Mahatma Gandhi University

Of

Medical Sciences & Technology, Jaipur

Syllabus

Bachelor of Occupational Therapy (BOT)

(4½ Years Degree Course including 6 months Rotatory Internship)

Edition 2020-21

Notice

1. The university reserves the right to make changes in the Rules/Regulations/Syllabus/Books/Guidelines/Fees-Structure or any other information at any time without prior notice. The decision of the University shall be binding on all.

2. The Jurisdiction of all court cases shall be Jaipur Bench of Hon'ble Rajasthan High Court only.

RULES & REGULATIONS

OF

BACHELOR OF OCCUPATIONAL THERAPY (BOT)

(4½ years Degree Course including 6 months Rotatory Internship)

Name of the course: Bachelor of Occupational Therapy (B.O.T.)

Duration of the course: The duration of the Bachelor of Occupational Therapy Course (B.O.T.) shall be (4) four academic years and (6) six months compulsory rotatory Internship.

Medium of instruction: English shall be the medium of instruction.

Objective of the Bachelor of Occupational Therapy course which is complementary to medicine shall be to allow the students:

(a) To acquire adequate knowledge of basic medical subjects and to develop skill and knowledge of occupational therapy and techniques of therapeutic exercises and soft tissue manipulation so as to work as a rehabilitation team member & can coordinate with other team members to provide occupational therapy management of various medical and surgical conditions of patients.

(b) To acquire skills in management, research and teaching in occupational therapy as well as guidance and counselling of patients regarding occupational therapy.

(c) To acquire proper attitude for compassion and concerns for patients and welfare of physically& mentally handicapped in the community.

(d) To practice moral and ethical values and evidence base practice with regard to occupational therapy.

Eligibility for admission:

(a) Candidate should have passed 10+2 (12th standard) or equivalent examination with science stream i.e. Physics, Chemistry, Biology and English with 45% marks in the aggregate of all the subjects prescribed for the examination for general and 40% for SC/ST/OBC candidate.

(b) Candidate should have completed the minimum age of 17 years as on 31st December of the year of admission to B.O.T. first year course.

(c) Every candidate before admission shall furnish a certificate of medical fitness from an authorized Government Medical Officer that the candidate is physically fit to undertake the Occupational Therapy course.

(d) Selection of the candidate shall be on the basis of merit of 10+2 examination or Joint Entrance Examination conducted by the University.

(e) In case of 2 years Diploma Holder of Occupational Therapy, candidate will get admission in BOT II year and will complete the BOT course as per MGUMST, Jaipur norms, subject to availability of vacant seat(s).

(f) In case of 3 years Diploma Holder of Occupational Therapy, candidate will get admission in BOT III year and will complete the BOT course as per the MGUMST, Jaipur norms, subject to availability of vacant seat(s).

Enrolment: Candidates admitted to the Bachelor of Occupational Therapy course shall be enrolled with the university by remitting the prescribed fee along with the application form for enrolment duly filled in and forwarded to the university through Principal of the College within stipulated date.

Syllabus: The curriculum and the scheme of examination for the course shall be as prescribed by the University from time to time.

The aim and objectives of the BOT curriculum is to educate and train a student as a qualified occupational therapist who will be able to impart health services safely and effectively to community in terms of health promotion, functional, prevention and treatment of dysfunction in different fields of medical science.

Commencement of the Course: The Course shall commence from the 1st August of every Academic year.

Conduction of the University Examination: University examination shall be conducted twice in a year; that is Main and Supplementary Examination.

Working Days: Each academic year shall consist of not less than **270** working days including examination.

Attendance:

1. No candidate shall be permitted to appear in B.O.T First/Second/Third/Fourth university examination unless he/she has attended the course for the prescribed period and produces the necessary certificate of attendance and satisfactory conduct from the Principal of the College.
2. A candidate is required to compulsorily attend 75% of the theory classes and also 75% of the practical classes held annually in each of the prescribed subject(s) separately, those not fulfilling the above criteria will not be eligible to appear for the university examination in the concerned subject(s).

Scheme of examination:

There shall be Internal Assessment Examinations in Theory as well as Practical at the College level. These shall carry 30% of total marks assigned to Theory as well as Practical Examination.

At the end of every academic year, after completion of the course of study there shall be University Theory & Practical Examination. These shall carry 70% of total marks assigned to Theory as well as Practical Examination.

Internal Assessment Examination:

1. Theory and practical paper (s): 30% of total marks shall be allotted the Internal Assessment for each subject. Three internal assessment examinations will be held in each subject (Theory and practical) before the commencement of the theory university examination (Main) in each academic year. Every candidate shall be required to obtain at least 40% marks in the aggregate of any best of two out of the three internal assessment tests in each

subject. Candidates failing to secure 40% marks in the aggregate of best two internal assessment tests in any subject shall not be allowed to appear in concerned subject (s) in the ensuing university main examination. In case the examination forms have already been filled and submitted in the university, the Principal will detain such students from appearing in the University examination of concerned subject (s). Mode and number of internal assessment tests will be determined at the level of the Principal of the college. The candidates shall be required to obtain at least 40% marks in each subject in an improvement internal assessment test to qualify and appear in the university forthcoming supplementary examination.

2. A candidate may improve his/her internal assessment marks whenever he/she reappears. In case the candidate does not opt for improvement or doesn't improve, his/her earlier internal assessment marks would be conveyed by the Principal to the university.

University Examination:

1. There shall be two examinations of BOT-I- Year, II- Year, III- Year & IV- Year Course in one academic year, the Main examination and subsequent Supplementary examination.
2. A candidate who has completed a regular course of study prescribed for BOT I- Year for one academic year shall be eligible to appear at BOT- I- Year examination.
3. A candidate failing in any number of subjects at the main examination shall be allowed to appear in the failing subjects at the ensuing supplementary examination.
4. A candidate who has not passed even a single subject (theory & practical) of BOT I- Year, II- Year or III- Year supplementary examination shall not be promoted to respective next higher class.
5. A candidate who has passed one or more subject(s) of BOT I- Year main/supplementary examination will be promoted to Second year (BOT II- Year) course and after completion of regular course of study for one academic year shall be eligible for BOT II- Year examination. He/she shall also be permitted to appear in the due papers of BOT I- Year examination along with BOT II- Year examination. The result of BOT I- Year & II- Year examination will be declared.
6. A candidate who has passed one or more subject(s) of BOT II- Year Main/Supplementary examination will be promoted to Third year (BOT III Year) course and after completion of regular course of study for one academic year shall be eligible for BOT III- Year examination. He/she shall also be permitted to appear in the due papers of BOT I- Year and/or II- Year examinations along with BOT III- Year examination. The result of BOT I- Year, II- Year & III- Year examinations will be declared.
7. A candidate who has passed one or more subject(s) of BOT III- Year main/supplementary examination will be promoted to the Final year (BOT IV- Year) course and will pursue study for one academic year of Final year (BOT IV- Year) Course.
8. A candidate shall be eligible to appear for Final year BOT (IV- Year) examination only when all the prescribed papers of BOT I- Year, II- Year & III- Year examinations have been passed by him/her, even though he/she has attended all the theory and practical classes of Final year (BOT IV- Year) course.
9. A candidate will be permitted to avail any number of attempts to pass all the papers of BPT I- Year, II- Year, III- Year & IV- Year Course but he/she will be required to complete the entire BOT course within eight years of his/her admission to BOT I- Year course.

Paper Setter/Examiner

1. All the examiners, paper setters, Theory examination answer books evaluators, Internal and External Examiners for Practical examinations shall be appointed by the President of the University.
2. Qualification of the Paper setter / Examiner: Masters degree (MOT) with 3 years of full time teaching experience from recognized university for occupational therapy papers and for medical papers the examiner should have 3 years of teaching experience after doing post- graduate qualification in the relevant/ broad specialty, or Master Degree (MOT) in specialty concerned may be allowed. Distance Education Degree holder cannot work as the faculty or Examiner.
3. Examiner / Paper setter: Paper setter can be an examiner

Duration, Distribution of marks and Pattern of Question papers

1. The question paper shall cover the entire syllabus of the subject.
2. Each subject (Theory & Practical) shall carry 30% marks for internal assessment and 70% marks for the University examination.
3. Duration of Examination: Each written paper of University examination of 70 marks shall be of 3 hours duration.
4. Pattern of question papers:

All questions shall be required to be attempted. There may be internal choice(s) in the questions:

(a) Paper carrying 70 Marks:

Long answer questions (4 out of 6)	4x10= 40
Short answer questions (6 out of 8)	6x5= 30

(b) Paper carrying two sections of 35 Marks each:

Section A

Long answer questions (2 out of 3)	2x10= 20
Short answer questions (3 out of 5)	3x5= 15

Section B

Long answer questions (2 out of 3)	2x10= 20
Short answer questions (3 out of 5)	3x5= 15

Criteria for Pass:

1. In order to pass an examination a candidate must secure 50% marks in theory (inclusive of internal assessment) and practical (inclusive of internal assessment) separately in each subject. In case of Section A & Section B of a Paper, students will have to secure 50% marks combined to pass the paper.
2. A successful candidate appearing in whole examination in the first attempt and obtaining 75% or more marks in the aggregate of a subject shall be declared to have passed the subject with distinction.

Award of Grace Marks:

1. A student who appears in the whole examination in first attempt and obtains the required minimum pass marks in the total aggregate of an examination but fails to

obtain the minimum pass marks in one subject (in theory and / or practical as the case may be) will be awarded the grace marks up to a maximum of 05 marks according to the following scale, provided the candidate passes the examination by award of such grace marks:

Marks obtained by the candidate above the required minimum aggregate pass marks		Grace marks can be given up to
Up to 6 marks	-	02
Up to 12 marks	-	03
Up to 18 marks	-	04
19 marks and above	-	05

2. No grace marks would be awarded to a candidate who appears in part/ supplementary/remand examination. Non appearance of a candidate in any part of the examination on account of any reason will make him ineligible for grace marks.
3. A candidate who passes the examination after the award of grace marks in a paper/practical or the aggregate will be shown in the marks sheet to have passed the examination by grace. Grace marks will not be added to the marks obtained by a candidate from the examiners.
4. A candidate who is awarded grace marks in any subject to pass the examination will not be entitled for distinction in any subject.

Revaluation/Scrutiny

Re-evaluation of Theory paper answer books and scrutiny of marks shall be permissible as per University Rules.

Permission for revaluation / scrutiny

1. In 1st Attempt – Revaluation shall be permitted in 25% of the appeared papers. Scrutiny shall be permitted for all the papers.
2. In 2nd Attempt – Only scrutiny shall be permitted in all the papers. Revaluation shall not be permitted.
3. Revaluation shall also be permitted in 25% of such papers in which a candidate appears for the 1st time irrespective of his attempt in the whole examination.
4. For determining the attempt, following criteria shall be followed -

S. No.	Situation	Attempt in next examination	
1.	Candidate is detained in all subjects	His attempt in all the subjects in the next examination will be treated as	1st Attempt
2.	Candidate permitted in all subjects But did not appear in all permitted subjects	His attempt in the next examination will be treated as	1st Attempt
3.	Candidate is detained in one / few subjects Permitted for the rest of the subjects Appeared in permitted subjects	His attempt in the detained subject(s) in the next examination will be treated as	2nd Attempt
4.	Candidate is detained in one / few subjects Permitted in the rest of the subjects Did not appear in the permitted subjects	His attempt in the next examination In detained subject(s) will be treated as In permitted subject(s) will be treated as	1st Attempt
5.	Candidate permitted in all subjects But did not appear in few subjects	His attempt in the permitted subjects in the next examination will be treated as	2nd Attempt

Compulsory Rotatory internship:

Every candidate after successful completion of the final year examination shall have to undergo six months compulsory rotatory internship in any multispecialty hospital / institutions recognized by the Government after receipt of the fees prescribed by this University. Candidates coming from other institutions with the permission of the Head of the concerned institution will be allowed for the internship program in this University after receipt of the fees prescribed by this University. Internship should be rotating and shall cover clinical branches such as Orthopedics, Neurology, General Medicine, Pediatrics, General Surgery, Cardio–thoracic Surgery, critical care (including cardiac recovery, ICU, CCU, Neuro ICU), cancer department, Obstetrics & Gynecology, Burns, Psychiatric and Physical Medicine & Rehabilitation IPD etc. concerned with Occupational Therapy and Occupational Therapy OPD, it will be run under guidance of Head of Department Occupational Therapy and in co-ordination with Head of Department of concerned clinical branches.

Internship Rules:

1. The intern will be eligible for 1 day casual leave in each month and can carry over the leave to next months, but he/she cannot avail the next month leave in advance.
2. The intern should conduct themselves in a manner befitting the profession.
3. The intern should dress appropriately in the clinical areas.
4. It is mandatory for the intern to wear the white apron with nametag when in the clinical area/ wards.
5. The intern can avail medical leave on producing a medical certificate, but will have to compensate for the number of days of absence from internship

Authority for issue of Internship Completion Certificate: The Head of Institution shall issue a certificate of successful completion of 6 month rotating internship to each candidate after satisfying that the candidate has completed the training program and has acquired the skills to function independently.

Award of Degree: The degree shall be awarded by the University only after submission of Internship completion certificate and application forwarded to the university by the Principal of the College.

Migration/Transfer of Candidates:

Migration/transfer of a candidate from another recognized University to this University shall be considered only in BOT II- Year (subject to availability of vacant seat) provided a similar Curriculum is followed by the two Universities. The migration/transfer will not be entertained in the middle of academic year. Migration of a candidate from this University to another University shall not be considered.

Vacation: The Principal of the College may declare vacation in an academic year to the students as per the academic calendar.

Selection of Generic Elective and skills Enhancement Courses

Every student has to select any one elective subject out of seven elective subjects mentioned below at the beginning of the academic year during his/her course duration. The Examination of these subjects shall be conducted at the college level.

Sr. No.	Subject	Teaching hours		
		Theory	Practical	Total
1	Disaster Management	45	15	60
2	Information and Communication Technology in Health Education	45	15	60
3	Clinical Nutrition	45	10	55
4	Yoga	45	15	60
5	Effective English	45	15	60
6	Health Care	50	-	50
7	Constitution of India	45	-	45

Distribution of marks

S.No.	Subject	Theory	Internal Assessment	Total
1	Disaster Management	70	30	100
2	Information and Communication Technology in Health Education	70	30	100
3	Clinical Nutrition	70	30	100
4	Yoga	70	30	100
5	Effective English	70	30	100
6	Health Care	70	30	100
7	Constitution of India	70	30	100

A candidate can appear in the elective subject examinations to be conducted at the college level before the University examinations at the end of I year or II year or III year. Only such candidates shall be eligible to fill University examination form of III year (final year) who have passed their elective subject. It shall be mandatory to obtain 50% marks in the aggregate of prescribed total marks (i.e. 50 out of 100) to pass the elective subjects. Marks of all such candidates who have passed their elective subject shall be sent in the following format by the Principal of the college to the University while sending their examination forms of III year (final year) :

S.No.	University Roll No.	Name of the student	Father's Name	Name of elective subject	Marks obtained	Result

Those candidates who do not pass their elective subjects shall not be eligible to submit their III year (final year) University examination form and accordingly they will not be permitted to appear in the University examination of III year (final year) of the course.

Marks obtained by the candidates in their elective subject shall be mentioned separately in the marks sheets of the University examinations. These marks shall not be counted for preparing the merit list.

