly
(4) Figures to the right indicate full marks.

Seat No.:

Student's Signature

Q.1. Describe pathophysiology, laboratory diagnosis, differential diagnosis and prognostic markers in chronic lymphocytic leukemia. **20**

Q.2. Discuss the laboratory tests in a case of bleeding disorders. **20**

Q.3. **Write Short Notes on each** **10×6 = 60**

a. Clinical features and diagnostic criteria of APLA (Antiphospholipid antibodies).
b. Quality control in blood bank.
c. Laboratory investigations in male infertility.
d. Role of HPLC in hemoglobinopathies.
e. Laboratory approach to plasma cell dyscrasias.
f. Autoimmune hemolytic anemia

P5152

RAN-2406120601010504

RAN-2406120601010504

Doctor of Medicine (Pathology) Examination August - 2026

PAPER - IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Write Legibly.
(4) Figures to the right indicate full marks.

Seat No.:

Student's Signature

Q.1. Discuss in detail about HPV and discuss its role in the pathogenesis of cervical carcinoma. **20**

Q.2. Discuss the molecular classification of breast carcinoma and its role in prognosis and therapy. **20**

Q.3. **Write Short Notes on each** **10 × 6=60**

a) Recent advances and role of AI in pathology.
b) Gene microarray.
c) B-RAF mutations in cancer.
d) Stem cell in health and disease.
e) Recent classification of thyroid tumors.
f) Microsatellite instability in neoplasia.

P5173

RAN-2406100501010501

RAN-2406100501010501

Master of Surgery Examination August - 2026

Obstetrics & Gynaecology (Paper - I) (Set - 2) Basic Sciences

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. Discuss the blood supply and lymphatic drainage of the female genital tract. Outline the staging and management of a 45-year-old woman diagnosed with early-stage cervical cancer. **(28)**

Q. 2. **Write short notes on: (12 Marks each)** **(36)**

A) Haematological changes in pregnancy
B) Pathophysiology of Rhesus isoimmunization
C) Histopathology of endometrial hyperplasia

Q. 3. **Write short notes on: (12 Marks each)** **(36)**

A) Physiology of onset of labour
B) Mechanism of action of combined oral contraceptive pills
C) De Lancey's levels of pelvic support

RAN-2406100501010502

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Master of Surgery Examination August - 2026

Obstetrics and Gynecology (Paper - II)

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1 Describe pathophysiology of shock. Discuss different types of shock in obstetrics. Importance and utility of Shock index **(28)**

Q.2 **Write short notes on: (12 Marks each)** **(36)**

A) Management of Eclampsia in a rural peripheral health centre
B) Management of HIV infection during pregnancy and prevention of parent-to-child transmission (PPTCT)
C) Partogram and its modern modified forms (WHO Labor Care Guide)

Q.3 **Write short notes on: (12 Marks each)** **(36)**

A) Management of Twin-to-Twin Transfusion Syndrome (TTTS)
B) Antepartum fetal surveillance
C) Management of Thyroid Dysfunction during pregnancy

P5175

RAN-2406100501010503

RAN-2406100501010503

Master Of Surgery Examination August - 2026

Obstetrics and Gynecology (Paper - 3)

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss the etiology, clinical presentation, and diagnostic evaluation of Primary Amenorrhea. Outline the step-by-step management of a 17-year-old girl diagnosed with Mayer-Rokitansky-Kuster-Hauser (MRKH)Syndrome. **(28)**

Q.2. **Write short notes on: (12 Marks each)** **(36)**

A) Levonorgestrel-releasing Intrauterine System (LNG-IUS)
B) Differential diagnosis of Bilateral Ovarian masses.
C) WHO classification and workup of Anovulatory Infertility

Q.3. **Write short notes on: (12 Marks each)** **(36)**

A) Genital Tuberculosis presentation and diagnosis
B) Enlist causes of incontinence of urine and management of SUI (Stress urinary incontinence)
C) Post-coital Bleeding evaluation and clinical approach

RAN-2406100501010504

RAN-2406100501010504

Master of surgery (obstetrics & gynaecology) Examination August - 2026

PAPER - IV

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Write short notes on : (10 marks each)

1. Pre-implantation Genetic Testing
2. Indocyanine Green (ICG) fluorescence imaging in gynecological surgery
3. WHO Labor Care Guide: implementation and key changes from partogram
4. Anti-Müllerian Hormone (AMH) in clinical practice: utility and pitfalls
5. Transcatheter uterine artery embolization for adenomyosis
6. Modern management of morbidly adherent placenta (PAS spectrum-)
7. Intrauterine fetal blood transfusion: indications and technique
8. Kisspeptin and its importance.
9. VNOTES (Vaginal Natural Orifice Trasluminal Endoscopic Surgery)
10. Role of Artificial Intelligence in Gynecology

RAN-2406120101010501

RAN-2406120101010501

Doctor of Medicine - Examination August - 2026

Anaesthesiology (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory. Draw diagrams wherever necessary.

Seat No.:

Student's Signature

Q. 1. a) Anatomical &Physiological differences between adult and paediatric patient from anaesthesia point of view. **(10)**

b) Discuss buffers in acid base balance. **(10)**

Q. 2. **Write short notes on following.**

a) Work of breathing. **(10)**

b) Safety measures in Anaesthesia Machine. **(10)**

Q. 3. a) Discuss pharmacology of succinyl choline Etiology and treatment of scoline apnea. **(10)**

b) What is Cohort study in research methodology. **(10)**

Q. 4. a) Draw and explain oxygen dissociation curve. Discuss the factors that Shift the curve to right and its clinical relevance in anaesthesia. **(10)**

b) Describe central and peripheral chemoreceptors and their role in respiratory regulation during GA. **(10)**

Q. 5. a) Composition, physiological roles and implications in ARDS and Neonatal respiratory syndrome. **(10)**

b) Draw and label a normal CVP waveform. Explain each wave and abnormal patterns seen in cardiac conditions. **(10)**

RAN-2406120101010502

RAN-2406120101010502

Doctor of Medicine - Examination August - 2026

Anaesthesiology (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory. Draw diagrams wherever necessary.

Seat No.:

Student's Signature

Q. 1. A 30 years old primigravida at 34 weeks gestation presents with severe eclampsia and HELLP syndrome posted for emergency LSCS.
Discuss following.

i) Pathophysiological changes **(05)**
ii) Antihypertensive & Seizure therapy **(05)**
iii) Anaesthetic management **(05)**
iv) Postoperative analgesia **(05)**

Q. 2. **Write short notes on.** **(5×4=20)**

i) Anaesthetic safety foetal monitoring in non-obstetric surgery,
ii) Post-dural puncture headache.
iii) Diabetic ketoacidosis.
iv) Local anaesthetic systemic toxicity.

Q. 3. Describe anaesthetic management of Myasthenia Gravis patient posted for thymectomy. **(20)**

Q. 4. Describe anatomical landmarks, technique and block dynamics of transversus abdominis plane block vs. erector spinae plane block vs. quadratis lumborum block. **(20)**

Q. 5. Write anaesthetic concerns and management of electro convulsive therapy **(10)**

Q. 6. Describe etiology, pathophysiology, clinical features and Perioperative Management of primigravida with 34 weeks of gestation with severe preeclampsia. **(10)**

P5111

RAN-2406120101010503

RAN-2406120101010503

Doctor of Medicine - Examination August - 2026

Anaesthesiology (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory. Draw diagrams wherever necessary.

Seat No.:

Student's Signature

Q. 1. A 30 year old female with acoustic neuroma posted for posterior fossa Craniotomy in sitting position. Discuss. **(5×4=20)**

i) Preoperative optimisation
ii) Anaesthetic challenges
iii) Perioperative anaesthetic management
iv) Post operative complications and management

Q. 2. A 35 yr. old male patient posted for dissecting arch of aorta. Discuss perioperative anaesthetic management. **(10)**

Q. 3. Outline the anaesthetic management of 2 days old neonate presenting with congenital diaphragmatic hernia posted for emergency repair. **(10)**

Q. 4. **Discuss following.**

i) Anaesthetic implications in Electroconvulsive Therapy. **(10)**
ii) Hazards and safety precautions during Airway Laser Surgery. Describe measures and management. **(10)**

Q. 5. **Write briefly on.**

i) Epidural labour analgesia. **(10)**
ii) Perioperative management of patient with permanent pacemaker undergoing non-cardiac surgery. **(10)**

Q. 6. i) Write briefly about Day Care anaesthesia. Write about selection criteria discharge scoring systems. **(10)**

ii) Discuss about acute isovolemic haemodilution and intraoperative blood conservation strategies. **(10)**

P5112

RAN-2406120101010504

RAN-2406120101010504

Doctor of Medicine - Examination August - 2026

Anaesthesiology (Paper - IV)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

(2) All questions are compulsory. Draw diagrams wherever necessary.

Seat No.:

Student's Signature

Q. 1. a) Discuss scavenging systems, for ecofriendly anaesthesia systems for environmental safety. **(10)**

b) Describe video laryngoscopy. Classifications and advantages over difficult airways. **(10)**

Q. 2. a) Discuss closed loop Anaesthesia system. **(10)**

b) Discuss role of ultrasound in anaesthesia and ICU. **(10)**

Q. 3. **Write short notes on following.** **(5×4=20)**

a) Remimazolam.
b) Minimally invasive techniques for Haemodynamic Monitoring.
c) Lung protective ventilation.
d) TRALI.

