



MGM INSTITUTE OF HEALTH SCIENCES

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

Grade 'A' Accredited by NAAC

Sector-01, Kamothe, Navi Mumbai - 410 209

Tel 022-27432471, 022-27432994, Fax 022 - 27431094

E-mail : registrar@mgmuhs.com ; Website : www.mgmuhs.com

Syllabus for MBBS – (Second Year)

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.

Prof. Z. G. Badade

Registrar,

MGM Institute of Health Sciences

Kamothe, Navi Mumbai - 410 209

INDEX

Sr. No	Item	Page No.
1.	General Considerations and Teaching Approach	1-3
2.	Objective of Medical Graduate Training Programme	4-8
3.	Pathology Syllabus	9-32
4.	Microbiology Syllabus	33-70
5.	Pharmacology Syllabus	71-82
6.	Forensic Medicine Syllabus	83-97
7.	Examination Pattern	98-105

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 urinary 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 tracheotomy

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 Forensic Medicine

INDEX

Sr. No.	Item	Page No.
1.	Broad Curriculum As Per MCI Guidelines for Forensic Medicine	85-86
2.	Syllabus of Forensic Medicine	87-97

BROAD CURRICULUM AS PER MCI GUIDELINES (FMT)

i) GOAL:

The broad goal of the teaching of undergraduate students in Forensic Medicine is to produce a physician who is well informed about medico legal responsibilities in practice of medicine. He / She will also be capable of making observations and inferring conclusions by logical deductions to set enquiries on the right track in criminal matters and connected medico legal problems. He / She acquires knowledge of law in relation to medical practice, medical negligence and respect for codes of medical ethics.

ii) OBJECTIVES

a. KNOWLEDGE

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

1. Identify the basic medico legal aspects of hospital and general practice.
2. Define the medico legal responsibilities of a general physician while rendering community service either in a rural primary health centre or an urban health centre.
3. Appreciate the physician's responsibilities in criminal matters and respect for the codes of medical ethics.
4. Diagnose, manage and identify also legal aspects of common acute and chronic poisonings.
5. Describe the medico legal aspects and findings of post-mortem examination in case of death due to common unnatural conditions & poisonings.
6. Detect occupational and environmental poisoning, prevention and epidemiology of common poisoning and their legal aspects particularly pertaining to Workmen's Compensation Act.
7. Describe the general principles of analytical toxicology.
8. Medical jurisprudence in view of the Consumer Protection Act –wherein doctors have been covered under its ambit. They have both rights as well as responsibilities. Under medical insurance acts of negligence covered as well as rights for effective service delivery.

b. SKILLS

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

1. Make observations and logical inferences in order to initiate enquiries in criminal matters and medico legal problems.
2. Diagnose and treat common emergencies in poisoning and manage chronic toxicity.

3. Make observations and interpret findings at postmortem examination.
4. Observe the principles of medical ethics in the practice of profession.

c. INTEGRATION

Department shall provide an integrated approach towards allied disciplines like Pathology, Radiology, Forensic Sciences, Hospital Administration etc. to impart training regarding medico legal responsibilities of physicians at all levels of health care. Integration with relevant disciplines will provide scientific basis of clinical toxicology e.g. medicine, pharmacology etc.

FORENSIC MEDICINE AND MEDICAL JURISPRUDENCE
INCLUDING TOXICOLOGY

1. Goal

The broad goal of teaching undergraduate students Forensic Medicine is to produce a physician who is well informed about Medico-legal responsibility during his/her practice of Medicine. He/She will also be capable of making observations and inferring conclusions by logical deductions to set enquiries on the right track in criminal matters and associated medico-legal problems. He/She acquires knowledge of law in relation to Medical practice, Medical negligence and respect for codes of Medical ethics.

2. Educational objectives

(a) Knowledge

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

- i. identify the basic Medico-legal aspects of hospital and general practice
- ii. define the Medico-legal responsibilities of a general physician while rendering community service either in a rural primary health centre or an urban health centre
- iii. appreciate the physician's responsibilities in criminal matters and respect for the codes of Medical ethics
- iv. diagnose, manage and identify also legal aspect of common acute and chronic poisonings
- v. describe the Medico-legal aspects and findings of post-mortem examination in cases of death due to common unnatural conditions and poisonings
- vi. detect occupational and environmental poisoning, prevention and epidemiology of common poisoning and their legal aspects particularly pertaining to Workmen's Compensation Act
- vii. describe the general principles of analytical toxicology

(b) Skills

A comprehensive list of skills and attitude recommended by Medical Council of India Regulation, 1997 desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) Graduate for Forensic Medicine and

Toxicology

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

- i. make observations and logical inferences in order to initiate enquiries in criminal matters and Medico-legal problems
 - a. *to be able to carry on proper Medico-legal examination and documentation/Reporting of Injury and Age*
 - b. *to be able to conduct examination for sexual offences and intoxication*
 - c. *to be able to preserve relevant ancillary materials for medico - legal examination*
 - d. *to be able to identify important post-mortem findings in common unnatural deaths*
- ii. diagnose and treat common emergencies in poisoning and chronic toxicity
- iii. make observations and interpret findings at post-mortem examination
- iv. observe the principles of medical ethics in the practice of his profession

(c) Integration

Department shall provide an integrated approach towards allied disciplines like Pathology, Radiology, Forensic Sciences, Hospital Administration etc. to impart training regarding Medico-legal responsibilities of physicians at all levels of health care. Integration with relevant disciplines will provide scientific basis of clinical toxicology e.g. Medicine, Pharmacology etc.

3. Total duration of Para-clinical teaching	3 Semesters
	Total 360 teaching days
Total number of teaching hours allotted for Forensic Medicine & Toxicology	100 hours

4. Syllabus

a. Learning methods

Lectures, tutorials, practical demonstrations

Distribution of teaching hours

Didactic lectures should not exceed one third of the time schedule, two third schedule should include **Practicals, Demonstrations, Group discussions, Seminars and Tutorials.**

Learning process should include living experiences and other case studies to initiate enquiries in criminal matters and Medico-legal problems.

A) Theory (lectures & 40
Tutorials, seminar & allied) 20
Total 60

B) Practicals (including demonstrations) 25
 15
Total 40

This period of training is minimum suggested. Adjustments whenever required, depending on availability of time, be made.

b. & c. Sequential organisation of contents & their division

Topic wise distribution

The course is designed to meet the needs of a General Practitioner and includes the following topics:

1.	Forensic Medicine	40 Hrs
2.	Toxicology	20 Hrs
3.	Medical Jurisprudence	12 Hrs
4.	Legal Procedures in Medico-Legal cases	08 Hrs
5.	Court attendance when medical evidence is being recorded	04 Hrs
6.	Integrated approach towards allied disciplines	06 Hrs
7.	Tutorial and Seminars	10 Hrs

Total: 100 Hrs

Part – 1 Forensic Medicine: (N=40)

Contents & division

Note: Must Know (MK), Desirable to Know (DK) and '*' is Nice to Know (NK)

A) DEFINITION, SCOPE RELEVANT TO SUBJECT

1. History of Forensic Medicine
2. Need, Scope, Importance and probative value of Medical evidence in Crime Investigation

B) PERSONAL IDENTITY NEED AND ITS IMPORTANCE.

1. Data useful for Identification of Living and Dead
2. Age estimation and its medico-legal Importance
3. Sex determination and its medico-legal importance
4. Other methods of establishing identity: Corpus Delicti, Dactylography, Tattoo marks, Deformities, Scars and other relevant factors
5. Identification of decomposed, Mutilated bodies and skeletal remains
6. Medico legal aspect of *DNA fingerprinting - a brief introduction
7. Medico - legal aspect of blood and blood stains

Collection, Preservation and Dispatch of Specimen for Blood and other ancillary material for identification and Medico-legal examination

C) MECHANICAL INJURIES AND BURNS

1. Definition and classification of injuries: Abrasions, Contusions, Lacerations, Incised and Stab injury, Firearm and Explosion injury, Fabricated and Defence injury
2. Medico-legal aspect of injury/hurt, simple and grievous hurts, murder, Ante-mortem, Postmortem Wounds, Age of the injury, cause of death and relevant sections of I.P.C., Cr.P.C.
3. Causative Weapon and appearance of Suicidal, Accidental and Homicidal injuries
4. Physical methods of Torture and their identification Nice To Know
5. Reporting on Medico-legal cases of Hurts
6. Regional injuries: Head injury, cut throat injuries and Road traffic accident injuries Desirable To Know
7. Thermal injuries: Injuries due to heat and cold, Frostbite, Burns, Scalds and Bride burning
8. Injuries due to Electricity, Lightning

Collection, Preservation and Dispatch of Specimen for Blood and other ancillary material for Medico-legal examination

D) MEDICO-LEGAL ASPECTS OF SEX, MARRIAGE AND INFANT DEATH

1. Sexual Offences and perversions: Natural (Rape, Adultery, and Incest), Unnatural (Sodomy, Bestiality and Buccal coitus) Lesbianism, perversions and relevant sections of I.P.C. and Cr.P.C.
2. Fertility, Impotence, Sterility, Virginity, and Nullity of marriage and divorce on Medical ground Desirable To Know
3. Pregnancy, Delivery, Paternity, Legitimacy, Artificial Insemination, *Fertilisation in Vitro, *Sterilization (Family Planning Measures)
4. Abortions, Medical Termination of pregnancy, criminal abortions, Battered Baby Syndrome, Cot deaths and relevant sections of I.P.C. and Cr.P.C., M.T.P. Act of 1971 and foetal sex determination Act
5. Infant death (Infanticide)
 - i. Definition Causes, Manners and Autopsy features
 - ii. Determination of age of Foetus and Infant
 - iii. Signs of live-born, stillborn and dead born child

Collection, Preservation and Dispatch of Specimen: Hair, seminal fluid/ stains and other ancillary material for medico-legal examination, examination of seminal stains and vaginal swabs Desirable To Know

E) MEDICO-LEGAL ASPECTS OF DEATH

1. Definition and concept of death, stages, modes, Signs of death and its importance
2. Changes after death, Cooling, Hypostasis, Changes in eye, Muscle changes, Putrefaction, Saponification, Mummification, Estimation of time since death
3. Death Certification, Proximate causes of death, causes of sudden deaths, Natural deaths. Presumption of death and survivorship, disposal and preservation of dead
4. Introduction to *The Anatomy Act, *The Human organ transplantation Act. 1994
5. Medico-legal aspects and findings of post-mortem examination in cases of death due to common unnatural conditions
6. Sudden unexpected death, deaths from starvation, cold and heat and their medico-legal importance
7. Medico-legal aspects of death from Asphyxia, Hanging, Strangulation, Suffocation and Drowning