Bachelor of Occupational Therapy (BOT)

Recommended Teaching Hours of Instruction for each subject

Appendix-I

B.O.T. (I- Year)

Sr. No.	Subject	Theory	Practical	Total
1	Anatomy	180	70	250
2	Physiology	180	70	250
3	Biochemistry	100	-	100
4	Fundamental of Occupational Therapy-I	100	180	280
5	Fundamental of Occupational Therapy-II	100	220	320
6	Environmental Science	45	15	60
7	Orientation of Occupational Therapy	-	20	20
TOTAL		**705**	**575**	**1280**

B.O.T. (II- Year)

Sr. No.	Subject		Theory	Practical	Total
1	Pathology & Microbiology		100 (50 Hrs. each)	-	100
	Section-A Pathology	**Section-B** Microbiology			
2	Pharmacology		100	-	100
3	Ergotherapeutics		100	160	260
4	Sociology & Psychology		100 (50 Hrs. each)	-	100
	Section-A Sociology	**Section-B** Psychology			
5	Bio – mechanics & Kinesiology		150	-	150
6	Community Medicine		150	-	150
7	Occupational Therapy Clinical Placement (Pead. Psychiatry, Ortho, Neuro, Surgery & Burns)		-	400	400
TOTAL			**700**	**560**	**1260**

B.O.T. (III- Year)

Sr. No.	Subject	Theory	Practical	Total
1	Clinical Orthopedics	100	50	150
2	Occupational Therapy in Orthopedics	100	200	300
3	Gen. Medicine including Pediatrics	100	20	120
4	Rehabilitation Medicine	100	50	150
5	Psychiatry	100	20	120
6	Occupational Therapy in Psychiatry	100	150	250
7	Occupational Therapy in Pediatrics	100	200	300
Total		**700**	**690**	**1390**

B.O.T. (IV- Year)

Sr. No.	Subject	Theory	Practical	Total
1	Neurology & Neurosurgery	100	20	120
2	Occupational Therapy in Neurology & Neurosurgery	100	250	350
3	Gen. Surgery including CTVS and Obs & Gynae	100	50	150
4	Occupational Therapy in Medical & Surgical Condition	100	250	350
5	Advance in Occupational Therapy in Rehabilitation	100	30	130
6	Biostatics & Research Methodology	100	100	200
Total		**600**	**700**	**1300**

Total teaching and Clinical hours (excluding internship):-1280+1260+1390+1300=5230

Selection of Generic Elective and skills Enhancement Courses

Elective course is mandatory and a candidate can select any one of the 7 courses available in table. Non – University examination

A candidates is declared to have passed non- university examination

Sr. No.	Subject	Theory	Practical	Total

1	Disaster Management	45	15	60
2	Information and Communication Technology in Health Education	45	15	60
3	Clinical Nutrition	45	10	55
4	Yoga	45	15	60
5	Effective English	45	15	60
6	Health Care	50	-	50
7	Constitution of Indian	45	-	45
	Total	**320**	**70**	**390**

Marks Distribution

Appendix-II

B.O.T. (I- Year) Examination

Code No	Subject	Written-100			Practical-100			Grand Total
		Theory	I.A. Theory	Total Theory	Practical + Oral	I.A. Practical	Total Practical	
11010	Paper-I- Anatomy	70	30	100	70	30	100	200
11020	Paper-II-Physiology	70	30	100	70	30	100	200
11030	Paper-III- Biochemistry	70	30	100	-	-	-	100
11040	Paper-IV- Fundamental of Occupational Therapy-I	70	30	100	70	30	100	200
11050	Paper-V- Fundamental of Occupational Therapy-II	70	30	100	70	30	100	200
	Environment Sciences (NUE)	70	30	100	-	-	-	100
Total		**420**	**180**	**600**	**280**	**120**	**400**	**1000**

B.O.T. (II- Year) Examination

Code No	Subject	Written-100			Practical-100			Grand Total
		Theory	I.A. Theory	Total Theory	Practical + Oral	I.A. Practical	Total Practical	
12010	Paper-I **Section-A -**Pathology **Section-B-**Microbiology	35 35	15 15	100	-	-	-	100
12020	Paper-II Pharmacology	70	30	100	-	-	-	100
12030	Paper-III-Ergotherapeutics	70	30	100	-	-	-	100
12040	Paper-IV- **Section-A**- Sociology	70	30	100	-	-	-	100

	Section-B- Psychology							
12050	Paper-V Biomechanics & Kinesiology	70	30	100	-	-		100
12060	Paper-VI Community Medicine	70	30	100	-	-	-	100
Total		**420**	**180**	**600**	**-**	**-**	**-**	**600**

B.O.T. (III- Year) Examination

Code No	**Subject**	**Written-100**			**Practical-100**			**Grand Total**
		Theory	**I.A. Theory**	**Total Theory**	**Practical + Oral**	**I.A. Practical**	**Total Practical**	
13010	Paper-I Clinical Orthopedics	70	30	100	-	-	-	100
13020	Paper-II Occupational Therapy in Orthopedics	70	30	100	70	30	100	200
13030	Paper-III Gen. Medicine Including Pediatrics	70	30	100	-	-	-	100
13040	Paper-IV Rehabilitation Medicine	70	30	100	-	-	-	100
13050	Paper-V- Psychiatry	70	30	100	-	-	-	100
13060	Paper-VI Occupational Therapy in Psychiatry	70	30	100	70	30	100	200
13070	Paper-VII Occupational Therapy in Pediatrics	70	30	100	70	30	100	200
Total		**490**	**210**	**700**	**210**	**90**	**300**	**1000**

B.O.T. (IV- Year) Examination

Code No	**Subject**	**Written-100**			**Practical-100**			**Grand Total**
		Theory	**I.A. Theory**	**Total Theory**	**Practical + Oral**	**I.A. Practical**	**Total Practical**	
14010	Paper-I- Neurology & Neurosurgery	70	30	100	-	-	-	100
14020	Paper-II- OT in Neurology & Neurosurgery	70	30	100	70	30	100	200
14030	Paper-III- Gen. Surgery Including CTVS and Obs & Gynae	70	30	100	-	-	-	100
14040	Paper-IV- OT in Medical & Surgical Conditions	70	30	100	70	30	100	200
14050	Paper-V- Advance in Occupational	70	30	100	-	-	-	100

	Therapy and Rehabilitation							
14060	Paper-VI- Biostatics & Research Methodology (NUE)	70	30	100	70	30	100	200
Total		**420**	**180**	**600**	**210**	**90**	**300**	**900**

Total university examination Marks: 1000+600+1000+900=3500

First Bachelor of Occupational Therapy ***Appendix-III***
(1 Year Duration)

Paper-I

ANATOMY (11010)

Theory Hours: 180
Practical Hours: 70
Total: 250

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. **Syllabus:**
   1.1 Theory

   General Anatomy:
   (1) Cell: Parts, Name of Cytoplasmic organelles and inclusion with their Functions.
   (2) Epithelium: Types with examples and light microscopic structure.
   (3) Connective Tissue: Classification with emphasis to tendon and ligament.
   (4) Cartilage: Types with example.
   (5) Bone: Types with example, types of Ossification (Stage of Ossification not required).
   (6) Joints: Classification with example, emphasis to synovial joints.
   (7) Muscles: Types (details of EM picture not required).
   (8) Nervous tissue: Structure of a Neuron, Synapse Reflex arc, Degeneration and Regeneration of the Nerve, typical spinal nerve.
   (9) Embryology
      (a) Ovum, Spermatozoa, fertilization and formation of germ layers and their derivations.
      (b) Development of skin, fascia, blood vessels, lymphatic.
      (c) Development of bones, axial and appendicular skeleton and muscles.
      (d) Neural tube, development of spinal cord, Brain stem and brain (cerebrum, cerebellum)

Regional Anatomy

Superior Extremity

(1) Pectoral region, Axilla, Brachial plexus, muscles of arm (front & back), muscles of forearm (front & back) palm (muscle, nerve, vessels) Synovial Bursae of hand and palmar spaces, nerves (axillary, median, ulnar, radial), Cutaneous distribution according to dermatomes, Related Clinical anatomy.
(2) Joints: Shoulder girdle, shoulder, elbow, radial-ulnar, wrist, first carpo-metacarpal joints.

Inferior Extremity

(1) Front of thigh, femoral triangle, lumber plexus, lnguinal group of lymph Nodes, glutal region, back of thigh, leg (anterior, lateral, posterior compartments) foot (dorsum, plantar), Venous drainage of inferior Extremity, Nerve and their distribution (femoral, sciatic, tibial, common peroneal, obturator), Arches of foot, Cutaneous distribution according to dermatomes, Related clinical Anatomy.
(2) Joint, hip, knee, ankle, sub-talar & mid-tarsal joints.

Abdomen & Pelvis

(1) Abdominal wall, inguinal canal, Stomach, Liver, spleen, pancreas, kidney with ureter, small Intestine, Large Intestine, Abdominal Aorta, Portal vein, Diaphragm, Sacral plexus, posterior abdominal wall.
(2) Sacro-Iliac joint.

Thorax

(1) Thoracic wall, typical intercostals space, Mediastinum (boundaries, contents), Heart with its internal and external features, Blood vessels, Typical spinal Nerve, movement of ribs during Respiration, pleura, lungs.

Head & Neck

(1) Muscle of face, Cutaneous distribution of Trigeminal nerve, Triangles of neck (anterior & posterior) Sternocleidomastoid and Trapezius muscles, Muscle of mastication, Nasal cavity, Pharynx and Larynx (Parts, Sensory distribution).
(2) Joints: Temporo-mandibular Joint, Atlanto-occipital and Atlanto-Axial joints.

Neuroanatomy

(1) General Introduction and classification, Autonomic Nervous system
(3) Sympathetic and Para Sympathetic with their difference in distribution and function). Spinal cord, spinal Reflex, Pyramidal and extra-pyramidal tracts (Detail Nucleus not required), Blood supply; brainstem: gross features and blood supply; Cerebellum: gross features and functions; Cerebrum: gross features, functional areas, blood supply; Related clinical anatomy.

Cranial Nerves

(1) Names in order, Individual Cranial Nerve distribution, Idea about Upper Motor Neuron and Lower Motor Neuron, applied Anatomy.

Vertebral Column

(1) Identification of vertebrae of different regions.
(2) Intervertebral joints
(3) Intervertebral disc
(4) Muscles of vertebral column
(5) Weight transmission
(6) Applied anatomy
(7) Radiological anatomy

1.2 Practical

Superior Extremity

(1) Demonstrations on dissected specimens of upper limb.
(2) Osteology: clavical, scapula, humerus, radius, ulna, articulated hand, order of carpal bones.
(3) Surface anatomy

Inferior Extremity
(1) Demonstration on dissected specimens of lower limb
(2) Osteology: Hip bone, femur, tibia, fibula, articulated foot (Identification of tarsal and major muscle attachments).
(3) Surface Anatomy

Abdomen & pelvis
(1) Abdominal viscera, Viscera of pelvis and blood vessels.
(2) Osteology: lumbar vertebrae, sacrum, bony pelvis

Thorax
(1) Demonstration on cadaver of thoracic wall, mediastinal structure, Heart, Lungs.
(2) Osteology: Sternum, Ribs (only general features), Thoracic Vertebrae (Identification, general features).

Head & Neck
(1) Demonstration on cadaver of oral cavity, nasal cavity, pharynx, larynx, sagittal sections of head & neck, muscles of face and triangles of neck.
(2) Cranial bones (Identification of individual bone with general features), Base of skull : different foramina in relation to cranial nerves, Cranial fossa and their relation to brain and Hypophysis cerebri, , Cervical vertebrae.
(3) Surface anatomy.
(4) Radiological anatomy.

Neuroanatomy
(1) Demonstration of gross specimens of spinal cord, brainstem, cerebellum, cerebrum and meninges, Identification of cranial nerves emerging from brain and brainstem

Histology
(1) Epithelium (Simple, Compound)
(2) Connective tissue (Cartilage & Bone)
(3) Muscle (smooth & skeletal)
(4) Nervous tissue (nerve trunk, spinal cord, cerebellum, cerebrum, dorsal root ganglion, sympathetic ganglion)
(5) Blood vessels (Large & medium sized arteries and vein)

Paper-II
PHYSIOLOGY (11020)

Theory Hours: 180
Practical Hours: 70
Total: 250

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS:

1.1 Theory

General Physiology

1. Introduction and scope of Physiology
2. Cell and tissue-Its structure, principal constituents, properties and functions including cell division.
3. Body Fluid.
   (a) Blood: Composition and general functions of plasma. Blood cells – structure and function - Red Blood cells, white Blood Cells – including numbers and approximate length of life – position, structure and function of cells of Reticulo endothelial system.
   (b) Blood clotting including bleeding time and clotting time, factors accelerating or slowing the process. Blood groups and their significance, Rh-factor, Hemoglobin and E.S.R.
   (c) Formation of Blood, tissue fluid and lymph.
4. Cardio-Vascular System.
   (a) Structure and properties of Heart Muscles and nerve supply of Heart.
   (b) Structure and functions of arteries, capillaries and veins.
   (c) Cardiac cycle and Heart sound.
   (d) Cardiac output measurements, factors affecting Heart Rate and its regulation.
   (e) Cardio-vascular reflexes**.**
   (f) Blood pressure, its regulation, physiological variation, peripheral resistance, Factors Controlling Blood Pressure, Hemorrhage.
   (g) ECG study and stress test.
5. Respiratory System.
   (a) Mechanism of Respiration, Changes in diameter of thorax, Intra-pleural and Intra-pulmonary pressure.
   (b) Quantities of lung volume, tidal and residual volume, vital capacity.
   (c) Gaseous inter-changes in lung and tissues.
   (d) Control of respiration-Nervous and chemical significance of changes in rate and depth, transportation of oxygen and carbon dioxide.

(e) Respiratory states-anoxia, asphyxia, Cyanosis, Acclimatization.

6. Digestive System
   (a) General arrangement of alimentary canal, liver, pancreas -position, structure and functions.
   (b) Nutrition and Diet-carbohydrate, protein, fat, salts, water, vitamins and minerals digestion, absorption and Metabolism.
7. Reproductive System.
   (a) Sex determination and development of puberty, male sex hormones, spermatogenesis, Female sex hormones, menstrual cycle. Ovulation, pregnancy, Function of placenta, lactation.
8. Excretory System.
   (a) Gross and minute structures of kidney, renal circulation, Mechanism of formation of urine, Glomerular filtration rate and tubular function, renal function and renal tests. Physiology of micturition.
9. Endocrine System.
   (a) Structure and function of pituitary (anterior & posterior). Thyroid, Para-thyroid, adrenal cortex, adrenal medulla, Thymus and pancreas.
   (b) Blood sugar regulation.
10. Skin-Structure and functions.

Neuromuscular Physiology

(1) Cell membrane – Ionic and Potential gradient and transport.
(2) Muscle – Types of muscular tissue – Gross and Microscopic structure – function. Basis of muscle contraction – changes in muscle contraction, Electrical – Biphasic and mono-phasic action potentials, chemical, Thermal and physical changes, Isometric and Isotonic contraction.
(3) Motor units and its properties – clonus, tetanus, all or none law, Fatigue.
(4) Nerve – Gross and microscopic structure of nervous tissue, one neuron – Generation of action potential – Nerve impulse condition.
(5) Neuromuscular junction.
(6) Degeneration – Regeneration of peripheral nerves, electro tonus and Pfluger's law.
(7) Types and properties of receptors, types of sensations, synapse, reflex arc, its properties - occlusion, summation, sub minimal fatigue etc.
(8) Tracts – Ascending and descending and extra-pyramidal tracts.
(9) Functions of E.E.G.
(10) Functions of Cerebral cortex, cerebrum, cerebellum, Basal ganglia.
(11) Thalamus – connection and functions.
(12) Reticular formation – tone posture & equilibrium, Autonomic nervous system.
(13) Special Senses Eye-Errors of refraction, equilibrium, Autonomic nervous system.
(14) Speech and its disorders.
(15) Ear and Vestibular apparatus, taste, olfactory, somatic sensations.