Q. 4. Compare adductor canal block, erector spine plane block and quadratus Lumborum block. (Indications, sono-anatomy and catheter techniques.) **(10)**

Q. 5. a) Explain single anaesthesia work-flow for cancer patients. **(10)**

b) Explain in details survival sepsis campaign. **(10)**

Q. 6. Role of High flow nasal oxygen in Peri operative setting. **(10)**

P5189

RAN-2406100101010501

RAN-2406100101010501

Master of Surgery Examination August - 2026

General Surgery (Paper - I)

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1 i) Ankle brachial index **(5)**
ii) Doppler ultrasonography in surgical practice: role, limitations **(5)**

Q.2. Discuss principles of prevention and control of surgical infections. Describe antimicrobial stewardship in surgical practice **(10)**

Q.3. Discuss classification, pathophysiology, clinical assessment of shock in surgical patient. Write role of fluid, blood products and vasopressors in management of shock **(10)**

Q.4. Discuss nutritional assessment and nutritional support in 55yr old patient with high output enterocutaneous fistula. Describe principles of fluid and electrolyte replacement, enteral and parenteral nutrition **(10)**

Q.5. Describe diagnostic evaluation, staging and management of Hodgkin's lymphoma **(10)**

Q.6. i) Clinical criteria and test for declaration of brain stem death **(5)**
ii) SOTTO **(5)**

Q.7. i) Pott's spine: complications and management **(5)**
ii) Craniotomy incisions **(5)**

Q.8. Discuss various types of infections of hand. Describe clinical features, diagnosis and management of deep space infection of hand **(10)**

Q.9. i) Factors delaying wound healing **(5)**
ii) AETCOM and role of surgeon **(5)**

Q.10. i) Complications of blood transfusion **(5)**
ii) Trophic ulcer **(5)**

P5190

RAN-2406100101010502

RAN-2406100101010502

Master of Surgery Examination August - 2026

General Surgery (Paper - II)

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Section-1

Q.1. a. Management of a Grade IV liver injury **(05)**
b. Duodenal atresia **(5)**

Q.2. Describe staging and management of gastric cancer. **(10)**

Section - 2

Q.3. Describe the management of cystic lesions of the pancreas **(10)**

Q.4. 70-year-old diabetic man patient comes to emergency department with acute history of hematemesis. Patient is hemodynamically unstable with splenomegaly. Describe management approach for this patient. **(10)**

Section - 3

Q.5. a. Cholangiocarcinoma **(5)**
b. Appendicular lump **(5)**

Q.6. Describe the etiopathogenesis and management of the sigmoid diverticulitis **(10)**

Section - 4

Q.7. a. Describe the technique of pancreaticojejunostomy **(05)**
b. Meckel diverticulum **(05)**

Q.8. a. Life cycle of E.granulosus, management of Hydatid cyst of lung **(5)**
b. Management of high output ileostomy **(5)**

Section - 5

Q.9. a. Management of a parastomal hernia after permanent colostomy **(5)**
b. EPSIT (Endoscopic pilonidal sinus treatment) protocol **(5)**

Q.10. a. Thyroid scan **(5)**
b. Approach to a patient with nipple discharge **(5)**

P5191

RAN-2406100101010503

RAN-2406100101010503

Master of Surgery Examination August - 2026

General Surgery (Paper - III)

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. i) Urethroplasty: indications and types **(5)**
ii) Addison's disease **(5)**

Q.2. Classify thyroid neoplasm. Discuss management of differentiated thyroid carcinoma **(10)**

Q.3. Discuss etiology, clinical features and management of carcinoma penis **(10)**

Q.4. Iatrogenic bladder injuries: causes and management **(10)**

Q.5. Discuss etiology, clinical presentation and management of unilateral hydronephrosis in 50yr old patient **(10)**

Q.6. i) RIRS **(5)**
ii) Renal scan **(5)**

Q.7. i) Male infertility: causes and evaluation **(5)**
ii) Classify anomalies of kidney, describe management of staghorn in ectopic kidney **(5)**

Q.8. i) Urodynamic **(5)**
ii) Aqua ablation prostate surgery **(5)**

Q.9. i) Pheochromocytoma: diagnosis and management **(5)**
ii) Tender testis: diagnosis and management **(5)**

Q.10. i) Indication, types and technique of DJ stent **(5)**
ii) Erectile dysfunction **(5)**

P5192

RAN-2406100101010504

RAN-2406100101010504

Master of Surgery Examination August - 2026

General Surgery (Paper - IV)

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. i) Vaccum assisted breast biopsy (VABB) **(5)**
ii) Targeted axillary dissection **(5)**

Q.2. Recent advances with focus on rapid diagnosis, medical therapy, catheter based intervention in patient of DVT. How to prevent post thrombotic syndrome **(10)**

Q.3. Discuss application of Artificial Intelligence in modern surgery **(10)**

Q.4. Describe the principles of ERAS (enhanced recovery after surgery) and its benefit **(10)**

Q.5. Define robotic telesurgery. Discuss its principles, components, indications, advantages, limitations, complications and future prospect **(10)**

Q.6. i) Suture mucorectopexy **(5)**
ii) eTEP **(5)**

Q.7. i) Newer energy devices **(5)**
ii) NOTES **(5)**

Q.8. i) Progressive Positive pneumoperitoneum **(5)**
ii) Negative pressure wound therapy **(5)**

Q.9. i) CUSA in neurosurgery **(5)**
ii) POEM **(5)**

Q.10. i) Chemoport **(5)**
ii) 4k laparoscopy **(5)**

P5165

RAN-2406121301010501

RAN-2406121301010501

Doctor of Medicine Examination August - 2026

Radio Diagnosis (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss segmental anatomy of liver with a diagram of Couinaud classification. Enumerate various types of hepatobiliary contrast agents used in the radiology department. **20**

Q.2.

1. What are the harmful effects of ionising radiation and the steps taken for protection in the radiology department? **15**
2. Discuss principles of colour Doppler sonography. Discuss the role of colour and duplex doppler in the diagnosis of portal hypertension. **15**

Q.3. **08 Marks each**

1. PCPNDT Act
2. Role of tomosynthesis in breast imaging.
3. MR Elastography.
4. CT perfusion study in stroke imaging.
5. Factors affecting image quality in X-ray.

Q.4. **02 Marks each**

1. Zero lead apron.
2. USG artefacts.
3. Enumerate any five embolic agents.
4. Explain DWI.
5. Anode heel effect

RAN-2406121301010502

RAN-2406121301010502

Doctor of Medicine Examination August - 2026

Radio Diagnosis (Paper-II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. What is phakomatosis? Enumerate various phakomatosis. Describe any three in detail. **20**

Q.2.

1. Investigate and discuss the role of radiologist for a 40 year old chronic smoker male with history of hemoptysis. **15**
2. What is internal derangement of the knee joint ? Enumerate various osteochondral lesions. Describe any two in detail. **15**

Q.3. **08 Marks each**

1. BI-RADS
2. Discuss imaging features of lytic lesions in the Jaw.
3. Discuss Coronary artery anatomy and its congenital variations.
4. Role of imaging in unilateral proptosis.
5. Role of imaging in neonatal hypoxic ischemic encephalopathy.

Q.4. **02 Marks each**

1. Scimitar syndrome.
2. Crazy paving pattern in HRCT thorax.
3. Bare orbit.
4. Madelung deformity.
5. Ivory vertebra.

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Doctor of Medicine Examination August - 2026

Radio Diagnosis (Paper-III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Describe anatomy of the adrenal gland. Discuss the role of imaging techniques in the diagnosis of adrenal lesions. **20**

Q.2.

1. 28 years old male presented with chronic diarrhea and abdominal pain. Discuss imaging features of inflammatory bowel disease and differentiate ulcerative colitis from Crohn's disease. **15**
2. Discuss USG findings in ectopic pregnancy. Explain the role of the interventional radiologist in early pregnancy. **15**

Q.3. **08 Marks each**

1. AAST classification of splenic trauma.
2. Role of radiology in evaluation of male infertility.
3. Role of imaging in genitourinary tuberculosis.
4. CT enteroclysis.
5. MRCP in congenital pancreatic lesions.

Q.4. **02 Marks each**

1. Putty kidney.
2. Grading of placenta.
3. Meckel's diverticulum.
4. Seldinger technique.
5. Draw and label any three congenital uterine anomalies.

RAN-2406121301010504

RAN-2406121301010504

Doctor of medicine Examination August - 2026

Radio Diagnosis (Paper-IV)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss the physics and principles of PET-CT. Describe the role of PET-CT in oncology imaging and its limitations. **20**

Q.2.

1. Describe the principles and clinical applications of functional MR imaging. **15**
2. Discuss the role of AI in modern radiology practice. Describe its current clinical applications, advantages, limitations, and future prospects. **15**

Q.3. **08 Marks each**

1. HIFU.
2. Dual-energy CT.
3. Vertebroplasty.
4. Radiological intervention in stroke.
5. TACE.

Q.4. **02 Marks each**

1. Tissue harmonic imaging.
2. MRI findings in bone marrow pathology.
3. Pressure injector.
4. Enumerate conditions causing left-to-right and right-to-left shunts.
5. Cone-beam CT.

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RAN-2406120201010501

RAN-2406120201010501

Doctor of Medicine Examination August - 2026

Biochemistry (Paper - I) (Set - 1) Medical Faculty

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. Explain terms Quality Manual, Internal Quality Control, Quality Objectives and Quality Indicator in relation to medical laboratories. Explain requirements for quality indicators in relation to NABL accreditation? What are essential Quality Indicators recommendations from IFCC Working Group on Laboratory Errors and Patient Safety? Comment on Applicability of essential Qls across laboratory disciplines and opportunities for expansion. **(25 marks)**

Q.2. **Write Notes on:** **(25 marks)**
a) Induction of New Technical Staff in a Medical Laboratory
b) Making Biochemistry lecture effective to an entire batch of 250 students in a class room
c) Overview of Xenobiotics
d) Fluid mosaic model of membrane
e) Causes of analyser probe injury in medical laboratory and its Risk Management

Q.3. **Write notes on:** **(25 marks)**
a) Characteristics of good slide presentation in 50 students demonstration room
b) Biochemistry of Water molecule
c) Characteristics of good medical laboratory
d) Cell cycle
e) Document control in medical laboratory - NABL requirements

Q.4. **Write notes on:** **(25 marks)**
a) principles various types of spectrophotometry used in clinical laboratory
b) Capillary electrophoresis vs ordinary electrophoresis
c) NABL accreditation cycle
d) Antioxidants found in food and their role in health and diseases
e) Accuracy Precision and Truness

P5118

RAN-2406120201010502

RAN-2406120201010502

Doctor of Medicine Examination August - 2026

Biochemistry (Paper - II) (Set- 3) Medical Faculty

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. Explain catabolism of heme. Explain types of bilirubin found in plasma. What are the causes of jaundice? How can laboratory help in differential diagnosis of jaundice? How dry slide technology differentiates between unbound and albumin-bound conjugated bilirubin? **(25 marks)**

