



ARYABHATTA KNOWLEDGE UNIVERSITY

A.N. Sinha Institute of Social Studies Campus (West), North Gandhi Maidan, (Near D.M. Residence)
Patna-800 001, Phone: +91612-2219106, website: www.akubihar.ac.in

CURRICULUM MBBS

Professional Exam Part – I

Every student shall undergo a certified study extending over 4 ½ academic years divided into 9 semester (of 6 months each) from the date of commencement of his date of his date of completion of examination and followed by one year compulsory rotating internship. Each semester will consist of 120 teaching days 8 hrs each college working time including one hour of lunch. The period of 4 ½ (9 semester) years is divided into 3 phases as follows.

(a)Phase I (2semester) 1year	Anatomy (650 hrs Teaching) physiology including Biophysics (480 hrs) teaching Biochemistry (240 hrs Teaching) Introduction to Community medicine (60 hrs Teaching)	1 st Professional Exam Examination in physiology, Biochemistry, anatomy during 2 nd Semester.
(b)Phase II (3Semester) 1½year	Pathology (300 hrs Teaching) Pharmacology (300 hrs teaching) Microbiology (250 hrs teaching) Forensic Medicine including Toxicology (100 hrs teaching) community Medicine (200 hrs teaching) (including 8 weeks posting of 3 hrs each) Teaching of Para Clinical subject shall be of 4 hrs per day in 3 rd Semester and 3 hrs per day in 4 th & 5 th semester) and Clinical subjects mentioned in Phase III	2 nd Professional Exam Examination in Pathology, Pharmacology, Microbiology, F.M.T., during 5 th semester.
(c)Phase III (4Semester) 2 year	General Medicine (300 hrs teaching) Infectious disease Pediatric (100 hrs teaching) Tuberculosis and chest diseases (20 hrs teaching) skin & STD (30 hrs teaching) Psychiatry (20 hrs teaching) Radio Diagnosis & Radio Therapy (20 hrs teaching) General Surgery (300 hrs teaching) Orthopedic Surgery including Physiotherapy and Rehabilitation (100 hrs teaching) Ophthalmology (100 hrs teaching) Ophthalmology (70 hrs teaching) Anaesthesia(20 hrs teaching) Dentistry (10 hrs teaching) Obstetrics and Gynecology, Family Medicine , Family Welfare Planning (300 hrs teaching) Community Medicine (50 hrs teaching)	3 rd Prof. Exam Part I during 7 th Semester Examination in ophthalmology, otorhinolaryngology& community medicine. 3 rd Prof. Exam Part II during semester Examination in Medicine, Surgery, Obst & Gynae and Paediatric.



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During third to ninth semesters, clinical posting of three hours duration daily as specified in the table below is suggested for various departments, after introductory course in clinical methods in Medicine and surgery of two weeks each for the whole classes.

Total Subject	3 rd semester weeks	4 th semester weeks	5 th semester weeks	6 th semester weeks	7 th semester weeks	8 th semester weeks	9 th semester weeks	Total Weeks
Gen. Medicine	6	-	4	-	4	6	6	26
Pediatrics	-	2	-	2	2	4	-	10
T.B. & Chest	-	2	-	-	-	-	-	02
Skin & STD	-	2	-	2	-	2	-	06
Psychiatry	-	-	2	-	-	-	-	02
Radiology	-	-	-	-	2	-	-	02
Gen. Surgery	6	-	4	-	4	6	6	26
Orthopedics	-	-	4	4	-	-	2	10
Ophthalmology	-	4	-	4	-	-	2	10
ENT	-	4	-	4	-	-	-	08
Obst. & Gynae	2	4	4	-	4	4	6	24
Comm. Medicine	4	4	-	4	-	-	-	12
Casualty	-	-	-	2	-	-	-	02
Dentistry	-	-	-	-	2	-	-	02
Total in weeks	18	22	18	22	18	22	22	142

Distribution of marks to various Disciplines

Subject	Theory			oral	Prac/Clin	Int. Assessments			Total Marks in Sub	Remarks
	PI	PII	Total			Theo	Pra	Total		
Anatomy	50	50	100	20	40	20	20	40	200	One applied question of 10 marks in each
Physiology	50	50	100	20	40	20	20	40	200	“
Biochemistry	50	50	100	20	40	20	20	40	200	“
Pathology	40	40	80	15	25	15	15	30	150	“
Microbiology	40	40	80	15	25	15	15	30	150	“
Pharmacology	40	40	80	15	25	15	15	30	150	One Question
Forensic Medicine	40	-	40	10	30	10	10	20	100	On clinical therapeutics
Ophthalmology	40	-	40	10	30	10	10	20	100	One question on pre & para clinical aspect of 10 marks
Otorhinolaryngo	40	-	40	10	30	10	10	20	100	“
Comm. Medical	60	60	120	10	30	20	20	40	200	“
Medicine	60	60	120	20	100	30	30	60	300	Paper I Gen Med., Paper II Gen Med. Including Psychiatry skin & STD One question on basic & applied subject.
Surgery	60	60	120	20	100	30	30	60	300	Paper I –Sect. A Gen Surg. Sect B Ortho, Paper II Gen. Surg. Incl. anesthesia Dental disease & Radiology, One quest. On basic & applied Subject.
Obst. & Gynae	40	40	80	30	30	20	20	40	200	One quest. On basic & allied Subject
Paediatrics	40	-	40	10	30	10	10	20	100	Shall contain one question on basic & allied Subject



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Pass- In each of the subjects a candidate must obtain 50% in aggregate with a minimum of 50% in Theory including orals and minimum of 50% in Practical/ Clinical.

1. No student shall be permitted to join the Phase II (Para- clinical) group of subjects until he has passed in all Phase I (Pre-clinical) subjects for which he will be permitted not more than four chances (actual examination), provided four chances are completed in three years from the date enrollment.
2. After passing pre-clinical subject, 1 ½ year (3semesters) shall be devoted to Para-clinical subjects. Phase II will be devoted to para-clinical and clinical subjects, along with clinical postings. During clinical phase (Phase III) pre-clinical and para-clinical teaching will be integrated into the teaching of clinical subjects where relevant.
3. Didactic lectures should not exceed one third of the time schedule, two third schedule should include practicals, clinical or/and group discussions. Learning process should include living experiences, problem oriented approach, case studies and community health care activities.
4. Universities shall organize admission timings and admission processes in such a way that teaching in first semester start by 1st of August each year.
5. Supplementary examination may be conducted within 6 month so that the students who pass can join the main batch and the failed students will have to appear in the subsequent year.
6. Passing in 1st Professional is compulsory before proceeding to phase II training.
7. A student who fails in the 2nd professional examination shall not be allowed to appear in 3rd Professional Part I examination unless he passes all subject of 2nd Professional examination.
8. Passing in 3rd Professional (Part I) examination is not compulsory before entering for 8th and 9th semester training, however passing of 3rd professional (Part I) is compulsory for being eligible for 3rd Professional (Part II) examination.