1.2 Practical

(a) Hematology: RBC count, WBC count, differential count. ESR, Bleeding & Clotting time, Estimation of hemoglobin, Blood groups.
(b) Human Physiology: Examination of (a) Respiratory system (b) heart and arterial pulse (c) deep and superficial reflexes (d) cranial nerves (e) motor system (f) sensory system including higher function (g) measurement of blood pressure.
(c) Effect of Exercises on body physiology

Paper-III
BIO-CHEMISTRY (11030)

Theory Hours: 100
Total: 100

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. **SYLLABUS:**
   1.1 Theory

(1) Bio-Physics: Concepts of Ph and buffers, Acid-base equilibrium, osmotic pressure and its physiological applications.
(2) Cell: Morphology, Structure and functions of cell, cell membrane, Nucleus, Chromatin, Mitochondria, endoplasmic reticulum, ribosome.
(3) Carbohydrates, Lipids & proteins & Metabolism: Definition, functions, sources, classification & metabolism
(4) Vitamins: Classification, Fat soluble vitamins A,D,E,K Water soluble vitamins-B Complex and Vitamin 'C', Daily requirement physiological functions and disease of vitamin deficiency.
(5) Bio-Energetic: Concept of free energy change, Energetic reaction and endergonic reactions, Concepts regarding energy rich compounds, Respiratory chain and Biological oxidation.
(6) Water Metabolism: Fluid compartments, Daily intake and output, Dehydration, Sodium and potassium Metabolism.
(7) Mineral Metabolism: Iron, Calcium, Phosphorous, Trace elements.
(8) Nutrition: Nutritional aspects of carbohydrate, fat and proteins, Balanced diet, Metabolism in exercise and injury, Diet for chronically ill and terminally ill patients.
(9) Connective Tissue: Mucopolysacharides, Connective tissue proteins, Glyco-proteins, Chemistry and Metabolism of bone and teeth.
(10) Nerve Tissue: Composition, Metabolism, Chemical mediators of nerve activities.
(11) Muscle Tissue: Structure, Metabolism of muscles, Muscle contraction.
(12) Hormones: General Characteristic and Mechanism of Hormone actions.

Paper-IV
FUNDAMENTAL OF OCCUPATIONAL THERAPY-I
(11040)

Theory Hours: 100
Practical Hours: 180
Total: 280

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS

1.1 Theory

(1) Definition and scope of Occupational Therapy.
- (a) History & development of Occupational Therapy.
- (b) Philosophy of Occupational Therapy & Rehabilitation, Rehab team, referral mechanism, need of rehabilitation. Principles of physical medicine.
- (c) Application of Occupational Therapy-Occupational Therapy process.
- (d) Introduction to Models of Occupational Therapy

(3) Theory of Occupation:
- (a) Forms of occupation, occupation as evolutionary trait, Biological dimensions.
- (b) Social dimensions, Psychological dimensions of occupation, Application of theory to Occupational Therapy.

(4) Occupational Therapy practice frame work
- (a) Domain
- (b) Occupations
- (c) Client factors
- (d) Performance skills
- (e) Context and environment
- (f) Process

(5) Principles of Therapeutic Exercise :
- (a) Generalized & specific principles.
- (b) Types of Movements, Muscle contraction used in exercise.
- (c) Exercise classification & application to activity.
- (d) Objective to develop i) Power ii) Endurance iii) Coordination iv) ROM
- (e) Progressive resistive exercise (PRE), Regressive resistive exercise (RRE), brief repetitive isometric exercise (BRIME)
- (f) Breathing Exercise

(4) Therapeutic Modalities:

(a) Purposeful activity & characteristics

(5) Activity Analysis:
- (a) Principles of activity analysis
- (b) Biomechanical & sensory motor
- (c) Adapting & grading activity
- (d) Selection of activity

(6) Principles and methods of Assessment:
- (a) Joint range of motion
- (b) Muscle strength

(7) Definition, classification, variation in testing methods of following:

Muscle Tone:
(a) Definition of tone.
(b) Normal Muscle tone
(c) Abnormal Muscle tone
(d) Muscle tone assessment-
(e) Modified Ashworth Scale

Coordination:
(a) Definition
(b) Characteristics of coordinated movements
(c) Inco-ordination, Cerebellar signs, Extra pyramidal signs\
(d) Assessment of co-ordination

Sensation:
(a) Definition.
(b) Classification of sensations.
(c) Techniques and methods of Sensory evaluation. Specific sensory testing.

Perception:
(a) Definition.
(b) Components and description of each component. Assessment methods

Cognition:
(a) Definition.
(b) Evaluation of cognitive Skills: Attention,
(c) Orientation, Memory (Immediate, Short term and
(d) Long term Memory), problem solving and
(e) Executive functions.

Endurance:
(a) Definition.
(b) Importance of Endurance in performance.
(c) Factors affecting endurance.
(d) Relation to activity tolerance.

2.2 PRACTICALS:
1) Assessment of joint range of motion on normal subject.
2) Assessment of group muscle strength on normal subject.
3) Activities to be analyzed - shoulder wheel, Bicycle fretsaw, eating, inclined sanding, and medicine ball kicking.

4) Evaluation of Sensation, co-ordination, cognition & perception.

Paper-V
FUNDAMENTAL OF OCCUPATIONAL THERAPY-II
(11050)

Theory Hours: 100
Practical Hours: 220
Total: 320

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS:

1.1 Theory

(1) Human Development:
- (a) Theories of development
- (b) Overview of motor, cognitive, psychosocial, language & Play development
- (c) Principal of maturation

(2) Activities of daily living –
- (a) Definition
- (b) Classification
- (c) Evaluation of ADL
- (d) Various scales used in ADL (FIM, Barthel, Katz, Home management checklist)
- (e) Principles & specific techniques in ADL training for:
  - I. Weakness
  - II. Low endurance
  - III. Limited ROM
  - IV. In co-ordination
  - V. Loss of use of one side of body
  - VI. Limited vision
  - VII. Decreased sensation
- (f) Achieving access to home, community & work place.
  - I. Environment modification
  - II. Driver Rehab
- (g) Adaptation:
  - i. Adaptation process
  - ii. Principal of adaptation
  - iii. Introduction to adapted devices
  - iv. Designing of adaptive devices: Explain design and fabrication of common adaptive devices with knowledge of material and equipment used for the same. Briefly explain application of the same in occupational therapy.
- (h) Cultural & socio-economical deviations in ADL

(3) Occupational Therapy as diagnostic & prognostic procedure –
    (a) Definition of evaluation
    (b) Types of evaluation
    (c) Steps involved in evaluation

(4) Preparing for return to work -
    (a) Prevocational capacity evaluation
        i. Work capacity evaluation
        ii. Physical capacity evaluation
        iii. Functional capacity evaluation
        iv. Discharge plan

(5) Crafts: Knowledge of tools, equipment, materials, their therapeutic values & uses.

(6) Hand function & evaluation methods:
    (a) Functional anatomy of hand
    (b) Prehension and grasp patterns.
    (c) Grip & pinch strength.

(7) Introduction to hand splints: Definition, Classification, principles, material used in designing & fabrication.

(8) Recreational Activities: Outline the use of the following recreational activities as a therapeutic medium. Plan the following activities for various patient groups.
    (a) Sports
    (b) Games
    (c) Picnic
    (d) Drama
    (e) Leisure & hobbies
    (f) Music
    (g) Play

2.2 Practical

(1) Design a paper model of following hand splints
    a. Finger Gutter
    b. Resting pan
    c. Long opponence
    d. Short opponence
    e. Radial bar cock-up
    f. Radial nerve splint using extension outrigger

(2) Identify tools & equipments, their parts, uses & therapeutic uses.

Non-University Examination
ENVIRONMENTAL SCIENCE

Theory Hours: 45hrs
Practical 10hrs
Total = 55 hrs

COURSE DESCRIPTION

The course gives an overview of multi-disciplinary nature of environmental studies, natural recourses, and ecosystem. The course also deals with issues of environmental pollution, population and human rights.
Learning Objectives:

At the end of the course, the candidate will be able to:

Cognitive:

a. List down the natural recourses and ecosystem.
b. Define pollution and its impact on the society and various environmental issues.
c. List down the human rights concerned to health, women and child welfare.

Psychomotor

a. Perform community visits and carryout documentation of environmental asset
b. Visit sites of pollution and analyse its impact on society

Affective

In the view of ecosystem, the student should be able to understand and treat all animals without harm and be an effective member of the ecosystem. The student should behave with respect to neighbours and work hand in hand with the society in controlling pollution of any form

SYLLABUS

Unit 1: Multidisciplinary nature of environmental studies

a. Definition, scope and importance
b. Need for public awareness.

Unit 2: Natural Resources

Natural resources and associated problems

a. Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.
b. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
c. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
d. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer- pesticide problems, water logging, salinity, case studies.
e. Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.
f. Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
g. Role of an individual in conservation of natural resources.
h. Equitable use of resources for sustainable lifestyles.

Unit 3: Ecosystems

a. Concept of an ecosystem.
b. Structure and function of an ecosystem.
c. Producers, consumers and decomposers.
d. Energy flow in the ecosystem.
e. Ecological succession.
f. Food chains, food webs and ecological pyramids
g. Introduction, types, characteristic features, structure and function of the following ecosystem: -
    1. Forest ecosystem
    2. Grassland ecosystem
    3. Desert ecosystem
    4. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Unit 4: Biodiversity and its conservation

- Introduction – Definition: genetic, species and ecosystem diversity.
- Bio geographical classification of India
- Value of biodiversity consumptive use, productive use, social, ethical, aesthetic and option values.
- Biodiversity at global, National and local levels.
- India as a mega-diversity nation
- Hot-sports of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts.
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ
- Conservation of biodiversity.

Unit 5: Environmental Pollution

Definition Cause, effects and control measures of:-

- Air pollution
- Water pollution
- Soil pollution
- Marine pollution
- Noise pollution
- Thermal pollution
- Nuclear hazards
- Solid waste Management: Causes, effects and control measures of urban and industrial wastes.

Role of an individual in prevention of pollution.
Pollution case studies
Disaster management: floods, earthquake, cyclone and landslides.

Unit 6: Environment Issues

- From Unsustainable to Sustainable development
- Urban problems related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case Studies
- Environmental ethics: Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies
- Wasteland reclamation.
- Consumerism and waste products.
- Environment Protection Act.

- Air (Prevention and Control of Pollution) Act.
- Water (Prevention and control of Pollution) Act
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation.
- Public awareness

Unit 7: Population and Human rights.

- Population growth, variation among nations.
- Population explosion – Family Welfare Programme VII
- Environment and human health.
- Human Rights.
- Value Education.
- HIV/AIDS.
- Women and Child Welfare
- Role of Information Technology in Environment and human health.
- Case Studies.

Unit 8: Field work

- Visit to a local area to document environmental assets river/ forest/ grassland/ hill/ mountain
- Visit to a local polluted site-Urban/Rural/Industrial/ Agricultural
- Study of common plants, insects, birds.
- Study of simple ecosystems-pond, river, hill slopes, etc.

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Model Paper

This question paper contains 1 printed pages
First BOT
Anat.I
11010

First Year Bachelor of Occupational Therapy
(Main) Examination Month Year

ANATOMY
Paper - I
Time: Three Hours
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Classify joints with the help of suitable examples with special emphasis on synovial variety.	10
Q.2	What are the muscles of scapular regions? Mention their origin, insertion, nerve Supply and action-	10
Q.3	Describe the muscles of anterior abdominal wall with their action	10
Q.4.	Explain the structure of brain stem with their external feature.	10
Q.5	Describe hip joint, explain its type, articular surface and its ligaments.-	10
Q.6	Describe the venous drainage of lower limb with appropriate diagram.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Abdominal Aorta	5
Q.8	Typical Spinal Nerve	5
Q.9	Ossification of bones	5
Q.10	Biceps brachii	5
Q.11	Cerebral hemisphere	5
Q.12	Arch of foot	5
Q.13	Describe types of joint	5
Q.14	function of spleen	5

Model Paper

This question paper contains 1 printed pages

First BOT
Physio.-II
11020

First Year Bachelor of Occupational Therapy
(Main) Examination Month Year

PHYSIOLOGY
Paper- II
Time : Three Hours

Maximum Marks : 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q1. Define excitation contraction coupling. Give sequence of events during its occurrence. Explain molecular basis of muscle contraction. 10
Q2. Describe cardiac cycle and add a short note on cardiac output 10
Q3. Describe mechanism of respiration and briefly explain the lungs volume? 10
Q4. Describe the composition of blood and general functions of blood? 10
Q5. What are the types of synapses? Describe their properties 10
Q6. Describe the actions of glucocorticoids and the mechanism that regulates its secretion 10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7 Cardiac output 5
Q.8 Blood pressure 5
Q.9 Effect of exercise or respiration 5
Q.10 Bile 5
Q.11 Heart Sound 5
Q.12 Micturation 5
Q. 13 Functions of white blood corpuscles 5

Q.14 Spermatogenesis 5

Model Paper

This question paper contains 1 printed page

First BOT **Bio.III**

11030

First Year Bachelor of Occupational Therapy
(Main) Examination Month Year

BIOCHEMISTRY
Paper - III
Time : Three Hours

Maximum Marks : 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Classify vitamins it details. Write about their physiological functions.	10
Q.2	Explain the morphology, structure and functions of cell.	10
Q.3	Discuss the Bio-energetic in details.	10
Q.4	Explain the connective tissue in detail.	10
Q.5	Explain about the minerals in details.	10
Q.6	Discuss the nerve tissue, its composition, metabolism, chemical mediators of nerve activities.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Vitamin-C	5
Q.8	Acid base equilibrium	5
Q.9	Glyco-proteins	5
Q.10	Muscle contractions	5
Q.11	Harmones	5
Q.12	Diet for chronically and terminally ill patients	5

Q.13	Iron Deficiency Anemia	5
Q.14	Inhibitors of ETC	5

Model Paper

This question paper contains 1 printed page

First BOT **F OT-I.**

IV

11040

First Year Bachelor of Occupational Therapy
(Main) Examination Month Year

Fundamental of Occupational Therapy-I
Paper- IV
Time : Three Hours

Maximum Marks : 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q. 1	Write in brief about history and scope of occupational therapy in India.	10
Q. 2	write the principals and methods of assessment of muscle strength.	10
Q. 3	what is activity analysis? Write its principles and selecatio9n of activity.	10
Q. 4	what is coordination. Write down its testing methods.	10
Q. 5	write in detail about theories of occupation.	10
Q. 6	explain about models of occupational therapy in detail.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.	7 Splinting	5
Q.	8 Adaptive devices	5
Q.	9 Muscle tone	5
Q.	10 Equilibrium test of coordination	5

Q. 11 Non-equilibrium test of coordination 5
Q. 12 Perception 5
Q. 13 Progressive resistive exercise (PRE) 5
Q. 14 Objectives to develop endurance 5

Model Paper

This question paper contains 1 printed page

BOT Part-I **F OT-II.**

V

11050

First Year Bachelor of Occupational Therapy
(Main) Examination Month Year

Fundamental of Occupational Therapy-II
Paper - V
Time : Three Hours

Maximum Marks : 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q. 1 Write in detail about the components of occupational therapy evaluation. 10
Q. 2 Explain purposeful activity and explain its application in occupational therapy with examples. 10
Q. 3 Define therapeutic activities and explain its characteristics. 10
Q. 4 Classify therapeutic activities and discuss about finger painting activity. 10
Q. 5 Define activity of daily living and explain about various components of ADL evaluation. 10
Q. 6 Write in detail about vocational activities. 10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q. 7 Activity analysis 5
Q.8 Pre-vocational evaluation 5
Q. 9 ADL 5
Q. 10 Occupational therapy as diagnostic and prognostic procedures 5
Q. 11 Work sample tools 5

Q. 12 Grasp and pinches of hand 5
Q. 13 Principals of adaptation 5
Q. 14 Classification of maturation 5

BOT- II Year

Second Bachelor of Occupational Therapy
(1 Year Duration)

Paper-I

PATHOLOGY & MICRO BIOLOGY (12010)

Theory Hours: 100
Pathology: 50, Microbiology: 50
Total: 100

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

(1) This paper will consist of two sections A and B.
(2) Each section shall be answered in separate Answer Book.
(3) In each section five questions are to be attempted out of 8.

