MGM INSTITUTE OF HEALTH SCIENCES

(Deemed University u/s 3 of UGC Act, 1956)
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Syllabus for

MBBS – (Third Year)

Part II

Approved as per BOM. 04/2007, dated 14.12.2007, item 4 & amended up to BOM. 43/2015 dated 14.11.2015

Syllabus have been categorized as **'Must know'** (70%), **'Desirable to Know'** (30%) and **'Nice to Know'** (10%) topics.

Inside this booklet, **'Desirable to know'** & **'Nice to Know'** topics are stamped and remaining all unstamped topics belong to **'Must Know'** area.

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GENERAL CONSIDERATIONS AND TEACHING APPROACH

(1) Graduate medical curriculum is oriented towards training students to undertake the responsibilities of a physician of first contact who is capable of looking after the preventive, promotive, curative & rehabilitative aspect of medicine.

(2) With wide range of career opportunities available today, a graduate has a wide choice of career opportunities. The training, though broad based and flexible should aim to provide an educational experience of the essentials required for health care in our country.

"Training should be able to meet internationally acceptable standards."

(3) To undertake the responsibilities of service situations which is a changing condition and of various types, it is essential to provide adequate placement training tailored to the needs of such services as to enable the graduates to become effective instruments of implementation of those requirements. To avail of opportunities and be able to conduct professional requirements, the graduate shall endeavour to have acquired basic training in different aspects of medical care.

(4) The importance of the community aspects of health care and of rural health care services is to be recognized. This aspect of education & training of graduates should be adequately recognized in the prescribed curriculum. Its importance has been systematically upgraded over the past years and adequate exposure to such experiences should be available throughout all the three phases of education & training. This has to be further emphasized and intensified by providing exposure to field practice areas and training during the internship period. The aim of the period of rural training during internship is to enable the fresh graduates to function efficiently under such settings.

(5) The educational experience should emphasize health and community orientation instead of only disease and hospital orientation or being concentrated – on - curative - aspects. As such all the basic concepts of modern scientific medical education are to be adequately dealt with.

(6) There must be enough experiences to be provided for self learning. The methods and techniques that would ensure this must become a part of teaching - learning process.

(7) The medical graduate of modern scientific medicine shall endeavour to become capable of functioning independently in both urban and rural environment. He/she shall endeavour to give emphasis on fundamental aspects of the subjects taught and on common problems of health and disease avoiding unnecessary details of specialization.

(8) The importance of social factors in relation to the problem of health and diseases should receive proper emphasis throughout the course and to achieve this purpose, the

educational process should also be community based than only hospital based. The importance of population control and family welfare planning should be emphasized throughout the period of training with the importance of health and development duly emphasized.

(9) Adequate emphasis is to be placed on cultivating logical and scientific habits of thought, clarity of expression and independence of judgment, ability to collect and analyze information and to correlate them.

(10) The educational process should be placed in a historic background as an evolving process and not merely as an acquisition of a large number of disjointed facts without a proper perspective. The history of Medicine with reference to the evolution of medical knowledge both in this country and the rest of the world should form a part of this process.

(11) Lectures alone are generally not adequate as a method of training and are a poor means of transferring/acquiring information and even less effective at skill development and in generating the appropriate attitudes. Every effort should be made to encourage the use of active methods related to demonstration and on firsthand experience. Students will be encouraged to learn in small groups, through peer interactions so as to gain maximal experience through contacts with patients and the communities in which they live. While the curriculum objectives often refer to areas of knowledge or science, they are best taught in a setting of clinical relevance and hands on experience for students who assimilate and make this knowledge a part of their own working skills.

(12) The graduate medical education in clinical subjects should be based primarily on out-patient teaching, emergency departments and within the community including peripheral health care institutions. The out-patient departments should be suitably planned to provide training to graduates in small groups.

(13) Clinics should be organized in small groups of preferably not more than 10 students so that a teacher can give personal attention to each student with a view to improve his skill and competence in handling of the patients.

(14) Proper records of the work should be maintained which will form the basis for the students' internal assessment and should be available to the inspectors at the time of inspection of the college by the Medical Council of India.

(15) Maximal efforts have to be made to encourage integrated teaching between traditional subject areas using a problem based learning approach starting with clinical or community cases and exploring the relevance of various preclinical disciplines in both understanding and resolution of the problem. Every attempt be made to de-emphasize compartmentalization of disciplines so as to achieve both horizontal and vertical integration in different phases.

(16) Every attempt is to be made to encourage students to participate in group discussions and seminars to enable them to develop personality, character, expression and other faculties which are necessary for a medical graduate to function either in solo practice or as a team leader when he begins his independent career. A discussion group should not have more than 20 students.

(17) Faculty member should avail of modern educational technology while teaching the students and to attain this objective, Medical Education Units/ Departments be established in all medical colleges for faculty development and providing learning resource material to teachers.

(18) To derive maximum advantage out of this revised curriculum, the vacation period to students in one calendar year should not exceed one month, during the 4 ½ years Bachelor of Medicine and Bachelor of Surgery (MBBS) Course.

(19) In order to implement the revised curriculum in Toto, State Govts. and Institution Bodies must ensure that adequate financial and technical inputs are provided.

(20) HISTORY OF MEDICINE –The students will be given an outline on "History of Medicine". This will be taught in an integrated manner by subject specialists and will be coordinated by the Medical Education Unit of the College.

(21) All medical institutions should have curriculum committee which would plan curricula and instructional method which will be regularly updated.

(22) Integration of ICT in learning process will be implemented.

OBJECTIVE OF MEDICAL GRADUATE TRAINING PROGRAMME:

(1) **NATIONAL GOALS** : At the end of undergraduate program, the medical student should be able to :

(a) Recognize `health for all' as a national goal and health right of all citizens and by undergoing training for medical profession fulfill his/her social obligations towards realization of this goal.

(b) Learn every aspect of National policies on health and devote himself / herself to its practical implementation.

(c) Achieve competence in practice of holistic medicine, encompassing promotive, preventive, curative and rehabilitative aspects of common diseases.