EXAMINATION REGULATIONS

1. Attendance:
75% of attendance in a subject for appearing in the examination in compulsory provided he/she has 80% attendance in non-lecture teaching, i.e. seminars, group discussions, tutorials, demonstrations, practical, hospital (Tertiary, Secondary, Primary) postings and bed side clinics, etc.
2. Internal Assessment:
 - (i) It shall be based on day-to day assessment (see note), evaluation of students assignment, preparation for seminar, clinical case presentation etc.
 - (ii) Regular periodical examinations shall be conducted throughout the course. The question of number of examination is left to the institution.
 - (iii) Day-to day record should be given importance during internal assessment.
 - (iv) Weight age for the internal assessment shall be 20% of the total marks in each subject.
 - (v) Students must secure at least 50% marks of the total marks fixed for internal assessment in a particular subject in order to be eligible to appear in final university examination of that subject.

Note: Internal assessment shall relate to different ways in which student participation in learning Process during semester is evaluated.



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Some examples are as follows:

- (i) Preparation of subject for student's seminar.
- (ii) Preparation of a clinical case for discussion.
- (iii) Clinical case study/problem solving exercise.
- (iv) Participation in project for health care in the community) Planning state to evaluation)
- (v) Proficiency in carrying out a practical or a skill in small research project.
- (vi) Multi choice question (MCQ) test after completion of a system/teaching.

Each item tested shall be objectively assessed and recorded. Some of the items can be assigned as Home work/Vacation work.

3. University Examination:

Theory paper will prepared by the examiners as prescribed. Nature of questions will be short answer type/objective type and marks for each part indicated separately.

Paracticals/clinicals will be conducted in the laboratories or hospital wards. Objective will be to assess proficiency in skills, conduct of experiment, interpretation of data and logical conclusion. Clinical case should preferably include common diseases not esoteric syndromes or rare disorders. Emphasis should be on candidate's capability in eliciting Physical signs and their interpretation.

Viva/oral includes evaluation of management approach and handling of emergencies. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. also is to be evaluated.

The examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary for knowledge, minimum skills along with clear concepts of the fundamentals which are competently. Evaluation will be carried out on an objective basis. Question paper should preferably be of short structure/objective type.

Clinical cases/practical shall take into account common diseases which the students is likely to come in contact in practice. Rare cases/obscure syndromes, long cases of neurology shall not be put for final examination.

There shall be one main examination in a year and a supplementary to be held not later than 6 month after the publication of its results.

Note: Result of all university examinations shall be declared the start of teaching for next semester.

SYLLABUS

Biochemistry (Paper Code: Paper I -201031 and Paper- II – 201032)



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Distribution of Marks:

Written Paper (Paper I-50, Paper II-50)	100 Marks
Oral	20 Marks
Practical	40 Marks
Internal Assessment Written -20, Practical -20)	40 Marks
Total	200 Marks

Written Paper –Two

Time allowed 3 hours (for each paper)

Full Marks 100-(50 for each paper)

All question for both the paper are to be set by single external examiner preferably and two internal from within the State.

Examiners:

There shall be four examiners-Two external from outside the state preferably and two internal from within the State.

A candidate will be declared to have passed the examination in the subject provided he or she secures 50% in aggregate with a minimum of 50 % of the total marks in written and oral, and 50% in practical.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks.

Question should be objective and short notes. Descriptive question would be preferably avoided.

- (i) Paper I shall contain question from the following topics –
Cell Structure & membrane, Principles of solution, Colloids, surface tension adsorption, hydrogen ion concentration, basic concept of radioactive isotopes, Enzymes, chemistry of carbohydrates, lipids, proteins and nucleic acid, chemistry of blood and plasma, bile, milk, lymph, cerebrospinal fluids, urine, faeces, sweat, composition of tissues, biological oxidation reduction, acid-base balance, electrolytes, and water balance Vitamins. Immuno chemistry Immunology & Auto immune diseases.
- (ii) Paper I shall contain question from the following topics –
Hormones, Digestion of food, metabolism of carbohydrates, proteins, lipids, nucleic acid and porphyrins; mineral metabolism energy metabolism, detoxication, biochemical genetics and Inborn error of metabolism, liver function test, kidney function test, gastric function test, principals of nutrition and malnutrition, Balance diets and diet in Pathological conditions, cancer and carcinogenesis, Biochemical investigations and their interpretation in health & Disease.

Books Recommended:

Theory:-

1. Review of physiological Chemistry by H.A. Harper



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2. Text Book of Biochemistry by A.S.Saini
3. Text Book of Biochemistry by A.V.S.S. Rama Rao
4. Agrawal's Text Book of Biochemistry

Practical/Clinical

1. Practical Manual of Biochemistry by S.P.Singh
2. Viva & Practical by A.C.Deb
3. Manual of Practical Biochemistry by K.P.Sinha

ANATOMY (Paper Code: Paper I - 201011 and Paper II – 201012)

Distribution of Marks:

Written Paper (Paper I-50, Paper II-50)	100 Marks
Oral	20 Marks
Practical	40 Marks
Internal Assessment Written -20, Practical -20)	40 Marks
Total	200 Marks

Written Paper –Two

Time allowed 3 hours (for each paper)

Full Marks 100-(50 for each paper)

All question for both the paper are to be set by single external examiner preferably and two internal from within the State.

Examiners:

There shall be four examiners-Two external from outside the state preferably and two internal from within the State.

A candidate will be declared to have passed the examination in the subject provided he or she secures 50% in aggregate with a minimum of 50 % of the total marks in written and oral, and 50% in practical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks.

Question should be objective type and short notes. Descriptive question would be preferably avoided.

(i) Paper I shall contain question from following topics:-

Head and neck Central nervous system, Thorax, Superior extremity.

(ii) Paper II shall contain question from following topics:-

Abdomen and Pelvis including perineum, Inferio Extermity, Biaphragm.