Q. 2. **Write Notes on:** **(25 marks)**
a) Overview of carbohydrate metabolism
b) Fatty acid metabolism in adipose tissue
c) Genetic defect in sickle cell anemia and biochemical basis of its consequences
d) Biochemistry of Magnesium
e) Building blocks of cell

Q. 3. **Write Notes on:** **(25 marks)**
a) Integration of carbohydrate, lipids and protein metabolism
b) Protein-Energy Malnutrition
c) Overview of lipoprotein metabolism
d) G6PD deficiency
e) Diagnostic criteria for Diabetes Mellitus

Q. 4. **Write Notes on:** **(25 marks)**
a) Examples of covalent modification of enzymes
b) ABG reports in various acid base disorders
c) EPA and DHA
d) Leptin
e) Causes of anemia

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RAN-2406120201010503

RAN-2406120201010503

Medical Faculty M.D. (Biochemistry) Examination August - 2026

Paper - III (Set-1)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

SET-1

1) Draw flow chart for synthesis and regulation of T4. Explain role of Laboratory in diagnosis of Thyroid Disorders. Explain difference in principle of measurement of TSH and Free T4 by chemiluminescence immunoassay. Explain biochemical basis for Graves' disease and Hashimoto's Thyroiditis. What are methods for monitoring serum and urine iodine for Public health survey of Iodine deficiency disorders? **(25)**

2) **Write Notes on:** **(25)**

a) Mechanism of action of steroid hormones.
b) Clinical relevance of measurement of LH, FSH, prolactin, beta-HCG, testosterone and AMH
c) DNA double helix
d) DNA packaging of metaphase chromosome
e) Hyperchromicity of DNA denaturation

3) **Write Notes on:** **(25)**

a) Central dogma of genetics
b) Telomere and Telomerases
c) Agents causing DNA damage
d) DNA Mismatch repair
e) Types of DNA mutations

4) **Write Notes on:** **(25)**

a) PCR
b) Semi conservative DNA replication
c) Post translational modification of protein
d) m-RNA
e) Structure of immunoglobulins

RAN-2406120201010504

RAN-2406120201010504

Doctor of Medicine (Biochemistry) Examination August - 2026

PAPER - IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Describe iron metabolism and its regulation? Explain Iron, UIBC, TIBC measurements and common interferences. List iron related tests included in anemia profile. How do they help clinicians in differential diagnosis of anemia? **25**

Q.2. **Write notes on :** **25**

a) Explain types of centrifuges. What is RCF? Explain inhouse calibration of centrifuge.
b) Importance of buffers in reagent and calibration , care of pH meter?
c) Nobel Prize in Physiology or Medicine 2025
d) Schematic diagram of automated biochemistry analyser
e) Describe types of glasswares commonly used in the lab. Explain method and traceability of inhouse single volume micropipette calibration

Q.3. **Write notes on :** **25**

a) Performance check of medical laboratory equipments
b) Interfering vs influencing factors in medical laboratory testing
c) Bidirectional learning in District Residency Program
d) Principle and Parts of HPLC equipment
e) Parts of type I water plant in a medical laboratory.

Q.4. **Write notes on :** **25**

a) Sample barcodes - types, need, standardization and troubleshooting
b) Problems and solutions in Outpatient sample collection center in public hospital
c) Communication between laboratory equipments and LIS
d) Periodic evaluation of IQC
e) Preanalytical errors in ABG analysis and its correction

RAN-2406121601010501

RAN-2406121601010501

Doctor of Medicine (M.D.) Examination August - 2026

(Immunohematology & Blood Transfusion)

Basic sciences as applied to the subject: (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) Answer all questions.

(3) Draw diagrams wherever necessary.

Seat No.:

Student's Signature

Q. 1. Describe the molecular regulation of hematopoiesis. Explain the origin, differentiation and maturation of erythropoietic cell lineage and discuss the role of the erythropoietic stem-cell niche. **(8+9+8=25)**

Q. 2. a. Describe the structure, synthesis and functions of immunoglobulins. Compare IgG and IgM with respect to their immunological properties and relevance to transfusion reactions.

b. Classify hypersensitivity reactions according to the Gel and Coombs classification. Discuss Type II hypersensitivity in transfusion medicine. **(13+12=25)**

Q. 3. **Write short notes on any five of the following.** **(5×10=50)**

a. Physiological functions of RBCs, WBCs and platelets
b. Glycolysis and Krebs cycle in red blood cells
c. 2,3-Bisphosphogly cerate and oxygen dissociation curve
d. ABO discrepancy - causes and resolution
e. Molecular genetics and structure of Rh blood group system
f. Passenger lymphocyte syndrome

P5138

RAN-2406121601010502

RAN-2406121601010502

Doctor of Medicine (M.D.) Examination August - 2026

Immunohematology, Immunogenetics & Applied Serology (Paper - II)

Immunohematology & Blood Transfusion

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) Answer all questions.

(3) Draw diagrams wherever necessary.

Seat No.:

Student's Signature

Q. 1. A 12-year-old patient with Thalassemia Major, who has previously received multiple blood transfusions, has been admitted for a routine blood transfusion procedure.

a. Discuss the pathophysiology of beta thalassemia major.
b. Describe the role of transfusion therapy in its management.
c. Discuss transfusion related iron overload, methods of assessment, current chelation strategies and recent treatment. **(10+10+5=25)**

Q. 2. Discuss the genetics, structure and function of the HLA system & its role in transfusion medicine. **(25)**

Q. 3. **Write short notes on any five of the following.** **(5x10=50)**

a. Polyagglutination.
b. Describe the Kelt blood group system with reference to its genetic & molecular basis. Describe its importance in Transfusion Medicine.
c. Describe blood unit selection for emergency transfusion. Briefly discuss the electronic crossmatch along with the pros and cons for its adoption in our country.
d. Explain mendelian laws of inheritance
e. Adsorption & elution in red cell serology.
f. Discuss the epidemiology, pathogenesis and diagnosis of HBV in transfusion Medicine.

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RAN-2406121601010503

RAN-2406121601010503

Doctor of Medicine (Immuno Haematology & Blood Transfusion)

Examination August - 2026

Paper- III

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1). ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) Answer all questions.

(3) Draw diagrams wherever necessary.

Seat No.:

Student's Signature

Q.1. A tertiary care hospital intends to introduce universal pre-storage leukoreduction for all blood components. Discuss under the following headings :

a. Scientific basis of pre-storage leukoreduction and comparison with bedside leukoreduction.

b. Clinical indications, evidence, limitations and cost-effectiveness of universal leukoreduction.

c. Validation of leukoreduction process, quality control and troubleshooting during implementation.

8+9+8=25

Q.2. Your blood centre reports 18% discard of platelet concentrates due to expiry over the last six months. Discuss :

a. Root cause analysis using quality management tools.

b. Inventory optimization strategies without compromising availability.

c. Key performance indicators (KPIs) that should be monitored after implementation of corrective actions.

8+9+8=25

Q.3. **Write short notes on any five of the following.** **5×10=50**

a. Design a red cell transfusion protocol for a 05-years old female child having beta thalassemia major. The child weighs 12 kg and BMI of 16.4. She had been receiving transfusion regularly in a local centre and having recurrent transfusion adverse events in the recent past.

b. Describe the assessment and formulating therapeutic plasma exchange in a 10-years old thymoma patient scheduled for surgery in coming days. The body weight of the patient is 18 kg.

c. Describe the validation process for a new deep freezer to be installed in your component laboratory.

d. Directed donation—current indications and controversies.

e. ISBT 128 and component traceability.

f. Transfusion Audit.

P5140

RAN-2406121601010504

RAN-2406121601010504

Doctor of Medicine (Immuno Haematology & Blood Transfusion)

Examination August - 2026

PAPER - IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) Answer all questions.

(3) Draw diagrams wherever necessary.

Seat No.:

Student's Signature

Q.1. A 9-month-old girl with B-cell precursor acute lymphoblastic leukemia (pre-B ALL) has completed her final chemotherapy regimen. Due to her risk for relapse, the hematology/oncology service has requested a peripheral blood chimeric antigen receptor (CAR) T-cell collection for possible salvage therapy and bridge to hematopoietic stem cell transplant (HSCT).

a. What is CART-cell Therapy?
b. What are the Indications for CART-cell Therapy?
c. Collection, processing and risk of CART-cell Therapy? **5+5+15=25**

Q.2. Elaborate on Regenerative Medicine and role of Transfusion Medicine specialist in cellular and biomaterial therapies. **10+15=25**

Q.3. **Write short notes on any five of the following.** **5×10=50**

a. Describe the possible applications of metabolomics in Transfusion Medicine.
b. ISBT 700 series and 901 series.
c. Rheopheresis : Principle & applications
d. Discuss Regulatory requirement for transfer of surplus plasma
e. One Nation One Drug Licencing System (ONDLS) in relation to blood centre.
f. Discuss blood doping.

P5141

RAN-2406121401010501

RAN-2406121401010501

Doctor of Medicine (M.D.) Examination August - 2026

Microbiology (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory

(3) Begin each answer on a new page and clearly indicate the question number.

(4) Draw neat, well-labeled diagrams, flowcharts, tables wherever appropriate

Seat No.:

Student's Signature

Q. 1. A hospitalized person was diagnosed with catheter associated urinary tract infection with ESBL producing *E.coli* What is ESBL production and how does it contribute to multi-drug resistance? Discuss the laboratory methods for detection of ESBL production. **20 Marks**

Q. 2. Define Innate Immunity. What are the various components of Innate immunity? Discuss in detail the role of Natural Killer cells in innate immunity. **20 Marks**

Q. 3. **Write short notes on:** **20 Marks**

A) Immunofluorescence and its clinical applications
B) Quality assurance in microbiology laboratory
C) Toxins produced by bacteria
D) Role of complement in health and disease

Q. 4. **Write short notes on:** **40 Marks**

A) Bacterial virulence factors
B) Bacterial biofilm production and its clinical importance
C) Methods and significance of antigen detection in infectious diseases
D) Importance of HLA typing in transplantation immunology.