(d) Develop scientific temper, acquire educational experience for proficiency in profession and promote healthy living.

(e) Become exemplary citizen by observation of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.

(2) **INSTITUTIONAL GOALS**: (1) In consonance with the goals each medical institution should evolve institutional goals to define the manpower (or professionals) they intend to produce. The undergraduate students coming out of a medical institute should:

(a) Be competent in diagnosis and management of common health problems of the individual and the community, commensurate with his/her position as a member of the health team at the primary, secondary or tertiary levels, using his/her clinical skills based on history, physical examination and relevant investigations.

(b) Be competent to practice preventive, promotive, curative and rehabilitative medicine in respect to the commonly encountered health problems.

(c) Appreciate rationale for different therapeutic modalities; be familiar with the administration of the "essential drugs" and their common side effects.

(d) Be able to appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.

(e) Possess the attitude for continued self learning and to seek further expertise or to pursue research in any chosen area of medicine, action research and documentation skills.

(f) be familiar with the basic factors which are essential for the implementation of the National Health Programmes including practical aspects of the following:-

(i) Family Welfare and Material and Child Health(MCH)

(ii) Sanitation and water supply

(iii) Prevention and control of communicable and non-communicable diseases

(iv) Immunization

(v) Health Education

(vi) IPHS standard of health at various level of service delivery, medical waste disposal.

(vii) Organizational institutional arrangements.

(g) Acquire basic management skills in the area of human resources, materials and resource management related to health care delivery, General and hospital management, principal inventory skills and counseling

(h) Be able to identify community health problems and learn to work to resolve these by designing, instituting corrective steps and evaluating outcome of such measures.

(i) Be able to work as a leading partner in health care teams and acquire proficiency in communication skills.

(j) Be competent to work in a variety of health care settings.

(k) Have personal characteristics and attitudes required for professional life such as personal integrity, sense of responsibility and dependability and ability to relate to or show concern for other individuals.

All efforts must be made to equip the medical graduate to acquire the skills as detailed as under:

A comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) Graduate:

1. **Clinical Evaluation**:

(a) To be able to take a proper and detailed history.
(b) To perform a complete and thorough physical examination and elicit clinical signs.
(c) To be able to properly use the stethoscope, Blood Pressure, Apparatus Auroscope, Thermometer, Nasal Speculum, Tongue Depressor, Weighing Scales, Vaginal Speculum etc.:
(d) To be able to perform internal examination-Per Rectum (PR), Per Vaginum (PV) etc.
(e) To arrive at a proper provisional clinical diagnosis.

II. **Bed side Diagnostic Tests**:

(a) To do and interpret Haemoglobin (HB), Total Count (TC), Erythrocytic Sedimentation Rate (ESR), Blood smear for parasites, Urine examination /albumin /sugar /ketones /microscopic:
(b) Stool exam for ova and cysts;
(c) Gram, staining and Siehl-Nielsen staining for AFB;
(d) To do skin smear for lepra bacilli
(e) To do and examine a wet film vaginal smear for Trichomonas
(f) To do a skin scraping and Potassium Hydroxide (KOH) stain for fungus infections;
(g) To perform and read Montoux Test.

III. **Ability to Carry Out Procedures**:

(a) To conduct CPR (Cardiopulmonary resuscitation) and First aid in newborns, children and adults.
(b) To give Subcutaneous (SC) /Intramuscular (IM) /Intravenous (IV) injections and start Intravenous (IV) infusions.
(c) To pass a Nasogastric tube and give gastric leavage.
(d) To administer oxygen-by masic/catheter
(e) To administer enema
(f) To pass a ruinary catheter-male and female
(g) To insert flatus tube
(h) To do pleural tap, Ascitic tap & lumbar puncture
(i) Insert intercostal tube to relieve tension pneumothorax
(j) To control external Haemorrhage.

IV Anaesthetic Procedure

(a) Administer local anaesthesia and nerve block

(b) Be able to secure airway potency, administer Oxygen by Ambu bag.

V **Surgical Procedures**

(a) To apply splints, bandages and Plaster of Paris (POP) slabs;
(b) To do incision and drainage of abscesses;
(c) To perform the management and suturing of superficial wounds;
(d) To carry on minor surgical procedures, e.g. excision of small cysts and nodules, circumcision, reduction of paraphimosis, debridement of wounds etc
(e) To perform vasectomy;
(f) To manage anal fissures and give injection for piles.

VI Mechanical Procedures

(a) To perform thorough antenatal examination and identify high risk pregnancies.
(b) To conduct a normal delivery;
(c) To apply low forceps and perform and suture episiotomies;
(d) To insert and remove IUD's and to perform tubectomy

VII **Paediatrics**

(a) To assess new borns and recognize abnormalities and I.U. retardation
(b) To perform Immunization;
(c) To teach infant feeding to mothers;
(d) To monitor growth by the use of 'road to health chart' and to recognize development retardation;
(e) To assess dehydration and prepare and administer Oral Rehydration Therapy (ORT)
(f) To recognize ARI clinically;

VIII **ENT Procedures**:

(a) To be able to remove foreign bodies;
(b) To perform nasal packing for epistaxis;
(c) To perform trachesotomy

IX **Ophthalmic Procedures**:

(a) To invert eye-lids;
(b) To give Subconjunctival injection;
(c) To perform appellation of eye-lashes;
(d) To measure the refractive error and advise correctional glasses;
(e) To perform nasolacrimal duct syringing for potency

X. **Dental Procedures**:

To perform dental extraction

XI **Community Healthy:**

(a) To be able to supervise and motivate, community and para-professionals for corporate efforts for the health care;
(b) To be able to carry on managerial responsibilities, e.g. Management of stores, indenting and stock keeping and accounting
(c) Planning and management of health camps;
(d) Implementation of national health programmes;
(e) To effect proper sanitation measures in the community, e.g. disposal of infected garbage, chlorination of drinking water;
(f) To identify and institute and institute control measures for epidemics including its proper data collecting and reporting.