1. A course of human anatomy including embryology, neurology, histology and applied anatomy of not less than 50 lectures.
2. A course of lecture cum demonstration in osteology, anthology, mycology, angiology, splanchnology, ductless glands, neurology, sense organs, surface anatomy, radiology and living anatomy consisting of 75 lectures.



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3. A course of dissection of all the parts of the body (Head, Neck, Brain, Thorax, Abdomen, Pelvis, Perineum superior extremity and inferior extremity) consisting of not less than 200 hrs. Covered in at least 100 working days.
4. A course of practical histology covering not less than 60 periods. It will include:
 - (a) Histological techniques.
 - (b) Staining and examination of elementary tissue.
 - (c) Examination of sections of different part of the body.
5. In the section of gross anatomy stress would be on clinically relevant relationships; functional and cross sectional anatomy of different parts of the body.
6. In histology section, emphasis will be on correlation of the structure with the function as a pre-requisite for understanding the altered state in various disease processes.
7. In the central nervous system, importance to be given on the analysis of the integrative and regulative function of the organs and localization of site of gross lesions according to the deficits encountered.
8. In embryology emphasis will be on critical stage of development and effect of common teratogens, genetic mutations and environmental hazards. Explanation of developmental basis of major variations and abnormalities.
9. Principles of karyotyping and identification of gross congenital anomalies.
10. Principals of water – imaging techniques and interpretation of computerized Tomography (CT) Scan, Sonogram etc.
11. Clinical basis of some clinical procedures i.e. intramuscular and intravenous injection, lumbar puncture kidney biopsy, liver biopsy etc.
12. The process of teaching in gross anatomy should be done by dissection of the human body or by demonstration of the dissected parts, by models any by charts.
13. Stress shall be laid on the fundamental and basic principles of the subject and details shall be avoided Student should be able to co-relate the structure with the function and in all sections, importance to be given to the applied aspect.

Books Recommended:

- (a) Gray's anatomy
- (b) Embryology by Alngman
- (c) Hewer's Text Book of Histology
- (d) Text Book of Anatomy – regional and applied by R.J.Last
- (e) Snell's Clinical anatomy
- (f) Snell's Clinical newco-anatomy
- (g) Grant's method of anatomy
- (h) Neuro anatomy by carpenter.

Practical/Clinical:-

Physiology (Paper Code: Paper I – 201021 and Paper II – 201022)

Distribution of Marks:

Written Paper

100 Marks



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(Paper I-50, Paper II-50)

Oral	20 Marks
Practical	40 Marks
Internal Assessment	40 Marks
Written -20, Practical -20)	
Total	200 Marks

Written Paper –Two

Time allowed	3 hours (for each paper)
Full Marks	100-(50 for each paper)

All question for both the paper are to be set by single external examiner preferably and two internal from within the State.

Examiners:

There shall be four examiners-Two external from outside the state preferably and two internal from within the State.

A candidate will be declared to have passed the examination in the subject provided he or she secures 50% in aggregate with a minimum of 50 % of the total marks in written and oral, and 50% in practical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks.

Question should be objective type and short notes. Descriptive question would be preferably avoided.

(i) Physiology Paper I:-

Introduction of human physiology detailed outline of relevant applied aspects of the following:-

Cell and its structures, blood and Tissue Fluid, Gastro Intestinal system Excretion and kidney, Muscle and Nerve, Endocrine, Reproduction and Family planning, Temperature regulation and skin, Stress and its affect on normal physiology.

(ii) Physiology Paper II:-

Shall consist of detailed study and applied aspect of cardiovascular System, Respiration, biophysics related to these system and Autonomic nervous system, Central nervous system and special senses. This will also include Biophysics related to it.

Books Recommended for Physiology:-

Theory:-

1. Medical Physiology by Gytone
2. B.D.S. Text Book of Physiology and Biochemistry by Bell, Davidson and Scarborough
3. Wright's Physiology by Erio Neil.

Practical/Clinical:-

PATHOLOGY (Paper Code: Paper I – 201041 and Paper II – 201042)



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Distribution of Marks:

Written Paper (Paper I-40, Paper II-40)	80 Marks
Oral	15 Marks
Practical	25 Marks
Internal Assessment Written -15 Practical -15)	30 Marks
Total	150 Marks

Written Paper –Two

Time allowed	3 hours (for each paper)
Full Marks	80-(40 for each paper)

All question for both the paper are to be set by single external examiner preferably and two internal from within the State.

Examiners:

There shall be four examiners-Two external from outside the state preferably and two internal from within the State.

A candidate will be declared to have passed the examination in the subject provided he or she secures 50% in aggregate with a minimum of 50 % of the total marks in written and oral, and 50% in practical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Question should be objective type and short notes. Descriptive question would be preferably avoided.

(iii) Paper I Shall contain question from the following topics:-

(1) GENERAL PATHOLOGY

- General consideration – Introduction, Disease, Hereditary, Environmental Malformation, Death.
- Inflammation & Repair.
- Disturbances of nutrition – Progressive & retrogressive change.
- Degeneration: Necrosis, Disturbances of circulation Ischemia, Hyperemia of circulation, Gangrene, Thrombosis, Haemorrhage, Embolism, Shock & Edema.
- Sarcoidosis
- Pigments & Pigmentation Haemosiderosis, Hemochromatosis, Jaundice, Prophyryns & Porphyrina.
- Tumours/ Neoplasia.
- The Collagen diseases.
- Pathological change due to radiation
- Genetic Disorders.

(2) SYSTEMIC PATHOLOGY



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(a) C.V.S.

- (j) Rheumatic diseases of the heart
- (ii) Bacterial endocarditis
- (iii) Coronary artery diseases
- (iv) Congenital heart diseases
- (v) Chronic valvular diseases
- (vi) Myocardial lesions
- (vii) Pericardial lesions
- (viii) Heart failure
- (ix) Atherosclerosis
- (x) Aneurysms
- (xi) Hypertension
- (xii) Cardio vascular syphilis

(b) KIDNEY / LOWER URINARY TRACT

- (i) Glomerulonephritis
- (ii) Nephrosis
- (iii) Renal T.B.
- (iv) Pyelonephritis & cystitis
- (v) Hydronephrosis, Tumours & Cysts
- (vi) Urinary Calculi

(c) RESPIRATORY SYSTEM

- (i) Bronchitis, Bronchial asthma, Bronchiectasis.
- (ii) Pneumonia
- (iii) Pneumoconiosis
- (iv) Abscess & Gangrene
- (v) Pulmonary T.B.
- (vi) Atelectasis & Collapse
- (vii) Emphysema
- (viii) Tumour of lungs & disease of Pleura.