RAN-2406121401010502

RAN-2406121401010502

Doctor Of Medicine Examination August - 2026

(M.D.) Microbiology (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory.

(3) Begin each answer on a new page and clearly indicate the question number.

(4) Draw neat, well-labeled diagrams, flowcharts, tables wherever appropriate

Seat No.:

Student's Signature

Q.1. A 36-year-old male person got admitted with complain of headache, fever, vomiting and neck rigidity for last 2 days. The case was suspected of bacterial meningitis. Discuss the role of microbiologist to reach the confirmatory diagnosis in this case **20**

Q.2. A 31-year-old male went for trekking in jungle and developed remittent, highgrade fever, chills, and severe headache, one week after his return. He also reported a widespread, itchy rash all over his body except on palms, soles, and face. A painless black eschar was found on his trunk during a thorough skin examination. Predict clinical diagnosis based on the clinical details and discuss the pathogenesis of this disease. Propose a strategy for laboratory diagnosis in this case. **20**

Q.3. **Write short notes on:** **20**

A) A 36-year-old male farmer presented in OPD in monsoon season with high fever, severe myalgia and conjunctival suffusion. Laboratory findings showed raised serum creatinine level. The urine and blood samples showed motile spiral structures under dark ground microscopy. What is the probable diagnosis and explain the laboratory diagnosis for this case.

B) Discuss causative agents and laboratory diagnosis of non-gonococcal urethritis

Q.4. **Write short notes on:** **40**

A) Clinical importance of non-tubercular Mycobacteria (NTM)

B) Laboratory diagnosis of anaerobic infections

C) Clinically important Coagulase Negative Staphylococci

D) Pneumococcal vaccination

P5143

RAN-2406121401010503

RAN-2406121401010503

Doctor of Medicine (Microbiology) Examination August - 2026

PAPER - III

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory

(3) Begin each answer on a new page and clearly indicate the question number.

(4) Draw neat, well-labeled diagrams, flowcharts, tables wherever appropriate

Seat No.:

Student's Signature

Q.1. A 10-year-old child presented with weakness of lower limbs after having fever and diarrhea 1 week ago that resolved without any treatment The child has not received any immunization in childhood.

A) Describe the pathogenesis and laboratory case of the most likely etiology.

B) Add a note on vaccine associated polio infection. **20**

Q.2. A known case of HIV infected person with CD4 count 104 cells/mm3 presented with diarrhoea for last 1 week. Stool examination reveals 6-7 µm round acidfast structures with Kinyoun staining.

A) List the organisms causing diarrhoea in an HIVinfected person and describe the laboratory diagnosis in this case.

B) Add a note on pathogenesis and preventive measures for the etiological agent. **20**

Q.3. **Write short notes on :**

A) Invasive pulmonary aspergillosis

B) Describe the laboratory diagnosis of a farmer presented with progressive painless swelling and multiple sinuses of right foot for last 4 years. There is mild pain in the affected limb but no other systemic symptom **20**

Q.4. **Write short notes on :**

A) Free-living Amoebae

B) Post exposure prophylaxis of Rabies

C) Malaria vaccines

D) Neurocysticercosis **40**

P5144

RAN-2406121401010504

RAN-2406121401010504

Doctor of Medicine Examination August - 2026

Microbiology (Paper - IV)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory

(3) Begin each answer on a new page and clearly indicate the question number.

(4) Draw neat, well-labeled diagrams, flowcharts, tables wherever appropriate

Seat No.:

Student's Signature

Q. 1. In a neonatal intensive care unit (NICU) there is an increase in number of cases diagnosed with sepsis by a multidrug resistant *Klebsiella pneumoniae* for last one month. Discuss the role of microbiologist in investigation of outbreak of gram negative bacterial sepsis in a NICU. **20 Marks**

Q. 2. Discuss the role of Artificial Intelligence in a microbiology role. Is it a friend or a foe? **20 Marks**

Q. 3. **Write short notes on:** **20 Marks**

A) A health care worker got the needle prick injury while recapping the used syringe. Describe the immediate management and post exposure prophylaxis in this case.

B) Describe the air sampling methods in an operation theatre

Q. 4. **Write short notes on:** **40 Marks**

A) Recent Chandipura virus outbreak in India

B) Quality indicators in a clinical microbiology laboratory

C) Importance of Viral load assay for hepatitis B and C virus

D) A 62-year-old person visited the health clinic and wanted to know if he should have any preventive vaccination at his age. Discuss the preventive vaccines that are recommended at his age.

P5181

RAN-2406100301010501

RAN-2406100301010501

Master of Surgery - Examination August - 2026

Orthopaedics (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Sketch neat and labelled diagram wherever necessary.
(3) Figures to the right indicate full marks of the question.
(4) Attempt all questions.
(5) All questions carry equal marks i.e., 25

Seat No.:

Student's Signature

Q. 1. Describe in detail anatomy including blood supply for vertebral column at Dorso-lumbar (DL) junction. Describe biomechanics for this region. Describe in detail tuberculous infection of DL junctional spine. Write various stages of tuberculous infection and its clinical manifestation. **[8+4+5+8 = 25]**

Q. 2. Describe anatomy of the Scaphoid bone. Describe the blood supply of Scaphoid bone. Describe bio mechanical bases of fracture scaphoid. What is the importance of knowledge of anatomy of the scaphoid bone on management of its non-union? **[7+5+5+8=25]**

Q. 3. How many types of fracture union exist for human beings? What are stages of fracture union for each variety? Write about factors affecting fracture union in each type. How to clinically and radiologically assess fracture union in each type? **[4+9+6+6=25]**

Q. 4. Write about calcium metabolism in human body. What are factors affecting absorption of calcium? What are the factors affecting deposition of Calcium in bone and mobilisation of calcium from bones? What is the role of RANK and RANKL receptors on calcium metabolism? **[6+4+10+5=25]**

P5182

RAN-2406100301010502

RAN-2406100301010502

Master of Surgery - Examination August - 2026

Orthopaedics (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Sketch neat and labelled diagram wherever necessary.
(3) Figures to the right indicate full marks of the question.
(4) Attempt all questions.
(5) All questions carry equal marks i.e., 25

Seat No.:

Student's Signature

Q. 1. Define fracture subtrochanter. Write in detail about 2 classifications used at your institute and as per AO classification. What are options available to manage this fracture? Compare various management options. **[4+9+5+7=25]**

Q. 2. Write in detail about any 3 classification other than AO classification used at your institute for fracture distal end radius. Describe various management options and their indications for use for this fracture. What are the complications of this fracture and its management? Describe volar approach to this fracture. **[8+6+6+5=25]**

Q. 3. What is Lisfranc injury? What are the clinical features of this injury? How to diagnose this injury? How to manage a case that has presented within 5 days of injury, describe the rationale? How to manage a case presenting after 3 months of injury, describe the rationale? **[4+4+7+5+5=25]**

Q. 4. What is whiplash injury? What are the clinical features of the same including history? How to diagnose the same? Write—how to manage the same along with rationale of the same. What are the expected complications? **[5+5+5+7+3=25]**

P5183

RAN-2406100301010503

RAN-2406100301010503

Master of Surgery - Examination August - 2026

Orthopaedics (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Sketch neat and labelled diagram wherever necessary.
(3) Figures to the right indicate full marks of the question.
(4) Attempt all questions.
(5) All questions carry equal marks i.e., 25

Seat No.:

Student's Signature

Q. 1. Enlist differential diagnoses of lytic lesion of a long bone. Write about differentiating points about each one (you may make a table). What are the steps to manage a case of contained GCT of distal end radius, presented for the first time? **[5+12+8=25]**

Q. 2. What is DDH? What are the types of the same? How to diagnose clinically and radiologically? What are the treatment guidelines based upon age for the same? Write in detail about Salter's osteotomy. **[3+4+8+6+4=25]**

Q. 3. What is adult onset scoliosis? What are the factors predisposing for the same? Enlist clinical features of the same. How to classify the same? Write about guiding principles for the management of the same. **[4+4+6+5+6=25]**

Q. 4. What is Chronic Osteomyelitis of long bone? What are the clinical features of the same? What are the radiological features of the same? What are the indications of sonography? Write about classification of Chronic Osteomyelitis. Enlist management guidelines for the same. **[3+4+4+4+5+5=25]**

P5184

RAN-2406100301010504

RAN-2406100301010504

Master of Surgery - Examination August - 2026

Orthopaedics (Paper - IV)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Sketch neat and labelled diagram wherever necessary.
(3) Figures to the right indicate full marks of the question.
(4) Attempt all questions.
(5) All questions carry equal marks i.e., 25

Seat No.:

Student's Signature

Q. 1. What is CPAK classification? Write about all the phenotypes possible with this classification. Based upon this what all new philosophy related to TKR are being practiced? Write in detail about each of them. **[4+6+4+11=25]**

Q. 2. What is Denosumab? What is its mechanism of action? How it is to be administered? What are the major risk factors for its use? What challenge an Orthopaedic surgeon faces while initiating Denosumab? **[4+9+4+5+3 =25]**

Q. 3. What is 3D printing in relation to Orthopaedics? How does metallic 3D printer work, what raw material is used? What are the benefits of using this for planning of surgery (write in detail about use cases)? What are the benefits of using the same for complex replacement (write in detail about the use cases)? **[3+5+8+9=25]**

Q. 4. What is Prosthetic Joint Infection (PJI)? What are the clinical features of the same? How investigations help in this diagnosis? What is sonication? What are the management principles for PJI, Write rationale also? **[3+4+6+5+7=25]**

P5153

RAN-2406120801010501

RAN-2406120801010501

Doctor of Medicine Examination August - 2026

Pharmacology (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory.

(3) Figures to the right indicate maximum marks.

(4) Illustrate your answer with examples and diagrams if needed

Seat No.:

Student's Signature

Q.1. Discuss the principles of pharmacokinetics. Explain clearance, volume of distribution and half-life, and their application in the design of a dosage regimen. **40**

Q.2. **Describe briefly :** **15 × 2=30**

a) Enzyme-linked receptors and their pharmacological importance.

b) Clinical Trials designs

Q.3. **Write short note :** **10 × 3=30**

a) Phases of drug biotransformation

b) Receptor desensitisation and down-regulation

c) Contribution of Yellapragada Subbarow to pharmacology

RAN-2406120801010502

RAN-2406120801010502

Doctor of Medicine Examination August - 2026

Pharmacology (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Figures to the right indicate maximum marks.
(4) Illustrate your answer with examples and diagrams if needed.