XII **Forensic Medicine Including Toxicology**

(a) To be able to carry on proper medico legal examination and documentation of injury and age reports.
(b) To be able to conduct examination for sexual offences and intoxication;
(c) To be able to preserve relevant ancillary material for medico legal examination;
(d) To be able to identify important post-mortem findings in common un-natural deaths.

XIII **Management of Emergency**

(a) To manage acute anaphylactic shock;
(b) To manage peripheral vascular failure and shock;
(c) To manage acute pulmonary oedema and LVF;
(d) Emergency management of drowning, poisoning and seizures
(e) Emergency management of bronchial asthma and status asthmaticus;
(f) Emergency management of hyperpyrexia;
(g) Emergency management of comatose patients regarding airways, positioning prevention of aspiration and injuries
(h) Assess and administer emergency management of burns

Syllabus for
GENERAL MEDICINE

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BROAD CURRICULUM AS PER MCI GUIDELINES (GENERAL MEDICINE)

i) **GOAL:**

The broad goal of the teaching of undergraduate students in Medicine is to have the knowledge, skills and behavioral attributes to function effectively as the first contact physician.

ii) **OBJECTIVES**

(a) KNOWLEDGE

At the end of the course, the student should be able to:

(1) Diagnose common clinical disorders with special reference to infectious diseases, nutritional disorders, tropical and environmental diseases.
(2) Outline various modes of management including drug therapeutics especially dosage, side effects, toxicity, interactions, indications and contra-indications.
(3) Propose diagnostic and investigative procedures and ability to interpret them.
(4) Provide first level management of acute emergencies promptly and efficiently and decide the timing and level of referral, if required.
(5) Recognize geriatric disorders and their management.

a. **SKILLS:**

At the end of the course, the student should be able to:

1. Develop clinical skills (history taking, clinical examination and other instruments of examination) to diagnose various common medical disorders and emergencies.
2. Refer a patient to secondary and/or tertiary level of health care after having instituted primary care.
3. Perform simple routine investigations like haemogram, stool, urine, sputum and biological fluid examinations.
4. Assist the common bedside investigative procedures like pleural tap, lumbar puncture, bone marrow aspiration/biopsy and liver biopsy.

(c) INTEGRATION:

(1) With community medicine and physical medicine and rehabilitation to have the knowledge and be able to manage important current national health programs, also to be able to view the patient in his/her total physical, social and economic milieu
(2) With other relevant academic inputs which provide scientific basis of clinical medicine e.g. anatomy, physiology, biochemistry, microbiology, pathology and pharmacology.

SUBJECT : MEDICINE

Theory Lectures : to begin in IV semester and continue till IX semester.

Syllabus (Theory) :

(i) **GOAL :**

The broad goal of the teaching of undergraduate students in Medicine is to have the knowledge, skills and behavioral attributes to function effectively as the first contact physician.

(ii) **OBJECTIVES :**

(a) KNOWLEDGE :

At the end of the course, the student shall be able to :

(1) Diagnose common clinical disorders with special reference to infectious diseases, nutritional disorders, tropical and environmental diseases;

(2) Outline various modes of management including drug therapeutics especially dosage, side effects, toxicity, interactions, indications and contra-indications;

(3) Propose diagnostic and investigative procedures and ability to interpret them;

(4) Provide first level management of acute emergencies promptly and efficiently and decide the timing and level of referral, if required;

(5) Recognize geriatric disorders and their management.

(iii) **SKILLS :**

At the end of the course, the student shall be able to :

(1) develop clinical skills (history taking, clinical examination and other instruments of examination to diagnose various common medical disorders and emergencies;

(2) refer a patient to secondary and/or tertiary level of health care after having instituted primary care;

(3) perform simple routine investigations like hemogram, stool, urine, sputum and biological fluid examinations;

(4)Observe the common bedside investigative procedures like pleural tap, lumber puncture, bone marrow aspiration/ biopsy and liver biopsy.

iv) **Attitude :**

a. The teaching and training in clinical medicine must aim at developing the attitude in students to apply the knowledge & skills he/she acquires for benefit and welfare of the patients.
b. It is necessary to develop in students a sense of responsibility towards holistic patient care & prognostic outcomes.
c. Students should develop behavioural skills and humanitarian approach while communicating with patients, as individuals, relatives, society at large & the co- professionals.

Curriculum for Theory Lecture series & Tutorials
TERM DAY TIME LECTURES TOPIC

Term	Day	Time	Hrs/Lectures	Topic
4th	Mon	8-9	23	Introduction to Medicine , Diseases of respiratory system & tuberculosis
5th	Mon	8-9	23	Infectious Diseases / Tropical disease
6th	Mon	8-9	23	Cardiovascular system
	Wed	8-9	23	Gastroenterology, Hepatobiliary system and pancreas
7th	Mon	8-9	15	Genetics, Nutition, Emergency Medicine
8th	Mon	1 to 2	20	Hematology
	Tue	8-9		Endocrinology
	Thur	1-2	40	Neurology
	Mon& Thu.	2-4	40	Tutorial
9th	Mon	8-9	15	Connective tissue disorder, Immunology
	Thu	8-9	30	Nephrology

The above timetable is general outline to guide the planning of curriculum. However, flexibility may be exercised to the extend that there may be
minor re-scheduling of course contents day-wise or term-wise. It must be ascertainedthat the course contents are covered fully and total hours allotted for the subjects are effectively implemented.

CLINICAL POSTINGS

Clinical posting in major subjects in their III,IV,VI,VIII & IX Semester with total duration of posting in each subject according to MCI guidelines.