1. SYLLABUS:

1.1 Theory

Section A: Pathology

(1) Aims and objectives of study of pathology.
(2) Brief outline of cell injury, degeneration, necrosis and gangrene.
(3) Inflammation: Definition, vascular and cellular phenomenon, difference between Transudate and exudates, Granuloma.
(4) Circulatory disturbances: Hemorrhage, Embolism, Thrombosis, Infarction, shock, Volkmann's ischemic contracture.
(5) Blood disorder: Anemia, Bleeding disorder.
(6) CVS: Heart and Blood vessels, Coronary heart disease.
(7) Respiratory System: Ch. Bronchitis, Asthma, Bronchiectasis, Emphysema, COPD etc.
(8) Bones and Muscles: Arthritis & Spondyloarthropathy.
(9) PNS and Muscles: Neuropathies, Poliomyelitis & Myopathies.
(10) CNS: Infection, Demyelinating disease, Degenerative disease.
(11) Neoplasia.
(12) Growth and its disorders like hypertrophy, hyperplasia & atrophy.
(13) Autoimmune diseases.
(14) Healing and repair.
(15) Diabetes mellitus and gout.

Section B: Microbiology

(1) Introduction and History of Microbiology
(2) General lectures on Microorganisms (brief).
(3) Sterilization and asepsis.
(4) Infection- Source of infection and Entry and it's Spread
(5) Immunity- Natural and Acquired
(6) Allergy and hypersensitivity.
(7) Outline of common pathogenic bacteria and diseases produced by them.
    (a) Respiratory tract infections.
    (b) Meningitis.

(c) Enteric infections.
(d) Anaerobic infections.
(e) Urinary tract infections.
(f) Leprosy, tuberculosis and miscellaneous infections.
(g) Wound infections.
(h) Sexually transmitted diseases.
(i) Hospital acquired infections.

(8) Virology- virus infections with special mention of Hepatitis.
(9) Poliomyelitis & rabies.

Paper-II
PHARMACOLOGY (12020)

Theory Hours: 100
Total: 100

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. **SYLLABUS**

1.1 Theory

(1) General Pharmacology:-Introduction and definitions, Nature and sources of drugs: Dosage forms of drugs. Routes of drug administration, Pharmacokinetics (Absorption, Bioavailability, Distribution, Metabolism Excretion, First order Zero order Kinetics); Pharmacodynamics (sites and mechanisms of drug action in brief, Adverse drug reactions, Margin of safety of drugs and factors influencing dosage and drug response)

(2) Drugs Affecting ANS: - General Introduction, Drug affecting parasympathetic nervous system, Drug affecting sympathetic nervous systems.

(3) Drugs Affecting Peripheral (Somatic) nervous System:- Skeletal Muscle Relaxants: Local Anesthetics.

(4) Renal and CVS:- Diuretics; Renin-angiotensin system and its inhibitors, Drug treatment of Hypertension, Angina pectoris, Myocardial infarction Heart failure, and hypercholesterolemia.

(5) Anti-inflammatory drugs and related autacoids:- Histamine, Bradykinin, 5-HT and their antagonists; Prostaglandin's and leukotrienes; Nonsteroidal-Antiinflammatory drug, Antirheumatic drugs and drugs used in gout.

(6) Drugs Affecting CNS:- General anesthetics, Anxiolytics and hypnotics; Alcohol, Opioid analgesis Drug dependence and abuse Antiepileptic drugs, Drug therapy for Neurodegenerative disorders.

(7) Endocrines:- Parathyroid hormone, Vitamin D, calcitonin and drugs affecting Calcium balance, Thyroid and antithyroid drugs; Adrenocortical and anabolic steroids, Insulins and Oral Hypoglycaemic agents.

(8) Drugs Affecting Respiratory System:- Drug therapy of bronchial asthma and chronic obstructive pulmonary disease.

(9) Chemotherapy:- Introduction; sulfonamides, Fluoroquinolones, Penicillins, Cephalosporins, Newer B-lactam antibiotic, aminoglycosides, Macrolides and Newer antibiotics, Tetracyclines, Chloramphenicol, Chemotherapy of Tuberculosis and leprosy, antiseptics and disinfectants.

(10) Miscellaneous Topics:- Management of stroke, Toxiocology and heavy metal poisoning, special aspects of paediatric and geriatiric pharmacology; Drug interactions with drugs commonly used by physiotherapists; Hematinics, vitamins and antioxidants.

Paper-III

ERGOTHERAPEUTICS (12030)

Theory Hours: 100
Practical Hours: 160
Total: 260

Theory: 100 Marks (Final exams: 70 Marks, Internal Assessment: 30 marks)

1. SYLLABUS:

1.1 Theory

(1) Industrial Rehabilitation;
- (a) Evaluation and assessment of work process & factor that might bais assessment result
- (b) Occupational injuries of back, upper limb and evaluation and prevention of injuries.
- (c) Return to work
- (d) Job simulation
- (e) Work conditioning and work hardening
- (f) Job site analysis
- (g) On site therapy
- (h) Pre-vocational and vocation assessment
- (i) Employment and types of employment
- (j) Human engineering
- (k) Decision making
- (l) Laws: OSHA
- (m) Work samples: TOWER, WEST, BTE, VALPAR

(2) Overview of Ergonomics:
- (a) Definition
- (b) Principals of ergonomics
- (c) Role of occupational therapy in ergonomics.

(3) Ergonomics of computer.
(4) Ergonomics of home for wheelchair bound patients.
(5) Assistive technology: ADL, Seating and positioning devices, Transfer devices, Visual Aids, communication aids, Mobility aids, pointing and writing aids.
(6) Clinical reasoning
(7) Documentation
(8) Consultation
(9) Counseling

PRACTICALS –

1. Design & fabricate adaptive devices viz. universal cuff, writing device, long handled scrubber, enlarged handle spoon, tap opener.
2. Demonstration of standardized procedure of Hand function test viz. Jebson Taylor, Crawford small part Dexterity test, Purdue Peg board, Complete Minnesota Dexterity Test.
3. Transfers techniques.
4. Orientation file.

Paper-IV
SOCIOLOGY & PSYCHOLOGY (12040)

Theory Hours: 100
Total: 100

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

(1) This paper will consist of two sections viz A and B.
(2) Each section shall be answered in separate Answer Book.
(3) In each section five questions are to be attempted out of 8.

1. SYLLABUS:

1.1 Theory

Section-A-Sociology

(1) Introduction

(a) Definition of Sociology. Sociology as a science, uses of the study of Sociology, application of knowledge of sociology in Occupational Therapy.

(2) Sociology and health

(a) Social factors affecting health status, social consciousness and perception of illness, social consciousness and meaning of illness, decision making in taking treatment. Institutions of health, their role in the improvement of health and the people.

(3) Socialization

(a) Meaning of socialization, influence of social factors on personality, socialization in hospital and socialization in rehabilitation of patients & the introductory anthropology.

(4) Social groups

(a) Concepts of social groups & influence of formal and informal groups on health and sickness, the role of primary groups and secondary groups in the hospital and rehabilitation setting & knowledge of global social issues prevailing health.

(5) Family

(a) Influence of family on human personality, discussion of changes in the functions of a family, influence of family on the individual's rehabilitation.

(6) Social problems of the disabled

(a) Consequences of the following social problems in relation to sickness and disability, remedies to prevent these problems:
   i. Population explosion
   ii. Poverty and unemployment
   iii. Beggary
   iv. Juvenile delinquency
   v. Prostitution

vi. Alcoholism
vii. Problems of women in employment

Section-B-PSYCHOLOGY

General Psychology

(1) Definition of Psychology
  (a) Science of mind, consciousness and behavior
  (b) Scope and branches of Psychology
(2) Methods of Introspection, observation and experimentation.
(3) Concepts of normality and abnormality: Causes of abnormality, Criteria for abnormality. Broad classification of Current model of abnormal behaviour - Medical model, Psychodynamic model, Behaviouristic model & Humanistic model ,and Cognitive model
(4) Hereditary and Environment
  (a) Relative importance of heredity and environment
  (b) Physical characteristics intelligence and personality.
  (c) Nature vs. nurture controversy
(5) Learning- Types of Learning
  (a) Trial and error
  (b) Classical Learning
  (c) Instrumental learning
  (d) Insight for Learning
(6) Memory
  (a) Steps of memory
  (b) Measurement of memory
  (c) Causes of forgetting
  (d) Concept of STM and LTM
(7) Perceptual Process
  (a) Nature
  (b) of perceptual process
  (c) Structural and functional factors in perception
  (d) Illusion and Hallucination
(8) Emotion
  (a) Emotion and feeling
  (b) Physiological changes
  (c) Theories of emotion (James-Lange and Cannon-Bard)
(9) Reaction to loss: Reaction to loss, death and bereavement: shock and disbelief, development of awareness, restitution, and resolution. Stages of acceptance as proposed by Kubler-Ross.
(10) Stress**:** Physiological and psychological changes, relation to health and sickness: Psychosomatics, professional stress, burnout.
(11) Compliance: Nature, factors, contributing to non-compliance, improving compliance.
(12) Motivation
  (a) Motive: need and Drive
  (b) Types of motive: Physiological, Psychological and Social
(13) Intelligence Definition: theory and assessment
(14) Personality: Definition: Types and measurements
(15) Child Psychology
  (a) Concept of child Psychology
    i. Meaning: nature and subject matter of child Psychology

ii. Practical importance of studying child Psychology for rehabilitation professionals

i. Methods of studying child development
   i. Baby Biography
   ii. Case History
   iii. Behavior rating

Applied Psychology

(1) Rehabilitation Psychology:

(a) Interpersonal Relationships, Family & Social relationships, acceptance about the disability – its outcome in relation to different diagnostic categories psychological aspects of multiple handicapped, contribution of psychology in Total Rehab.

Paper-V

BIOMECHANICS & KINESIOLOGY (12050)

Theory Hours: 150

Total: 150

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. Syllabus:

1.1 Theory

(1) Essential Concepts:
- (a) Motion and forces, Axis and planes, Mechanical lever, lever in Human body.
- (b) Force distribution-linear force, resultant force & equilibrium, parallel forces in one plane concurrent force.
- (c) Newton's law – Gravity and its effects on human body
- (d) Forces and moments in action
- (e) Concepts of static equilibrium and dynamic equilibrium
- (f) Composition and resolution of forces
- (g) Friction
- (h) Pulleys

(2) Joint Structure and Functions
- (a) Basic Principles of joint structure and function.
- (b) Tissues present in and around joints including fibrous tissue, bone cartilage, connective tissue, ligaments, tendons etc.
- (c) Classification of joints.

(3) Muscle Structure and Functions
- (n) Mobility and Stability functions of muscle
- (d) Elements of muscle structures and its properties.
- (e) Types of muscle contraction and muscle work.
- (f) Classification of muscles and their functions
- (g) Group action of muscles, coordinated movement.

(4) Kinematics and Kinetics- Concept of following joints:
- (a) Upper Extremity
  - i. Scapulo-shoulder Joint
  - ii. Elbow Joint
  - iii. Wrist Joint & Hand
- (h) Lower Extremity
  - i. Hip & pelvis
  - ii. Knee joint
  - iii. Patello femoral joint
  - iv. Ankle and foot
- (i) Temporomandibular joint

(5) Biomechanics of Vertebral Column:
(6) Biomechanics of Gait:
    (a) Gait cycle, Spatio-temporal parameters of gait, Kinematics and Kinetics of human gait, Determinants of gait, Gait deviations in various orthopedic /neurological conditions
(7) Posture:
    (a) Anatomical aspects of posture, factors affecting posture, Assessment of posture, Types of posture, Postural deviation.

Paper-VI
COMMUNITY MEDICINE (12060)

Theory Hours: 150
Total: 150

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS:

1.1 Theory

(1) Introduction to community health.
(2) General concepts of health diseases, with reference to natural history of disease with propathogenic and pathogenic phases. The role of socio-economic and cultural environment in health and disease. Epidemiology, definition and scope.
(3) Public health administration an overview of the health administration set up at Central and state levels.
(4) The national health programme -highlighting the role of social, economic and cultural factors in the implementation of the national programme.
(5) Health problems of vulnerable groups-pregnant and lactating women, infants and pre-school children, occupational groups.
(6) Occupational Health-definition, scope occupational disease prevention of occupational disease and hazards.
(7) Social security and other measurement for the protection from occupational hazard accident and diseases. Details of compensation acts.
(8) Family planning – objectives of national family planning programmes and family methods. A general idea of advantage and disadvantages of the methods.
(9) Mental health emphasis on community aspects of mental, role of Occupational Therapy in mental health problems such as mental retardation etc.
(10) Communicable disease- an overall view of communicable disease, classification according to principle mode of transmission, role of insect and other factors.
(11) International health agencies.
(12) Community medicine and rehabilitation epidemiology, habitat, nutrition, environment anthropology.
    (a) The philosophy and need of rehabilitation
    (b) Principles of physical medicine
    (c) Basic principles of administration or organization

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Second BOT **Path.&Micro. - I**
12010

Second Year Bachelor of Occupational therapy
(Main) Examination Month Year
PATHOLOGY AND MICROBIOLOGY
Paper - I
Time : Three Hours

Maximum Marks :70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.
Draw diagrams wherever necessary

Use separate answer sheet for each section

SECTION-A
(PATHOLOGY)

LONG ANSWER QUESTIONS (Attempt any Two out of Three)

Q1. Define and classify the inflammation and describe the stages of inflammation 10
Q2. Describe coronary heart disease. 10
Q3. Define poliomyelitis. Describe the different stages. 10

SHORT ANSWER QUESTIONS (Attempt any Three out of five)
Q1. Factors influencing wound healing 5
Q2. Iron-deficiency anemia 5
Q3. Gangrene 5
Q4. Type-I and Type-II hyper sensitivity reaction 5
Q5. Diabetes mellitus 5

SECTION-B

(MICROBIOLOGY)

LONG ANSWER QUESTIONS (Attempt any Two out of Three)

Q1. Define and classify the immunity, briefly explain the innate and acquired immunity? 10

Q2. Describe sterilization with examples? 10

Q3. Describe source of infection, entry and its spread? 10

SHORT ANSWER QUESTIONS (Attempt any Three out of five)

Q1 Laboratory diagnosis of urinary tract infection 5

Q2. Robert Koch 5

Q3. Laboratory diagnosis of HIV 5

Q4. Hospital acquired infection 5

Q5. Difference between the prokaryotic and eukaryotes 5

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Second BOT **Pharma. - II**

12020

Second Year Bachelor of Occupational Therapy
(Main) Examination Month Year

PHARMACOLOGY
Paper - II
Time : Three Hours

Maximum Marks :80

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1 Discuss about the cardiovascular pharmacology in details. 10

Q.2 Discuss about the movement disorder in details. 10

Q.3 Discuss about the chemotherapy in details. 10

Q.4 Discuss about the neuro-pharmacology. 10

Q.5 Discuss about the blood disorders. 10

Q.6 Discuss the autonomic pharmacology. 10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q. 7 Pharmacodynamics 5

Q. 8 Epineptrine 5

Q. 9 Non-epinephrine 5

Q. 10 Antihypertensive 5

Q. 11	Heparin	5
Q. 12	Narcotics	5
Q. 13	Bronchodilators	5
Q. 14	Corticosteroids	5

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Second BOT Ergother. - III
12030

Second Year Bachelor of Occupational Therapy
First Internal Assessment Examination

Ergotherapeutics
Paper - III
Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q. 1 What is ergonomics? Explain the role of ergonomics in O.T.	10
Q. 2 What are the various test used in hand evaluation? Enumerate any two.	10
Q. 3 Explain the hand evaluation in detail.	10
Q. 4 Describe the ergonomic management of home for a wheel chair found patient.	10
Q. 5 Explain the various sensory-motor approaches used in O.T	10
Q. 6 Define functional bracing and its objectives.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q. 7	Bracing	5
Q. 8	Designing and fabrication of common adaptive device	5
Q. 9	Play	5
Q. 10	Role of bracing in fracture	5
Q. 11	Theory of freud	5
Q. 12	bracing device-designing and fabrication	5
Q. 13	SOAP notes	5
Q, 14	Visual Aids	5