(d) LIVER & BILLIARY PASSAGE

- (i) Hepatitis & hepatic necrosis, cirrhosis
- (ii) Tumours of Liver
- (iii) Gall bladder
- (iv) Cholecystitis & Gall stone

(e) G.I.T

- (i) Gastritis & Ulcers of GIT
- (ii) Carcinoma of Stomach

- (iii) Chronic ulcerative
- (iv) Regional enteritis
- (v) Appendicitis
- (vi) Carcinoid Tumour
- (vii) Hirshesprung's diseases

(f) PANCREAS

- (i) Pancreatitis
- (ii) Fibrocystic disease: Muco- viscidosis
- (iii) Tumours of Pancreas
- (iv) Diabetes Mellitus

(g) MALE & FEMALE REPRODUCTIVE SYSTEM

- (i) Tamour of testis
- (ii) Benign Hypertrophy and ovary including cysts
- (iii) Tumours of uterus and ovary including cysts
- (iv) Hyadatiform mole, Chorioepithelioma & Salphingitis
- (v) Teratoma
- (vi) Blastoma

(h) THE BREAST

- (i) Cystic hyperplasia
- (ii) Sclerosing adenosia
- (iii) Cysts & Tumours of Breast

(i) ENDOCRINE

- (i) Tumours of pituitary
- (ii) Pituitary
- (iii) Adrenal
- (iv) Thyroid
- (v) Parathyroid-Goiter, Graves' disease, Creationism, Myxedema, Thyroiditis

(j) RETICULOENDOTHELIUM SYSTEM

- (i) Diseases of Spleen
- (ii) Lymphadenopathy
- (iii) Tumours of lymphoid tissue including Hodgkin's disease
- (iv) Reticulosis, Ewings, Sarcoma

(k) BONES & JOINTS AND SKELETAL MUSCLE

- (i) Osteomyelitis
- (ii) Osteoarthritis – Rheumatic arthritis
- (iii) Gout
- (iv) Tumours



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(l) NERVOUS SYSTEM

- (i) Meningitis
- (ii) Acute Ant. Poliomyelitis
- (iii) Syphilis of C.N.S. & Tumours
- (iv) Gliomas – Tumours of brain & spinal Cord
- (v) Spinal cord – Tumours of Brain & Spinal Cord.

(m) HAEMATOPOETIC SYSTEM

- (i) Anaemias
- (ii) Polycythemia
- (iii) Leukemia
- (iv) Multiple myeloma
- (v) Bleeding disorders
- (vi) Blood transfusion

(3) MORBID PATHOLOGY

(iv) Paper II shall contain question from the following topics:-

1. CLINICAL PATHOLOGY

- (a) Examination of Urine
- (b) Examination of CSF
- (c) Examination of Fluids (Pleural, Peritoneal & Pericardia's)
- (d) Examination of Seminal Fluid

2. HAEMATOLOGY

- (a) TC & DC
- (b) Platelets & Reticulocytes
- (c) Differential WBC Count
- (d) Hb Estimation
- (e) PCV & Absolute Values
- (f) Prothrombin Time
- (g) Bleeding Time & Coagulation
- (h) Determination of ESR
- (i) Osmotic Fragility Test
- (j) Sickling Test
- (k) Rh typing & ABO Grouping
- (l) Demonstration of Slides (Hematological, Peripheral & Bone Marrow)

3. CHEMICAL PATHOLOGY

- (a) Gastric Analysis
- (b) Function Tests- Kidney, Liver, Pancreas, & Endocrine Glands



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(c) Variations of chemical composition of Blood, Urine & CSF

Book Recommended:

Theory:-

1. Pathological Basis of diseases by Robbin's
2. Text book of Pathology by Anderson
3. Hematology by Degruche & Wintrobe.
4. General pathology by water & Israel, Muire's Text Book of Pathology

Practical/Clinical:-

1. Todd's & Sanford's Clinical Pathology
2. Practical by Dacie (Hematological)

Microbiology(Paper Code: Paper I – 201051 and Paper II – 201052)

Distribution Marks:

Written Paper - 80 Marks

(Paper I -40, Paper II -40)

Oral - 15 Marks

Practical - 25 Marks

Internal Assessment

(Written – 15, Practical – 15) - 30 marks

Total -150 marks

Written Paper 0 Two

Time allowed - 3 hours (for each paper)

Full Marks - 80 (40 for each paper)

Paper I – General Bacteriology, Systemic Bacteriology

Paper II –Parasitology Virology, Medical Micology, Immunology, Hospital Infection & Immunoprophylaxis

All questions for both the papers are to be set by a single external examiner preferably from outside the state.

Examiners:-

There shall be four examiners – Two external from outside the state preferably and two internal from within the same University or College.

A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Questions should be objective type and short notes. Descriptive questions would be preferably avoided.

(i) Paper I shall contain questions from the following topics:-

- (1) General bacteriology – (a) Historical introduction, (b) Morphology & Physiology of Bacteria, (c) Sterilization & Disinfection (d) Culture Media , their preparation & uses (e) Bacterial staining (f) Classification & Identification of Micro Organism (G) Morphology & Nature of Bacteria (h) Growth & Nutrition of bacteria (i) bacterial Genetics



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(2) Systemic bacteriology – Morphology, Culture Characters, Biochemical Reactions, Antigenic properties, toxin Production, Pathogenesis, Laboratory Diagnosis, Prevention & Epidemiology of following bacterial

- a) Gram Positive Cocci: - staphylococcus, Streptococcus, Pneumococcus
- b) Gram Negative Cocci: - Neisseria
- c) Gram Positive Bacilli: -Corynebacterium, Bacillus. Clostridia, Mycobacterium
- d) Gram negative Bacilli: - Enterobacteriaceae, Escherichia, Klebsiella, Proteus, Shigella, salmonella, Vibrio
- e) Cocco bacilli: - Brucella, Pasteurella, yersinia, Bordetella,
- f) Misc: - Actinomyces, Compylobacter, Helicobacter Pylori, Listeria
- g) Spirochetes: - Trepanoma, Borrelia, Leptospira
- h) Mycoplasma
- i) Chlamydia
- j) Rickettsia

3) Any other relevant topics of importance of MBBS standard

(ii) Paper II shall contain question from the following topics:-

1. Parasitology

Protozoa: - Epidemiology, Morphology, Life Cycle, pathogenesis, & Laboratory Diagnosis of all protozoa