Seat No.:

Student's Signature

Q.1. Classify oral hypoglycaemic agents. Discuss the rational pharmacotherapy of type 2 diabetes mellitus, including the role of insulin. **40**

Q.2. **Describe briefly** **15 × 2=30**

a) Misuse and abuse of antimicrobials
b) Drugs used in acute decompensated heart failure

Q.3. **Write short note :** **10 × 3=30**

a) Antianxiety drugs
b) Pharmacotherapy of rheumatoid arthritis
c) Drugs used in the treatment of obesity

P5155

RAN-2406120801010503

RAN-2406120801010503

Doctor of Medicine Examination August - 2026

Pharmacology (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory.

(3) Figures to the right indicate maximum marks.

(4) Illustrate your answer with examples and diagrams if needed

Seat No.:

Student's Signature

Q.1. Describe the process of drug discovery and development from target identification to marketing authorisation. **40**

Q.2. **Describe briefly :** **15 × 2=30**

a) Screening methods for anti-inflammatory activity

b) Causality assessment of an adverse drug reaction, with the scales in common use

Q.3. **Write short note :** **10 × 3=30**

a) Functions of an institutional ethics committee

b) Measures of central tendency and dispersion

c) Pharmacology postgraduate as a teacher

P5156

RAN-2406120801010504

RAN-2406120801010504

Doctor of Medicine - Examination August - 2026

Pharmacology (Paper - IV)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Figures to the right indicate maximum marks.
(4) Illustrate your answer with examples and diagrams if needed.

Seat No.:

Student's Signature

Q. 1. Discuss biologics and biosimilars, with reference to their development, regulatory pathway and therapeutic applications. **[40]**

Q. 2. **Describe briefly:** **[15×2=30]**

(a) Pathway targeted therapies in cancer
(b) Newer anticoagulant and antiplatelet agents

Q. 3. **Write short note:** **[10×3 =30]**

(a) Metformin repositioning
(b) Newer drug delivery systems
(c) Chronopharmacology and its applications in therapy

P5129

RAN-2406120401010501

RAN-2406120401010501

Doctor of Medicine (M.D.) Examination August - 2026

Forensic Medicine & Toxicology (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Right side numbers denotes marks of the question.
(3) Write answers according to the question only.
(4) Write legibly. No marks shall be given for the material that cannot be readable.
(5) Draw table or diagram whenever it is needed.
(6) Attempt all questions.

Seat No.:

Student's Signature

Q. 1. Describe the various blood group systems used in forensic medicine. Discuss their medico-legal applications. **(20)**

Q. 2. Describe the anatomy of the hyoid bone. Discuss the medico-legal significance of hyoid fractures in violent asphyxial deaths. Add a note on hyoid bone artefacts. **(20)**

Q. 3. Describe the layers, functions, and appendages of the skin. Discuss their medico-legal importance. **(20)**

Q. 4. Discuss the patho-physiology, laboratory findings, autopsy findings, and histopathology of disseminated intravascular coagulation (DIC). Describe the pathological features of maternal death in HELLP syndrome. **(20)**

Q. 5. **Write Short Notes.** **(5×4=20)**

a) Age estimation from the symphyseal surface of the pubis.
b) Age estimation of myocardial infarction.
c) Embalming and preservation of museum specimens.
d) Post-mortem biochemistry of cerebrospinal fluid (CSF).
e) Psychological autopsy in forensic medicine.

P5130

RAN-2406120401010502

RAN-2406120401010502

Doctor of Medicine - Examination August - 2026

Forensic Medicine & Toxicology (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Right side numbers denotes marks of the question.
(3) Write answers according to the question only.
(4) Write legibly. No marks shall be given for the material that cannot be readable.
(5) Draw table or diagram whenever it is needed.
(6) Attempt all questions.

Seat No.:

Student's Signature

Q. 1. Describe the injuries associated with falls from a height (>12 feet). Discuss how to differentiate accidental, suicidal, and homicidal falls. **(20)**

Q. 2. Discuss the role of a One Stop Centre (OSC) in the management of survivors of sexual assault. Explain the importance of a multidisciplinary approach. **(20)**

Q. 3. Discuss the ethical principles of consent and their limitations. Explain the medico-legal issues related to consent and privacy in medical photography. **(20)**

Q. 4. Classify euthanasia. Discuss the Aruna Shanbaug case and its significance in the evolution of euthanasia in India. **(20)**

Q. 5. **Write Short Notes** **(5×4=20)**

a) Non-accidental injuries in children.
b) Video conferencing for recording evidence.
c) Medico-legal issues in critical care.
d) Aggravated sexual assault under the POCSO Act, 2012.
e) Ethical and legal issues in blood transfusion.

P5131

RAN-2406120401010503

RAN-2406120401010503

Doctor Of Medicine Examination August - 2026

Forensic Medicine (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Right side numbers denotes marks of the question.
(3) Write answers according to the question only.
(4) Write legibly. No marks shall be given for the material that cannot be readable.
(5) Draw table or diagram whenever it is needed.
(6) Attempt all questions.

Seat No.:

Student's Signature

Q.1. Describe the autopsy and ancillary investigations in an alleged custodial death. Discuss the patho-physiology of traumatic rhabdomyolysis. **(20)**

Q.2. Classify the various types of embolism. Discuss the etiology, pathogenesis, and autopsy diagnosis of air embolism. **(20)**

Q.3. Discuss the role of radiological examination of medicolegal practice with help of examples. **(20)**

Q.4. Describe the signs, symptoms, management and autopsy findings in a case of Sulphuric acid (H2S04) poisoning. Add a note on Acid Attack and its legal aspect in the present scenario in India. **(20)**

Q.5. **Write Short Notes.** **(5×4=20)**

a) Bedside tests for common poisons.
b) Nano-antidotes in poisoning.
c) Bile analysis in forensic toxicology.
d) Toxicology of skeletonized remains.
e) Uses of DNA fingerprinting in New born baby swapping

P5132

RAN-2406120401010504

RAN-2406120401010504

Doctor of Medicine (Forensic Medicine & Toxicology) Examination August - 2026
Paper - IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Right side numbers denotes marks of the question.
(3) Write answers according to the question only.
(4) Write legibly. No marks shall be given for the material that cannot be readable.
(5) Draw table or diagram whenever it is needed.
(6) Attempt all questions.

Seat No.:

Student's Signature

Que:1. Define CBRN-E Forensics. Discuss bioterrorism and its forensic significance. **(20)**

Que:2. Compare Section 22 BNS with the McNaughten Rules, with suitable illustrations. **(20)**

Que:3. Discuss ethical and legal aspects of the procedure of Narcoanalysis, as a tool for crime investigation. **(20)**

Que:4. Discuss the role of genetic genealogy as an emerging technology in forensic science. **(20)**

Que:5. **Write Short Notes.** **(5 × 4 = 20)**

a) Necrobiome and estimation of time since death.
b) Somnambulism and criminal responsibility.
c) Medico-legal aspects of telemedicine.
d) Forensic science in anti-doping.
e) Bloom's theory in forensic psychiatry.

P5157

RAN-2406120901010501

RAN-2406120901010501

M.D. Physiology Examination August - 2026

Physiology (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Write legible and to the point.
(4) Draw diagrams wherever necessary.
(5) Figures in brackets and on the right indicate marks.

Seat No.:

Student's Signature

Q.1. Describe the Physiological basis of Resting membrane potential across neuronal membrane (10) Explain the principle of Gibbs Donnan membrane equilibrium (06) Compare and contrast the ionic basis of generation of Action potential in skeletal and cardiac muscle (10) **26**

Q.2. Describe the role of kidneys in maintenance of pH (12) Add a note on Metabolic Acidosis citing examples (13) **25**

Q.3. Describe the evolutionary development of gastrointestinal system from unicellular organisms to human beings. **25**

Q.4. **Write short notes on :** **8 × 3 =24**

a) Intercellular junctions.
b) Nobel Laureate in Physiology or Medicine in 2025 with their research.
c) Types of RNA and their Functions.

RAN-2406120901010502

RAN-2406120901010502

Doctor of Medicine (M.D.) Examination August - 2026

Physiology (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Write legible and to the point.
(4) Draw diagrams wherever necessary.
(5) Figures in brackets and on the right indicate marks.

Seat No.:

Student's Signature

Q.1. Tabulate all the clotting factors with their source, functions and effects of deficiency (6). Define Bleeding time and Clotting time writing one test for each (4). Write a detailed note on various bleeding and clotting disorders with their causes, features and management (12). Explain why bleeding occurs in scurvy despite normal bleeding and clotting time (4). **26**

Q.2.. Describe the Starling forces acting on the walls of pulmonary capillaries (10). Explain the mechanism of development of pulmonary oedema and the factors which guard against it (10). Describe the clinical features of pulmonary oedema and their causes (5). **25**

Q.3. Enumerate gut peptides (5) and discuss the integrated action of gut peptides in digestion (10). Describe the neuroendocrine factors controlling appetite and food intake (10). **25**

Q.4. **Write short notes on:** **8 x 3 =24**

a) Causes and types of Syncope.
b) Applications of concept of preload and afterload to the contraction of heart including the medications modifying preload and afterload.
c) ECG changes in various electrolyte disturbances.

P5159

RAN-2406120901010503

RAN-2406120901010503

Doctor of Medicine Examination August - 2026

Physiology (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Write legible and to the point.
(4) Draw diagrams wherever necessary.
(5) Figures in brackets and on the right indicate marks.