PROPOSED POSTING- In weeks

Sub	III sem	IV sem	V sem	VI sem	VII sem	VIII sem	IX sem	Total
Gen Med	6	4	-	4	-	6	6	26
Paediatrics	-	2	-	2	-	4	2	10
TB & Chest	-	2	-	-	-	-	-	02
Skin & VD	-	2	2	-	2		-	06
Psychiatry	-	-	2	-	-	-	-	02
Radiology	-	-	2	-	-	-	-	02
Gen Surgery	6	4	-	4	-	6	6	26
Orthopaedics	-	-	4	-	-	4	2	10
Ophthalmology	-	4	-	-	6	-	-	10
ENT	-	4	-	-	4	-	-	08
Obst & Gynaec	6	4	-	4	-	4	6	24
Comm Med	4	4	-	2	2	-	-	12
Casuality	-	-	-	-	2	-	-	02
Dentistry	-	-	2	-	-	-	-	02
Total	22	32	12	16	16	24	22	142

(3) perform simple routine investigations like hemogram, stool, urine, sputum and biological fluid examinations;

(4)Observe the common bedside investigative procedures like pleural tap, lumber puncture, bone marrow aspiration/ biopsy and liver biopsy.

iv) **Attitude :**

a. The teaching and training in clinical medicine must aim at developing the attitude in students to apply the knowledge & skills he/she acquires for benefit and welfare of the patients.
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PROPOSED POSTING- In weeks

Sub	III sem	IV sem	V sem	VI sem	VII sem	VIII sem	IX sem	Total
Gen Med	6	-	4	-	4	6	6	26
Paediatrics	-	2	-	2	2	4	-	10
TB & Chest	-	2	-	-	-	-	-	02
Skin & VD	-	2	-	2	-	2	-	06
Psychiatry	-	-	2	-	-	-	-	02
Radiology	-	-	-	-	2	-	-	02
Gen Surgery	6	-	4	-	4	6	6	26
Orthopaedics	-	-	4	4	-	-	2	10
Ophthalmology	-	4	-	4	2	-	-	10
ENT	-	4	-	4	-	-	-	08
Obst & Gynaec	2	4	-	4	4	4	6	24
Comm Med	4	4	-	4	-	-	-	12
Casuality	-	-	-	2	-	-	-	02
Dentistry	-	-	-	-	2	-	-	02
Total	18	22	14	26	20	22	20	142

SYLLABUS

(General Instruction:)

1) The Lectures Stated below shall cover knowledge about applied aspects of basic & allied sciences, practical approaches in the management of patients in theoutdoor & indoor settings as well as their management in the community. Special emphasisshall be placed on preventive aspects, National Health Programs & dietetics & nutrition.)

2) During practical teaching & training in wards, OPD & field works proper emphasis should be given to common health problems in addition to other diseases.
Emphasis should be given to learning of tacit knowledge & skills in diagnosis & interpretation of finding & Lab. data.

4th Semester
Topic-: Introduction to Medicine
Respiratory system.

1 : History of Medicine.

2. Concept & objectives of history taking. Diagnosis, Provisional Diagnosis, Differential diagnosis.

3. Applied Anatomy and physiology of R.S.
4. P.F.T. (Pulmonary Function Testing)
5. Resp. Infection- Pneumonias.-
6. Chronic bronchitis and emphysema
7. Bronchiectasis and lung abscess.
8. Bronchial asthma -
9. Malignancies - Desirable To Know
10. Mediastinum and its disorders. Desirable To Know
11. Pleural disease - Emphasis on pneumothorax
12. Pleural effusion.
13. Occupational lung disease. Its concept and short review Desirable To Know
14. Fungal & Parasitic diseases Nice To Know
15. Respiratory emergencies & Introduction to mechanical ventilators Nice To Know

TUBERCULOSIS

History and introduction
Pathogenesis and pathology
Role of host related factors
Microbiology of AFB

Clinical features of pulmonary tuberculosis and its investigations
Anti – Tubercular drugs
Pharmacology & Schedules of treatment.

Resistant tuberculosis - DOTS
Prophylaxis - Drugs /BCG/ Tuberculin test.
HIV & TB.

Extra - pulmonary tuberculosis
Plural effusion
Empyema
Others

5th Semester

INFECTIOUS DISEASES:

Introduction.

Infections – types, Modes of Infection transmission, Incubation period

Host defenses, Immunity & Immunization & Management including

Prevention -

Viral hepatitis.

Tetanus/ Diphtheria –

Malaria

Rabies

Typhoid fever

Gastroenteritis

Plague / Dengue Desirable To Know

(HIV) Infection & AIDs

Leptospirosis

PUO

Kala azar Nice To Know

Approach to fever with Rash

VI Semester (23 hours)

CARDIOVASCULAR SYSTEM :

Introduction
Functions / anatomy / physiology and its applications
Various terminologies used
Methods of evaluation
Non - invasive
Invasive
Arrhythmias Desirable To Know
Concept & Classification
Presentation
Diagnosis
Pharmacotherapy in short
Cardiac arrest.
C.C.F.
Types
Presentations
Pathophysiology
Management
C.H.D. Desirable to Know
Aetiology and classification
CHD in adults & its importance
Rheumatic fever
Presentation and haemodynamics of various Valvular lesions including investigations, Diagnosis, D/D treatment & Prevention.
Infective endocarditis
: C.A.D, (Coronary artery disease)
Pericardial diseases cardiomyopathy Desirable To Know
Hypertension

VI Semester

GASTROENTEROLOGY, HEPATOBILIARY SYSTEM & PANCREAS :
23 hours

Introduction to GIT
Oral Cavity
Ulcers
Bleeding
Pigmentation
Oral manifestation of systemic diseases
Oesophagus
Inflammation, Dysphagia
Stomach

Peptic ulcers
Aetiopathogenesis
Clinical features
Investigations
D/D and management
Acute and Chronic gastritis
Small and large intestine diseases
Secretions & functions
MAS Mal –absorption-syndrome Desirable To Know
Tuberculosis of Abdomen
Ulcerative colitis & Crohn's disease

Liver.
Introduction
LFT & their interpretation
Hepatitis - Acute & Chronic
Cirrhosis of liver
Gall bladder diseases Desirable To Know
Pancreas
Functions
Investigations
Acute and Chronic pancreatitis
Manifestation and D/D & treatment.
Liver transplat Nice To Know

VII SEMESTER

Genetics

Introduction
Common genetic disorders
Application of Genetic Engineering in Medicine

NUTRITION :