F) MEDICO-LEGAL AUTOPSY

1. Autopsy: Objectives, Facilities, Rules and Basic techniques, Proforma for reporting medico-legal autopsy
2. Exhumation, examination of mutilated remains, Obscure autopsy and post-mortem artifacts

Collection, preservation and despatch of material for various investigations to Forensic Science Laboratory

G) *FORENSIC PSYCHIATRY

1. Definition, General terminology and * Basic concept of normality and abnormality of human behaviour, Civil and Criminal responsibility
2. Examination, Certification, restraint and admission to Mental Hospital Nice To Know
3. Mental Health Act – Principles and Objectives Nice To Know

Part – 2 Toxicology: (N=20)

A) POISONS AND THEIR MEDICO-LEGAL ASPECTS

1. Definition of poison, General consideration and * Laws in relation to poisons\Narcotic drugs and psychotropic substances Act, *Schedules H and L drugs, *Pharmacy Act, Duties and responsibilities of attending physician
2. Common poisons and their classification, Identification of common poisons, Routes of administration, Actions of poisons and factors modifying them, Diagnosis of poisoning (Clinical and Confirmatory) , Treatment/ Management of cases of acute and chronic poisonings
3. Addiction and Habit forming drugs, drug dependence

4. Occupational and environmental poisoning, prevention and Epidemiology of common poisoning and their legal aspects particularly pertaining to Workmen's Compensation Act Nice To Know
5. Medico-Legal aspects and findings of postmortem examination in cases of death due to poisonings

B) POISONS TO BE STUDIED

1. Corrosive: Euphoric Acid, Nitric Acid, Hydrochloric Acid, Carbollic Acid and Oxalic Acid, Sodium and Potassium and Ammonium Hydro-Oxide
2. Non-metallic, Metallic Poisons and Industrial hazards: Phosphorus and compounds of Lead, Arsenic, Mercury, Copper, and Glass powder Desirable To Know
3. Plant Poisons: Castor, Croton, Capsicum, Semicarpus Anacardium (Bhilawa), Calatropis Gigantea, Abrus Precatorius (Ratti), Dhatura, Cannabis Indica, Cocaine, Opium, Aconite, Yellow Oleander, Strychnine
4. Animal and Bacterial Poisons: Snakes, Scorpion and Food poisoning
5. Alcohol (Drunkenness) Ethyl Alcohol, Methyl Alcohol, Kerosene, Barbiturates
6. Asphyxiant & Gaseous Poisons: Carbon Monoxide, War gases, Hydrocyanic acid, and Cyanides
7. Insecticides, pesticides and Miscellaneous poisons: Organo-Phosphorus Compounds, Organo-Chloro Compounds, Carbamates (Carbaryl) and Rodenticides (Phosphides) Desirable To Know

Collection, Preservation and forwarding of evidence, remains of poison, body discharges and viscera etc. to Forensic Science Laboratory in cases of poisoning

C) FORENSIC SCIENCE LABORATORY: (BRIEF)

1. Aims, objects, general knowledge about Forensic Science Laboratory Nice To Know
2. General principles of analytical toxicology Desirable To Know

Part – 3 Medical Jurisprudence: (N=12)

A) LEGAL AND ETHICAL ASPECTS OF PRACTICE OF MEDICINE

1. The Indian Medical Council, the Act, Formation and Functions;
State Medical Council: Formation, Functions, and Registration
2. Rights and obligations of Registered Medical Practitioners and patient, Duties of physicians and patients, Euthanasia
3. Infamous conduct, Professional secrecy and privileged communications
4. Codes of Medical Ethics, medical etiquette, Medical Negligence and contributory negligence, Precautionary measures and defences for Medical Practitioners against legal actions, Medical/Doctors indemnity insurance, Consumer Protection Act relevant to medical practice
5. Medical Ethics and prohibition of Torture & care of Torture Victims Desirable To Know

B) DEFINITION OF HEALTH AND ITEMS TO CERTIFY ABOUT HEALTH

1. Common medico-legal problems in Hospital practice, Consent in Medical Examination and treatment, under treatment/ Sickness and Fitness certificate, maintenance of medical records
2. Social, Medical, Legal and Ethical problems in relation to AIDS Desirable To Know

C) ACTS AND SCHEMES RELATED TO MEDICAL PROFESSION IN BRIEF:

Workmen's compensation Act, * Mental Health Act, Medical Practitioner Act, Protection of human rights Act, 1993, * National Human Rights Commission, * Human Organ Transplantation Act and other relevant sections of I.P.C., Cr.P.C. and I.E. Act. Maharashtra civil medical code, Hospital administration manual Nice To Know

Part – 4 Legal procedures in medico-legal cases: (N=8)

- A. Medico-Legal Investigations of death in suspicious circumstances, different Inquest, type of offences
- B. Types of Criminal courts and their powers, punishments prescribed by law, kinds of witnesses, Evidence, Documentary Medical evidence, Dying declaration and Dying deposition
- C. The Trial of criminal cases, Rules and Conventions to be followed by Medical Witness at Medical evidence, subpoena, conduct money
- D. Relevant Sections from the Indian Evidence Act, Indian Penal code and Criminal Procedure code

NOTE: Must know, desirable to know and „*„ is nice to know

d. Term-wise distribution

Terms Tuts/Sem/Allied	Lectures	Non – Lectures	Pracs.	Demos.
I Term	15	08	06	06
II Term	15	10	05	06
III Term	10	07	04	08
<hr/>				
Total	40	25	15	20

This period of training is the minimum suggested. Adjustments whenever required, depending on availability of time, be made

e. *Practicals (including demonstrations) : Total no.of hours & contents*

Practicals will be conducted in the laboratories.

Objective will be to assess proficiency in skills, conduct of experiment, interpretation of data and logical conclusion.

Emphasis should be on candidate's capacity in making observations and logical inferences in order to initiate enquiries in criminal matters and medico-legal problems.

Total Marks: 25 + 15 = 40

Contents:

Part 1 Forensic Medicine

Report on:

1. Estimation/Certification of Age
2. Recording of fingerprints
3. Examination/Certification of the Injured
[Prescribed Forms]
4. Examination of the Causative Agents in cases of Injuries
(e.g. Weapons, Instruments)
 - a. Hard and blunt weapons
 - b. Sharp cutting, sharp pointed and Sharp Heavy cutting weapons
 - c. Firearm weapons Nice To Know
5. Sexual offences :
 - a. Examination/Certification of Victim
 - b. Examination/Certification of Accused
6. Examination of Foetus to opine about age
7. Examination of Bones and teeth for Medico-legal purpose to determine age, sex, stature, cause of death, time since death
 - a. Skull and Mandible
 - b. Scapula, Sternum and Upper limb bones
 - c. Sacrum and hip bone/ Pelvic bone
 - d. Lower limb bones

Study of:

8. Medical certification of cause of Death as per Birth and Death registration Act [Prescribed Forms]
9. Studies of Skiagrams for estimation of age, bony injury, foreign body, and pregnancy
10. Photograph of different events of Medico-legal importance and post-mortem changes
11. Study of Various museum specimens of medico-legal significance
12. Study of Various slides of medico-legal significance
13. Demonstration of Instruments:
 - a. Used in treatment of acute poisoning cases
 - b. Used for causing abortions
 - c. Used for carrying out autopsy Nice To Know

[Standard human autopsy dissection Box/set]

Part 2 Forensic Toxicology

1. Examination/Certification of Alcoholic [Prescribed Forms „A“ & „B“]
2. Study of Common poisons:

[Sulphuric Acid, Nitric Acid, Hydrochloric Acid, Carbolic Acid and Oxalic Acid, Sodium and Potassium Hydro-Oxide, Phosphorous, Lead, Arsenic, Mercury, Copper, Glass powder, Castor, Croton, Capsicum, Semicarpus Anacardium (Bhilawa), Calatropis Gigantea, Abrus Precatorius (Ratti), Dhatura, Cannabis Indica, Opium, Aconite, Yellow Oleander, Strychnine, Snakes, Scorpion, Alcohol, Methyl Alcohol, Kerosene, Barbiturates, Organo-phosphorus compounds, Organo Chloro compounds, Carbamates (Carbaryl)] and other commonly used poisons, antidotes and preservatives

Part 3 Medical Jurisprudence

Study of Medical Certificates [Prescribed Forms]

- a. Sickness Certificate
- b. Fitness Certificate
- c. Certificate of Physical fitness
- d. * Medical certificate prescribed under Mental Health Act : 1987^{Desirable to Know}
- e. * Medical Certificate of Sound/ Unsoundness of mind. ^{Nice To Know}

Part – 4 Legal procedures in medico-legal cases

Study of the various prescribed Forms:

Consent to surgery Anaesthesia and other Medical services, Request for sterilization, Consent to access to hospital records, Authorization for Autopsy, Dead body Challan used for sending a dead body for post-mortem examination, Request for the second inquest by Magistrate on the dead body, Provisional post-mortem certificate, Post-mortem form, Pictorial Post-mortem form, Form for the Final cause of death, Forms for despatch of exhibits other than the viscera to chemical analyser, Forms for despatch of Viscera for Histopathological Examination, Form for dispatch of viscera to chemical analyser, Forensic Science Laboratory report form, Summons to witness.

Each student shall attend and record as a clerk

- a. As many as possible cases / items of medico-legal importance
- b. 10 cases of medico-legal autopsies

Both above „a“ and „b“ should be recorded in the approved Proforma in the single Journal. The Journal should be scrutinised by the teacher concerned and presented for the inspection and evaluation during the university examination.