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BOT Part-II Soc. & Psyco. IV 12040

Second Year Bachelor of Occupational Therapy
(Main) Examination Month Year
Sociology and Psychology
Paper - IV
Time: Three Hours
Maximum Marks: 80

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.
Draw diagrams wherever necessary
Use separate answer sheet for each section

SECTION-A
(SOCIOLOGY)

LONG ANSWER QUESTIONS (Attempt any Two out of Three)

Q1. Examine the importance of sociology in the field of occupational therapy.	10
Q2. Define health. Discuss institutions of health.	10
Q3. What is family? What are the functions of family?	10

SHORT ANSWER QUESTIONS (Attempt any Three out of five)

Q1. Primary Group	5
Q2. Define Rehabilitation	5
Q3. Causes of Alcoholism	5
Q4. Type of Poverty	5
Q5. Population Explosion	

SECTION-B
(PSYCHOLOGY)

LONG ANSWER QUESTIONS (Attempt any Two out of Three)

Q.1	Define psychology. Explain any five branches of psychology in brief.	10
Q.2	Discuss the need hierarchy theory of Maslow about motivation.	10
Q.3	What is Intelligence? Discuss any three theory of intelligence.	10

SHORT ANSWER QUESTIONS (Attempt any Three out of five)

Q. 1	Interview	5
Q. 2	Observation method	5
Q. 3	Behavioral Model	5
Q. 4	Anxiety	5
Q. 5	Introspection method	

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Second BOT **BIOM. KINES. -V**
12050

Second Year Bachelor of Occupational Therapy
(Main) Examination Month Year

BIOMECHANICS & KINESIOLOGY
Paper - V
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Describe the biomechanics of gait.	10
Q.2	Explain about the gait structure and function in detail.	10
Q.3	Explain the muscles and ligaments of shoulder joint. Discuss its biomechanics.	10
Q.4	explain the biomechanics of elbow joint.	10
Q.5	what is posture? Analyse it with respect to optional alignment of joints in the anterior-posterior and lateral views.	10
Q.6	Describe the general features of hip joint and its function.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q. 7	Active and passive insufficiency	5
Q. 8	Type and plane of motion	5

Q. 9	Diagram of muscle structure	5
Q. 10	Contraction-isometric, eccentric concentric	5
Q. 11	Abnormal gait	5
Q. 12	Scapular humeral rythem	5
Q. 13	Determinants	5
Q. 14	Carrying angle angle with diagram	5

This question paper contains 1 printed page

Second BOT **COMM. MED.VI**
12060

Second Year Bachelor of Occupational Therapy
(Main) Examination Month Year

COMMUNITY MEDICINE
Paper - VI
Time : Three Hours
Maximum Marks : 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Write definition, importance, golden rules of first aid.	10
Q.2	Explain the causes, degree and general treatment of burns.	10
Q.3	Discuss about the respiratory emergences in details.	10
Q.4	Discuss about the hemorrhage, classification, sign and symptoms and its general treatment.	10
Q.5	Discuss about the transportation of the injured patients.	10
Q.6	Discuss about the definition, type, causes and sign and symptoms and general treatment of shock.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q. 7	Types of fracture	5
Q. 8	Treatment of muscle injuries	5
Q. 9	Asphysia	5
Q. 10	Artificial respiration	5
Q. 11	Wound	5
Q. 12	Rabies	5
Q. 13	DOTS Plus	5
Q. 14	Rehabilitation	5

BOT- III Year

Third Bachelor of Occupational Therapy
(1 Year Duration)

Paper-I
CLINICAL ORTHOPAEDICS (13010)

Theory Hours: 100
Practical Hours: 50
Total: 150

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS:

1.1 Theory

(1) Fractures and dislocations of upper limb, lower limb and spine.
(2) Deformities: Common congenital and acquired deformities of foot, knee, hip, shoulder, elbow and wrist including hand and spine. Infective conditions and lesion of joints and bones. Osteomyelitis, tuberculosis, pyogenic infection, T.B. Joints.
(3) Arthritis – Osteoarthritis, Rheumatoid arthritis, cervical and lumbar spondylosis, Ankylosing spondylitis.
(4) Soft tissue involvement – Sprains, strains, Tenosynovitis and contractures.
(5) Operative Procedures, Amputation Common sites, causes & management, Arthroplasty of joints, joint replacement (total and partial), Osteotomy.
(6) Bone and joint tumors- classification, clinical features and management of benign and malignant bone and joint tumors.
(7) Peripheral nerve injuries-their management.
(8) Trauma and trauma care.
(9) Reconstructive surgeries for rehabilitation of Poliomyelitis, Leprosy, crush injuries
(10) Principle of Tendon transfer and its procedure.
(11) Pediatrics musculo-skeletal conditions and management.
(12) Neck and Low back ache, Sciatica, PIVD , brachial neuralgia etc.
(13) Sports injuries and its management.
(14) Radiological examination.

1.2 **Practical**

(1) Case demonstration of various conditions, Exposure to various orthopedics techniques & procedures.

Paper-II

OCCUPATIONAL THERAPY IN ORTHOPAEDICS (13020)

Theory Hours: 100
Practical Hours: 200
Total: 300

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS:

1.1 Theory

(1) Introduction- Brief review of orthopedic conditions.
(2) Application of occupational therapy principles and techniques in evaluation and treatment of the following orthopedic conditions to include:-
    (a) Fracture, dislocations and soft tissue injuries – Upper extremity, lower Extremity and spine.
    (b) Deformities – Congenital and acquired deformities of Upper extremity, lower Extremity and spine.
    (c) Inflammatory condition of joints and bones. – R.A., Ankylosing spondylitis & other major conditions.
    (d) Metabolic diseases – Rickets, Osteomalacia Osteoporosis, gout etc.
    (e) Amputations - Pre & Post operative occupational therapy treatment.
    (f) Degenerative & Infective conditions-Osteoarthritis of major joints, Spondylosis, Spondylolisthesis, PID, periartritis Shoulder, T.B. Spine Bone & Major joints, Perthe's disease , Cumulative Trauma Disorder.
    (g) Supportive and corrective appliances in the rehabilitation of orthopedic cases.
    (h) Adapted devices in the rehabilitation of orthopedic case.
    (i) Activities of daily living, testing and training in A.D.L.
    (j) Poliomyelitis: Post polio residual paralysis and post polio syndromes.
    (k) Cerebral palsy reconstructive surgeries including limb lengthening procedure and orthotic management.
    (l) Total Hip and Knee replacements occupational therapy treatment.
    (m) Pain Management in Occupational Therapy.
(3) Functional bracing : Definition, concept of functional bracing, objectives and scientific basis of functional fracture bracing, importance in healing of fractures,

advantages over conventional bracing, materials used, indications & contraindication of functional bracing.

3.2 Practical

(1) Complete evaluation of orthopaedics case
(2) General Viva
(3) File of case study.

Paper-III
GENERAL MEDICINE INCLUIDING PEDIATRICS (13030)

Theory Hours: 100
Practical Hours: 20
Total: 120

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS

1.1 Theory

General Medicine

(1) Introduction of Medicine.
(2) Diseases of Respiratory System
(3) Physiology, clinical presentation in relation to diseases, chronic obstructive pulmonary disease
    (a) Bronchial asthma
    (b) Pneumonia
    (c) Bronchiectasis
    (d) Pleural effusion & Emphysema thoraces
    (e) Pneumothorax
(4) Diseases of Kidney
    (a) Physiology, clinical presentation in relation to
    (b) ARF
    (c) CRF
(5) Hematological Diseases.
    (a) Anemia
    (b) Physiology, clinical presentation in relation to Hemophilia
(6) Endocrine & Metabolic Diseases.
    (a) Vit. D & Calcium metabolism, Parathyroid gland disorders
(7) Nutritional Diseases
    (a) Physiology, clinical presentation in relation to Obesity
(8) Connective Tissue Diseases
    (a) Physiology, clinical presentation in relation to Rheumatoid arthritis
    (b) Gout & other connective tissue disorders
(9) Infectious Diseases
    (a) Tetanus
    (b) Leprosy
(10) HIV & AIDS

(11) Cardiac Conditions

(a) Basic anatomy of heart, Coronary circulation and development of heart.
(b) Normal cardiac contraction and relaxation: mechanism and diagnosis.
(c) Physiology, clinical presentation in Ischemic heart disease.
(d) Physiology, clinical presentation in Congestive heart failure.
(e) Physiology, clinical presentation in Peripheral Vascular disease & Deep vein thrombosis.

Pediatrics

(1) Describe growth and development of child from birth to 12 year including physical, social, adaptive development.
(2) List the maternal and neonatal factors contributing to high risk pregnancy. The neonate: inherited diseases.
(3) Briefly describe community programmes: International (WHO), national and local for prevention of poliomyelitis, blindness, deafness, mental retardation and hypothyroidism. Outline the immunization schedule for children.
(4) Cerebral palsy: Define and briefly outline etiology of prenatal, per-natal and postnatal causes, briefly mention pathogenesis, types of cerebral palsy (Classification), findings on examination, general examination of C.N.S, Musculoskeletal and respiratory system.
(5) Briefly outline associated defects: Mental retardation, microcephaly, blindness, hearing and speech impairment, squint and convulsions.
(6) Prevention: Appropriate management of high risk pregnancies, prevention of neonatal and postnatal infections, metabolic problems.
(7) Muscular Dystrophy: Outline various forms, modes of inheritance and clinical manifestation, physical finding in relation to disabilities progression of various forms and prognosis. Describe treatment goals in forms which are fatal and which are not fatal.
(8) Spinabifida, meningomyelocele: Outline development, clinical features lower limbs, bladder and bowel control, complications UTI & hydrocephalus.
(9) Still's disease: Classification, pathology in brief, physical findings, course & prognosis. Outline treatment, prevention and correction of deformity.
(10) Acute C.N.S. infections: Classify (Bacterial and viral) and outline the acute illness & Physiology, clinical presentation.
(11) Normal diet of new born and child: List dietary calorie, fat, protein, mineral and vitamin requirement in a normal child and in a child with malnutrition.
(12) Lung infections: Physiology, clinical presentation in relation to bronchiectasis, lung abscess and bronchial asthma, cystic fibrosis
(13) Intensive pediatric care & Physiology, clinical presentation.

Paper-IV
REHABILITATION MEDICINE (13040)

Theory Hours: 100
Practical Hours: 50
Total: 150

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. **SYLLABUS:**

Theory

1. Introduction to Rehabilitation medicine
2. Definition concerned in the phases of disability process, explanation of its aims & principles. Scope of rehabilitation.
3. Definition concerned with the causes of Impairment, Functional limitation and Disability
4. Disability Prevention. Limitation & Rehabilitation.
5. Present Rehabilitation Services
6. Legislations for rehabilitation services for the Disabled and P.W.D. acts & Recent Amendments.
7. Rehabilitation Team & its members, their role.
8. Community & Rehabilitation including C.B.R. Advantages of C.B.R. over I.B.R.
9. Contribution of Social Worker towards rehabilitation
10. Vocational evaluation & Goals for disabled, role of Vocational Counselor.
11. Rural rehabilitation incorporated with Primary Health Centre
12. Principles of Communication & its problems and management.
13. Behavioral problems in the Disabled its principle of management.
14. Architectural barriers possible modifications in relation to different disabled conditions.
15. Achieving functional independence
16. Occupational rehabilitation
17. Concepts in geriatric rehabilitation
18. Disability evaluation
19. Visual disability: Definition and classification, mobility techniques, communication skills, prevention of blindness.
20. Socio-economic Rehabilitation:
    (a) Outline of Social and Vocational Counseling
    (b) Outline the social implications of disability for the individual and for the community

(c) Pre-vocational Evaluation & Role of V.C. Govt. & NGO
(d) Discuss methods and team involvement in pre-vocational evaluation and training.

21. Functional Assessment scales & its clinical uses eg, functional independent measure, Sylvan index, PEDI, Gross Motor Function, VAS, ASIA, BBS, Modified Ashwarth.
22. Ethics
    (a) The implications of and confirmation to the roles of professional conduct
    (b) Legal responsibility for their actions in the professional context and understanding liability and obligations in case of medico legal action
    (c) A wider knowledge of ethics relating to current social and medical policy in the provision of health care
23. Prosthesis and Orthosis
    (a) Definition and Basic Principles
    (b) Designing and Construction of Upper & Lower extremity Orthosis & Spinal Orthosis.
    (c) Prescription and design of footwear & its modification
    (d) Ambulatory Aids & Assistive Devices
    (e) Measurement and P.O.P. cast techniques
    (f) Low cost thermo-labile material for construction of orthosis.
24. Wheelchair:
    (d) Type and modifications of wheelchair
    (e) Wheelchair Mobility
    (f) WHO Guideline
        i. Assessment
        ii. Prescription
        iii. Training

Paper-V
PSYCHIATRY (13050)

Theory Hours: 100
Practical Hours: 20
Total: 120

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. Syllabus:-

1.1 Theory

(1) Introduction, A brief history of psychiatry, with two special references to India and to ancient Indian medicine and its relationship with psychiatry. History taking in psychiatry including mental examination and assessment.
(2) Functional units of mind, Id ego and super ego - Their functions and interactions.
(3) Role of defense mechanisms in normal and abnormal behavior.
(4) Causes of mental disturbances:
  (a) Hereditary factors.
  (b) Embryonic development factors.
  (c) Birth injury.
  (d) Endocrine disease.
  (e) Systemic diseases / accidents.
  (f) Cerebral diseases.
  (g) Emotional factors.
  (h) Stresses related to cultural factors.
(5) Preventive measures: In relation to consanguineous marriages, adequate ante-natal care, obstetric care, mother and child services, psychological services (eg. child guidance, counselling services)
(6) Criteria for classification and definition of psychiatric illness.
(7) Psychological reactions of a patient during admission and treatment: anxiety, shock, denial, suspicion, questioning, loneliness, regression, shame, guilt, rejection, fear, withdrawal, depression, egocentricity, concern about small matters, narrowed interests emotional over reactions, perceptual changes, confusion, disorientation , hallucinations, delusions, illusions, anger, hostility, loss of hope.

(9) Description of the various clinical syndromes including etiology, clinical features, course, treatment, and prognosis.
  (a) Schizophrenic and other Psychotic disorders

(b) Mood disorders
(c) Anxiety disorder including Phobias
(d) Somatoform disorders
(e) Dissociative disorders
(f) Factitious disorders
(g) Eating and sleep disorders
(h) Psychosomatic illness
(i) Personality disorders
(j) Substance related disorders
(k) Sexual dysfunction and gender identity disorders
(l) Organic Brain Syndrome
(m) Psychiatric disorders of childhood
(n) Psychiatric disorders of adolescence
(o) Psychiatric disorders of old age

(10) Legal aspects related to psychiatric patients.
(a) Civil responsibility.
(b) Criminal responsibility.
(c) Testamentary capacity.

(11) Symptoms of mental illness:
(a) Disturbances of consciousness.
(b) Disturbances of reasoning and judgement.
(c) Disturbances of memory.
(d) Disturbances of thought and perception.
(e) Disturbances of volition.
(f) Disturbances of motor behaviour.
(g) Disturbances of speech.
(h) Disturbances of affect.

(12) Methods of treatment:
(a) Individual and group psychotherapy
(b) Physical Methods: ECT and related side effects, Psychosurgery.
(c) Psychopharmacology and related side effects,
(d) Social and rehabilitation.