Concepts of carbohydrate, proteins, fats, vitamins and minerals. Balanced diet.
Protein energy malnutrition.
Vitamin deficiency state
Scurvy / Beribery / Pellegra / Vit.A
Obesity / Asthenia
Diagnosis
Complications and management

VIII Semester

NEUROLOGY

Introduction
Applied anatomy & physiology
History taking in neurology
Investigations
CVD (Cerebro Vasular Disease)
Types & its differential diagnosis
Predisposing factors
Diagnosis and management
S.O.L. (Space Occupying Lesions) Nice To Know
Encephalitis and meningitis
Epilepsy
Cerebellar syndrome Desirable To Know
Parkinsonism
Muscle disorders in brief Desirable To Know
Spinal cord disorders
CSF
Formation and absorption
Status in various disorders
Neuropathy Desirable To Know Nice To Know
Imaging & its role in CNS

HEMATOLOGY :

Introduction
Cell line of hemopoisis
Stimulating factors
Physiology and Anatomy of RBCs.
Anemias
Introduction
Classification
Symptoms & signs in general
Basic investigations & its interpretation
Microcytic hypochromic anaemias
Fe Kinetics
C/F, investigations of Fe deficiency.
Treatment of Fe deficiency.
D/D - Sideroblastic / thallasemic.
Macrocytic anaemias
Kinetics of B-12 and Folic acid

C/F, investigations and management of B-12 / FA deficiency.
Hemolytic anaemias
Hemoglobinopathies
Hypoplastic / Aplastic anemia
Definition
Classification
Diagnosis and management
Introduction to WBCs.
Agranulocytosis - Aetiology & its significance Desirable To Know
Leukemias (AML, ALL, CML, CLL)
Management of leukemia, Lymphomas

Hodgkin's disease / NHL (Non-Hodgkin's lymphoma) Desirable To Know
Approach to a patient with bleeding disorders Nice To Know
Recognition
Investigations
Physiology of Platelets
Therapy
:Blood groups & Blood Transfusion & Component Therapy

ENDOCRINOLOGY

Introduction - Hormones
Concept
Types
Action
Endocrine system
General
Control
Pituitary
Anatomy
Regulation
Disorders of Ant. Pituitary
Acromegaly
A.G. Syndrome
Disorders of Post. Pituitary Desirable To Know
Hypopituitarism
Thyroid
Anatomy
Regulation
Goiter
Hypothyroid state & hyperthyroid state
Classifications
Management
Adrenal gland
Anatomy

Regulation
Addison's & Cushing syndrome
Recognition
Investigations
Management
Pheocromocytoma Desirable To Know
Vit. D. Metabolism. Nice To Know
Ca. Metabolism and its relations to parathyroid Nice To Know
Diagnosis & management of related disorders.
Diabetes Mellitus
Management
Multiple endocrine-syndrome and paraneoplastic syndrome Overview. Nice To Know
Diabetes incipidus. Nice To Know

IX Semester

NEPHROLOGY, NUTRITION :

Anatomy & Physiology of Urinary system
R.F.T. (Renal Function Tests)
Acute Glomarulonephritis
Chronic Glomarulonephritis
Infections of urinary system.
Nephrotic syndrome
Approach towards common problem
i. Proteinuria
ii. Hematuria
iii. Renal colics
Acute & Chronic renal failure
Dialysis - Diet - Drugs. In renal failure Desirable To Know

Connective tissue disorder & immunology

SLE Desirable To Know
Rheumatoid arthritis Desirable To Know
Allergy Nice To Know

Miscellaneous

Poisoning
Suicidal / Homicidal / Accidental
Chemical / Biological / Corrosives / Drugs

Concepts of management
Optimum Barbiturate
DDT
Organophosphorus
Hyperpyrexia and Heat exhaustion
Aetiology
Pathophysiology
C / F. Types
Management
Preventive measures
Electrical injury Desirable To Know
Types
Manifestations
Management
Lightening
Shock
Types
Pathophysiology / Complications
Management
" Brain Death and Organ Donation" Desirable To Know

Recommended Books :

1. Hutchinson's Clinical Methods by Hunter and Bomford,
2. The Principles and practise of Medicine - Sir Stanley Davidson
3. Text book of Medical Treatment - Dunlop and Alstead.
4. Savill's system of Clinical Medicine - E. C. Warner.
5. Principles of internal Medicine - Harrison.

Approved in BOM - 40/2015, Dated 13/05/2015

Resolution No. - 3.3 (a)

3.3: MEDICINE & ALLIED :

Resolution No. 3.3(a): Resolved to have rotation of Post Graduate Students of Dept. of Medicine to Various Sub Specialties, since as per MCI, 6 months of Allied posting can be given as per HOD's mutual agreement.

Internal Assessment Scheme

Theory

Total 30 Marks – Internal Examinations

VI Sem.	VIII Sem.	Prelim	Total	Marks out of 30
60	60	120	240	240/8=30

Practicals

Total 30 Marks

Internal Examinations – at the end of each clinical posting

III Sem.	V Sem.	VII Sem.	VIII Sem.	Chest	Psych	Skin & VD	Prelim	Total	Marks out of
60	60	60	60	30	30	30	90	420/14=30	420/14=30

Candidates have to secure minimum 35% marks in internal assessment to be eligible to appear in University Exam.

MGM INSTITUTE OF HEALTH SCIENCES, NAVI MUMBAI

THIRD MBBS (PART-II) UNIVERSITY EXAMINATIONS PATTERN

University (Final) Exam:

General Medicine

Paper I (60 Marks) Time 3 hours.

Section A – Marks 15
MCQs – 30 Items each of ½ mark Time 30 minutes
(Shall cover whole course syllabus stated in Section B and C of Paper I below

Section B – (Total Marks 25)
Two long questions
Each of 8 marks &
3 Short Answer Questions of 3 marks each. (3 out of 5 SAQs by choice. On course contents of - Cardiovascular System, Gastrointestinal System, Hepatobiliary System & Pancreas, Haematology, Haematooncology & Genetics

Section C – (Total Marks 20)
One long Question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents of Endocrinology, infectious diseases/Tropical Disease, Miscellaneous

Paper II (60 Marks) Time 3 hours.