Helminthes

2. Virus:-

General Properties of Virus, Classification of Virus

Structure & Chemical composition of Virus

Inclusion Bodies, interference &interferon's

Virial Haemagglutination, laboratory Diagnosis of Viral Diseases

Immunodeficiency Disease

3. Medical Mycology

Superficial 7 Deep Mycoses

4. Immunology

Immunity, Antigens, Antibodies (Immunoglobulins), Antigen- Antibody reaction, Compliment system, Structure & Functions of the immune system, Immune response. Immune deficiency disease, hypersensitivity, Autoimmunity

5. Hospital Infection

6. Immunoprophylaxis

7. Any other relevant topics of importance of MBBS standard

Books recommended:

Theory:-

1. Medical microbiology – by R. Cruickshank
2. Text Book of Microbiology by – R. Ananthuamy & CHJ Paurer
3. A text Book of Microbiology by- P Chakravorty



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4. Essentials of Medical Microbiology by – Rajesh Bhatia
5. Text Book of Microbiology by – R.L Ichlupujari
6. Parasitology by – D.R.Arora
7. Medical parasitology by – R.L.Ichlupujari & Rajesh Bhatia

Practical/Clinical

Pharmacology (Paper Code: Paper I – 201061 and Paper II – 201062)

Distribution of Marks:

Written paper

(Paper I -40, Paper II- 40) - 80 Marks

Oral - 50 marks

Practical - 25 marks

Internal Assessment - 30 Marks

(Written -15, Practical- 15)

Total: 150 Marks

Written Paper – two

Time allowed - 3 hours (for each paper)

Full marks - 120- (40 for each paper)

All questions for both the papers are to be set by a single external examiner preferably from outside the state.

Examiners:

There shall be four examiners – Two external from outside the state preferably and two internal from within the same University or College.

A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

There will be one Full Questions and short questions & Objectives having not less than 20 marks in each paper.

i) Paper I shall contain questions from the following topics:-

- 1) General Pharmacology
- 2) Drugs acting on Autonomic Nervous System
- 3) Drugs acting on somatic nervous System, Muscle relaxants, Local Anesthetics
- 4) Antimicrobial Drugs & Chemotherapy of Neo-plastic Diseases
- 5) Drugs acting on Cardiovascular System
- 6) Vitamins
- 7) Vaccine & Sera
- 8) Immuno Modulators

ii) Paper II shall contain questions from the following topics:-

- 1) Drugs acting on central Nervous system
- 2) Drugs acting on kidney



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- 3) Hormones & related drugs
- 4) Drugs affecting blood & blood formation
- 5) Drugs acting on GIT
- 6) Drugs acting on Respiratory system
- 7) Autacoids and related drugs
- 8) Drugs acting on skin & mucous membrane
- 9) Antiseptics, Disinfectants, Ectoparasiticides
- 10) Chelating Agents

Books recommended:

Theory: -

1. Clinical pharmacology- D.R.Laurence
2. Essentials of Pharmacology –K.D.Tripath
3. Pharmacology & Pharmacotherapeutics-R.S.Shatoshkar

Practical/Clinical:-

1. Practical note Book – issued by Patna Medical College, Patna

FMT (Paper Code: 201071)

Distribution Marks:

Written Paper - 40 Marks
(Paper I – 40)
Section A-20, Section B- 20 (Each section to be written in separate answer paper)

Oral - 10 Marks
Practical - 30 Marks
Internal Assessment - 20 Marks
(Written – 10, Practical – 10) - 30 marks
Total -100 marks

Written Paper - One
Time allowed - 3 hours (for each paper)
Full Marks - 40 (20 for each section)

All question for both the papers are to be set by a single external examiner preferably from outside the state.

Examiners:-

There shall be four examiners – Two external from outside the state preferably and two internal from within the State.

A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Questions should be objective type and short notes. Descriptive questions would be preferably avoided.



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- (i) Section A:- Shall contain question from the following topics:-
- (1) Procedure in Criminal court – Inquest, Medicolegal Report, Medical Evidences, Dying Declaration, & Dying Depositions
 - (2) Identification :- Exam of skeleton for Age, Sex, Dactylography
 - (3) Death:- Signs of Death, Sudden Death, Time elapsed since death, PM staining, RM, Decomposition, Infanticide
 - (4) Medicolegal Autopsy:- PM Exam, Exhumation, Starvation Death
 - (5) Violent Asphyxial Death:- Hanging, strangulation, Suffocation, Drowning
 - (6) Burn:- Burns, Scalds, Electricity & Lightening
 - (7) Mechanical Injuries & Wounds:- Classification of Wounds, Examination of Injuries, & Injury report, Regional injuries, Fire arm injuries, Aircraft & Rail injuries
 - (8) Blood seminal & Other Stain :- Hairs, Trace Evidences, Group Specific substances, DNA
- (ii) Section B:- Shall contain question from the following topics:-
- (1) Sexual Capacity & Sexual offences :- Pregnancy, Delivery, Abortion, Their Medicolegal importance, MTP, Impotence & Sterility, Artificial Insemination, Virginity, Legitimacy, Natural & Un Natural Sexual Offences, Abnormal Sexual perversions
 - (2) Medicolegal Aspects of Insanity:- Criminal Responsibility of an insane, testamentary capacity, Restoration of an insane
 - (3) Law in relation to Medical Man:- Professional Secrecy, Privileges, Responsibility & Obligation of Medical Man, The Indian Medical Council & State Medical Council, Malpractice & Negligence
 - (4) Toxicology:- Diagnosis & general treatment of poisoning, Preservation & Transmission of Viscera, & suspected material for chemical analysis, Detection of Poison, Classification of Poison, Sign & Symptoms, Treatment & PM appearances in poisoning cases, Mineral Acids, Salts of copper, Lead, Mercury, Opium, Alcohol, Carbon Monoxide, Carbon Dioxide, Cotton Seeds, Croton Seeds, Ergot, Nux Vomica, Strychnine, Aconite, Datura, Belladonna, Cannabis, Cocaine, Oleander, Ratti Seeds, Snakes, Scorpion, Cantharides, Moringa Nut, Madar, Food Poisoning, barbiturates, Semicarpus Anaedum.

Books recommended:

Theory: -

1. Modi's Medical Jurisprudence and Toxicology
2. Principles of Forensic Medicine – by Apurba Nandy
3. Text Book of Forensic Medicine – By Krishan Vij Parikh.