Paper-VI

OCCUPATIONAL THERAPY IN PSYCHIATRY (13060)

Theory Hours: 100
Practical Hours: 150
Total: 250

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS:

3.1 Theory

1. History of psychiatric occupational therapy.
2. Frames of Reference & treatment techniques of psychiatric conditions :
    (a) Cognitive behavior.
    (b) Behavioural and behavior modification
    (c) Phychoanalytical.
    (d) Occupational behavior and Model of Human Occupation
    (e) Therapeutic use of self.
    (f) Projective techniques.
    (g) Mosey's adaptive skills.
    (h) Cognitive disability
3. List and describe the various attitudes applied by the therapist in different conditions.
4. Analyze activities with reference to psychiatry and psychodynamics of activities.
5. Describe in detail the assessment of a client including specific methods used in the following:
    (a) Observation.
    (b) Interest checklist.
    (c) Interview.
    (d) Personality questionnaire.
    (e) ADL
    (f) Vocational and Pre-vocational
    (g) Social dysfunction rating scales – to learn any one scale
6. Help students to identify their client's psychiatric problems in relation to the practical situations observed in OT. Eg. Restlessness manifesting as decreased concentration and attention.
7. Counseling: Guidelines and practical demonstration.
8. Discuss OT assessment, treatment aims, plan and methods of treatment for the following conditions:

(a) Schizophrenic and other Psychotic disorders
(b) Mood disorders
(c) Anxiety disorder including Phobias
(d) Somatoform disorders
(e) Factitious disorders
(f) Dementia
(g) Conversion and dissociate reaction
(h) Obsessive Compulsive disorder.
(i) Psychotic aspects of AIDS
(j) Learning Disorder.
(k) Autism
(l) Eating and sleep disorders
(m) Psychosomatic illness
(n) Personality disorders
(o) Substance related disorders
(p) Seizure disorders
(q) Organic Brain Syndrome
(r) Mental Retardation
(s) Down syndrome

9. Review psychiatric problems of childhood and apply OT principles and techniques.
10. Outline the types of therapeutic groups and briefly discuss the value of group therapy in psychiatry.
    (a) Group Therapy.
    (b) Arts & activity Therapy.
    (c) Recreational Therapy.
    (d) Attitude Therapy.
    (e) Industrial Therapy.
    (f) Music Therapy.
    (g) Milieu Therapy
11. Explain precautions to be observed by the therapist in a psychiatric unit, with reference to each condition; including handling of tools and materials, grouping and attitude of the therapist.
12. Occupational Therapy as an adjunct to:
    (a) Chemo Therapy
    (b) Insulin Therapy
    (c) E.C.T.
    (d) Psycho Therapy
13. Outline the following psychiatric setups and the role of OT in each.
    (a) Therapeutic community
    (b) Half Way Homes
    (c) Geriatric units.
    (d) Sheltered workshops
    (e) Day care centers.
    (f) Government mental hospitals and psychiatric institutions
    (g) Family therapy units
    (h) Psychiatric rehabilitation

1.2 Practical

(1) Various techniques of Occupational Therapy for the above mentioned condition/diseases shall be demonstrated and practical by the students.

Paper-VII
OCCUPATIONAL THERAPY IN PEDIATRICS (13070)

Theory Hours: 100
Practical Hours: 200
Total: 300

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS:

1.1 Theory

Psychological Aspects

(1) Psychological reactions to disability in childhood and Occupational Therapy role.
(2) Psychological aspects of hospitalization, and Occupational therapy role.

Treatment Approaches

(1) Play Therapy.
(2) Creative activities.

Frames of References

(1) Bobath NDT.
(2) Rood's neuromuscular facilitation.
(3) Ayre's Sensory Integration Approach.
(4) Biomechanical frame of reference
(5) Developmental FOR
(6) Peto's - conductive Education.
(7) PNF

Occupational Therapy Application

(1) Cardio respiratory conditions of childhood.
(2) Cerebral palsy
(3) Visuo- perceptual and Visuo- motor dysfunction
(4) Muscular dystrophy
(5) Erb's palsy
(6) Poliomyelitis
(7) Spina bifida and hydrocephalus.
(8) Arthrogryphsis and other congenital orthopaedic disorders.

(9) Stills disease.
(10) Early intervention for congenital neurological disorders (High risk infants)
(11) Nutritional disorders,
(12) Mental retardation and Down's syndrome.
(13) Congenital Syndromes and Chromosomal abnormalities
(14) Specific learning disabilities
(15) Pervasive Developmental Disorder
(16) Attention Deficit Hyperactivity Disorder
(17) Behaviour disorders.
(18) Visual / auditory loss.
(19) Speech and communication disorders.
(20) Acquired Immuno Deficiency Syndrome.
(21) Seizure disorders
(22) Haemophillia
(23) NICU

Occupational Therapy Intervention for specific areas of dysfunction

(1) Oromotor dysfunction
(2) Pre writing and writing skills
(3) Psychosocial dysfunction
(4) Postural Control

Pediatric Splinting and Adaptive Devices:

(1) Including, seating devices, Adaptations for feeding, Mobility and Ambulatory devices, Indication and use of splint for correction of CDH

2.2 Practical

(1) Complete evaluation of pediatrics case
(2) General viva
(3) File of case study.

This question paper contains 1 printed page

Third BOT **CLIN. ORTHO.- I**

13010

Third Year Bachelor of Occupational Therapy
(Main) Examination Month Year

CLINICAL ORTHOPAEDICS
Paper-I
Time: Three Hours
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	What is rheumatoid arthritis? Discuss its causes, deformities involved and general treatment	10
Q.2	Discuss the cause, pathology, type and general treatment of poliomyelitis	10
Q.3	What are the different causes of low back pain? Discuss the general treatment	10
Q.4	Discuss about the hand injuries in detail.	10
Q.5	Write about the leprosy in details	10
Q.6	Write the difference between fracture and subluxation, write the types of fracture and its general treatment	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Sciatica	5
Q.8	Swan-neck deformity	5
Q.9	Ankylosis Spondylitis	5
Q.10	Cervical spondylosis	5
Q.11	Peri-arthritis	5
Q.12	Amputation	5
Q. 13	Perthes disease	5

Q. 14 Torticollis 5

This question paper contains 2 printed page

Third BOT **OT in Ortho. II**

13020

Third Year Bachelor of Occupational Therapy
(Main) Examination Month Year

Occupational Therapy in Orthopedics
Paper- II
Time: Three Hours
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Write the role of occupational therapy in orthopedic conditions.	10
Q.2	What is role of occupational therapy in Ankyloses spondilities?	10
Q.3	What are the deformities in Rhematoid Arthritis explain?	10
Q.4	Discuss the occupational therapy role in post operative amputation.	10
Q.5	What is Poliomyelitis? Write its cause, pathology and occupational therapy management.	10
Q.6	Discuss the role of occupational therapy in pain management.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Adaptive device used in orthopedic condition	5
Q. 8	Congenital abnormalies	5
Q. 9	Role of occupational therapy in metabolic disease	5
Q. 10	Role of occupational therapy in periarthritis	
Q. 11	Cumulative trauma disorder	5
Q. 12	Rickets	5
Q. 13	Scoliosis	5

Q. 14 Role of occupational therapy in post fracture stiffness 5

This question paper contains 1 printed page

Third BOT **MED. PAED. - III**

13030

Third Year Bachelor of Occupational Therapy
(Main) Examination Month Year

MEDICINE INCLUDING PAEDIATRICS
Paper-III
Time: Three Hours
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Discuss the communicable disease in details	10
Q.2	Describe causes, symptoms and general treatment of bronchitis	10
Q.3	Define hypertension, discuss its clinical feature and goals of therapy.	10
Q.4	Discuss about the auto-immune disease in detail.	10
Q.5	Describe growth and development of a child from birth to 12 years	10
Q.6	What is cerebral palsy? Discuss its etiology, type and pathogenesis	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Muscular dystrophy	
Q. 8	Spina-bifida	5
Q. 9	Flaccid paralysis	5
Q. 10	Myocardial infection	5
Q. 11	Anemia	5
Q. 12	DVT	5
Q. 13	Diabetes	5
Q. 14	Renal failure	5

This question paper contains 1 printed page

Third BOT REH. MED.-IV

13040

Third Year Bachelor of Occupational Therapy
(Main) Examination Month Year

REHABILITATION MEDICINE
Paper-IV
Time: Three Hours
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Discuss the rehabilitation team and its member and their role	10
Q.2	Discuss the geriatric rehabilitation in detail.	10
Q.3	Write about vocational evaluation in details.	10
Q.4	Write about the disability evolution	10
Q.5	Discuss about the functional assessment scales	10
Q.6	Discuss about the principles of communication and its problem and management	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Impairment, functional limitation and disability	5
Q. 8	Assistive Device	5
Q. 9	Ethics	5
Q. 10	Prosthesis and orthosis	5
Q. 11	Visual disability	5
Q. 12	Wheel chair	5
Q. 13	Ambulatory aids	5
Q. 14	Rural rehabilitation	5

This question paper contains 1 printed page

Third BOT **Soci. & Psy.-V**

13050

Third Year Bachelor of Occupational Therapy
(Main) Examination Month year

Psychiatry
Paper-V
Time: Three Hours
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q. 1	Briefly discuss the role of defense mechanism with examples in normal and abnormal behavior.	10
Q. 2	Describe psychological reactions of a patient during admission and treatment.	10
Q. 3	Describe the etiology, clinical features, course, treatment and prognosis of mood disorders.	10
Q. 4	Briefly describe etiology and clinical features of sexual dysfunctions and gender identity disorders	10
Q.5	How occupational therapy is relevant and significant in management of schizophrenia And psychosomatic illness	10
Q. 6	Briefly describe various methods of treatment in psychiatry	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q. 7	Physiatric disorders of childhood	5
Q. 8	Sleep disorders	5
Q. 9	Civil and criminal responsibility	5
Q. 10	Individual and group psychotherapy	5
Q. 11	Types and clinical features and etiology or dissociative disorders	5
Q. 12	Criteria of classification in psychiatry	5

Q. 13	what is id, ego and superego	5
Q. 14	personality disorders	5

This question paper contains 1 printed page

Third BOT **OT in Psych. VI**

13060

Third Year Bachelor of Occupational Therapy
(Main) Examination Month Year

Occupational Therapy in Psychiatry
Paper - VI
Time: Three Hours
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Describe the role of occupational therapy in various psychiatric conditions.	10
Q.2	What are the various frames of reference (OT) used in psychiatric conditions?	10
Q.3	What is psychodynamic? Explain it with examples.	10
Q.4	Discuss the OT role in Schizophrenia.	10
Q.5	What are the mood disorders? Discuss the OT role.	10
Q.6	What is Autism? Define its causes and recent occupational therapy management in brief.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Mental retardation	5
Q. 8	Psychiatric problems of childhood	5
Q. 9	Therapeutic groups	5
Q. 10	Sheltered workshops	5
Q. 11	eating disorder	5
Q. 12	Learning disabilities	5
Q. 13	Personality disorders	5
Q. 14	Organic brain syndrome	5

This question paper contains 1 printed page

Third BOT **OT in Pead. VII**
13070

Third Year Bachelor of Occupational Therapy
(Main) Examination Month year

Occupational Therapy in Pediatrics
Paper - VII
Time: Three Hours
Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Discuss the normal development from birth to five years.	10
Q.2	What is role of OT in NICU?	10
Q.3	Discuss the various Frame of Reference in OT used in pediatric conditions.	10
Q.4	What is cerebral palsy? Discuss its causes, types & OT treatment.	10
Q.5	Discuss the role of OT in pediatric conditions.	10
Q.6	What is Spina Bifida? Describe its type with diagrams & discuss its OT role.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Parvasive developmental disorder	5
Q. 8	Early intervention	5
Q. 9	Role of occupational therapy in oromoter dysfunction	5
Q. 10	Role of occupational therapy in pre-writing and writing skills	5
Q. 11	Postural control	5
Q. 12	Learning disability	5
Q. 13	PNF	5
Q. 14	Still disease	5

BOT- IV Year

Fourth Bachelor of Occupational Therapy
(1 Year Duration)

Paper-I
NEUROLOGY AND NEUROSURGERY (14010)

Theory Hours: 100
Practical Hours: 20
Total: 120

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS

1.1 Theory

Neurology

(1) General principles of neuroanatomy and neurophysiology.
(2) Diagnosis, assessment and principles of management of neurological patient. Cerebral vascular accident
(3) Acute infection of CNS- Pyogenic meningitis and sequelae, TB infection of CNS, polio
(4) Parkinsonism and other extra-pyramidal disorder.
(5) Cerebral palsy
(6) Seizure disorders.
(7) MS & other demyelinating disease
    (a) ALS (Amyotrophic Lateral Sclerosis) and other Motor neuron diseases.
    (b) Diseases of Peripheral Nerves, cranial nerves, Myasthenia Gravis
    (c) Diseases of muscles (Polymyositis, muscular dystrophy)
    (d) Cervical and lumbar Spondylosis and disc prolapse.

Neurosurgery

(1) Head Injury – Causes and mechanism of head injury subdural, epidural and intracranial bleeding, types of neurological, disorders following head injury and their complete management.
(2) Tumors of neurological system management.
(3) Cranial & Spinal cord lesion management including Paraplegia, hemiplegia, quadriplegia management.
(4) Neurogenic bladder-Classification-management.
(5) Pediatric condition-meningocoele, meningomyelocele.
(6) Peripheral nerve lesions, management.
(7) Surgical management of brain disease and CVA.
(8) Neuro-surgical Intensive care

Paper-II

OCCUPATIONAL THERAPY IN NEUROLOGY & NEROSURGERY (14020)

Theory Hours: 100
Practical Hours: 250
Total: 350

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS

1.1 Theory

Neurology:-

A. Frame of references:

(a) Brunnstrom
(b) Motor relearning program
(c) Motor control

B. Conditions:

(1) Acute infection of nervous system-Encephalitis, meningitis, Transverse myelitis, neuro-syphilis, Tabes dorsalis.
(2) Cerebral palsy, hydrocephalus.
(3) Poliomyelitis
(4) Cerebro – vascular accidents.
(5) TBI
(6) Epilepsy.
(7) Common affection of peripheral, spinal & cranial nerves, Myasthenia gravis.
(8) Myopathy & Muscular dystrophies.
(9) Lesion- pyramidal and extra pyramidal, cerebellar systems, cortical lesion, vestibular.
(10) Motor neuron diseases.
(11) Degenerative Neurological conditions, Parkinsonism, syringomyelia, Choreo-athetosis.
(12) Multiple sclerosis.
(13) Peripheral N. injuries & Neuropathies.
(14) Dysphagia
(15) Spinal cord tumours & Spinal Cord Injury

Neurosurgery:

(1) Pre & post operative occupational therapy management of neurosurgery conditions and complications following nerve repairs / nerve grafting.

(2) Pre & post operative occupational Therapy management in head injury, brain tumor, craniotomy.
(3) Management of pain syndrome.

2.2 Practical:

(1) Complete evaluation of neurological & neurosurgical case
(2) General viva
(3) File of case study.

Paper-III

GENERAL SURGERY INCLUDING CTVS AND OBSTETRICS & GYNAECOLOGY (14030)

Theory Hours: 100
Practical Hours: 50
Total: 150

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. **SYLLABUS**

1.2 Theory

General Surgery

(1) Principles of Pre and postoperative management of surgical patients.
(2) Common pre and post operative complications.
(3) Shock - definition, types, clinical features, pathology and management
(4) Haemorrhage- common sites, complication, clinical features and management.
(5) Surgical intensive care.
(6) Description of events frequently accompanying in general anesthesia, blood transfusion and physiological response of the body to surgery.
(7) Abdominal surgery: Incisions, complications and management of various abdominal surgeries.
(8) Wounds and wound infections, Sinuses and ulcers.
(9) Burns: Degrees of burns and, management and reconstructive surgery following burns and complications of Burns.

Cardiothoracic Surgery

(1) Incisions for cardiothoracic surgery – General pre and post operative management of cardio-thoracic surgery – Various surgical procedures for various chest and cardiac conditions/diseases.

Obs and Gyn

(1) Anatomy of pelvic organs- mechanism & physiology of pelvic floor sphincter muscles.
(2) Pregnancy – stage of pregnancy – Labour – stage of Labour – delivery, Menopause effects in emotions and musculo-skeletal system & common gynecological disorders.