Section A – Marks 15
MCQs 30 Items each of ½ marks Maximum time 30 minutes
(Shall cover whole course syllabus stated in Section B and C of Paper I below

Section B – (Total Marks 25)
Two long Questions each of 8 marks and
3 short answer questions (out of 5 SAQs) on course contents of Neurology, Psychiatry, Dermatology, Veneroleprology & Collagen Disorders

Section C – (Total Marks 20)
One long question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents on Respiratory Diseases, Tuberculosis & Clinical Nutrition and Nephrology

MCQ Section A shall be given to the candidates in the beginning of examination.
After 30 min. section A will be collected following which B & C shall be given. The time given Section B & C together is two and half hours. This applies to paper I & II.

UNIVERSITY EXAM
SUB: MEDICINE
SCHEME OF PRACTICAL EXAM

	Description	Marks	Preparation time	Assessment time
Long Case	1 One	50	45 min.	10 min
Short Case	2 Two	50 25 x 2 = 50 (25 marks each)	40 min (20 min each)	10 min (5 min each)
Total marks in clinical exam = 100				
Viva	Two Tables			
	Table 1 Interpretation of investigation (ECG, X-rays, Lab. Report, Instruments)	10		5 min
	Table 2 Drugs & Medical Emergencies	10		5 min

- Minimum passing marks - 50 % in Case vivas (All 3 cases together).
- Marks obtained in table viva are incorporated in theory.

Scheme of Internal Assessment – Medicine & Allied

To be implemented for batch of students joining III sem in Aug 2016

Internal Assessment - Medicine & Allied

Theory

Total Marks - 30

Assessment at the end of semester in term end exam - 20

Day to day assessment- 10

Theory – 30

Practical – 30

Theory

IV sem	VI sem	VIII sem	Prelim	Total	Marks out of
60	60	60	120	300/15	20

Details of marks distribution :-

IV sem , VI sem & VIII sem .

Syllabus – Course content and topics covered in theory lectures of respective semester

One paper – Section A – MCQs = 15 marks – 15 questions of one mark each
Section B – 2 LAQs – 8 marks each
3 SAQs – 3 marks each
Total = 25 marks
Section C – 1 LAQ – 8 marks

ARC Banning to speak (P.T.O)

Received on 12/05/16

4 SAQs – 3 marks each
Total = 20 marks

Prelim :-
Two papers – 60 marks each

Syllabus

SYLLABUS FOR PRELIM EXAM

Paper I (60 Marks) Time 3 hours	Paper II (60 Marks) Time 3 hours
Section A – Marks 15 MCQs -30 items each of ½ marks Time – 30 minutes (shall cover whole course syllabus stated in Section B and C of Paper I below)	**Section A – Marks 15** MCQs -30 items each of ½ marks Maximum Time – 30 minutes (shall cover whole course syllabus stated in Section B and C of Paper II below)
Section B – (Total Marks 25) Two long questions Each of 8 marks & 3 Short Answer Questions of 3 marks each. (3 out of 5 SAQs by choice. On course contents of Cardiovascular System, Gastrointestinal System, Hepatobiliary System & Pancreas, Haematology, Haemato-oncology & Genetics.	**Section B – (Total Marks 25)** Two long questions each of 8 marks and 3 short answer questions of 3 marks each (out of 5 SAQs) on course contents of Neurology, Psychiatry, Dermatology, Veneroleprology & Collagen Disorders
Section C – (Total Marks 20) One long Question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents of Endocrinology, infectious diseases/Tropical Disease, Miscellaneous.	**Section C – (Total Marks 20)** One long question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents on Respiratory Diseases, Tuberculosis & Clinical Nutrition and Nephrology.
The Max. time for Section B & C shall be of 2 hours + 30 minutes	The Max. time for Section B & C shall be of 2 hours + 30 minutes

Day to Day assessment-

MCQ/short answer question/problem based questions at end of each topic in every semester – Marks obtained will be converted to 10

PRACTICALS
Total Marks- 30
Marks of term end exam- 20
Day to day assessment- 10

Term end exams

III sem	V sem	VII sem	VIII sem	Prelim	Total	Skin VD	Chest TB	Psychiatry	Total	Grand Total	Marks out of
30	30	30	30	60	180	20	20	20	60	240/12	20

Day to day assesment

1. III Sem :- 5 marks –Assignment during clinical posting

   Assignment – Preparation of charts , diagram, flow charts on topic of basic sciences related to medicine.

2. V sem :- 5 marks – portfolio (small group activity in group of 5)

3. VII sem :- 5 marks – Presentation of seminar
4. VIII sem :- 5 marks – History writing journals,
   No. of cases to be written -20

5. Prelim :- Case Viva – 40 marks
   Table Viva – 20 marks
   Two tables – 10 marks each

Marks obtained in the day to day assessment will be converted to 10

Eligibility to appear for university exam- Minimum 35% marks in internal assessment
Minimum attendance should be 75% to appear in term end exam in respective term .

Dr Jaishree Ghanekar

Approved in BOM 45/2016, Dated 28th, April, 2016

Resolution No. - 3.3 (c)

Resolution No. 3.3(c): Resolved to accept revised method to calculate internal assessment marks for following subjects:

General Medicine: for the batch starting their IV semester in Feb 2017.

Theory:

	Medicine
IVth/VIth/VIIIth Sem. & Prelim Exam.	20
Day to day assessment as per MCI norms	10
Total marks	30

Practical:

	Medicine
IIIrd/Vth/VIIth/VIIIth Sem. & Prelim Exam.	20
Day to day assessment as per MCI norms	10
Total marks	30

Approved in BOM 43/2015, Dated 05/11/2015

Resolution No. - 3.3(e)

Resolution No. 3.3(e): Resolved to accept the proposed pattern of redistribution of the marks in Dermatology and Psychiatry subjects in theory papers of Medicine subject at MBBS level for the batch of Students entering into 3rd MBBS (Part-II) from February 2016 onwards, as given below:

The change in Paper 2 section C should be as under:

Section C (Marks 10)

C2 Dermatology Section (Marks 10)

Question 1 – long question (Marks 4)

Question 2 – Short answer question attempt any 2 (Marks 6)

a.

b.

c.

