

UPSC CSE Medical Science Syllabus 2024

The UPSC Medical Science syllabus 2024 covers anatomy, physiology, biochemistry, pharmacology, pathology, forensic medicine, microbiology and general medicine. Candidates are tested on their conceptual grasp of medical topics and ability to apply this knowledge to real-world healthcare scenarios. The paper evaluates critical thinking, decision making, and problem-solving skills required for a career in public administration related to health policy and planning.

UPSC CSE Medical Science Syllabus 2024 Paper 1

1. Human Anatomy:

- Applied anatomy of upper and lower limbs, shoulder, hip, and knee joints
- Gross anatomy, blood supply, and lymphatic drainage of various body parts including the tongue, thyroid, mammary gland, stomach, liver, prostate, gonads, and uterus
- Applied anatomy of diaphragm, perineum, and inguinal region
- Clinical anatomy of kidney, urinary bladder, uterine tubes, vas deferens
- Embryology including placenta, development of heart, gut, kidney, uterus, ovary, testis, and common congenital abnormalities
- Central and Peripheral Autonomic Nervous System anatomy and clinical significance

2. Human Physiology:

- Conduction and transmission of impulse, mechanism of contraction, neuromuscular transmission, reflexes, control of equilibrium, posture, and muscle tone
- Functions of cerebellum, basal ganglia, physiology of sleep and consciousness
- Endocrine System physiology including hormone actions, secretion, and regulation
- Reproductive System physiology including pregnancy, menstrual cycle, lactation
- Blood physiology including development, regulation, and fate of blood cells
- Cardiovascular physiology including cardiac output, blood pressure, regulation

3. Biochemistry:

- Organ function tests and protein synthesis
- Vitamins and minerals
- Molecular biology techniques like Restriction Fragment Length Polymorphism (RFLP), Polymerase Chain Reaction (PCR), Radio-immunoassays (RIA)

4. Pathology:

- Inflammation, repair, disturbances of growth, cancer, pathogenesis, and histopathology of various diseases including heart diseases, diabetes mellitus, cancers, cirrhosis liver, glomerulonephritis, tuberculosis, acute osteomyelitis

5. Microbiology:

- Immunity mechanisms

- Diseases caused by and laboratory diagnosis of various pathogens including bacteria (Meningococcus, Salmonella, Shigella), viruses (Herpes, Dengue, Polio, HIV/AIDS), parasites (Malaria, E. Histolytica, Giardia), fungi (Candida, Cryptococcus, Aspergillus)

6. Pharmacology:

- Mechanism of action and side effects of various drugs including antipyretics, analgesics, antibiotics, antimalarials, antidiabetics, antihypertensives, vasodilators, antivirals, antiparasitics, antifungals, immunosuppressants, anticancer drugs

7. Forensic Medicine and Toxicology:

- Forensic examination of injuries, wounds, blood, and seminal stains
- Poisoning, sedative overdose, hanging, drowning, burns
- DNA and fingerprint studies

UPSC CSE Medical Science Syllabus 2024 Paper 2

1. General Medicine:

- Etiology, clinical features, diagnosis, and management principles (including prevention) of diseases like Typhoid, Rabies, AIDS, Dengue, Kala-azar, Japanese Encephalitis.
- Conditions such as Ischemic heart disease, Pulmonary embolism, Bronchial asthma, Pleural effusion, Tuberculosis, Malabsorption syndromes, Acid peptic diseases, Viral hepatitis, Cirrhosis of liver, Glomerulonephritis, Pyelonephritis, Renal failure, Nephrotic syndrome, Renovascular hypertension, Complications of diabetes mellitus, Coagulation disorders, Leukemia, Hypo and hyperthyroidism, Meningitis, Encephalitis.
- Imaging modalities in medical problems including ultrasound, echocardiogram, CT scan, MRI.
- Anxiety, Depressive Psychosis, Schizophrenia, and Electroconvulsive therapy (ECT).

2. Paediatrics:

- Immunization, Baby-friendly hospital initiatives, Congenital cyanotic heart disease, Respiratory distress syndrome, Bronchopneumonia, Kernicterus, IMNCI classification and management, PEM grading and management, Acute respiratory infections (ARI), Diarrhea management in children under five.

3. Dermatology:

- Diseases like Psoriasis, Allergic dermatitis, Scabies, Eczema, Vitiligo, Stevens-Johnson syndrome, Lichen Planus.

4. General Surgery:

- Clinical features, causes, diagnosis, and management principles of conditions like Cleft palate, Harelip, Laryngeal tumors, Oral and esophageal tumors, Peripheral arterial diseases, Varicose veins, Coarctation of aorta, Thyroid and Adrenal tumors, Abscess, Cancer, Fibroadenoma, Adenosis of breast, Bleeding peptic ulcer, Tuberculosis of bowel, Ulcerative colitis, Stomach cancer, Renal mass, Prostate cancer, Haemothorax, Gall bladder stones, Kidney stones, Ureter stones, Urinary bladder stones, Rectum, Anus, Anal canal conditions, Splenomegaly, Cholecystitis, Portal hypertension, Liver abscess, Peritonitis, Carcinoma head of pancreas, Spine fractures, Colles' fracture, Bone tumors, Endoscopy, Laparoscopic surgery.

5. Obstetrics and Gynaecology including Family Planning:

- Diagnosis and management of pregnancy, Labour management, Complications of the 3rd stage, Antepartum and postpartum hemorrhage, Resuscitation of the newborn, Management of abnormal life and difficult labor, Management of small for date or premature newborn, Anemia, Preeclampsia, Toxaemias of pregnancy, Post-menopausal syndrome, Intra-uterine devices, Pills, Tubectomy, Vasectomy, Medical termination of pregnancy, Cancer cervix, Leucorrhoea, Pelvic pain, Infertility, Dysfunctional uterine bleeding (DUB), Amenorrhea, Fibroid, Prolapse of uterus.

6. Community Medicine (Preventive and Social Medicine):

- Principles, methods, approaches, and measurements of Epidemiology, Nutrition, Health information collection, analysis, and presentation.
- Objectives, components, and critical analysis of National programs for the control/eradication of Malaria, Kala-azar, Filaria, Tuberculosis, HIV/AIDS, STDs, Dengue.
- Critical appraisal of the healthcare delivery system, Health management, and administration, Techniques, Tools, Programme Implementation, and Evaluation.
- Objectives, Components, Goals, and Status of Reproductive and Child Health, National Rural Health Mission, and Millennium Development Goals.
- Management of hospital and industrial waste.