Plastic Surgery

(1) Principles of cineplasty, tendon transplant, cosmetic surgery, types of grafts, surgery of hand with emphasis on management of trauma and leprosy.

Paper-IV
OCCUPATIONAL THERAPY IN MEDICAL AND SURGICAL CONDITIONS
(14040)

Theory Hours: 100
Practical Hours: 250
Total: 350

Theory: 100 marks (University examination: 70, Internal Assessment: 30)
Practical: 100 marks (University examination: 70, Internal Assessment: 30)

1. SYLLABUS

1.1 Theory

Occupational Therapy in Medical Conditions

(1) Introduction – Brief review of medical condition and treatment and role of Occupational Therapy in the rehabilitation of patient with various diseases.
(2) Methods of evaluation in Occupational Therapy.
(3) Therapeutic activities techniques & Frame of reference in Occupational Therapy.
(4) Aims and Principal of Occupational Therapy.
(5) Developmental aspects of childhood.
  (a) Physical, emotional intellectual and social development of the child.
  (b) Guide for development testing.
  (c) Average development achievement. (From birth to 10 year age)
  (d) Objective and function of Occupational Therapy in
    i. Arthritic conditions
    ii. Leprosy
    iii. Cerebro-Vascular accidents.
    iv. Cardiac – diseases (congenital and acquired)
    v. Geriatric condition
    vi. Cerebral palsy, minimal cerebral dysfunction – perceptual motor dysfunctions in a brain – damaged child
    vii. HIV
    viii. Pulmonary condition.
    ix. Hemophilia.
(6) Assessment and diagnostic functions of Occupational Therapy.
(7) Home care programme in severely disabled and A.D.L. in adults.

Occupational Therapy in Surgical Conditions

(1) Introduction – Brief review of surgical conditions
(2) Methods of evaluation in Occupational Therapy.
    a) Role of Occupational Therapy
    b) Hand injures – emphasis or rehabilitation of Hand and reconstruction.
    c) Thoracic surgery – Pre and postoperative management in respect of rehabilitation.
    d) Plastic surgery – basic principal and applications.
    e) Radical Mastectomy & Role of Occupational Therapy in Obstetrics & Gynecology
    f) Supportive and corrective application in the rehabilitation of surgical case.
    g) Adaptive devices in the rehabilitation of surgical cases.
    h) Activities of daily living testing and training in A.D.L.
    i) Burns: Define the term "Burns", classify burns depending on various aspect, describe stage of burns explain role of O.T. in burns patients including assessment, describe O.T. treatment in pregraft postgraft & rehab phase.
    j) Cancer rehabilitation: Describe preventive, restorative, supportive and palliative aspects in radical mastectomy and head and neck cancer. Explain the concept of hospice, family systems and the need for treatment of the family as the unit care.
    k) Vascular Condition: Explain peripheral vascular diseases their complications & role of O.T. in their management.

2.2 Practical

(1) Assessment planning and management of occupational therapy in medical and surgical conditions
(2) General viva
(3) File of case study

Paper-V

ADVANCES IN OCCUPATIONAL THERAPY AND REHABILITATION (14050)

Theory Hours: 100
Practical Hours: 30
Total: 130

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

1. **SYLLABUS**

Theory

(1) Ethics in occupational therapy
(2) Quality assurance and quality control
(3) Fiscal management
(4) Service program
(5) Service delivery model
(6) Hospice care.
(7) Occupational therapy in health promotion and wellness programme.
(8) Occupational therapy management in stress.
(9) Occupational therapy role in cardiopulmonary dysfunction.
(10) Adjunctive therapy,
  (a) Biofeedback.
  (b) Physical agent modalities.
  (c) Yoga.
  (d) Virtual reality & environment
  (e) Robotics
  (f) Functional electrical stimulation
(11) Tele Rehabilitation
(12) Role of occupational therapy in sports medicine.
(13) Occupational Therapy in Blind: Describe the role that the senses play in person's life & in the process of rehabilitation, define the term blindness, refute common misconception about blindness, describe the emotional, physical & psychological needs of blind person and explain preventive measures.
(14) Occupational Therapy in deaf, dumb: Explain development of auditory perception, define and classify deafness, Enumerate causes of deafness, types of hearing aids, communication skills, Facilities for the deaf-mute, functional and vocational rehabilitation, explain preventive measures, describe vestibular affections and re-training.
(15) Setting of Rehabilitation centre
(16) Discuss how occupational therapy & theory & sociopolitical climate influence practice.
(17) Evidence Based Practice
(18) Aquatic Therapy
  (a) Properties of water and principles of aquatic therapy. Definition, Goals,

(b) Indications, Precautions & Contraindications of aquatic therapy.
(c) Types of aquatic exercises and clinical application

(19) Kinesio-taping
(a) Introduction, basic functional concepts of Kinesio-taping and description of Kinesio- tape.
(b) Types of tapes and taping. Kinesio-taping application technique, indications, precautions and contraindications of Kinesio- taping technique and its clinical applications.

(20) Myo-fascial Release.
(a) Introduction, concepts, anatomy and physiology of the fascia.
(b) Structural and Physiological effects of Myo-fascial release techniques.
(c) Various techniques of Myo- fascial release and interventions for the treatment of contractures, body posture and balance.

(21) Marketing:
(a) Marketing plan.
(b) Consumer research

(22) Disability Management in Occupational Therapy.

Paper-VI
BIOSTATISTICS & RESEARCH METHODOLOGY (14060)
(Non-University examination)

Theory Hours: 100
Total: 100

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

Course content:

I. Research Methodology:-

1. Stages of research process
2. Scales of measurement
3. Reliability and validity
4. Developing and defining a research question
5. Literature review
6. Data Collection
7. Informed consent
8. Research design:

A. Quantitative (epidemiological)
   a. Experiment (clinical, field, community)
   b. Observational
      i. Cohort
      ii. Case control
      iii. Cross sectional study
      iv. Ecological study

B. Qualitative Research Method (Sociological)

9. Ethical issues
10. Critical Appraisal of a research report

II. Biostatistics

1. Epidemiological measures of disease frequency
2. Graphical determination
3. Probability and Probability distribution (Binominal and normal)
4. Sampling and sampling techniques.
5. Type one and type two errors
6. Confidence interval
7. Tests of significance (for large sample and small sample)
   T Test
   Z Test

Chi square test

8. Non-parametric tests (where to use, sign test and Mann –Whitney U test
9. Correlation and Regression
10. Hypothesis testing
11. Epi info

This question paper contains 1 printed page

Fourth BOT **NEUROL. NEUROS.-I**

14010

Fourth Year Bachelor of Occupational Therapy
Internal Examination Month Year

NEUROLOGY & NEUROSURGERY
Paper-I
Time : Three Hours

Maximum Marks :70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.
Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Discuss the structure and function of brain with diagrams.	10
Q.2	Discuss cerebral palsy and its type. Write about general treatment.	10
Q.3	Discuss the neuro physiology of tone and disorders of tone.	10
Q.4	Explain about peripheral nerve injury discuss its management.	10
Q.5	Explain about syringomyelia. Discuss its management.	10
Q.6	Discuss the type of stroke and its general management.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Visual pathways	5
Q. 8	Cerebellum	5
Q. 9	Tumors	5
Q. 10	Tuberculosis	5
Q. 11	Hydrocephalus	5
Q. 12	Traumatic brain injury	5
Q. 13	Cerebral Palsy	5
Q. 14	Meningocele	5

This question paper contains 1 printed page

Fourth BOT **OT in Neuro & Neur. Surg. Cond. II**
14020

Fourth Year Bachelor of Occupational Therapy
(Main) Examination Month Year

Occupational Therapy in Neurology & Neurosurgery
Paper- II
Time: Three Hours

Maximum Marks: 80

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.
Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Write the role of occupational therapy in neurological conditions.	10
Q.2	Discuss cerebral palsy. What art he types of CP and discuss the OT role in it.	10
Q.3	What is Poliomyelitis? Describe its deformities and discuss the OT role in it.	10
Q.4	What is a cerebro-vascular accident? Discuss the cause, type & OT role in it.	10
Q.5	What is Myasthenia Grayis? Describe its various symptoms and its OT management.	10
Q.6	Discuss the OT role in Parkinsonism.	10

Short answer question (Attempt any **Seven** Questions out of **EIGHT**)

Q.7	Multiple sclerosis	5
Q. 8	Role of occupational therapy in neurological conditions	5
Q. 9	Role of occupational therapy in nerve repair	5
Q. 10	Traumatic brain injury	5
Q. 11	Pain syndrome	5
Q. 12	Peripheral nerve injuries	5
Q. 13	Multiple sclerosis	5
Q. 14	Role of occupational therapy in never repair	5

This question paper contains 1 printed page

Fourth BOT **SURG. CTVS. OBGY.-III**

14030

Fourth Year Bachelor of Occupational Therapy
(Main) Examination Month Year

SURGERY INCLUDING CTVS & OBST. & GYNAE.
Paper-III
Time : Three Hours

Maximum Marks :70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.
Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Discuss the principles of pre and post operative management of surgical patients.	10
Q.2	Define shock. Discuss its types, clinical feature, pathology and its management.	10
Q.3	Discuss about the common sites, complication, clinical feature and management of hemorrhage.	10
Q.4	Discuss about the cardiothoracic surgery in detail.	10
Q.5	Write about the stage of pregnancy in detail. Explain the menopause effects on emotions and on musculo-skeletal system.	10
Q.6	Explain about the plastic surgery in details.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Massive Blood Transfusion	5
Q. 8	Burns	5
Q. 9	Wound	5
Q.10	Surgical intensive care	5
Q. 11	Common gynecological disorders	5
Q. 12	Artificial Blood	5
Q. 13	Fresh Frozen Plasma	5
Q. 14	Tissue Expanders	5

This question paper contains 1 printed page

Fourth BOT **OT in Med. & Surg. Cond.IV**
14040

Fourth Year Bachelor of Occupational Therapy
(Main) Examination Month Year

Occupational Therapy in Medical & Surgical Conditions
Paper-IV
Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.
Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Discuss the OT role in Medical and Surgical conditions.	10
Q.2	What is rheumatoid arthritis? Describe its deformities and discuss the OT management.	10
Q.3	Discuss the OT role in geriatrics.	10
Q.4	Discuss the OT management in pulmonary conditions.	10
Q.5	What is cerebral vascular accidents? Draw diagram of circle of Willis. Describe the OT role in it.1	10
Q.6	Discuss the OT role in HIV conditions.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Myocardial infection	5
Q. 8	Role of occupational therapy in plastic surgery	5
Q. 9	Development milestones	5
Q. 10	Amputation	5
Q. 11	Role of occupational therapy in oncology	5
Q. 12	Traumatic brain injury	5
Q. 13	HIV	5
Q. 14	ADL and assessment tools	5

This question paper contains 1 printed page

Fourth BOT **Adv. OT & Reh. Med.V**

14050

Fourth Year Bachelor of Occupational Therapy
(Main) Examination Month Year

Advances in Occupational Therapy and Rehabilitation Medicine
Paper-V
Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book
All the parts of one question should be answered at one place.
Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any **FOUR** Questions out of **SIX**)

Q.1	Define ethics & write ethics of WFOT in detail.	10
Q.2	What is assistive technology? Give the classification with examples.	10
Q.3	Define documentation and its role in OT	10
Q.4	What is quality assurance? Discuss in brief.	10
Q.5	Discuss the occupational therapy role in hospice management.	10
Q.6	Discuss the role of occupational therapy in cardiopulmonary dysfunction.	10

Short answer question (Attempt any **SIX** Questions out of **EIGHT**)

Q.7	Stress	5
Q. 8	Health promotion	5
Q. 9	Industrial rehabilitation	5
Q. 10	Fiscal management	5
Q. 11	Role of occupational therapy in sports medicine	5
Q. 12	Role of occupational therapy for blind and deaf peoples	5
Q. 13	Robotics	5
Q. 14	Hospice care	5

Elective Paper- Non – University Examination

DISASTER MANAGEMENT

Theory Hours: 45hrs
Practical 15hrs
Total =60 hrs

COURSE DESCRIPTION

The course gives an overview of issues related to disaster management including a history of the field, comprehensive emergency management and integrated emergency management, risk reduction and management and current issues in the field.

OBJECTIVES:

At the end of the course, the candidate will be able to:

Cognitive:

a. Defining disaster and the brief history of disasters and its classification
b. Understanding the various approaches to disaster risk reduction and disaster management skills.
c. Comprehending the relationship between disaster and development

Psychomotor

a. To be able to present various disaster and relate it to development and analyse the same.
b. Field work on minimizing the disaster and building the culture of safety.
c. Performing project work, which is creatively designed based on the geographical location and hazard profile of the region where the college is located.

Affective

In the view of disaster, the student should be able to understand and volunteer towards the needs of the society based on the requirements.

The course gives an overview of issues related to disaster management including a history of the field, comprehensive emergency management and integrated emergency management, risk reduction and management and current issues in the field.

SYLLABUS

Introduction to Disasters

a. Concepts, and definitions (Disaster, Hazard, Vulnerability, Resilience, Risks)
b. Disasters
c. Classification Causes, Impacts (including social, economic, political, environmental, health, psychosocial, etc.)
d. Differential impacts- in terms of caste, class, gender, age, location, disability Global trends in disasters. urban disasters, pandemics, complex emergencies, Climate Change

Approaches to Disaster Risk reduction

a. Disaster cycle - its analysis, Phases, Culture of safety, prevention, mitigation and preparedness community based DRR, Structural- non structural ensures, roles and responsibilities of- community, Panchayati Raj Institutions/Urban Local Bodies (PRIs/ULBs), states, Centre, and other stake- holders.

Inter-relationship between Disasters and Development

a. Factors affecting Vulnerabilities, differential impacts, impact of Development projects such as dams, embankments, changes in Land-use etc. Climate Change Adaptation. Relevance of indigenous knowledge, appropriate technology and local resources

Disaster Risk Management in India

a. Hazard and Vulnerability profile of India Components of Disaster Relief: Water, Food, Sanitation, Shelter, Health, Waste Management institutional Arrangements (Mitigation, Response and Preparedness, DM Act and Policy, Other related policies, plans, programmes and legislation).

Project Work: (Field Work, Case Studies)

a. The project /fieldwork is meant for students to understand vulnerabilities and to work on reducing disaster risks and to build a culture of safety. Projects must be conceived creatively based on the geographic location and hazard profile of the region where the college is located

Suggested Reading list:

- Alexander David, Introduction in 'Confronting Catastrophe', Oxford University Press, 2000
- Andharia J. Vulnerability in Disaster Discourse, JTCDM, Tata Institute of Social Sciences Working Paper no. 8, 2008
- Blaikie, P, Cannon T, Davis I, Wisner B 1997. At Risk Natural Hazards, Peoples' Vulnerability and Disasters, Routledge.
- Coppola P Damon, 2007. Introduction to International Disaster Management,
- Carter, Nick 1991. Disaster Management: A Disaster Manager's Handbook.Asian Development Bank, Manila Philippines.
- Cuny, F. 1983. Development and Disasters, Oxford University Press.
- Document on World Summit on Sustainable Development 2002.Govt. of India: Disaster Management Act 2005, Government of India, NewDelhi.
- Government of India, 2009. National Disaster Management Policy,
- Gupta Anil K, Sreeja S. Nair. 2011 Environmental Knowledge for Disaster Risk Management, NIDM, New Delhi Indian Journal of Social Work 2002. Special Issue on Psychosocial Aspects of Disasters, Volume 63, Issue 2, April.
- Kapur, Anu& others, 2005: Disasters in India Studies of grim reality, Rawat Publishers, Jaipur KapurAnu 2010: Vulnerable India: A Geographical Study of Disasters, IIAS and Sage Publishers, New Delhi.
- Parasuraman S, AcharyaNiru 2000. Analysing forms of vulnerability in a disaster, The Indian Journal of Social Work, vol 61, issue 4, October
- Prof. tanki B. Andharia Dr. Anil Kumar Gupta Dr Thurya Prakash Pelting Mark, 2003 The Vulnerability of Cities: Natural Disaster and Social Resilience Earthscah publishers, London
- Reducing risk of disasters in our communities, Disaster theory, Tearfund, 2006.
- UNISDR, Natural Disasters and Sustainable Development: Understanding the links between Development, Environment and Natural Disasters, Background Paper No. 5. 2002. IFRC, 2005. World Disaster Report: Focus on Information in Disaster, pp.182-225.
- Publications of National Institute of Disaster Management (NIDM) and
- National Disaster Management Authority (NDMA)

INFORMATION AND COMMUNICATION TECHNOLOGY IN HEALTH EDUCATION

Theory Hours: 45hrs
Practical 15hrs
Total =60 hrs

Learning objectives

Upon successful completion of this subject, students should

1. To obtain the basic knowledge on computer, devices used in computers.
2. To know the uses of computers like MS office, Power point Presentations, Excel documents.
3. To know about uses of internet, its advantages in regular updating the knowledge in Occupational therapy profession.