3rd MBBS, General medicine

Resolution No. 1.3.9.3 of BOM-51/2017: Resolved to retain split markings in long case in practical examinations of 3rd MBBS subject "Medicine". But there should be no split markings in short case in practical examinations of 3rd MBBS subject "Medicine", to be implemented with immediate effect.

MBBS, General medicine

(ii) Resolved to approve the below mentioned proposed MBBS Theory exam pattern in Medicine, with effect from batch appearing in University January 2019 examination onwards:

Revised Syllabus for Prelim & University Exam

Paper I (60 Marks) Time 3 hours	**Paper II (60 Marks) Time 3 hours**
Section A – Marks 10 MCQs -20 items each of ½ marks Time – 20 minutes (shall cover whole course syllabus stated in Section B and C of Paper I below)	**Section A – Marks 10** MCQs -20 items each of ½ marks Maximum Time – 20 minutes (shall cover whole course syllabus stated in Section B and C of Paper II below)
Section B – (Total Marks 30) Two long questions Each of 7 marks & 4 Short Answer Questions of 4 marks each. (4 out of 6 SAQs by choice. On course contents of Cardiovascular System, Gastrointestinal System, Hepatobiliary System & Pancreas, & Genetics.	**Section B – (Total Marks 30)** Two long questions Each of 7 marks & 4 Short Answer Questions of 4 marks each. (4 out of 6 SAQs by choice. on course contents of Neurology, Haematology, Haemato-oncology, Respiratory Diseases, Tuberculosis, Collagen Disorders
Section C – (Total Marks 20) One long Question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents of Endocrinology, infectious diseases/Tropical Disease, &, Nephrology, Clinical Nutrition , Miscellaneous.	**Section C – (Total Marks 20)** **Section – C (Total Marks 20)** Psychiatry, Dermatology, Veneroleprology **C1- Psychiatry section (Marks 10)** short answer question any 2 out of 3 (5 marks each) **C2 – Dermatology section (Marks 10)** short answer question any 2 out of 3 (5 marks each)
The Max. time for Section B & C shall be of 2 hours + 30 minutes	The Max. time for Section B & C shall be of 2 hours + 30 minutes

Received by Statutory Department (Ms. Sasmita)
on 10th Dec, 18 at 2.20 pm

O/C

General Medicine
MBBS Third Year Part II

MGM INSTITUTE OF HEALTH SCIENCES
(Deemed University u/s 3 of UGC Act, 1956)
Grade 'A' Accredited by NAAC
Sector-1, Kamothe, Navi Mumbai - 410209
Tel. No. 022-27432471, 022-27432994, Fax No. 022 - 27431094
E-mail : registrar@mgmuhs.com ; Website : www.mgmuhs.com

MGM/01/A-8/2018/280

Date : 10.12.2018

To

Academic Section, MGMIHS

Ref. : **Resolution passed in BOM-51/2017 dated 28/08/2017**

This is with reference to Resolution No. 1.3.9.10 of BOM-51/2017 sent earlier. The same resolution is reproduced below for your quick reference:

Resolution No. 1.3.9.10 of BOM-51/2017: Resolved that University Examination section must provide hard copy/CD of Syllabus which is categorized in Must Know (60%), Nice to know (30%) and Desirable to know (10%) to all paper setters so that the same can be reflected in the question papers.**(Annexure)**

Now, please find annexure enclosed herewith for the above resolution.

Registrar
Dr. Rajesh B. Goel
Registrar
MGM Institute of Health Sciences
(Deemed University u/s 3 of UGC Act, 1956)
Navi Mumbai- 410 209

Nalini
10/12/2018.

Annexure D

SYLLABUS

Topic

Introduction to Medicine

Must know

- History of Medicine.
- Concept & objectives of history taking. Diagnosis, Provisional Diagnosis, Differential diagnosis. –

Respiratory system. Must know

- . Applied Anatomy and physiology of R.S.
- . P.F.T. (Pulmonary Function Testing)
- Resp. Infection- Pneumonias.-
- . Chronic bronchitis and emphysema
- . Bronchiectasis and lung abscess
- Bronchial asthma

Pleural disease - Emphasis on pneumothorax

Pleural effusion

Desirable to know

- Malignancies

- Mediastinum and its disorders. -

- . Occupational lung disease. Its concept and short review –

Nice to know

- . Fungal & Parasitic diseases
- .Respiratory emergencies & Introduction to mechanical ventilators

TUBERCULOSIS - Must know

History and introduction

Pathogenesis and pathology

Role of host related factors

Microbiology of AFB

Clinical features of pulmonary tuberculosis and its investigations

Anti – Tubercular drugs

Pharmacology & Schedules of treatment.

Resistant tuberculosis - DOTS

Prophylaxis - Drugs /BCG/ Tuberculin test.

HIV & TB.

Extra - pulmonary tuberculosis

INFECTIOUS DISEASES

Must know

- Introduction.
- Infections – types, Modes of Infection transmission, Incubation period-
- Host defenses, Immunity & Immunization & Management including-

Prevention

- Tetanus
- Malaria
- Rabies
- Dengue
- Typhoid fever
- Gastroenteritis
- (HIV) Infection & AIDs
- Leptospirosis
- PUO

Desirable to know

- Kala azar
- Approach to fever with Rash

Nice to know

- .Plague
- . Diphtheria

CARDIOVASCULAR SYSTEM :

Must know

- Introduction
- Functions / anatomy / physiology and its applications
- Various terminologies used
- Methods of evaluation
- Non – invasive
- Invasive-
- Cardiac arrest.
- C.C.F.
- Rheumatic fever
- Presentation and haemodynamics of various Valvular lesions including
- investigations, Diagnosis, D/D treatment & Prevention.
- Infective endocarditis
- C.A.D, (Coronary artery disease)
- Hypertension

- Desirable to know

- Pericardial diseases and cardiomyopathy

- Arrhythmias

Concept & Classification

Presentation

Diagnosis

Pharmacotherapy in short

Types

Presentations

Pathophysiology

Management

- C.H.D.