Seat No.:

Student's Signature

Q. 1. Describe in detail the serial and parallel processing of visual image from the retina to the brain (10) and effects of disruptions in the serial and parallel pathways. (10) Explain what will happen and why if visual images chronically fall on noncorresponding points in the two retinas in young children. (6) **(26)**

Q.2. Explain the physiological importance of maintaining plasma calcium within a narrow range. (4) Discuss the synthesis, target organ actions, and feedback regulation of Parathyroid Hormone and Calcitriol in calcium homeostasis. (15) Describe the clinical presentation and neuromuscular physiological causes of hypocalcemic tetany. (6) **(25)**

Q. 3. Differentiate between upper and lower motor neurons including their lesions.(10) Describe the role of basal ganglia in locomotion. (10) Explain the pathophysiology and clinical features of Huntington's chorea.(5) **(25)**

Q. 4. **Write short notes on:** **(8 × 3 = 24)**

a) Neuroendocrine reflexes governing parturition and lactation.
b) Physiological actions of testosterone and the mechanism of penile erection.
c) Physiological basis of the classic clasp-knife response.

RAN-2406120901010504

RAN-2406120901010504

Doctor of Medicine (Physiology) Examination August - 2026

PAPER - IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) All questions are compulsory.
(3) Write legibly and to the point.
(4) Draw diagram wherever necessary.
(5) Figures in brackets and on the right indicates marks.

Seat No.:

Student's Signature

Q.1. Explain the theories of ageing (10) Write about the geriatric changes in different organs (16) **26**

Q.2 Discuss the Pathophysiology of Parkinson's disease (15) Give recent developments in it's treatment (10) **25**

Q.3. Discuss the causes of infertility in male and female (14) and recent advances in the management of infertility (11) **25**

Q.4. **Write notes on :** **$8 \times 3 = 24$**

a. Pathogenesis of Fever
b. Functional MRI
c. Hemoglobinopathies

P5121

RAN-2406121101010501

RAN-2406121101010501

Doctor of Medicine Examination August - 2026

Community Medicine (Paper - I) (Set - C)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) Figure to right indicates maximum marks

(3) All questions are compulsory.

Seat No.:

Student's Signature

Q. 1. What are emerging and re-emerging infections? Discuss the factors responsible for the emergence and re- emergence of infections in the twenty first century. What are the National and International strategies for early case detection, prevention and control of it? **20 Marks**

Q. 2. Write down the life cycle, different characteristics of sandfly and habits of sandfly, sandfly transmitted diseases in India and sandfly control measures in details. **20 Marks**

Q. 3. Defines Cohort? Write various epidemiological methods. Explain Cohort study in details with example **20 Marks**

Q. 4. **Short Notes: (10 Marks × 4)** **40 Marks**

a) Pneumococcal vaccine

b) What is Cold Chain? Write equipments use in cold chain maintenance and How will you manage cold chain at PHC level?

c) What is sampling? Write down various sampling methods and explain Cluster Sampling method in details.

d) Role of Qualitative Research methods in Public Health.

P5122

RAN-2406121101010502

RAN-2406121101010502

Doctor Of Medicine Examination August - 2026

Community Medicine (Paper - II) (Set - C)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Figure to right indicates maximum marks
(3) All questions are compulsory.

Seat No.:

Student's Signature

Q.1. Classify disasters. Discuss the principles of disaster management and describe the organization of disaster management at the national, state, and district levels in India. **20**

Q.2. A Health and Wellness Centre reports a rising burden of hypertension and diabetes. Discuss the role of Health and Wellness Centres in Comprehensive Primary Health Care. **20**

Q.3. Discuss the National Strategic Plan for Malaria Elimination in India. **20**

Q.4. **Short Notes: (10 Marks × 4)** **40**

a) Health planning cycle
b) Ayushman Bharat
c) Principle of management.
d) Biomedical waste management rules 2016

RAN-2406121101010503

RAN-2406121101010503

Doctor of Medicine Examination August - 2026

Community Medicine (Paper - III) (Set - A)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) Figure to right indicates maximum marks

(3) All questions are compulsory.

Seat No.:

Student's Signature

Q. 1. Discuss the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) strategy in India. Describe its components, implementation, achievements, and challenges. **20 Marks**

Q. 2. A district is experiencing a rapid increase in its elderly population with a rising burden of chronic diseases and functional disabilities. As the District programme officer, discuss the health and social problems of the elderly and outline the implementation of the National Programme for Health Care of Elderly (NPHCE). **20 Marks**

Q. 3. Discuss occupational health in detail. Describe the occupational hazards, occupational diseases, preventive measures and relevant national legislation in India. **20 Marks**

Q. 4. **Short Notes: (10 Marks × 4)** **40 Marks**

a) Rashtriya Bal Swasthya Karyakram (RBSK)
b) COTPA Act
c) Emergency obstetric and New born care
d) Emerging and re-emerging infectious diseases

RAN-2406121101010504

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Doctor of Medicine (Community Medicine) Examination August - 2026

PAPER - IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) Figure to right indicates maximum marks

(3) All questions are compulsory.

Seat No.:

Student's Signature

Q.1. Discuss the social determinants of tribal health in India. Explain how socioeconomic, cultural, environmental and health system factors influence health outcomes, and suggest evidence-based interventions to improve tribal health. **20**

Q.2. Tobacco use remains a major public health challenge in India. As a community medicine specialist, design a Comprehensive Behaviour Change Communication (BCC) strategy for tobacco prevention and cessation. **20**

Q.3. Discuss the epidemiology of vector borne diseases in India. Describe the principles and methods of vector control and the role of Integrated Vector Management (IVM) in diseases prevention. **20**

Q.4. **Short Notes: (10 Marks × 4)** **40**

a) Operational research
b) District Residency Scheme
c) Family Adoption Scheme
d) Health Management Information System

P5177

RAN-2406100201010501

RAN-2406100201010501

Master of Surgery - Examination August - 2026

Ophthalmology (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book.
(2) Attempt all questions
(3) Answer each question and its parts in Sequential order
(4) Illustrate your answer with SUITABLE DIAGRAMS

Seat No.:

Student's Signature

Short Essays: **(25×4=100)**

Q. 1. (a) Anatomy and ultrastructure of the cornea. **(6+6+5+8)**
(b) Describe corneal wound healing.
(c) Factors delaying healing.
(d) Clinical implications in refractive surgery and Limbal stem cell deficiency.

Q.2. (a) Discuss Formation of aqueous humour and Blood-aqueous barrier . **(7+6+6+6)**
(b) Physiology of aqueous outflow.
(c) Mechanism of action of anti-glaucoma drugs based on aqueous dynamics.
(d) Recent advances in glaucoma pharmacotherapy.

Q.3. (a) Discuss principles of Sturm's conoid. **(6+8+6+5)**
(b) Describe optical types of Astigmatism and astigmatism based on various ophthalmic conditions causing irregular astigmatism.
(c) Describe various instruments used to measure astigmatism.
(d) Methods used for subjective correction of astigmatism.

Q.4. 1. Describe immunomodulators and their indications in various ocular conditions **(8)**
2. Use of steroids by various routes in different ophthalmic conditions. **(7)**
3. Comparison of efficacy and safety of Aflibercept, Bevacizumab and Ranibizumab in treatment of diabetic macular Oedema. **(10)**

P5178

RAN-2406100201010502

RAN-2406100201010502

M.S. (Ophthalmology) Examination August - 2026

M.S. Ophthalmology (Paper - 2)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Attempt all questions
(3) Answer each question and its parts in Sequential order
(4) Illustrate your answer with SUITABLE DIAGRAMS

Seat No.:

Student's Signature

Short Essays : **25 × 4 = 100**

Q.1. Describe various types of Retinal detachment. Risk factors and Symptomatology of Retinal detachment Principles of management of various Retinal detachment surgeries. **8+8+9**

Q.2. Role of OCT in Diabetic Retinopathy and Glaucoma. Describe novel imaging biomarkers in diabetic retinopathy and DME. **10+15**

Q.3. Aetiology ,clinical features and principle of management of secondary Glaucoma. **5+10+10**

Q.4. **Write notes on :**

1. Rings in Ophthalmology. **08**
2. Ectopia Lentis. **10**
3. Implants in Ophthalmology **07**

P5179

RAN-2406100201010503

RAN-2406100201010503

Master Of Surgery Examination August - 2026

Ophthalmology (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Attempt all questions
(3) Answer each question and its parts in Sequential order
(4) Illustrate your answer with SUITABLE DIAGRAMS

Seat No.:

Student's Signature

Short Essays: **(25×4=100)**

Q.1. (a) Describe and compare various methods of Pre-operative Biometry. **(9)**
(b) What are the problems in predicting IOL power in children. **(8)**
(c) Describe algorithm for undercorrection and factors to be considered for the same **(8)**

Q.2. (a) Describe in detail Differential diagnosis of leucocoria.
(b) Describe clinical features and management of one of the conditions. **(15+10)**

Q.3

(a) Discussvarious indications of keratoplasty. **(8)**
(b) Describe types of keratoplasty and post-operative management. **(7)**
(c) Describe various complications related to keratoplasty and their management **(10)**

Q.4. **Write notes on :**

1. Various causes of giant papillary conjunctivitis and its management. **(7)**
2. Enumerate various ptosis surgeries. Describe one in detail. **(8)**
3. Explain ROP in detail, ICROP classification, management & follow up guidelines for ROP. **(10)**

P5180

RAN-2406100201010504

RAN-2406100201010504

Master of Surgery Examination August - 2026

Ophthalmology (Paper - IV)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Attempt all questions
(3) Answer each question and its parts in Sequential order
(4) Illustrate your answer with SUITABLE DIAGRAMS

Seat No.:

Student's Signature

Short Essays: **(25 × 4 = 100)**

Q.1. (a) Discuss minimally invasive glaucoma drainage devices. **(10)**
(b) Describe types of glaucoma drainage devices (GDDs). **(10)**
(c) Write complications related to GDDs. **(5)**

Q.2. (a) Describe the recent advances in vitrectomy in detail **(10)**
(b) Vitreous anatomy and its attachment with diagrammatic representation **(10)**
(c) Discuss various vitreous substitutes and indications for their use. **(5)**

Q.3. (a) Discuss various types of intraocular lenses. **(10)**
(b) Describe their indications, advantages, limitations, and recent advances in IOL technology. **(8)**
(c) Discuss Different IOL formulas. **(7)**

Q.4. (a) Define Dry Eye Disease. Describe its etiopathogenesis, risk factors, and classification based on the TFOS DEWS II recommendations. **(10)**
(b) Describe the clinical features, diagnostic evaluation, management of Dry Eye Disease, including conventional and newer diagnostic modalities. **(8)**
(c) Discuss the recent advances in the management of Dry Eye Disease. **(7)**