Each student shall attend the court at least 2 cases when Medical Evidence is being recorded.

f. Books recommended

1. Modi's Textbook of Medical Jurisprudence and Toxicology Ed. 22, 1999, by B.V. Subramanyam, Butterworth
2. The Essentials of Forensic Medicine & Toxicology by K.S. Narayan Reddy
3. Parikh's Textbook of Medical Jurisprudence and Toxicology.
4. Text Book of Forensic Medicine – J.B. Mukherjee VOL 1 & 2
5. Principles of Forensic Medicine - A. Nandy
6. Toxicology at a Glance by Dr S.K. Singhal
7. Bernard Knight et. Al: Cox's Medical Jurisprudence & Toxicology

Reference books

1. Russell S. Fisher & Charles S. Petty: Forensic Pathology
2. Keith Simpson: Forensic Medicine
3. Jurgen Ludwig: Current Methods of autopsy practice.
4. Gradwohl – Legal Medicine
5. A Doctors Guide to Court – Simpson
6. Polson C.J. : The essentials of Forensic Medicine
7. Adelson, L.: The Pathology of Homicide.
8. Atlas of Legal Medicine (Tomro Watonbe)
9. Sptiz, W.U. & Fisher, R.S.: Medico-legal Investigation of Death.
10. A Hand Book of Legal Pathology (Director of Publicity)
11. Taylor's Principles & Practice of Medical Jurisprudence.
Edited by A.Keith Mant, Churchill Livingstone.
12. Ratanlal & Dhirajlal, The Indian Penal Code; Justice Hidayatullah & V.R. Manohar
13. Ratanlal & Dhirajlal, The Code of Criminal procedure; Justice Hidayatullah & S.P. Sathe
14. Ratanlal & Dhirajlal, The Law of Evidence; Justice Hidayatullah & V.R. Manohar
15. Medical Law & Ethic in India – H.S. Mehta
16. Bernard Knight : Forensic Pathology
17. Code of medical ethics : Medical Council of India, approved by Central Government, U/S 33 (m) of IMC Act, 1956 (Oct 1970)
18. Krogman, W.M.: The human skeleton in legal medicine.
19. FE Camps, JM Cameren, David Lanham : Practical Forensic Medicine
20. V.V. Pillay : Modern Medical Toxicology.

BOM-40/2015, dated 13/03/2015

Resolution no. 3.2(e)

Resolution No. - 3.2 (e)

MGM/MED - C/FMT - (245)

BOM-40/2015-

ANNEXURE-3

Date:-4/3/2015.

To,

Board of Studies,

M.G.M.I.H.S.,

Kamothe,

Navi Mumbai.

Subject:- Introduction of preprinted/ printed proforma medicolegal certificate in university exams. / Request to abstain the need to memorize blank forms for university exams.

Respected Sir,

A) In present system of MUHS and MGMIHS Deemed University students have to memorize all the proforma/blank certificates of all medicolegal cases. In actual practice no doctors have to memorise these proforma and give certificates.

B) In routine medicolegal case proforma are provided by casualty of concerned hospitals/ PHC/Medical Colleges and R.M.P supposed to fill it as per findings.

C) In practical examination of Forensic Medicine and Toxicology of IInd MBBS, printed Certificates proforma of medicolegal cases should be given along with case report rather than asking students to memorize the said medicolegal case proforma (medicolegal case form) and then fill the same as per case given finding.

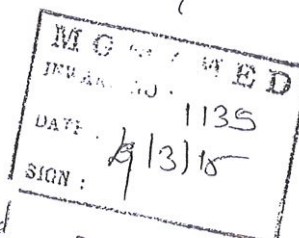
D) I would be highly obliged and grateful to you if you could kindly allow to give printed proforma of the certificate during university examination like other states including Gujarat. To start with please consider 2 certificates out of 9 medicolegal examination/certificate that are Alcohol & Impotency which are not common to all RMP'S.

Thanking You,

Your's Faithfully,

(Dr.R.S.Chaudhari)

Prof & Head
Dept. of Forensic Medicine
MGM Hospital College
Kamothe, Navi Mumbai



CC of various certificates attached
(1 set of 2 e-mail to BOS)

01. Examination / Certification of Alcoholic
(A Model Scheme of Examination)

To,

The Investigating Officer P.S.

Reference : Your letter No.

Dated :

I am forwarding herewith the result of my examination of

Name : Son / daughter / wife / widow of

Age : Sex : M/F Weight :

Address :

Consent for examination :

Signature / Thumb impression

Identification Marks : 1.
2.

Brought by P.C. Name :

No.

P.S.

Date and time of examination :

General behaviour :

Memory :

Mental alertness :

Pulse :

Respiration :

Temperature :

Blood pressure :

Skin :

Smell of alcohol, if any :

Eye :

Pupils :

Muscle co-ordination :

Gait :

Speech :

Handwriting :

Reflexes :

Systemic examination :

Respiratory System :

Cardio-vascular System :

Gastro-intestinal Tract :

Laboratory investigations : Blood
Urine

Expired air :

Diagnosis :

Opinion : I am of the opinion that -

1. The above person has consumed alcohol and is under its influence.
2. The above person has consumed alcohol and is not under its influence.
3. The above person has not consumed alcohol.

Place :

Date :

Time :

Signature

(Dr.

Designation & Seal)

Form 'A'
(See Rule No. 3)

(Certificate by Registered Medical Practitioner showing whether a person examined by him has or has not consumed an intoxicant)

Serial No. _____

Name & location of the
Dispensary or Hospital

Certified that Shri / Smt / Kum. _____ of _____
was brought to this Hospital / Dispensary by _____
(Here state the Name & Designation of the Officer)
on _____ at _____ A.M. / P.M.

A clinical examination of the above person disclosed the following :

Age : _____ Weight : _____

Breath : Smelling / Not smelling of Alcohol / Ganja / Bhang.

Speech : Incoherent / Normal

Gait : Unsteady / steady

Pupils : Dilated / Normal

Additional remarks, if any :

I find that the above named person _____

HAS CONSUMED _____
HAS NOT CONSUMED ANY INTOXICANT _____
Alcohol / Ganja / Bhang

I also find that he / she is not under the influence of alcohol.

(N.B. : Blood from the body of the above named was / was not collected by me for chemical examination)

"Certified that the procedure laid down under the rule (4) of Bombay Prohibition Medical Examination and Blood Test Rule 1959 has been followed."

Date :

Time : _____ A.M./P.M.

Signature
Designation

Signature / Thumb impression of the
Person examined.

Marks of identification of the person examined in case he refuses to give his signature or thumb impression

Form "B"

No.

From : The Casualty Medical Officer,
Lecturer in Forensic Medicine
Medical College and Hospital

To : The Director
Forensic Science Laboratory & Chemical Analyser
Govt. of Maharashtra, Mumbai

Date :

Sir,

I am forwarding herewith a parcel by post/with Shri _____
of _____ containing _____ ml. of Blood and/or Urine sample collected
by me on _____ at _____ A.M./P.M. from the body of Shri/Shrimati/Kumari
_____ of _____
who was produced before me for medical examination and/or collection of Blood and/or Urine
from his/her body by _____ and request to test
the Blood and/or Urine and issue a certificate (in duplicate) regarding the result of the tests.

"Certified that the procedure laid down under the rule (4) of Bombay Prohibition Medical Examination
Blood Test Rule 1959 has been followed".

Yours faithfully,

(Dr. _____)
Casualty Medical Officer
Lecturer in Medical Jurisprudence
Medical College and Hospital.

Facsimile of the Seal or
Monogram used for sealing the
Phial containing Blood and/or Urine

07. Sexual Offences : Examination of the Accused

To
The Investigating Officer,
Police Station : _____

Reference : Your letter No. _____, Dated : _____

Name : _____

Age as stated : _____ yrs, Sex : _____, Marital status : _____

Address : _____

Brought by Police Constable : _____, No. _____, P.S. _____

Consent : _____

Signature of accused _____

Identification marks : 1. _____

2. _____

History of the case : _____

Whether bath was taken after the incident : _____

Whether he has changed the clothing after the incident : _____

Whether micturated after the incident : _____

Whether defecated after the incident : _____

Observation : _____

General Examination :

a. Height : _____

b. Weight : _____

c. Built : _____

d. Clothing : _____

e. Mental status : _____

f. Dental findings : _____

g. Secondary sexual characters : _____

h. Condition of clothes : Any marks of injury/stains or foreign body _____

i. Any marks of injury/scar/stains or foreign body on the body of the accused. _____

Local Examination : Perineum and medial aspect of thighs

- a. Pubic hair : matting : Foreign body :
b. Penis and Scrotum : Deformity : / Evidence of any injury :
Presence of Smegma :
c. Any evidence of S.T.D.
d. Any other findings : Stains / Foreign body

Systemic Examination :

Samples for Laboratory examination :

- a. Stains on the clothes and body b. Matted pubic hair
c. Nail cutting / scraping d. Any other foreign matter
e. Blood sample f. Penis or urethral swab / smear

Samples packed, sealed and handed over to PC _____ No. _____ P.S. _____

Opinion :

Place : ..

Date & Time :

Signature
(Dr. _____)
Designation / Seal

(This certificate can also be used for certification of impotence / potency. Strike off which is not applicable)

05. Examination for Determination of Age

To,

The _____

Reference :

Name : _____

Age stated : _____ ; Sex : _____ ; Occupation : _____

Address : _____

Brought by Police Constable : _____ No. : _____ ; P.S. _____

Identified by : _____

Date and Time of Examination : _____

Place of Examination : _____

Consent : _____

(If minor below 12 yrs. consent of Parents/Guardian)

Examined in presence of : _____
(If female)

Signature of female attendant)

Identification marks : 1. _____

2. _____

Birth Date : _____

Education : _____

Physical Examination :

1. Height : _____

2. Weight : _____

3. Chest girth at the level of nipple : _____

4. Abdominal girth at the level of navel : _____

5. General build and appearance : _____

6. Hairs : Pubic : _____, Axillary : _____, Facial : _____, Scalp : _____

7. Development of breasts : _____

8. Development of genitals : _____

04. Examination of the Weapon in Cases of Injuries

To
The Investigating Officer,
Police Station _____

Reference : Your letter No. _____ dated _____

Sir,

With reference to the above letter, I am sending the report about weapon sent sealed in connection with the injuries of _____

Name of weapon : _____ Kind of weapon : _____

Type of weapon : _____

Description of the weapon :

Blade : Is of _____, Texture : _____

Length : _____, Breadth : _____, Thickness : _____

Edges / Margins : _____, Point : _____

Stains/Foreign body, if any : _____

Joint : Type : _____, Hilt : Size : _____

Handle : Is of _____, Texture : _____

Length : _____, Breadth/Circumference : _____

Stains/Foreign body, if any : _____

(Advised to send it to C.A. for further detail examination)

Injuries possible :

Injuries impossible :

Identification marks if any on the weapon.
(Put the signature on the weapon)

The weapon packed, sealed and handed over to P.C. _____ No. _____ P.S. _____

Place : _____

Date & Time : _____

Receipt of weapon & report

Signature
(Dr. _____)
Designation & Seal

03. Examination / Certification of the Injured (Injury Report)

To

The Investigating Officer,
Police Station _____

Reference L Your Letter No. _____, dated _____

Sir;

I am forwarding herewith the report of examination of :

Name of Injured : _____ Son/Wife/Daughter/Widow of _____

Surname _____ resident of _____

Brought by PC _____ No. _____ P.S. _____

Consent for examination :

Identification marks : 1.