Practical/Clinical

1. Forensic Medicine & Toxicology – Dr. K.S. Narayan Reddy
2. Fundamentals of Forensic Medicine and Toxicology by Dr.R.Basu

COMMUNITY MEDICINE (Paper Code: Paper I – 201081 and Paper II – 201082)

Distribution Marks:

Written Paper

- 120 Marks



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(Paper I – 60, Paper II - 60)

Oral - 10 Marks

Practical - 30 Marks

Internal Assessment - 40 Marks

(Written – 20, Practical – 20)

Total -200 marks

Written Paper - One

Time allowed - 3 hours (for each paper)

Full Marks - 120 (60 for each Paper)

All question for both the papers are to be set by a single external examiner preferably from outside the state.

Examiners:-

There shall be four examiners – Two external from outside the state preferably and two internal from within the State.

A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical and 50% in internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Questions should be objective type and short notes. Descriptive questions would be preferably avoided.

i) Paper I shall contain questions from the following topics:-

- 1) Concepts of Preventive Medicine, Social Medicine, Public Health & Community Medicine.
- 2) Evolution & Progress of Medicine
- 3) Social Factors relating to Health & Disease
- 4) Concepts of Health & Disease; Natural History of Disease; Disease causation.
- 5) Principals of Prevention & Control of Diseases.
- 6) General Epidemiology & Epidemiological Methods. Uses of Epidemiology
- 7) Elements of Biostatistics.
- 8) Study of various vaccines & Immunizations
- 9) Study of antiseptics & Dis-infection, Repellants & Sterilization.
- 10) Environment & health, Physical chemical & Biological Components of Man's Environment.
- 11) Water & purification; Air & Air pollution; Housing & Health; Wastes & wastes Disposal
- 12) Sanitation of Village & Towns and Fairs & Festivals.
- 13) Medical Entomology, Rodents & Insecticides.
- 14) Occupational and Industrial Health & Hygiene.
- 15) Nutrition, Dietetics & Food Hygiene.
- 16) Study of Food & Water borne Diseases.
- 17) Study of acute infectious respiratory diseases including eruptive fevers.
- 18) Investigation of Epidemic & study of other locally Endemic Diseases.
- 19) Any other latest & recent advances in the subject.

ii) Paper II shall contain questions from the following topics:-

- 1) Demography & Population Dynamics, Health information System & Vital Statistics.
- 2) Family Planning & Population Control.
- 3) Maternal & Child Health Care; Infant Care Normal growth & Development.
- 4) Community Pediatrics & Geriatrics; School Health Service.



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- 5) Principals of Genetics as applied to health & Disease.
- 6) Epidemiology of Communicable diseases including Study of Arthropod borne diseases surface Infections & Infestations; Zoonosis.
- 7) Study of Tuberculosis leprosy & other chronic Illnesses.
- 8) Sexually transmitted Diseases (STD) & HIV; Prevention of Blood borne Diseases.
- 9) Epidemiology of non-communicable diseases.
- 10) Primary Health Care, Setup Organization & Functions.
- 11) Health Care Delivery system in India
- 12) Comprehensive Health Care including Rehabilitation of Disabled & Handicapped in India.
- 13) Health planning & Management.
- 14) National Health Programs.
- 15) International Health Agencies; and Voluntary Health Agencies.
- 16) Mental Health, Preventive psychology & Psychiatry.
- 17) Health Education & Communication & Counseling.
- 18) Disaster Management.
- 19) Any other latest & recent advances in the subject.

Books recommended:

Theory: -

1. Text Book of PSM- J.E.Park
2. Essential Preventive Medicine- O.P.Ghai & P.Gupta
3. Text Book of Community Medicine- Kulkarni & Baride
4. Epidemiology & Management of Health Care for all- Sathe & Sathe
4. Preventive Medicine & Public Health – Maxcy - Rosenau
5. Preventive & Social Medicine in India – B.K.Mahajan.
6. Introduction to Biostatistics – B.K.Mahajan
7. Text Book of PSM – Jaypee – Prabhakara

Eye (Paper Code: 201091)

Distribution Marks:

Written Paper(One) - 40 Marks

Oral - 10 Marks

Clinical - 30 Marks

Internal Assessment - 20 Marks

(Written – 10, Practical – 10)

Total -100 marks

Written Paper - One

Time allowed - 3 hours

Full Marks - 40-

All question for both the papers are to be set by a single external examiner preferably from outside the state.

Examiners:-

There shall be four examiners – Two external from outside the state preferably and two internal who are senior most teachers of the department concerned.



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A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Questions should be objective type and short notes. Descriptive questions would be preferably avoided.

i) Paper I shall contain questions from the following topics:-

- 1) Common problems affecting the Eye.
- 2) Principle of management of major Ophthalmic Emergencies
- 3) Main systemic diseases affecting the Eye
- 4) Effect of local & Systemic diseases on patient's vision and necessary action required to minimize the effect of such diseases.
- 5) Adverse drug reaction with ophthalmic manifestations.
- 6) Magnitude of Blindness in India and its main causes
- 7) National programme for control of blind ness and its implementations.
- 8) Eye care education for prevention of Eye problems
- 9) Role of Primary Health Centres in Organization of Eye campus.
- 10) Organization of Primary Health Care and the functioning of Ophthalmic Assistants.
- 11) Integration of National programme for control of Blindness with other national programmes
- 12) Eye Bank Organization.
- 13) Refractive Errors.

N.B. (a) Long Questions containing Anatomy, Physiology, Pharmacology etc. – 10 Marks

(b) Write short notes on

(Including Community Ophthalmology)

Books Recommended:-

Theory:-

1. Parson's Diseases of the Eye by Stephen J.H.Miller
2. The Eye & its Disorders by Trevor- Roper
3. Ophthalmology by A.K.Khurana
4. Essentials of Ophthalmology by Samar K. Basak

ENT (Paper Code: 201101)

Distribution Marks:

Written Paper - 40 Marks

(Paper I – 40)

Oral - 10 Marks

Clinical - 30 Marks

Internal Assessment - 20 Marks

(Written – 10, Practical – 10)

Total -100 marks

Written Paper - One

Time allowed - 3 hours (for each Paper)

Full Marks - 40-

All question for both the papers are to be set by a single external examiner preferably from outside the state.

Examiners:-

There shall be four examiners – Two external from outside the state preferably and two internal who are senior most teachers of the ENT department.