P5133

RAN-2406120501010501

RAN-2406120501010501

Doctor of Medicine Examination August - 2026

M.D. General Medicine (Paper - I) Set - I

[Total Marks: 100

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss the role of Micronutrients in health and disease **[25]**

Q.2. Discuss malaria under following headings **[25]**

a) Draw a life cycle of Plasmodium with various stages and disease patterns of recrudescence and relapse **[10]**

b) Discuss ACT Kit with their rationale, various combinations, dosages and side effects **[10]**

c) Malaria in pregnancy: severity, complications and treatment **[5]**

Q.3. Approach to giddiness **[25]**

Q.4. **Write short notes** **[25]**

i) Euthanasia and physician assisted suicide

ii) Paraneoplastic syndromes

P5134

RAN-2406120501010502

RAN-2406120501010502

Doctor Of Medicine Examination August - 2026

General Medicine (Paper - II)

[Total Marks: 100

સૂચના : / Instructions	Seat No.:
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book	Student's Signature

Q.1. Define AQI. Discuss causes, health hazards and management of environmental air pollution. **[25]**

Q.2. Discuss Alcoholic hepatitis: pathophysiology, clinical manifestations and its management **[25]**

Q.3. Fever in Intensive Care Units **[25]**

Q.4. **Write short notes** **[25]**

i) Discuss Tuberculosis in HIV positive patients

ii) Dialysis induced Hypotension (DIH): pathophysiology and management

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P5135

RAN-2406120501010503

RAN-2406120501010503

Doctor Of Medicine Examination August - 2026

General Medicine (Paper - III)

[Total Marks: 100

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Constrictive pericarditis **[25]**

Q.2. **Approach to joint pain** **[25]**

a) Discuss Approach to articular and musculoskeletal disorders **(8)**

b) Algorithm for diagnosis of musculoskeletal complaints and most common musculoskeletal conditions **(8)**

c) Sites of hand wrist involvement with their potential disease associations **(9)**

Q.3. Pheochromocytoma **[25]**

Q.4. **Write short notes** **[25]**

i) Evidence based medicine

ii) Diabetic dyslipidemia

P5136

RAN-2406120501010504

RAN-2406120501010504

Doctor of Medicine Examination August - 2026

General Medicine (Paper - IV)

[Total Marks: 100

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. Complement pathways and their role in systemic diseases **(25)**

Q. 2. Approach to acute encephalitis syndromes in adults **(25)**

Q. 3. Discuss myelodysplastic syndromes **(25)**

Q. 4. **Write short notes** **(25)**

i) Antiaging medications
ii) Artificial intelligence in medicine

P5169

RAN-2406121501010501

RAN-2406121501010501

Doctor of Medicine Examination August - 2026

M.D. Respiratory Medicine (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Explain acid-base regulation by the respiratory system. Describe the compensatory mechanisms in respiratory acidosis and alkalosis. **(20)**

Q.2. Define various drug resistance in TB. Discuss etiopathogenesis and NTEP guidelines of DR TB management including pretreatment evaluation. **(20)**

Q.3. Discuss pleural fluid mechanics and normal cellular composition. Describe diagnostic approach to haemorrhagic pleural effusion. **(20)**

Q.4. Describe the lymphatic drainage of the Lung. Explain its utility in pulmonary practice and imaging techniques. **(20)**

Q.5. **Write Short Notes: (5 Marks Each)** **(20)**

1. Physiology of the lung in pregnancy
2. Impulse Oscillometry technique
3. Alveolar macrophage
4. Surfactant

P5170

RAN-2406121501010502

RAN-2406121501010502

Doctor of Medicine Examination August - 2026

Clinical Pulmonary Medicine Including Medical Emergencies

(Respiratory Medicine) (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss the various effects of indoor and outdoor air pollution on respiratory system . **(20)**

Q.2. Discuss the differential diagnosis, investigation and management of solitary pulmonary nodule seen in CXR of a patient aged 60 years. **(20)**

Q.3. Define Precision medicine in COPD. Discuss endotypes and phenotypes of COPD and its role in management. **(20)**

Q.4. What are the differential diagnosis of miliary nodules on CXR. Describe etiopathogenesis, clinical features, diagnosis and management of coal workers pneumoconiosis. **(20)**

Q.5. **Write Short Notes: (5 Marks Each)** **(20)**

1. Radiologic patterns in Interstitial lung disease
2. High altitude pulmonary diseases
3. Oxygen toxicity.
4. Antipseudomonal antibiotic therapy in Bronchiectasis.

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RAN-2406121501010503

RAN-2406121501010503

Doctor Of Medicine Examination August - 2026

Clinical Pulmonary Medicine Including Critical Care Medicine

Respiratory Medicine (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss the various respiratory manifestations of systemic lupus erythematosus (SLE) and describe their management. **(20)**

Q.2. Discuss the respiratory complications in the immunocompromised host, highlighting diagnostic approach and management strategies. **(20)**

Q.3. Define Pulmonary Hypertension and write current WHO classification of pulmonary Hypertension. Describe pathophysiology, clinical manifestations, and management of PH. **(20)**

Q.4. Describe pathophysiology of hypercapnoiec respiratory failure and its management in IRCU. **(20)**

Q.5. **Write Short Notes: (5 Marks Each)** **(20)**

1. Tension pneumothorax
2. Hemoptysis
3. Risk stratification and management in pulmonary embolism
4. Aspiration pneumonia

P5172

RAN-2406121501010504

RAN-2406121501010504

Doctor of Medicine (respiratory medicine) Examination August - 2026

Recent advances in pulmonary medicine and research methodology - Paper-IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss recent advances in Bronchoscopic technique. Describe the principles, indications, advantages, limitations, & complications of EBUS. **20**

Q.2. Describe the recent advances in drug-resistant tuberculosis covering newer anti TB drugs, rapid molecular diagnostics, &host directed therapies. **20**

Q.3. Discuss the approach to diagnosis, TNM staging, & multidisciplinary management of NSCLC. **20**

Q.4. Define pleurodesis. Describe its indication, contraindications, various methods, sclerosing agents & complications. **20**

Q.5. **Write Short Notes: (5 Marks Each)** **20**

1. Central sleep apnoea.
2. Liquid biopsy.
3. POCUS.
4. Principles of formulating good research question

P5113

RAN-2506121201010501

RAN-2506121201010501

Doctor of Medicine Examination August - 2026

Anatomy (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Attempt all questions.
(3) Illustrate your answers with suitable diagram.
(4) Figures to the right indicate marks.

Seat No.:

Student's Signature

Q. 1. Describe Thyroid gland under following headings: **(6 + 6 + 4 + 4 = 20)**

a. Gross anatomy
b. Microscopic structure
c. Relations
d. Applied aspects

Q. 2. Describe development of Tongue and explain embryological basis of nerve supply of tongue. Add note on developmental anomalies of tongue **(20)**

Q. 3. Describe Fascial spaces in the Palm with its boundaries and applied aspect. **(20)**

Q. 4. **Write short notes on the following.** **(4 × 10 = 40)**

a. Microscopic structure of Retina
b. Thoracic Fluoroscopy
c. Pterygopalatine ganglion
d. Chemical agents in Embalming

P5114

RAN-2506121201010502

RAN-2506121201010502

Doctor of Medicine Examination August - 2026

Anatomy (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Attempt all questions.
(3) Illustrate your answers with suitable diagrams.
(4) Figures to the right indicate marks.

Seat No.:

Student's Signature

Q. 1. Describe gross anatomy of thoraco-abdominal diaphragm with its applied aspects. Add notes on its development. **(12 + 8 = 20)**

Q. 2. Describe longitudinal arches of foot in detail with applied aspects. **(20)**

Q. 3. Describe ultrastructure different types of cell junctions. Add notes on junctional complex. **(14 + 6 = 20)**

Q. 4. **Write short notes on the following.** **(4 × 10 = 40)**

a. Somites
b. Development of kidney
c. Microscopic structure of ileum
d. Supports of uterus

P5115

RAN-2506121201010503

RAN-2506121201010503

Doctor Of Medicine Examination August - 2026

Anatomy (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) Attempt all questions.

(3) Illustrate your answers with suitable diagram.

(4) Figures to the right indicate marks.

Seat No.:

Student's Signature

Q.1. Describe reticular formation **(20)**

Q.2. Describe structural chromosomal abnormalities and their effects **(20)**

Q.3. Discuss facial nerve under following heads **(4+7+4+5=20)**

a. Functional components and Nuclei
b. Course and branches
c. Ganglia related to the nerve
d. Applied anatomy

Q.4. **Write short notes on the following.** **(4×10=40)**

a. Blood supply of internal capsule and its importance
b. Nuclei and connections of thalamus
c. Genetic counselling
d. Disorders of cerebellum

P5116

RAN-2506121201010504

RAN-2506121201010504

MD (Anatomy) Examination August - 2026

Paper - IV

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Attempt all questions.
(3) Illustrate your answers with suitable diagram.
(4) Figures to the right indicate marks.