2.

History :

Sr. No.	Nature of injury	Size of injury	Situation over the body	Type of injury	Kind of weapon	Age of injury	Remarks

Place :

Date :

Signature
(Dr. _____)
Designation & Seal

8

Approved in BOM 45/2016, Dated 28/04/2016

Resolution No. 3.2(b)

Resolution No. 3.2(b): Resolved to accept revised method to calculate internal assessment marks for IIInd MBBS Exam effective from batch entering into 2nd MBBS from August 2016 onwards.

For Theory:

	Microbiology	Pharmacology	Pathology	FMT
III rd , IV th Sem. & Prelim Exam.	10	10	10	07
Day to day assessment as per MCI norms	05	05	05	03
Total marks	15	15	15	10

For Practical:

	Microbiology	Pharmacology	Pathology	FMT
III rd , IV th Sem. & Prelim Exam.	10	10	10	07
Day to day assessment as per MCI norms	05	05	05	03
Total marks	15	15	15	10

EXAMINATION PATTERN FOR PATHOLOGY, MICROBIOLOGY & PHARMACOLOGY

GENERAL SECTION

A. PASSING :

- i. A candidate must obtain 50% in aggregate with a minimum of 50% in Theory including oral and minimum of 50% in practical and 35% in internal assessment combined theory and practical.
- ii. Prelims examination on the basis of University pattern (Theory, Practical and viva): Minimum 3-4 weeks gap between Prelims and University examination.
- iii. The total time will be 2 hours 30 mins.
- iv. Practical (total time 1 ½ hours). The details of practical examination exercises will be notified by Head of the department / Head of Institution.
- v. Prelim pattern will be as per the University exam with 2 papers in theory each of 2 hours duration

B. CALCULATION OF INTERNAL ASSESSMENT MARKS :

- Calculation of Theory and Practical Internal Assessment marks for Pathology, Microbiology & Pharmacology shall be as per following rule

1 Distribution of 15 marks in theory shall be as follows:

- 1.1 5 marks for attendance as per the following guidelines:
 - Below 75% - 0
 - Upto 75% -2.5
 - Above 75% proportionately higher marks at pro -rate basis (multiplication factor is 0.1)

- 1.2 10 marks for academic performance in theory in 1 term or prelim exam - average of all the internal examination shall be taken
- 1.3 Marks in decimal computed in 1.1, 1.2 & 1.3 should be converted into whole number at the end.

2 Distribution of 15 marks in practical shall be as follow:

- 2.1 5 marks for attendance as per the following guidelines:
 - Below 75% - 0
 - Upto 75% -2.5
 - Above 75% proportionately higher marks at pro -rate basis (multiplication factor is 0.1)

- 2.2 10 marks for academic performance in theory in 1 term or prelim exam - average of all the internal examination shall be taken
- 2.3 Marks in decimal computed in 1.1, 1.2 & 1.3 should be converted into whole number at the end.

- Calculation of Theory and Practical Internal Assessment marks for Forensic Medicine

1 Distribution of 10 marks in theory shall be as follows:

- 1.1 5 marks for attendance as per the following guidelines:
 - Below 75% - 0
 - Upto 75% -2.5
 - Above 75% proportionately higher marks at pro -rate basis (multiplication factor is 0.1)

- 1.2 5 marks for academic performance in theory in 1 term or prelim exam - average of all the internal examination shall be taken
- 1.3 Marks in decimal computed in 1.1, 1.2 & 1.3 should be converted into whole number at the end.

2 Distribution of 10 marks in practical shall be as follow:

- 2.1 5 marks for attendance as per the following guidelines:
 - Below 75% - 0
 - Upto 75% -2.5
 - Above 75% proportionately higher marks at pro -rate basis (multiplication factor is 0.1)

- 2.2 5 marks for academic performance in theory in 1 term or prelim exam - average of all the internal examination shall be taken
- 2.3 Marks in decimal computed in 1.1, 1.2 & 1.3 should be converted into whole number at the end.

PATHOLOGY

University Examination: Theory, Practicals and Viva

1. Scheme of internal assessment (Pathology) : The computation of internal assessment marks shall be as per rule No 2 and 3 mentioned in this rule and regulation

2. Pattern of Theory Examination including Distribution of Marks, Questions and Time.

a. Distribution of Marks

No		Total marks
1	Theory (2 papers – 40 marks each)	80
2	Oral (Viva)	15
3	Practical	25
4	Internal assessment (Theory –15, Practicals –15)	30
	TOTAL	150

- i) Total duration – 4 hrs (each paper of 2 hrs or 120 minutes)
- ii) Each paper will have 3 sections.
- iii) Pattern and marking for each paper of 40 marks as provided in the table

Sections	Nature of Question- Two Theory Papers	Total No. of Questions	Mark (s) per Question	Total Marks
A)	Multiple Choice Questions (MCQs)	16	½	08
B)	Brief Answer Questions (BAQs)	4 out of 5	4	16
C)	Long Answer Question (LAQ)	2 out of 3	8	16
	Total			40

3. Direction:- Only short answer questions may be permitted from the portions marked as "Desirable to know"

- Paper wise distribution of theory topics and number of questions:-

A) Paper I:- General Pathology inclusive of general neoplasia, Haematology inclusive of transfusion medicine.
Out of 3 LAQs in Section C, 2 questions should be from General Pathology and General Neoplasia and one question should be from Haematology inclusive of transfusion medicine.

B) Paper II:- Systemic Pathology inclusive of Systemic Neoplasia and Clinical Pathology.
Out of 3 LAQs in Section C, 2 questions should be from Systemic Pathology and Systemic Neoplasia and one question should be from Clinical Pathology.

4. Marking scheme : Each paper of 40 marks as shown in the above table.

5. University examination Nature of practicals and duration (Pathology)

- a) Number of students for practical Examination should not exceed more than 35 / day

b) Practicals

a. 10 Spots 2 minutes each (4 specimen, 1 instrument, 3 histopathology slides, 1 haematology slide and 1 chart) Marks 25
10

Identification - 1/2 mark

Specific short question - 1/2 mark

} together 1 mark for each spot

b. Urine Examination - Physical and two abnormal constituents

05

c. Histopathology slides : Diagnosis and discussion

03

d. Haematology examination

i) Peripheral blood smear, staining and report

03

ii) Hb/TLC/Blood group

04

Total 25

C Viva: duration and topic distribution : Viva marks shall be added to theory and shall be submitted separately out of 15 Marks. Viva consists of two tables; on each table the student will face 2 examiners for 5 minutes each:

Table - I General and Systemic Pathology

7 Marks

Table - II Clinical Pathology and Haematology -

8 marks

Total 15 marks

MICROBIOLOGY

1. THEORY:

The computation of internal assessment marks shall be as per rule No 2 and 3 mentioned in this rule and regulation

University Examination

2. Pattern of Theory Examination including Distribution of Marks, Questions and Time.

a. Distribution of Marks

No		Total marks
1	Theory (2 papers – 40 marks each)	80
2	Oral (Viva)	15
3	Practical	25
4	Internal assessment (Theory –15, Practicals –15)	30
	TOTAL	150

b. Total duration – 4 hrs (each paper of 2 hrs or 120 minutes)

c. Each paper will have 3 sections.

d. Pattern and marking for each paper of 40 marks as provided in the table

e. One compulsory question of 7 marks on applied Microbiology in each paper

Sections	Nature of Question- Two Theory Papers	Total No. of Questions	Mark (s) per Question	Total Marks
		16	1/2	08
A)	Multiple Choice Questions (MCQs)	4 out of 5	4	16
B)	Brief Answer Questions (BAQs)	2 out of 3	8	16
C)	Long Answer Question (LAQ)			
			Total	40

3. Topic distribution

A) MICROBIOLOGY PAPER I : General Microbiology , Systematic bacteriology including Rickettsia, Chlamydia and Mycoplasma , Related applied microbiology.

B) MICROBIOLOGY PAPER II : Parasitology , Mycology , Virology , Related applied Microbiology, Immunology

4. University Examination Nature of practicals and duration

a. Practical examination in MICROBIOLOGY will be of 25 marks and oral (viva) of 15 marks of THREE hours duration.

Q.1: Gram staining	5 Marks
Q.2: Zeihl – Neelsen's staining	5 Marks
Q.3: Stool examination for Ova/cyst	5 Marks
Q.4: Spots identification (Ten spots)*	10 Marks
	Total-25 Marks

b. Viva (Two tables) 15 Marks

A: General & Systemic Microbiology 7 Marks

B: Mycology, Parasitology, Virology, Immunology 8 Marks

(*Spots-Microscopic slides, Mounted specimen, Instruments used in laboratory, Serological tests, Inoculated culture medium, biochemical reactions, Sterile culture medium, Vaccines / serum).

PHARMACOLOGY AND PHARMACOTHERAPEUTICS

1. The computation of internal assessment marks shall be as per rule No 2 and 3 mentioned in this rule and regulation

University Examination

2. Pattern of Theory Examination including Distribution of Marks, Questions and Time.
 - a. Distribution of Marks

No		Total marks
1	Theory (2 papers – 40 marks each)	80
2	Oral (Viva)	15
3	Practical	25
4	Internal assessment (Theory –15, Practicals –15)	30
	TOTAL	150

- b. Total duration – 4 hrs (each paper of 2 hrs or 120 minutes)
- c. Each paper will have 3 sections.
- d. Pattern and marking for each paper of 40 marks as provided in the table
- e. One compulsory question of 7 marks on applied Microbiology in each paper.