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A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical.
A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

- i) Paper I shall contain questions from the following topics:-
- 1) **Ear:** - Anatomy, Physiology Examination of the Ear Diseases of External, Middle and Internal Ear including Acoustic Neurones and Facial Nerve disorder.
 - 2) **Nose and PNS:** -Anatomy Physiology Examination of Nose and PNS diseases of External Nose and Nasal septum, Rhinitis nasal Allergy, Vaaromotor rhinitis, Polyp. Spistaxis, sinusitis cysts and Tumours of Nose and PNS.
 - 3) **PHARYNX:**-Anatomy, Physiology Examination of Pharynx, Diseases of Fossil and Adenoid, Pharyngitis, Pharyngeal abscess and Tumours.
 - 4) **LARYNX:** - Anatomy, Physiology Examination of Larynx, Laryngitis, Hoarseness, Stridor, Neurological, Laryngeal diseases, Tumours.
 - 5) **TRACHEO BRONCHIAL TREE:** -Anatomy, Physiology Examination of Tracheostomy, Tracheo-Bronchial Foreign Body.
 - 6) **OESOPHAGUS:** -Anatomy, Physiology Examination, Dysphagia
 - 7) **HEAD AND NECK:**- Facial pain, salivary Gland, Disease of oral cavity Dysphagia AIDS
Besides the above topics, any topics which is added from time to time in the books recommended for study.

Books Recommended:-

Theory:-

1. Logan Turner's of the Nose, Throat and Ear.
2. A short Text Books of ENT Disease – Dr. K.B.Bhagera
3. Fundamental of Ear, Nose and Throat and Head Neck Surgery – Dr.S.K.De.
4. Diseases of Ear, Nose & Throat – Dr.P.L.Dhingra.

Practical/Clinical:-

1. Diseases of Ear, Nose & Throat - Dr.P.L.Dhingra.

MEDICINE (Paper Code: Paper I – 201111 and Paper II – 201112)

Distribution Marks:

Written Paper	- 120 Marks
(Paper I – 60, Paper II – 60)	
Oral	- 20 Marks
Clinical	- 100 Marks
Internal Assessment	- 60 Marks

(Written – 30, Practical – 30)

Total -300 marks

Written Paper - Two

Time allowed - 3 hours (for each Paper)

Full Marks - 120- (60 for each Paper)

All question for both the papers are to be set by a single external examiner preferably from outside the state.

Examiners:-



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There shall be four examiners – Two external from outside the state preferably and two internal from within the state.

A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Questions should be objective type and short notes. Descriptive questions would be preferably avoided.

i) Paper I shall contain questions from the following topics:-

- 1) Cardiovascular system.
- 2) Respiratory System
- 3) Gastrointestinal System
- 4) Neurological Diseases.
- 5) Poisons, Occupational Hazards.
- 6) Immune System, Connective Tissue & Joints
- 7) Oncology & Hematology.

ii) Paper II shall contain questions from the following topics:-

- 8) Genetics & Diseases
- 9) Nutrition & Infectious Diseases.
- 10) Endocrinology & Metabolism.
- 11) Kidney & Urinary Tract
- 12) Psychiatry.
- 13) Dermatology.
- 14) Sexually Transmitted Diseases.

Books Recommended:-

Theory:-

1. Davidson's Principals & Practices of Medicine.
2. Harrison's Text Book of Internal Medicine.
3. API text Book of Medicine.

Practical/Clinical:-

1. Clinical Medicine by Hatehison.
2. Clinical Medicine by Macleod.

SURGERY (Paper Code: Paper I – 201131 and Paper II – 201132)

Distribution Marks:

Written Paper	- 120 Marks
(Paper I – 60, Paper II – 60)	
Oral	- 20 Marks
Clinical	- 100 Marks
Internal Assessment	- 60 Marks
(Written – 30, Practical – 30)	

Total -300 marks

Written Paper - Two

Time allowed - 3 hours (for each Paper)

Full Marks - 120- (60for each Paper)

All question for both the papers are to be set by a single external examiner preferably from outside the state.



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Section B of Paper I will be set by Eligible Teacher of Orthopedic Department.

Examiners:-

There shall be four examiners – Two external from outside the state preferably and two internals One of the internal will be the HOD, Surgery and other internal will rotate every two years. There will be One Internal of the Orthopedic Department, who will be the HOD of Orthopedic Department.

A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Questions should be objective type and short notes. Descriptive questions would be preferably avoided.

i) Paper I – Section A shall contain questions from the following topics:-

- a. General Surgery
- b. Surgery of Organs above Diaphragm

- 1) Basic Principle of Surgery.
- 2) Wound Tissue repair and scar.
- 3) Accidents, Emergency Surgery and warfare injuries.
- 4) Acute Resuscitation and Support.
- 5) Nutritional Support.
- 6) Wound Infection.
- 7) Specific Infectio and AIDS.
- 8) Principal of Transplantation.
- 9) Tumours, Cyst, Ulcer and Sinus.
- 10) Skin and Burn & Skin Grafting.
- 11) Arterial Disorder.
- 12) Venous Disorder.
- 13) Lymphatic and Lymph Nodes.
- 14) Scalp
- 15) Head Injury.
- 16) Brain Tumour.
- 17) Development Anomaly of Face, Palat, Lip & Faciomaxillary Injuries.
- 18) Mouth Cheek and Tongue.
- 19) Salivary Glands.
- 20) Pharynx.
- 21) Larynx.
- 22) Neck.
- 23) Thyroid Gland & Throglossal Tract.
- 24) Parathyroid.
- 25) The Breast.
- 26) Oesophagus.

ii) Section B of Paper I will contain questions from Orthopedic surgery this will cover the following topics:-

- 1) Fracture and Dislocation – General Principal and Management.
- 2) Fracture and Dislocation of Shoulder and Upper Limb.
- 3) Fracture and Dislocation of Lower Limb.