Seat No.:

Student's Signature

Q.1. Describe role of Different mobile apps of anatomy and its role in medical education. Write about advantages and disadvantages of it. **(20)**

Q.2. Describe comparative Anatomy of lower limb with its stepwise evolutionary modification in human. **(20)**

Q.3. Describe Regenerative modalities and tissue scaffolding by patient derived stem cells. **(20)**

Q.4. **Write short notes on the following.** **(4 × 10 = 40)**

a. Three-dimensional ultrasound principle and limitations.
b. Evolution of Taste (gustation) in human
c. Basic principles of organ donation
d. Extended reality and spatial computing in human anatomy

RAN-2406100401010501

RAN-2406100401010501

Master Of Surgery Examination August - 2026

OTO-RHINO & Laryngology (Paper - 1) Set - 3

[Total Marks: 100

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Describe ethmoidal pneumatization in detail. Discuss its relation to anterior skull base with its importance in transnasal endoscopic surgery. **(25)**

Q.2. Describe physiology of Balance in detail. Discuss an importance of Vestibulo-Ocular Reflex in maintenance of Balance. **(25)**

Q.3. Describe anatomy of Larynx. Describe various potential spaces in relation to Larynx & its importance in spread of disease &conservative laryngeal surgeries. **(25)**

Q.4. **Write short notes on:** **(5×5=25)**

1. Middle ear transformer mechanism
2. Endoscopic anatomy of Retrotympanum
3. Biofilms
4. Radiotherapy in Head-Neck Cancer
5. Pterygopalatine fossa

RAN-2406100401010502

RAN-2406100401010502

Master of Surgery - Examination August - 2026

E.N.T. (Otorhinolaryngology) (Paper - II)

Principles & Practice of Otolaryngology

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q. 1. Describe clinical evaluation of Deaf child in detail. Write in details about Cochlear Implant surgery techniques including its candidacy& complications. **(25 marks)**

Q. 2. Describe diagnostic criteria for Rhinosinusitis as per AAO-HNS Foundation. Discuss management of Chronic Frontal Sinusitis including various surgical approaches. **(25 marks)**

Q. 3. Discuss etiology, clinical presentation & investigation for Nasopharyngeal Angiofibroma. **(25 marks)**

Q. 4. **Write short notes on :** **(5×5 =25 marks)**

1. Management of traumatic Facial Nerve Palsy
2. Anesthesia in techniques in foreign body bronchus
3. Drug Induced Sleep Endoscopy
4. CSF Rhinorrhoea
5. Laryngeal Stroboscopy

P5187

RAN-2406100401010503

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Master Of Surgery Examination August - 2026

Oto-Rhino & Laryngology (Paper - III)

[Total Marks: 100

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Write principles of 'Coblation'. Discuss its various clinical applications in ENT with advantages & disadvantages. **(25)**

Q.2. Write Pittsburgh staging system of Squamous cell carcinoma of EAC. Discuss its clinical features, investigations &treatment options according to the staging. **(25)**

Q.3. Describe how will you approach and treat a patient with neck metastasis with unknown primary. **(25)**

Q.4. **Write short notes on.** **(5×5=25)**

1. Sulcus Vocalis
2. Bleomycin
3. Laser in ENT
4. Narrow band Imaging
5. Suspension bridge Pharyngoplasty

RAN-2406100401010504

RAN-2406100401010504

M.S. (Branch IV) Examination August - 2026
E.N.T. (Otorhinolaryngology)
Paper IV. General Surgical principles and Head Neck surgery

[Total Marks: 100

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Discuss management of cut throat injury over neck with hemodynamic shock in a 30 years old male in detail. **(25 marks)**

Q.2. Enumerate esophageal causes of dysphagia. Discuss evaluation of dysphagia & its management. **(25 marks)**

Q.3. Describe in detail Endoscopic Ear surgery. **(25 marks)**

Q.4. **Write short notes on:** **(5 × 5 = 25 marks)**

1. Second Branchial cleft anomalies
2. CBCT in ENT
3. Reconstructive flaps for Head &Neck Cancer Surgery.
4. Immuno-modulatory therapies for Chronic Rhinosinusitis
5. Nasal bone fracture

P5145

RAN-2406120701010501

RAN-2406120701010501

Doctor of Medicine - Examination August - 2026

Pediatrics (Paper - I)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Sketch neat and labelled diagram wherever necessary.
(3) Figures to the right indicate full marks of the question.
(4) All questions are compulsory.

Seat No.: 7 1 7

Student's Signature

Q. 1. Endogenous synthesis of vitamin D and discuss clinical features and complications of vitamin D deficiency. **(10)**

Q. 2. Renal Mechanisms for Acid base balance and discuss aetiology and Pathophysiology of Metabolic acidosis. **(10)**

Q. 3. **Write short notes. (5 marks each)**
(a) Thiamine deficiency
(b) Application of recombinant DNA technique

Q. 4. **Write short notes. (5 marks each)**
(a) Emergency triage assessment and treatment ETAT
(b) Air ambulance

Q. 5. **Write short notes. (5 marks each)**
(a) Pediatric Pharmacogenomics
(b) Brain Death- Death by Neurologic Criteria

Q. 6. **Write short notes. (5 marks each)**
(a) New born and infant death review
(b) lab diagnosis of acute leukemia

Q. 7. **Write short notes. (5 marks each)**
(a) Hypernatremia in children
(b) Pathophysiology of malnutrition

Q. 8. **Write short notes. (5 marks each)**
(a) Diagnostic role of Urine routine microscopy
(b) Antidote-atropine

Q. 9. Write short notes. (5 marks each)

(a) UDID in pediatrics

(b) Doctor patient relationship

Q. 10. Write short notes. (5 marks each)

(a) FBNC program

(b) Write type of research studies and brief about cohort study

P5146

RAN-2406120701010502

RAN-2406120701010502

Doctor of Medicine - Examination August - 2026

Pediatrics (Paper - II)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Sketch neat and labelled diagram wherever necessary.
(3) Figures to the right indicate full marks of the question.
(4) All questions are compulsory.

Seat No.: 717

Student's Signature

Q. 1. Discuss etiology and write management of severe ARDS **(10)**

Q. 2. Describe clinical approach, diagnosis and management of pulmonary TB **(10)**

Q. 3. **Write short notes. (5 marks each)**
(a) Acute tonsilitis
(b) Emotional and Linguistic Development of 12 to 18 months

Q. 4. **Write short notes. (5 marks each)**
(a) Breath- holding spells
(b) Dyslexia

Q. 5. **Write short notes. (5 marks each)**
(a) Neurodevelopmental and Neurobehavioral characteristics of Down syndrome
(b) Genetic counselling for sickle cell disease

Q. 6. **Write short notes. (5 marks each)**
(a) Fragile X syndrome
(b) Micronutrient deficiency in children

Q. 7. **Write short notes. (5 marks each)**
(a) Electrical burn
(b) Diagnostic Approach for Patients with thrombocytopenia

Q. 8. **Write short notes. (5 marks each)**
(a) Kawasaki disease
(b) Diaper dermatitis

Q. 9. **Write short notes. (5 marks each)**

(a) CTEV

(b) Retinitis pigmentosa

Q. 10. **Write short notes. (5 marks each)**

(a) Discuss discharge criteria of SAM

(b) Management of Osteomyelitis

P5147

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Doctor of Medicine Examination August - 2026

Pediatrics (Paper - III)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Sketch neat and labelled diagram wherever necessary.
(3) Figures to the right indicate full marks of the question.
(4) All questions are compulsory.

Seat No.:

Student's Signature

Q. 1. Diagnostic approach to patient with fever of unknown origin

Q. 2. Evaluation of child with proteinuria. Management of Nephrotic Syndrome

Q. 3. **Write short notes. (5 marks each)**
(a) Aphthous Ulcers
(b) Recurrent pneumonia

Q. 4. **Write short notes. (5 marks each)**
(a) Antimicrobial stewardship in PICU
(b) Management of Gulian-Barre Syndrome

Q. 5. **Write short notes. (5 marks each)**
(a) Empyema complication and treatment
(b) Clinical manifestation of Tetralogy of Fallot

Q. 6. **Write short notes. (5 marks each)**
(a) Diagnosis and treatment myocarditis
(b) Fanconi anemia

Q. 7. **Write short notes. (5 marks each)**
(a) Neurogenic bladder
(b) Management of diabetic ketoacidosis.

Q. 8. **Write short notes. (5 marks each)**
(a) Approach to epilepsy surgery
(b) Management of Migraine Headaches in Children

Q. 9. **Write short notes. (5 marks each)**
(a) Duchenne muscular dystrophy
(b) Discuss non-hodgkins lymphoma

Q. 10. **Write short notes. (5 marks each)**
(a) Neurofibromatosis
(b) Approach in congenital Adrenal Hyperplasia

P5148

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Doctor of Medicine - Examination August - 2026

Pediatrics (Paper - IV)

Time: 3 Hours] **[Total Marks: 100**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
(2) Sketch neat and labelled diagram wherever necessary.
(3) Figures to the right indicate full marks of the question.
(4) All questions are compulsory.

Seat No.: 717

Student's Signature

Q. 1. Discuss the pathophysiology, clinical features, diagnostic evaluation and recent updates in the management of Neonatal Encephalopathy / Hypoxic-Ischemic Encephalopathy (HIE). **(10)**

Q. 2. Discuss the clinical utility, current applications, and future prospects of Next-Generation Sequencing (NGS) in pediatric critical care medicine. **(10)**

Q. 3. **Write short notes on (5 marks each)**

a. Antenatal counseling and optimization in extreme prematurity
b. Kangaroo Mother Care (KMC) for low birth weight infants: Recent WHO guidelines

Q. 4. **Write short notes on (5 marks each)**

a. High-Frequency Oscillatory Ventilation (HFOV) in neonates: Indications and lung recruitment strategies
b. Needle-free injection systems and microneedle patches in pediatric immunization.

Q. 5. **Write short notes on (5 marks each)**

a. Target oxygen saturation monitoring and targeting in preterm neonates
b. Role of wearable biosensors and remote monitoring systems in the Pediatric Intensive Care Unit (PICU)

Q. 6. **Write short notes on (5 marks each)**

a. Functional Echocardiography (fECHO) in neonatal hemodynamic monitoring
b. Whole-body cooling versus selective head cooling in neonatal HIE

Q. 7. **Write short notes on (5 marks each)**

a. Clinical applications of inhaled Nitric Oxide (iNO) therapy in pediatrics
b. Antisense oligonucleotides and gene replacement therapies in Spinal Muscular Atrophy (SMA)

Q. 8. **Write short notes on (5 marks each)**

a. Standards of processing and nutritional management in Donor Human Milk Banking

b. Applications of CRISPR-Cas9 technology in managing pediatric hemoglobinopathies

Q. 9. **Write short notes on (5 marks each)**

a. Non-invasive monitoring strategies and biomarker evaluation for Necrotizing Enterocolitis (NEC)

b. Expanded Newborn Screening (ENBS): Challenges and implementation strategies in India

Q. 10. **Write short notes on (5 marks each)**

a. High-Flow Nasal Cannula (HFNC) therapy in pediatric acute respiratory distress

b. Liquid biopsy and circulating tumor DNA (ctDNA) applications in pediatric oncology diagnostics

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