Sections	Nature of Question- Two Theory Papers	Total No. of Questions	Mark (s) per Question	Total Marks
A)	Multiple Choice Questions (MCQs)	16	½	08
B)	Brief Answer Questions (BAQs)	4 out of 5	4	16
C)	Long Answer Question (LAQ)	2 out of 3	8	16
	Total			40

3. Topic distribution

- A) PHARMACOLOGY PAPER I includes General Pharmacology including drug interactions; Autonomic Nervous System, Cardiovascular System including drugs affecting Coagulation and those acting on the Kidneys; Haematinics; Agents used in Gastro-Intestinal Disorders; Ocular pharmacology; Drugs used at extremes of age, in pregnancy & in organ dysfunction; Diagnostic & Chelating agents; Environmental & Occupational Pollutants; Vitamins
- B) PHARMACOLOGY PAPER II includes Neuro-Psychiatric Pharmacology including Antiinflammatory-Analgesics and Addiction & its management; Pharmacology in Surgery (particularly peri-operative management); Chemotherapy including Cancer Chemotherapy; Endocrinology; Dermatology; Miscellaneous Topics I (Lipid-derived autacoids; Nitric Oxide; Allergy -Histaminics & Antihistaminics including anti-vertigo; Anti Asthmatics; Antitussive agents; Immunomodulators; Vaccines & sera; Drugs acting on the uterus)

4. University Examination Nature of practicals and duration : Practical examination in Pharmacology will be of 25 marks and oral (viva) of 15 marks of THREE hours duration.

a. Nature of practicals and duration

Practical Heads

Marks 25

i. Prescription writing

5

Marks

• Long

(3)

• Short

(2)

ii. Criticism

7

Marks

• Prescription & rewriting

(4)

• Fixed dose formulation

(4)

iii. Clinical Pharmacy

5

Marks

(dosage forms, routes of administration, label information and instructions)

iv. Spots Marks

8

a. Experimental Pharmacology – Graphs, Models for evaluation, Identification of a drug, Interpretation of data (1 Spot)

b. Human Pharmacodynamics -Drug Identification – urine analysis, eye chart, -Subjective / objective effects of a drug (1 Spot)

c. Therapeutic problems based on pharmaceutical factors -Outdated tablet, Bioavailability, Dosage form, Ethics and Sources of drug information (1 Spot)

d. Recognition of ADRs & interaction of commonly used drugs (1 Spot)

From each of the 4 groups (a, b, c & d) 1 spot should be kept to answer the number of questions based on respective spot. Each spot to carry 2 marks amounting to a total of 8 marks for spotting.

b. Time distribution:

For prescription and criticism the time given will be ½ hour.

For clinical pharmacy practical viva will be taken on pre-formed preparations and/or marketed formulations. The students may be asked to write labels and instructions to be given to the patients or demonstrate how specific dosage forms are administered and state the precautions to be taken/ explained to the patients while using them. The time for this will be 5 min.

For spots 10 min will be given (2 min per spot).

Thus the total time for the practical examination will be 1 hour.

c. Viva: duration and topic distribution.

Viva

15 marks

Duration

10 mins

Four examiners

5 mins with each candidate

Two examiners

for topics of paper I - systems to be distributed

Two examiners

for topics of paper II - systems to be distributed

FORENSIC MEDICINE AND MEDICAL JURISPRUDENCE INCLUDING TOXICOLOGY

1. THEORY:

- a. The computation of internal assessment marks shall be as per rule No 2 and 3 mentioned in this rule and regulation

University Examination

2. Pattern of Theory Examination including Distribution of Marks, Questions and Time.

a. Distribution of Marks

No		Total marks
1	Theory (1 papers – 40 mark)	40
2	Oral (Viva)	10
3	Practical	30
4	Internal assessment (Theory –15, Practicals –15)	20
	TOTAL	100

b. Total duration – 2 hrs .

c. The paper will have 3 sections.

d. Pattern and marking for paper of 40 marks as provided in the table

Sections	Nature of Question- Two Theory Papers	Total No. of Questions	Mark (s) per Question	Total Marks
A)	Multiple Choice Questions (MCQs)	16	½	08
B)	Brief Answer Questions (BAQs)	4 out of 5	4	16
C)	Long Answer Question (LAQ)	2 out of 3	8	16
	Total			40

e. Topic distribution in the theory paper

Section A & C: Forensic Medicine, Toxicology, Medical Jurisprudence, Legal Procedure
Section B: Forensic Medicine, Toxicology and/or Medical Jurisprudence

f. Nature of practicals and duration : The practical examination shall be of 30 marks and conducted under following heads:

Report on: Six Exercises [With available resources] Time: About 2 hrs.

1. An Injured OR Age of the child
OR An Alcoholic OR Sexual offence 07 Marks
2. Bone OR Determination of age of Foetus 05 Marks
3. Weapon 05 Marks
4. Certificate of Sickness, fitness OR Death. 05 Marks
5. Report on TWO Poison 04 Marks
6. Report on any TWO articles: [Skiagram OR
Photographs OR Slides OR Museum
Specimens OR Instruments] 04 Marks

TOTAL **30 Marks**

In respect of items 1 to 6, students will be expected to prepare their Reports as if they would be required to submit it to the investigating authority concerned within the time allotted, and the examiners will be assessing proficiency in skills, conduct of experiment, interpretation of data and logical conclusion. Emphasis should be on candidate's capacity in making observations and logical inferences in order to initiate enquiries in criminal matters and medico-legal problems.

- g. Viva : duration and topic distribution
Viva-voc : Time: About 20 Min
There will be TWO tables examining each student separately on the topics 'a' and 'b'.
Viva 10 marks
Duration 20 mins
Four examiners 10 mins with each candidate
Two examiners for topics a. Toxicology and Medical Jurisprudence
Two examiners for topics b. Forensic Medicine and Legal Procedures

Date : 30th September 2009
Place : Navi Mumbai



[Signature]
Registrar

1st year - MBBS

Resolution No. 1.3.7.1 of BOM-51/2017: Resolved to continue the current Internal Assessment pattern for MBBS (i.e. 5 marks for Day-to-day assessment) for Pre and Para Clinical subjects (Anatomy, Physiology, Biochemistry, Microbiology, Pharmacology, Pathology and FMT). For rest of the subjects, Internal Assessment is to be calculated from terminal/Post end exam marks and Prelims examination, with immediate effect.

Resolution No. 1.3.8.13 of BOM-51/2017: Resolved to approve the topics for vertical and horizontal integrated teaching in IInd MBBS Curriculum from batch entering in IInd MBBS in 2017-18 onwards. **Annexure-X**

4. Forensic Medicine

Topics for Integrated Teaching (Horizontal)

1	Injuries	Horizontal
2	Changes after death	Horizontal
3	Antidotes	Horizontal

Topics for Integrated Teaching (Vertical)

4	Sexual assault	Vertical
5	Mc Naughten Rules	Vertical

Resolution No. 1.3.8.8 of BOM-51/2017: Resolved to:

- (i) Introduce problem case discussion (problem based learning) in all para-clinical subjects on topics identified from batch entering in IInd MBBS in 2017-18 onwards. Annexure-VI

Problem based learning topics for undergraduates (MBBS)

4. Forensic Medicine

- Declaration of Death
- Snake Bite
- Unknown poisoning
- Unconscious patient

Resolution No. 3.6.3 of BOM-52/2018: Resolved to approve the updated Practical Record book for 2nd MBBS (Forensic Medicine), with effect from batch entering in 2nd MBBS in August/September 2017 onwards. [Annexure-V] ✓

Resolution No. 3.5.9 of BOM-52/2018:

- a) BOM reiterated the earlier BOM resolution as mentioned below:

Resolution No. 1.3.7.5 of BOM-51/2017: It was resolved that

- i) In all the subjects of all courses, MCQ weightage (Section A) shall be a maximum of 20% of the total marks in each paper.
- ii) BOS will have to accordingly workout the changes in Section B & C weightage and put up in forthcoming BOS meeting.
- iii) Further University Examination section must validate the MCQ Question Bank by Faculties before giving it to question paper-setter.

- b) To be effective from:

- (i) Ist MBBS - Batch appearing in University August/September 2018 examination onwards.
- (ii) IInd MBBS - Batch appearing in University January 2019 examination onwards.
- (iii) IIIrd MBBS (Part I) and IIIrd MBBS (Part II) - Batch appearing in University January 2019 examination onwards.

Resolution No. 4.2.1 of BOM-53/2018: Resolved that the printed format of the Medico-legal examination proforma (sexual violence) may be provided to 2nd MBBS students during practical's in formative and summative assessments [**Annexure-X**], to be applicable from batch entering into 2nd MBBS 2017-18 onwards.

Annexure 30 for item NO. ④

Annexure - X

CONFIDENTIAL

Medico-legal Examination Report of Sexual Violence

1. Name of the Hospital OPD No. Inpatient No
2. Name D/o or S/o (where known)
3. Address
4. Age (as reported) Date of Birth (if known)
5. Sex (M/F/Others)
6. Date and Time of arrival in the hospital
7. Date and Time of commencement of examination
8. Brought by
9. MLC No. Police Station.
10. Whether conscious, oriented in time and place and person ✓
11. Any physical/intellectual/psychosocial disability

(Interpreters or special educators will be needed where the survivor has special needs such as hearing/speech disability, language barriers, intellectual or psychosocial disability.)

12. Informed Consent/refusal

I D/o or S/o

hereby give my consent for:

- | | | |
|--|------------------------------|-----------------------------|
| a) medical examination for treatment | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| b) this medico legal examination | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| c) sample collection for clinical & forensic examination | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

I also understand that as per law the hospital is required to inform police and this has been explained to me.

I want the information to be revealed to the police Yes ☐ No ☐

I have understood the purpose and the procedure of the examination including the risk and benefit, explained to me by the examining doctor. My right to refuse the examination at any stage and the consequence of such refusal, including that my medical treatment will not be affected by my refusal, has also been explained and may be recorded. Contents of the above have been explained to me in language with the help of a special educator/interpreter/support person (circle as appropriate)

If special educator/interpreter/support person has helped, then his/her name and signature

2

Name & signature of survivor or parent/Guardian/person in whom the child reposes trust in case of child (<12 yrs)

.....
.....
.....

With date, time & place

Name & signature/thumb impression of Witness

.....
.....
..... ✓

With Date, time and place

13. Marks of identification (Any scar/mole)

(1)
(2)

Left Thumb impression

14. Relevant Medical/Surgical history

Onset of menarche (in case of girls) Yes No Age of onset.....
Menstrual history - Cycle length and duration Last menstrual period.....
Menstruation at the time of Incident - Yes/ No, Menstruation at the time of examination - Yes/ No
Was the survivor pregnant at time of incident - Yes/No, If yes duration of pregnancy weeks
Contraception use: Yes/No..... If yes - method used:
Vaccination status - Tetanus (vaccinated/not vaccinated). Hepatitis B (vaccinated/not vaccinated)

32

15 A.History of Sexual Violence

(i) Date of incident/s being reported

(ii) Time of incident/s

(iii) Location/s

(iv) Estimated duration : 1-7 days..... 1 week to 2 months.....
2-6 months..... >6 months.....
Episode: One..... Multiple Chronic (>6 months) Unknown.....