Aetiology and classification

CHD in adults & its importance

GASTROENTEROLOGY, HEPATOBILIARY SYSTEM & PANCREAS :

23 hours

Must know

- Introduction to GIT
- Oral Cavity

Ulcers

Bleeding

Pigmentation

- Oral manifestation of systemic diseases

- Oesophagus- Dysphagia, Achalsia cardia,
- Stomach

Peptic ulcers

Aetiopathogenesis

Clinical features

Investigations

D/D and management

- Acute and Chronic gastritis
- Small and large intestine diseases

Secretions & functions

Tuberculosis of Abdomen

- Ulcerative colitis & Crohn's disease

- Liver.

Introduction

LFT & their interpretation

- Hepatitis - Acute & Chronic
- Cirrhosis of liver
- Pancreas-

Functions

Investigations

Acute and Chronic pancreatitis

Manifestation and D/D & treatment.

Desirable to know

- MAS Mal –absorption-syndrome
- Gall bladder diseases

Nice to know

- Liver transplant

Genetics - **Must know**

- Introduction
- Common genetic disorders
- Application of Genetic Engineering in Medicine

NUTRITION :

Must know

- Concepts of carbohydrate, proteins, fats, vitamins and minerals. Balanced
- diet
- Protein energy malnutrition.
- Vitamin deficiency state
- Scurvy / Beribery / Pellegra / Vit.A

- Desirable to know

- Obesity / Asthenia

Diagnosis

Complications and management

NEUROLOGY

Must know

- Introduction
- Applied anatomy & physiology
- History taking in neurology
- Investigations
- CVD (Cerebro Vasular Disease)

Types & its differential diagnosis

Predisposing factors

Diagnosis and management

- Encephalitis and meningitis
- Epilepsy
- Spinal cord disorders
- CSF

Formation and absorption

Status in various disorders

Desirable to know

- Cerebellar syndrome
- Parkinsonism

- Muscle disorders in brief
- Neuropathy
- Myasthenia gravis

Nice to know

- S.O.L. (Space Occupying Lesions)
- Imaging & its role in CNS

HEMATOLOGY :

Must know

- Introduction

Cell line of hemopoisis

Stimulating factors

Physiology and Anatomy of RBCs.

- Anemias

Introduction

Classification

Symptoms & signs in general

Basic investigations & its interpretation

- Microcytic hypochromic anaemias

Fe Kinetics

C/F, investigations of Fe deficiency.

Treatment of Fe deficiency.

D/D - Sideroblastic / thallasemic.

- Macrocytic anaemias

Kinetics of B-12 and Folic acid

C/F, investigations and management of B-12 / FA deficiency.

- Hemolytic anaemias
- Hemoglobinopathies
- Hypoplastic / Aplastic anemia

Definition

Classification

Diagnosis and management

- Introduction to WBCs.
- :Blood groups & Blood Transfusion & Component Therapy

Desirable to know

- Agranulocytosis - Aetiology & its significanc
- Leukemias (AML, ALL, CML, CLL)
- Management of leukemia, Lymphomas

- Hodgkin's disease / NHL (Non-Hodgkin's lymphoma)
- Approach to a patient with bleeding disorders

Recognition

Investigations

Physiology of Platelets

Therapy

ENDOCRINOLOGY

Must know

- Introduction –

Hormones

Concept

Types

Action

- Endocrine system

General

Control

- Pituitary

Anatomy

Regulation

- Disorders of Ant. Pituitary

Acromegaly

- Disorders of Post. Pituitary
- Hypopituitarism
- Thyroid

Anatomy

Regulation

Goiter

- Hypothyroid state & hyperthyroid state

Classifications

Management

- Adrenal gland

Anatomy

Regulation

Addison's &.Cushing syndrome

Recognition

Investigations

Management

- Diabetes Mellitus

Desirable to know

- Pheochromocytoma

Nice to know

- Vit. D. Metabolism.
- Ca. Metabolism and its relations to parathyroid

Diagnosis & management of related disorders.

Management

- Multiple endocrine-syndrome and paraneoplastic syndrome Overview.
- Diabetes insipidus.

NEPHROLOGY, NUTRITION :

Must know

- Anatomy & Physiology of Urinary system
- R.F.T. (Renal Function Tests)
- Acute Glomerulonephropathy
- Chronic Glomerulonephropathy
- Infections of urinary system.
- Nephrotic syndrome
- Approach towards common problem

i. Proteinuria

ii. Hematuria

iii. Renal colics

Acute & Chronic renal failure

- Desirable to know

- Dialysis –
- Diet , Drugs. In renal failure

Connective tissue disorder & immunology

Desirable to know

- SLE
- Rheumatoid arthritis

Nice to know

- Allergy

Miscellaneous

Must know

- Poisoning
- Suicidal / Homicidal / Accidental
- Chemical / Biological / Corrosives / Drugs
- Concepts of management
- Optimum Barbiturate
- Organophosphorus
- Shock
- BITES & STINGS
- Brain Death and Organ Donation

Desirable to know

- Hyperpyrexia and Heat exhaustion

Aetiology

Pathophysiology

C / F. Types

Management

Preventive measures

- Electrical injury

Types

Manifestations

Management

Lightening

Types

Pathophysiology / Complications

Management

Resolution No. 4.5.3.1 of BOM-55/2018: Resolved to include the following Geriatric topics in the syllabus of Medicine for MBBS students as part of Medicine subject in VI th & VII th semester. This is to be effective from batch entering VI semester in February 2019 onwards:

1. How elderly patients are different?
2. Geriatric syndromes
3. Sarcopenia
4. Fraility
5. Cognitive impairment & Dementia in elderly
6. Falls & Fragility fractures
7. Urinary incontinence in elderly
8. Physiology of aging
9. Magnitude of problems of aging
10. Neurological problems in elderly