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- 4) Disease of Bones and Joints – Infections.
- 5) Tumor of the Bones and Joints.
- 6) Generalized Disease of Bones and Joints.
- 7) Congenital disorder of the Bones and Joints.
- 8) Disorder of the Growing Skeleton.
- 9) Disorder of Muscle Tendons and Ligaments.
- 10) The hand and the Foot.
- 11) The Spine, Vertebral Column and Spinal Cord.
- 12) Metabolic Diseases of the Bones – Rickets etc.
- 13) Nerves and Nerve Injuries.

ii) Paper II:-

- a) Basics of Anesthesiology, Radiology and Dentistry
- b) Surgical Diseases of Organs below Diaphragm.
 - 1) The Stomach and Duodenum.
 - 2) Diseases of the Liver.
 - 3) Diseases of Spleen and Rupture Spleen.
 - 4) Diseases of the Gall Bladder and Bile Duct.
 - 5) The Pancreas.
 - 6) Peritoneum, Omentum, Mesentery, Retroperitoneal Space.
 - 7) The small and large intestine.
 - 8) Intestinal Obstruction in Adult and Child.
 - 9) The Vermiform Appendix.
 - 10) Rectum.
 - 11) Anus and Anal Canal.
 - 12) Hernia Umbilicus, Abdominal Wall.
 - 13) Abdominal Trauma.
 - 14) Urinary System, Investigation of Urinary Tract.
 - 15) Anuria.
 - 16) Hematuria.
 - 17) Retention of Urine.
 - 18) Kidney and Ureter.
 - 19) Urinary Bladder.
 - 20) Prostate and Seminal Vesicle.
 - 21) Urethra and Penis.
 - 22) Testis and Scrotum.
 - 23) Day Care Surgery.
 - 24) Surgical Audit.

Books Recommended:-

Theory:-

Practical/Clinical:-

PEDIATRICS (Paper Code: 201121)

Distribution Marks:

Written Paper (Paper I – 40)	- 40 Marks
Oral	- 10 Marks
Clinical	- 30 Marks



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Internal Assessment - 20 Marks
(Written – 30, Practical – 30)

Total -100 marks

Written Paper - One

Time allowed - 3 hours (for each Paper)

Full Marks - 40- (40for each Paper)

All question for the papers are to be set by a single external examiner preferably from outside the state.

Section B of Paper I will be set by Eligible Teacher of Orthopedic Department.

Examiners:-

There shall be four examiners – Two external from outside the state preferably and two internal from within the State.

A candidate will be declared to have passed the examination in the subject provided he or she secure 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Questions should be objective type and short notes. Descriptive questions would be preferably avoided.

i) Paper I shall contain questions from the following topics:-

BirthAsphyxia, Care of new born, Anthropometry and interpretation of growth and development, Normal fluid & electrolyte imbalance in children, Low birth weight babies, Neonatal respiratory distress, Jaundice in new born, Neonatal infection, Neonatal convulsions, PEM and its management, Vitamin deficiencies, Nutritional anemia in infancy & childhood, Acute diarrhea, Hypothyroidism in children, Congestive heart failure-diagnosis & treatment, Congenital heart disease, Rheumatic heart disease, Hypertension in children, including hypertensive emergency, Acute respiratory infection, Bronchial asthma including status asthmaticus, Nephritic syndrome, Acute glomerulonephritis& hematuria, Chronic liver disease, Hemolytic anemia including status epilepticus, Cerebral palsy, Common exanthematous illnesses, Childhood tuberculosis, Fluid & electrolyte balance: pathophysiology & principles of management, Acid base balance, Shock & anaphylaxis, Adolescent growth & normal puberty, Other childhood malignancies (Neuroblastoma, Wilm's tumour, Lymphoma), Coagulation disorders-hemophilia, Mental retardation, Behavioral Disorder, Meningitis, Diphtheria, Pertussis, Tetanus, Enteric fever, Immunization, Common childhood poisoning, Down's syndrome, Medical ethics, Pediatric prescription & rational drug therapy.

Books Recommended:-

Theory:-

Practical/Clinical:-

OBSTETRICS & GYNECOLOGY (Paper Code: Paper I – 201141 and Paper II – 201142)

Distribution Marks:

Written Paper - 80 Marks

(Paper I – 40, Paper II – 40)

Oral - 30 Marks

Clinical (25+25) - 50 Marks

Internal Assessment - 40 Marks

(Written – 20, Practical – 20)

Total -200 marks

Written Paper - Two

Time allowed - 3 hours (for each Paper)



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Full Marks - 80- (40 for each Paper)

All questions for both the papers are to be set by a single external examiner preferably from outside the state.

Examiners:-

There shall be four examiners – Two external from outside the state preferably and two internal from within the State.

A candidate will be declared to have passed the examination in the subject provided he or she secures 50% in aggregate with a minimum of 50% of the total marks in written and oral, and 50% in practical/Clinical and internal assessment.

A candidate will be declared to have passed the subject with honours provided he or she secures 75% or more marks of the total.

Questions should be objective type and short notes. Descriptive questions would be preferably avoided.

i) Paper I shall contain questions from the following topics:-

- 1) Normal pregnancy, labour, Puerperium and management.
- 2) Abnormal pregnancy, labour, puerperium and its management.
- 3) Caesarian section, laparotomy.
- 4) Examination of normal and high risk pregnant cases.
- 5) Conduct normal and abnormal deliveries.
- 6) Puerperium – Normal and abnormal.
- 7) Medical disorder during pregnancy.
Heart Diseases – Ch. Nephritis., Jaundice – Anaemia – Diabetease etc.
- 8) P.I.H. & clampsia.
- 9) Episotomy, Forcep, Vaccum extraction.

ii) Paper I shall contain questions from the following topics:-

- 1) Anatomy, Physiology and Pathophysiology of the reproductive system.
- 2) Contraception and various techniques, M.T.P.
- 3) National programme of maternal, child health and family welfare.
- 4) Common Gynecological diseases and its management.
- 5) Indication, techniques and complication of surgeries, abdominal and vaginal hysterectomy, Fothergills operation and vaccum aspiration for M.T.P.
- 6) Pelvic Examination, Diagnosis and management of Common gynecological problems including early detection of genital malignancies and management.
- 7) Vaginal Cytology
- 8) Investigations like biochemical, histopathological, radiological ultra sound etc.
- 9) Malignancies – Cervical, Endometrium, Ovarian, Vulval.
- 10) Fibroid Uterus
- 11) Prolapse Uterus
- 12) Infertility
- 13) Endometriosis
- 14) Dub
- 15) Menopause

Books Recommended:-



ARYABHATTA KNOWLEDGE UNIVERSITY

A.N. Sinha Institute of Social Studies Campus (West), North Gandhi Maidan, (Near D.M. Residence)
Patna-800 001, Phone: +91612-2219106, website: www.akubihar.ac.in

Theory:-

1. Hallan & Brew-Obstetric
2. Shaw - Gynecology
3. Dutta - Obstetere
4. Dutta - Gynecology

Practical/Clinical:-

1. Shaw - operative
2. Manual of Clinical problem in Obst. & Gynecology