(v) Number of Assailant(s) and
name/s.....

(vi) Sex of assailant(s)..... Approx. Age of assailant
(s)..... If known to the survivor – relationship with the
survivor.....

(vii) Description of incident in the words of the narrator:
Narrator of the incident: survivor/informant (specify name and relation to survivor)

If this space is insufficient use extra page

15 B. Type of physical violence used if any (Describe):

Hit with (Hand, fist, blunt object, sharp object)	Burned with
Biting	Kicking
Pinching	Pulling Hair
Violent shaking	Banging head
	Dragging
Any other:	

4

15 C.

- i. Emotional abuse or violence if any (insulting, cursing, belittling, terrorizing).....
- ii. Use of restraints if any
- iii. Used or threatened the use of weapon(s) or objects if any.....
- iv. Verbal threats (for example, threats of killing or hurting survivor or any other person in whom the survivor is interested; use of photographs for blackmailing, etc.) If any:
- v. Luring (sweets, chocolates, money, job) if any:
- vi. Any other:.....

15 D.

- i. Any H/O drug/alcohol intoxication:
- ii. Whether sleeping or unconscious at the time of the incident:

15 E. If survivor has left any marks of injury on assailant/s, enter details:

15 F. Details regarding sexual violence:

Was penetration by penis, fingers or object or other body parts (Write Y=Yes, N=No, DNK=Don't know) Mention and describe body part/s and/or object/s used for penetration.

Orifice of Victim	Penetration			Emission of Semen		
	By Penis	By body part of self or assailant or third party (finger, tongue or any other)	By Object	Yes	NO	Don't know
Genitalia (Vagina and/or urethra)						
Anus						
Mouth						

Oral sex performed by assailant on survivor	Y	N	DNK
Forced Masturbation of self by survivor	Y	N	DNK
Masturbation of Assailant by Survivor, Forced Manipulation of genitals of assailant by survivor	Y	N	DNK
Exhibitionism (perpetrator displaying genitals)	Y	N	DNK
Did ejaculation occur outside body orifice (vagina/anus/mouth/urethra)?	Y	N	DNK

34

5

If yes, describe where on the body			
Kissing, licking or sucking any part of survivor's body	Y	N	If Yes, describe
Touching/Fondling	Y	N	If Yes, describe
Condom used*	Y	N	DNK
If yes status of condom	Y	N	DNK
Lubricant used*	Y	N	DNK
If yes, describe kind of lubricant used			
If object used, describe object:			
Any other forms of sexual violence			

* Explain what condom and lubricant is to the survivor

Post Incident has the survivor	Yes/No/Do Not know	Remarks
Changed clothes		
Changed undergarments		
Cleaned/washed clothes		
Cleaned/washed undergarments		
Bathed		
Douched		
Passed urine		
Passed stools		
Rinsing of mouth/Brushing/ Vomiting (Circle any or all as appropriate)		

Time since incident..... H/o vaginal/anal/oral bleeding/discharge prior to the incident of sexual violence.....

H/o vaginal/anal/oral bleeding/discharge since the incident of sexual violence.....

H/o painful urination/ painful defecation/ fissures/ abdominal pain/pain in genitals or any other part since the incident of sexual violence

16. General Physical Examination-

- Is this the first examination.....
- Pulse..... BP.....
- Temp..... Resp. Rate.....
- Pupils.....
- Any observation in terms of general physical wellbeing of the survivor.....

35

6

17. Examination for injuries on the body if any

The pattern of injuries sustained during an incident of sexual violence may show considerable variation. This may range from complete absence of injuries (more frequently) to grievous injuries (very rare).

(Look for bruises, physical torture injuries, nail abrasions, teeth bite marks, cuts, lacerations, fracture, tenderness, any other injury, boils, lesions, discharge specially on the scalp, face, neck, shoulders, breast, wrists, forearms, medial aspect of upper arms, thighs and buttocks) Note the Injury type, site, size, shape, colour, swelling signs of healing simple/grievous, dimensions.)

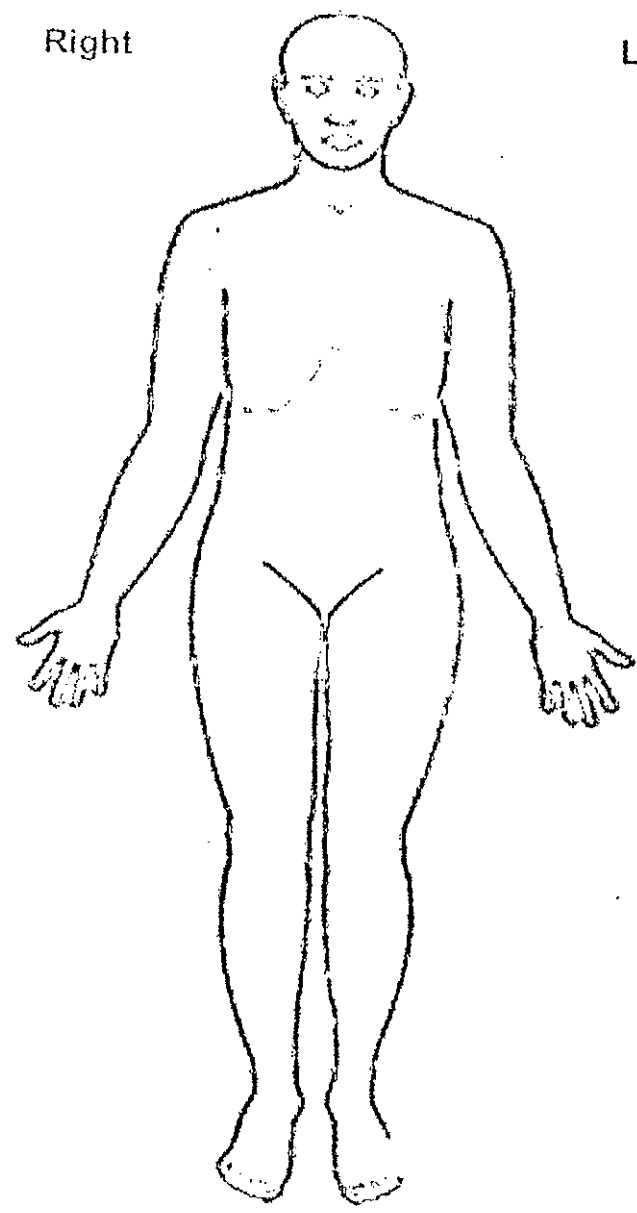
Scalp examination for areas of tenderness (if hair pulled out/ dragged by hair)	
Facial bone injury: orbital blackening, tenderness	
Petechial haemorrhage in eyes and other places	
Lips and Buccal Mucosa / Gums	
Behind the ears	
Ear drum	
Neck, Shoulders and Breast	
Upper limb	
Inner aspect of upper arms	
Inner aspect of thighs	
Lower limbButtocks	
Other, please specify	

36

7

Right

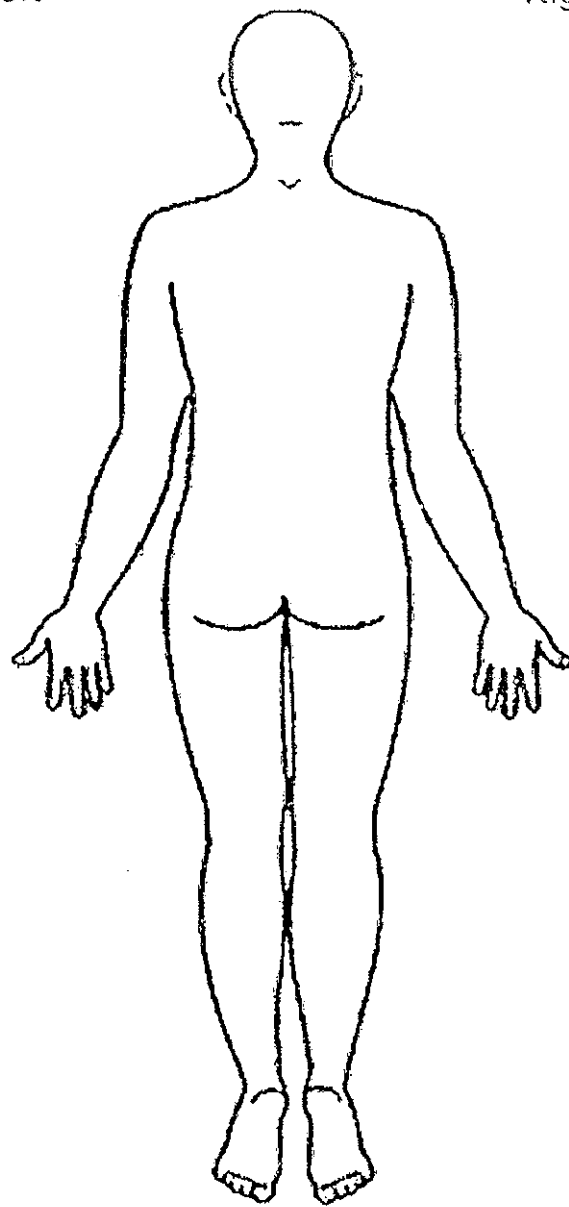
Left



8

Left

Right



38

18. Local examination of genital parts/other orifices*:

A. External Genitalia: Record findings and state NA where not applicable.

Body parts to be examined	Findings	
Urethral meatus & vestibule		
Labia majora		
Labia minora		
Fourchette & Introitus		
Hymen Perineum		
External Urethral Meatus		✓
Penis		
Scrotum		
Testes		
Clitoropenis		
Labioscrotum		
Any Other		

* Per/Vaginum /Per Speculum examination should not be done unless required for detection of injuries or for medical treatment.