SYLLABUS

Introduction

1. Introduction to computers-History of Computer, Generation of Computer, Classification of Computers, Input Devices, Output Devices, Central Processing Unit, Components of CPU, Memory Unit, Peripheral Devices
2. Introduction to M.S. Windows
3. Internet and its applications
4. MGUMST web forum & portal
5. Google Applications
6. Introduction to M.S. Office - Word, Power Point, Excel,
7. Publisher

The Digital Age

Computer and communications, the five operations of a computer-and communication system- input, processing, output, storage and communications as well as the corresponding categories of hardware, five major categories of computers, development I communication Technology.

Applications Software

Applications and systems software, ethics of copying software, four types of applications software, entertainment education and reference, productivity and business and specialized, key functions of word processors, spreadsheets, database managers, graphics programs and suites, group-ware, and internet web browsers.

Storage Devices
Units of storage capacity, primary and secondary storage, data compression, data storage on diskette, hard disks, optical disks, and magnetic tape and describe the purposes of storage media.

Communications
Usage of communications technology, telephone-related services, online information services, the internet

Multimedia
What is multimedia – Multimedia PC– Multimedia Hardware - Central processor – color display, Multimedia accessories – CD ROM – Digital Audio – Audio speakers
– Digital video– MIDI – deodisc Read/write storage device- Multimedia software

Radio propagation:

Use of computers in physical therapy – Application Packages used in statistical analysis.

Recommended books

1. Free T. Hotstetter, ―Multimedia Literacy‖ M<egraw Hill,
2. Simon J. Gibbs, Dinoysios C. Tsichritziz, ―Multimedia programming‖, Addison Wesley
3. John F.Koefgel Buford, ―Multimedia Systems‖, Addison Wesley
4. John Vince, ―Virtual Reality Systems‖ Addison Wesley.
5. AndressF.Molisch, ―Wideband Wireless digital communication‖ Pear Education Asia

CLINICAL NUTRITION

Theory Hours: 45hrs
Practical 10hrs
Total = 55 hrs

COURSE OBJECTIVE:

The objective of this course is that after 30 hours of L, D, P the student shall be able to understand the basic knowledge about Diet, balanced diet, metabolism, malnutrition, under nutrition, over nutrition, deficiency disease.

COURSE OUTCOME:

1. Become familiar about the nutritive values of food.
2. Explain about the food sources from which we obtain vitamins.
3. Become familiar with various compositions of food.
4. Well versed with digestion at each stages of digestive system.
5. Become familiar with different cooking methodologies.
6. Know and explain about food preparations by food manufacturer.
7. Explain thoroughly about the advantages and disadvantages of various convenience foods.

UNIT ISOURCES OF FOOD

1. Nutritive value of foods,
2. Food Sources from which key vitamins are derived

UNIT II DIGESTIVE SYSTEM

1. Digestion and absorption –Digestion at each stage of the digestive system
2. Dietary guidelines- Factors affecting food requirements. Planning and serving of family meals. Meals for all ages and occupations.

UNIT III COMPOSITION OF FOOD

Composition and value of the main foods in the diet - Milk, meat, fish, cheese, eggs, margarine and butter cereals (wheat, rice, maize, millets, oats) fruits and vegetables

UNIT IV PROCESSING OF FOOD

1. Cooking of food -Transfer of heat by conduction, convection and radiation.

2. Principles involved in the different methods of cooking – boiling, stewing, grilling, baking, roasting, frying, steaming, pressure cooking, cooking in a microwave oven.

FOOD PREPARATION

1. Convenience foods- Foods partly or totally prepared by a food manufacturer – dehydrated, tinned, frozen, ready to eat. Intelligent use of these foods.
2. Advantages and disadvantages

Text Book:

1. Agarwal, Textbook of human nutrition, JP, 1 Ed, 2014

Reference:

1. Kenneth F. Kiple, KriemhildConeè Ornelas, The Cambridge world history of food, Cambridge University Press,Ist ed,2000

YOGA

Theory Hours: 45hrs
Practical 15hrs
Total =60 hrs

COURSE OBJECTIVE:

The objective of this course is that after 30 hours of lectures & demonstrations, the student will be able to understand the basic concepts about Asanas and its effects, therapeutics effects of Yoga

COURSE OUTCOME:

1. Demonstrate the introduction and principles of yoga.
2. Knowledge of history of yoga and yoga in modern India.
3. Outline of yoga background and importance of yoga in modern world.
4. Learning the types and forms of Asanas and description of physiological effect of yoga.
5. Understanding the role of yoga in Occupational Therapy

UNIT I Introduction to Yoga

1. Introduction to Yoga
2. Principles of Yoga

UNIT II Patanjali

1. History of Yoga
2. Yoga in Ancient and Modern India

UNIT III Folds of Yoga

1. Types & Forms of Yoga
2. Asanas & its physiological effects

UNIT IV Yogic Science

1. Scientific background of Yoga
2. Yoga in modern world

UNIT V Advantages of Yoga

1. Physiological Effects of Yoga
2. Therapeutic Uses of Yoga

Textbook:

1. BKS Iyengar, Light of Yoga, JP, 1st Ed, 2012.

Reference:

1. PayalGidwaniTiwari, Body Gaurders, CBS, 2nd Ed, 2009

EFFECTIVE ENGLISH

Theory Hours: 60 hrs
Total =60 hrs

Course Objective:

The objectives of this course is that after 40 hours of lectures, demonstrations and practicals the student will be able to Speak fluently, intelligibly and appropriately to teachers, Colleagues, Doctors, Patients and friends at the college, Hospital and hostel etc. about academic or (occupational) areas of interest. Course Outcome:

1. Students can gain knowledge about the various traditions writer and followed in English
2. Individuals can gain self – confidence in their own voice and speak out their opinions with confidence
3. Students will gain the ability to become a accomplished active readers
4. Helps to build the knowledge and understanding simultaneously through listening and give their point of view
5. Students will be able to write effectively in variety of professional and social setting
6. Acquire the ability to read and understand the literature and have the ability to identify the topics and formulate questions
7. Good communication skills which helps in easy rapport between the patient and therapist
8. Gain the fluency in speaking which helps in easy teaching method and presentation

UNIT – I INTRODUCTION

1. History of the language
2. Regional distribution
3. Variation in dialect and accent

UNIT – II PHONOLOGY

1. Consonants and vowels
2. Phontactics
3. Stress, rhythm and intonation
4. Regional variation

UNIT – III GRAMMER

1. Noun, Pronoun
2. Verb, Tense
3. Adjuncts
4. Adjectives

UNIT – IV SYNTAX

1. Clause syntax
2. Auxillary verbs
3. Vocabulary
4. Word formation
5. Pronounciation

UNIT – V PRESENTATION

1. Oral presentation & Panel discussion
2. Interview preparation
3. Clarity and specificity

Text Book:

1. O' Connor, I.D., Better English Pronunciation - Cambridge, Cambridge University.2009

Reference:

1. Water F.V.A , Proficiency Course in English – Hodder and Stronghton, London.1994
2. Tone Daniel, I.M. , English Pronouncing Dictionary –Dent and sons Ltd. London.2004

HEALTH CARE

Theory Hours: 50hrs
Total = 50 hrs

Introduction to Health

1. Definition of Health, Determinants of Health, Health Indicators of India, Health Team Concept.
2. National Health Policy
3. National Health Programmes (Briefly Objectives and scope) Population of India and Family welfare programme in India

Introduction to Nursing

1. What is Nursing? Nursing principles. Inter-Personnel relationships. Bandaging: Basic turns; Bandaging extremities; Triangular Bandages and their application.
2. Nursing Position, Bed making, prone, lateral, dorsal, dorsal re-cumbent, Fowler's positions, comfort measures, Aids and rest and sleep.
3. Lifting and Transporting Patients: Lifting patients up in the bed. Transferring from bed to wheel chair. Transferring from bed to stretcher.
4. Bed Side Management: Giving and taking Bed pan, Urinal: Observation of stools, urine. Observation of sputum, understand use and care of catheters, enema giving.
5. Methods of Giving Nourishment: Feeding, Tube feeding, drips, transfusion Care of Rubber Goods
6. Recording of body temperature, respiration and pulse, Simple aseptic technique, sterilization and disinfection. Surgical Dressing: Observation of dressing procedures

First Aid:

1. Syllabus as for Certificate Course of Red Cross Society of St. John's Ambulance Brigade.

Reference Books:

1. Preventive and Social Medicine by J.Park
2. Text Book of P & SM by Park and Park
3. Counseling& Communicate skills for medical and health, Bayne- Orient Longman Pvt. Ltd.

Constitution of Indian

Theory Hours: 40hrs
Total = 40 hrs

Unit-I: Meaning of the term 'Constitution'. Making of the Indian Constitution 1946- 1950.

Unit-II: The democratic institutions created by the constitution Bicameral system of Legislature at the Centre and in the States.

Unit-III: Fundamental Rights and Duties their content and significance.

Unit – IV: Directive Principles of States Policies the need to balance Fundamental Rights with Directive Principles.

Unit – V: Special Rights created in the Constitution for: Dalits, Backwards, Women and Children and the Religious and Linguistic Minorities.

Unit-VI: Doctrine of Separation of Powers legislative, Executive and Judicial and their functioning in India.

Unit – VII: The Election Commission and State Public Service commissions.

Unit – VIII: Method of amending the Constitution.

Unit – IX: Enforcing rights through Writs:

Unit – X: Constitution and Sustainable Development in India.

Reference Books:

1. J. C. Johari: The Constitution of India- A Politico-Legal Study-Sterling Publication, Pvt. Ltd. New Delhi.
2. J. N. Pandey: Constitution Law of India, Allahbad, Central Law Agency, 1998.
3. Granville Austin: The Indian Constitution – Corner Stone of a Nation-Oxford, New Delhi, 2000.

PROJECT WORK

1) Every candidate is required to carry out work on a selected research project under the guidance of a teacher. The results of such a work shall be submitted in the form of project work 15 days before completion of the internship.

2) The project should includes identification of a problem, formulation of a hypothesis and review of literature getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, and comparison of results and drawing conclusions.

3) Every candidate shall submit to the Principal in the prescribed Performa

4) The guide will be only a facilitator, advisor of the concept and held responsible in correctly directing the candidate in the methodology and not responsible for the outcome and results.

5) The project should be written under the following headings:

   a) Introduction
   b) Review of literature
   c) Aims or objectives
   d) Material and methods
   e) Results
   f) Discussion
   g) Conclusion
   h) References
   i) Appendices

6) The written text of project shall not be less than 50 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and spiral bound properly. The guide shall certify the project.

7) Two copies of project thus prepared shall be signed by the guide and then submitted to the Principal, 15 days before the end of the internship.

CLINICAL PRACTICE
(INSTRUCTION HOURS: 2510)

1ST YEAR CLINICAL POSTING: 560 Hours

OBJECTIVES:

The student will be able to fulfil the following objectives.

1. The students will be oriented to the various departments & wards of the Hospital.
2. In Occupational Therapy, orientation to departments, equipments and assessment techniques.
3. Identify media used by therapists during treatment.
4. Analysis of Activity.
5. Muscle testing and Goniometry

6. Surface Anatomy.
7. Splints

II YEAR CLINICAL POSTING: 560 hours
OBJECTIVES:

1. The student will be posted on rotation in the inpatient and out patient sections of Orthopedics, Psychiatry and Pediatrics Unit.
2. The student will learn the technique of taking detailed history through interview; obtain details of investigations & medical treatment from case records.
3. To observe evaluation of performance components relevant to client's diagnosis i.e tone R.O.M, muscle power, voluntary control, sensation, coordination, DTR, superficial reflexes, TCD, cranial nerve testing.

III YEAR CLINICAL POSTING: 690 Hours
OBJECTIVE:
Students will be able to fulfill the following objective:

1. The student will be posted on rotation in the inpatient and out patient sections of Orthopedics, Psychiatry, Pediatrics Units and NICU.
2. Be proficient in history taking.
3. Learn occupational therapy assessment skills such as observation, palpation, clinical testing & examination.
4. They will learn to do mental status examination, assess relevant performance components & detailed functional assessment.
5. The students will learn to identify patient's problems to be addressed by occupational therapy.
6. The students will learn to prioritize short term & long term goals for the patient.
7. The students will learn to choose and apply treatment approaches and implement Occupational therapy intervention with supervision.
8. The students will have a hands on practice on wheelchair & crutch transfers, one handed techniques and mat activities.
9. The students will learn to plan for prescribing splints, adaptive & assistive devices.

IV YEAR CLINICAL POSTING: 700 Hours
OBJECTIVES:

1. The student will be posted on rotation in Clinical Cardio Respiratory, Neurology & Neurosurgery, Plastic Surgery, Burns & Hand Therapy, Obs & gynae, Physiotherapy units, ICU, Community Based Rehabilitation; Geriatrics.
2. Student should be able to do specialized assessments on specific performance components.
3. Demonstrate competency in assessment, clinical reasoning & treatment planning.
4. The student should be able to conduct groups in Occupational Therapy.
5. Take responsibility for at least one administrative or organizational duty in the treatment area eg. Care of equipment / materials, billing & record maintenance.
6. Students will learn to conduct a job site and job analysis of workers in industrial setups (organize one industrial visit).
7. In CBR student will learn to conduct survey, identify disability, plan home based therapy and low cost aids and adaptations.

INTERNSHIP TRAINING

A student after having successfully completed the final year BOT University Examination is qualified to commence the compulsory rotatory internship. Completion of Internship is mandatory to enable a student to obtain the degree of Bachelor of Occupational Therapy.

Aims:

The Internship program is designed to facilitate the transition from student- hood to becoming a competent professional. It is meant to instil in the students clinical practice skills which would encompass the following qualities.

1. Time management and Punctuality.
2. Work behaviors, roles & routines.
3. Communication and interaction skills with patients, colleagues, supervisors & other professionals of multi disciplinary team.
4. Plan & cooperate with other members of the treatment team for achieving objectives of treatment.
5. Take responsibility for at least one administrative or organizational duty in the treatment area e.g. care of equipment, therapy sessions & patient care.
6. Ability to write concise, relevant evaluation and progress notes on patients treated in consultation with therapist.
7. Ability to present their patients to the treatment team at clinical rounds conferences etc, - clearly demonstrating progress made and present treatment objectives.
8. One education visit in different occupational therapy college & Rehabilitation set up.

Duration & Description:

The internship program is of the six months duration. A student doing internship has to work under supervision of experienced staff in the following areas.

1. Pediatrics - One month
2. Orthopedics and Hand, Burns & Plastic surgery - One month
3. Community based Rehabilitation - One month
4. Neurology & Neurosurgery - One month
5. Psychiatry - One month
6. Physical Medicine & Rehabilitation - One month

(Rheumatology, Cardio Respiratory and Prosthetic & Orthotics unit)

All the above mentioned postings and durations are compulsory