P/S findings if performed

P/V findings if performed

Record reasons if P/V of P/S examination performed

C. Anus and Rectum (encircle the relevant)

Bleeding/tear/discharge/oedema/tenderness

D. Oral Cavity - (encircle the relevant)

Bleeding/discharge/tear/oedema/tenderness

19. Systemic examination:

Central Nervous System:

Cardio Vascular System:

Respiratory System:

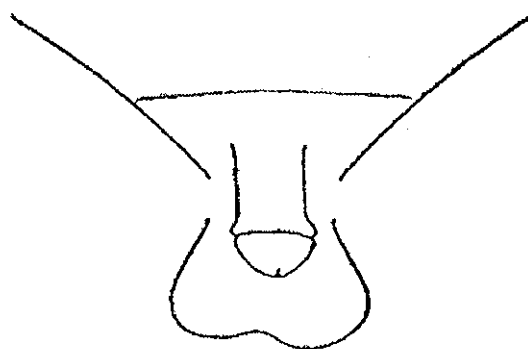
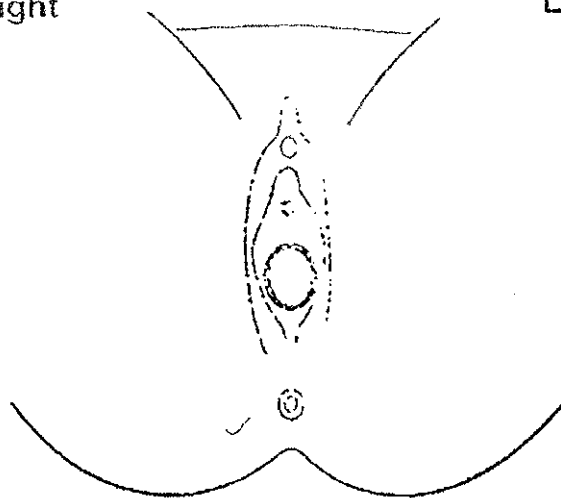
Chest:

Abdomen:

10

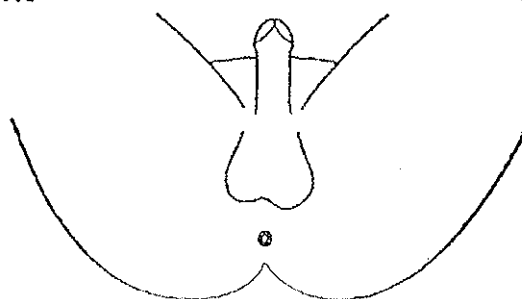
Right

Left



Right

Left



40

11

20. Sample collection/investigations for hospital laboratory/ Clinical laboratory

- 1) Blood for HIV, VDRL, HbsAg
- 2) Urine test for Pregnancy/
- 3) Ultrasound for pregnancy/internal injury
- 4) X-ray for injury

21. Samples Collection for Central/ State Forensic Science Laboratory

- 1) Debris collection paper
- 2) Clothing evidence where available – (to be packed in separate paper bags after air drying)

List and Details of clothing worn by the survivor at time of incident of sexual violence

3) Body evidence samples as appropriate (duly labeled and packed separately)

	Collected/Not Collected	Reason for not collecting
Swabs from Stains on the body (blood, semen, foreign material, others)		
Scalp hair (10-15 strands)		
Head hair combing		
Nail scrapings (both hands separately)		
Nail clippings (both hands separately)		
Oral swab		
Blood for grouping, testing drug/alcohol intoxication (plain vial)		
Blood for alcohol levels (Sodium fluoride vial)		
Blood for DNA analysis (EDTA vial)		
Urine (drug testing)		
Any other (tampon/sanitary napkin/condom/object)		

41

12

4) Genital and Anal evidence (Each sample to be packed, sealed, and labeled separately-to be placed in a bag)

* Swab sticks for collecting samples should be moistened with distilled water provided.

	Collected/Not Collected	Reason for not collecting
Matted pubic hair		
Pubic hair combing (mention if shaved)		
Cutting of pubic hair (mention if shaved)		
Two Vulval swabs (for semen examination and DNA testing)		
Two Vaginal swabs (for semen examination and DNA testing)		
Two Anal swabs (for semen examination and DNA testing)		
Vaginal smear (air-dried) for semen examination		
Vaginal washing		
Urethral swab		
Swab from glans of penis/clitoris		

*Samples to be preserved as directed till handed over to police along with duly attested sample seal.

22. Provisional medical opinion

I have examined (name of survivor).....M/F/Other.....aged.....
reporting_ (type of sexual violence and circumstances)....., XYZ days/hours after
the incident, after having (bathed/douched etc)..... My findings are as follows:

- Samples collected (for FSL), awaiting reports
- Samples collected (for hospital laboratory)
- Clinical findings
- Additional observations (if any)

42

13

23. Treatment prescribed:

Treatment	Yes	NO	Type and comments
STI prevention treatment			
Emergency contraception			
Wound treatment			
Tetanus prophylaxis			
Hepatitis B vaccination			
Post exposure prophylaxis for HIV			
Counselling			
Other			

24. Date and time of completion of examination

This report contains number of sheets and
number of envelopes.

Signature of Examining Doctor

Name of Examining Doctor

Place:

Seal

25. Final Opinion (After receiving Lab reports)

Findings in support of the above opinion, taking into account the history, clinical examination findings and Laboratory reports of bearing identification marks described above, hours/ days after the incident of sexual violence, I am of the opinion that:

Signature of Examining Doctor

Name of Examining Doctor

Place:

Seal

COPY OF THE ENTIRE MEDICAL REPORT MUST BE GIVEN TO THE SURVIVOR/
VICTIM FREE OF COST IMMEDIATELY

43

Resolution No. 4.5.2.1 of BOM-55/2018: Resolved to introduce training in 'Research Methodology' for 3rd Semester MBBS students entering in 3rd Semester from September 2018 onwards. It was further resolved that responsibility of this training will be with Pharmacology department.

Resolution No. 4.5.2.3 of BOM-55/2018: Resolved to provide the printed standard format of the Medico-legal examination (Age,Alcoholic, Weapon,Injury,Death,Potency,Sickness,Fitness) to 2nd MBBS students during practical examination in formative and summative assessments.
[Annexure-34-A,B,C,D,E,F,G,H]

Recd. on 18/11/2018

Examination for Determination/Estimation of Age

Annexure - 34-A

To,

The _____

Reference : Your Letter No. _____ Dated _____

Name : _____

Age stated : _____ ; Sex : _____ ; Occupation : _____

Marital status : _____

Address : _____

Brought by Police Constable : _____ No. : _____ ; P.S. _____

Identified by : _____

Date and Time of Examination : _____

Place of Examination : _____

Consent : _____

Signature of Examinee

(If minor below 12 yrs. consent of Parents/Guardian)

Examined in presence of : _____

(If female)

(Signature of female attendant)

Identification marks :

1. _____

2. _____

Birth Date : _____

Education : _____

Physical Examination :

1. Height : _____ cm

2. Weight : _____ kg

3. Chest girth at the level of nipple : _____ cm

4. Abdominal girth at the level of navel : _____ cm

5. General build and appearance : _____

6. Hairs : Pubic : _____, Axillary : _____, Facial : _____, Scalp : _____

7. Development of breasts : _____

8. Development of genitals : _____

9. Onset of Puberty :

Voice : _____

Adam's apple : _____

Date of menarche : _____ Regularity of menses : _____

10. Dental Status :

Upper Jaw (Maxillary Teeth)															

Lower Jaw (Mandibular Teeth)															

11. Advised X-ray :

a.

b.

c.

'X-ray' plate No.: a. _____ b. _____ c. _____

Dated :

Provisional Age Certificate

On clinical examination of the individual, age is about _____ years.
However, the final opinion regarding the age should be collected from this office after submission of the Radiological report and the birth certificate.

Signature

(Dr.

)

Designation & Seal

Place : _____

Date : _____

Age Certificate

To _____
The _____

Reference : Age estimation of _____, Dated _____

Sir,

I, Dr. _____, after going through the findings
of _____

Physical examination report No. _____, Dated _____

'X' ray plate No. _____, Dated _____

Radiological Examination report No. _____, Dated _____

and the Date of Birth Certificate No. _____, Dated _____

produced before me,

I am of the opinion that the individual's age is about _____ years

Signature

(Dr. _____)

Designation & Seal

Place : _____

Date : _____

Examination / Certification of Alcoholic

A Model Scheme of Examination

Anneure-34-B

To,

The Investigating Officer P.S.

Reference : Your letter No.

Dated :

I am forwarding herewith the result of my examination of

Name :

Son / daughter / wife / widow of

Age :

Sex : M/F

Weight :

Address :

Consent for examination :

Signature / Thumb impression of Examinee

Identification Marks :

1.

2.

Brought by P.C. Name :

No.

P.S.

Date and time of examination :

Place of examination :

History :

a. Alleged case -

b. Related to alcohol -

c. Illness -

General behaviour :

Clothing :

Attitude :

Memory :

Mental alertness :

Pulse :

Respiration :

Temperature :

Blood pressure :

Skin :

Smell of alcohol, if any :

Lips :

Tongue :

Eye :

Pupils :

Conjunctiva :

Muscle co-ordination :

Gait :

Speech :

Handwriting

Reflexes :

Systemic examination :

Respiratory System :

Cardio-vascular System :

Gastro-intestinal Tract :

Laboratory investigations :

a. Blood (5 to 10 ml venous blood) **Preservative :**

b. Urine (10 to 20 ml - 2 samples) **Preservative :**

c. Expired air :

Diagnosis :

Opinion : I am of the opinion that -

1. The above person has consumed alcohol and is under its influence.
2. The above person has consumed alcohol and is not under its influence.
3. The above person has not consumed alcohol.

Place :

Date :

Time :

Signature

(Dr. _____)

Designation & Seal

Form 'A'

(See Rule No. 3)

(Certificate by Registered Medical Practitioner showing whether a person examined by him has or has not consumed an intoxicant)

Serial No. _____

Name & location of the
Dispensary or Hospital

Certified that Shri / Smt / Kum. _____ Resident of _____

was brought to this Hospital / Dispensary by _____
(Here state the Name & Designation of the Officer)

on _____ at _____ A.M. / P.M. & was examined by me

on _____ at _____ A.M. / P.M.

A clinical examination of the above person disclosed the following :

Age: _____ Years, Weight : _____ kg, Height : _____ cm

Breath : Smelling / Not smelling of Alcohol / Ganja / Bhang.

Speech : Incoherent / Normal

Gait : Unsteady / steady

Pupils Dilated / Normal

Additional remarks, if any :

I find that the above named person _____

HAS CONSUMED

Alcohol / Ganja / Bhang

HAS NOT CONSUMED ANY INTOXICANT

I also find that he / she is not under the influence of alcohol.

(N.B. : Blood from the body of the above named was / was not collected by me for chemical examination)

"Certified that the procedure laid down under the rule (4) of Bombay Prohibition Medical Examination and Blood Test Rule 1959 has been followed."

Date :

Signature

Time : _____ A.M. / P.M.

Designation

Signature / Thumb impression of the Person examined.

Marks of identification of the person examined in case he refuses to give his signature or thumb impression

Form "B"

No. _____

From,
The Casualty Medical Officer, / Assistant Professor in Forensic Medicine
MGM Medical College and Hospital,
Aurangabad

To,
The Director
Forensic Science Laboratory & Chemical Analyser
Govt. of Maharashtra, Mumbai

Date :

Sir / Madam,

I am forwarding herewith a parcel by post / with Shri _____
of _____ containing _____ ml. of Blood and / or Urine sample collected by
me on _____ at _____ A.M. / P.M. from the body of Shri / Shrimati / Kumari
_____ of _____ who
was produced before me for medical examination and/or collection of Blood and / or Urine from
his / her body by _____ and request to test the
Blood and / or Urine and issue a certificate (in duplicate) regarding the result of the tests.

"Certified that the procedure laid down under the rule (4) of Bombay Prohibition Medical
Examination Blood Test Rule 1959 has been followed".

Yours faithfully,

(Dr. _____)

Casualty Medical Officer
Assistant Professor in Forensic Medicine
MGM Medical College and Hospital,
Aurangabad

Facsimile of the Seal or
Monogram used for Sealing the
Phial containing Blood and/or Urine

Examination of the Weapon

Annexure-34c

To

The Investigating Officer,

Police Station _____

Reference : Your letter No. _____ Dated _____

Sir,

With reference to the above letter, I am sending the report about weapon sent sealed in connection with the injuries of _____

Name of weapon : _____ Kind of weapon : _____

Type of weapon : _____

Description of the weapon :

Blade : Is of _____, Texture : _____

Length : _____, Breadth : _____, Thickness : _____

Edges / Margins : _____, Point : _____

Stains / Foreign body, if any : _____

Joint : Type : _____, Hilt : Size : _____

Handle : Is of _____, Texture : _____

Length : _____, Breadth / Circumference : _____

Stains / Foreign body, if any : _____

(Advised to send it to C.A. for further detail examination)

Injuries possible :

Injuries impossible :

Identification marks if any on the weapon.

(Put the signature on the weapon)

The weapon packed, sealed and handed over to P.C. _____ No. _____ P.S. _____

Place : _____

Date & Time : _____

Receipt of weapon & report

Signature

(Dr. _____)

Designation & Seal

Examination / Certification of the Injured (Injury Report/Certificate)

To

The Investigating Officer.

Police Station _____

Reference : Your Letter No. _____ Dated _____

Sir,

I am forwarding herewith the report of examination of :

Name of Injured : _____ Son/Wife/Daughter/Widow of _____

Surname _____ resident of _____

Age: _____ Sex _____ Occupation _____

Brought by PC _____ No. _____ P.S. _____

Consent for examination :

Signature of Witness

Signature of Examinee

Identification marks:

1.

2.

History :

Sr. No.	Type of injury	Size of injury	Situation over the body	Nature of injury	Probable weapon	Age of injury	Advice

Remark

Place :

Date :

Signature

(Dr _____)

Receipt

Designation & Seal

MEDICAL CERTIFICATE OF CAUSE OF DEATH

(To be sent to Registrar of Births and Deaths along with Death Report form no. 2)

Name of Hospital : _____

I do hereby certify that the person whose particulars are given below died in Hospital in Ward No. _____

on _____ at _____ A.M. / P.M.

Name of the deceased :

For use by
statistical office

Address of normal Residence :

Sex	Age in yrs..	Date of Birth	Marital status S, M, W or D	Occupation	Religion	Age at Death				Detailed list code
						If under 1 year		If under 24 hours		
						Months	Days	Hrs.	Min.	

Cause of Death

Interval between
onset and death approx

1. Immediate Cause :

State the disease, injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc.

a) _____

Due to :

or as a consequence of

Antecedent cause :

Morbid condition, if any, giving rise to the above cause, stating underlying condition last.

b) _____

Due to :

or as a consequence of

c) _____

2. Other significant conditions

contributing to death, but not related to the disease or condition causing it

Natural / Accident / Suicide / Homicide (specify) : How did the injury occur?

IF DECEASED WAS A FEMALE

Was the death associated with pregnancy?

Yes/No

Was there a delivery?

Yes/No

Name or rubber-stamp of institution :

Serial Number of institution

Date of report

Date and Time :

Signature and address of

(Dr. _____)

Designation & Seal

(To be detached and handed over to the relative of the deceased)

Certified that Shri / Smt/Kum. _____ S/W/D of Shri _____ Resident of _____

_____ was admitted to the hospital and expired on _____ at _____ a.m./p.m.

Date Time :

Signature

(Dr. _____)

Designation & Seal

EXAMINATION OF A CASE FOR DETERMINATION OF POTENCY

FM No/ /20

Date : / / 20

To,

Annexure-34-F

Reference : Your letter / order no. _____ Dated - _____

Name of the individual- _____

Age as stated: _____, Sex: _____ Marital status (If married, duration) _____

Address : _____

Occupation : _____

Brought by (Name, signature & designation) _____

Date, place & time of examination : _____

Light arrangement - _____

Consent :

Q - Are you willing to be examined by me / us to opine in relation to your potency ? The examination will include physical examination, laboratory investigations and psychological assessment. The examination by dept of Urology would also include administration of drugs to evaluate your potency. You have right to refuse but this refusal may go against you in the court of law.

Answer given - Yes / No

Name, signature of the person giving consent with Date -

Witness to the consent - Name, signature & Date -

Identification marks-

1.

2.

History

1. Do you have erectile dysfunction ? - Yes / No

If yes

a. Since how long have you noticed the erectile dysfunction?

b. Did the problem begin abruptly or insidiously?

- c. Do you have inability to achieve or maintain an erection or both ?
- d. Are you able to penetrate or not ?
- e. Whether partial penetration or ejaculation before penetration ?
- f. Do you ever get normal or near normal erection (During masturbation with other partner, early morning)
2. H/o any major illness - HT / DM / TB / Vascular disease / Endocrinal diseases etc.
3. H/o STD -
4. H/o mental illness -
5. Any stress-
6. Family environment-
7. Any history of medication / for what ailment / duration of medication
8. H/o Drug abuse - Nicotine / Ganja /Alcohol / other
9. H/o any head injury / spinal injury / any operation on genitals -
10. H/o aversion dislike / dejection / for any particular sex partner

Obseervations

General examination

General built and appearance : _____

Weight : kg Height : cm

Teeth : Total No. :

Secondary sexual characters :

Beard : Moustache :

Axillary hairs : Pubic hairs :

Breast development / Gynaecomastia if any :

Any marks of injury / scar on the body :

Local examination : (Along with Urology department) done in ward no _____

- a. Penis :
 - Circumcised / Non-Circumcised :
 - Stretched penile length -
 - Length when erect -
 - Circumference (flaccid & erect) :
 - Disease / deformity / injury (if any) :
 - Sensation over glans penis :
 - Foreskin (Retractable / Non-retractable) :
 - Dorsal penile pulsation :
 - Any Discharge :
 - Smegma :
 - Hygiene :

- b. Scrotum :
Pendulous or not :
Developmental defects :
Deformities :
Cremasteric reflex :
- c. Testes :
Whether present in scrotum or not :
Size :
Consistency :
- d. Prostate (Per rectal examination) :
- e. Bulbocavernous reflex :
- f. Any evidence of S.T.D
- g. Effect of administration of _____ in _____ dose _____ After _____ minutes
Result :

SYSTEMIC EXAMINATION

- C.N.S. :
- R. S. :
- C. V. S. Pulse : BP:
Femoral artery :
Dorsalispedis artery :
- G.I.T. :

Laboratory Investigations (If required)

1. CBC :
2. Hb :
3. BSL (Fasting & PP) :
4. Sr. FSH :
5. Sr. LH :
6. Sr. testosterone & Oestrogen :
7. Sr. prolactin :
8. VDRL :
9. USG/Colour doppler :
10. TFT (TSH, T3, T4) :
11. LFT :
12. HbA1C :

Opinion : After detailed examination i.e. based on physical examination, psychiatric evaluation and examination by urologist, we are of the following opinion". There is nothing to suggest that the above examined person is incapable to perform sexual intercourse ". / The person is in capable of performing sexual intercourse due to.....

Place : _____

Date _____

Signature

Name & Qualification :

Designation

Registration No. :

MEDICAL SICKNESS / UNDER TREATMENT CERTIFICATE

Annexure-34-G

Signature of the applicant _____
(Government servant / Private)

I Dr. _____ after careful
personal examination of the case hereby certify that Mr. / Mrs./ Ms. _____
_____ whose signature is given above was suffering
from _____ and was under my treatment for the same as
Outdoor / indoor patient. And I consider that a period of absence from duty of _____
_____ with effect from _____ is absolutely necessary for restoration
of his / her health

He / She was advised rest for a period of _____ days

Identification marks:

1)

2)

Hospital No.

Date:

Authorised Medical Attendant
Seal & Reg. No.

MEDICAL FITNESS CERTIFICATE

Signature of the applicant _____
(Government servant / Private)

I Dr. _____ after careful
personal examination of the case hereby certify that Mr. / Mrs. / Ms. _____
_____ whose signature is given above was suffering
from _____ and was under my treatment for the same.
He / She was advised rest for a period of _____ days.

He / She recovered completely from the illness and he/she is fit to resume his / her duty with effect
from _____

Identification marks:

1)

2)

Hospital No.

Date:

Authorised Medical Attendant
Seal & Reg. No.

Certificate of Physical Fitness

Annexure-34-H

This is to Certify that I have examined Shri / Smt / Kum. _____
_____ who signed below in my presence and who
is a candidate for employment for the post of _____ in
the department / office _____ at _____

I could not discover that he / she has any disease (communicable or otherwise) constitutional
weakness or bodily infirmity, except _____. I do consider / do not consider
this is a disqualification for such an employment.

He / she _____ age is according to his / her own
statement _____ years and by appearance about _____ years.

Identification marks:

1)

2)

Signature of the applicant : _____
(Government servant / Private)

Hospital No.

Date:

Authorised Medical Attendant
Seal & Reg. No.