

**VINAYAKA MISSION'S KIRUPANANDA VARIYAR  
MEDICAL COLLEGE & HOSPITALS,  
SALEM - 636308.**

**Constituent Unit of Vinayaka Mission's Research Foundation  
(Deemed to be University)**



**Academic Calendar 2021 - 2022**

**Phase III – Part II  
(Final MBBS Part II)**

**Syllabus & Curriculum**

**Website : [www.vmkvmc.edu.in](http://www.vmkvmc.edu.in)**

## **HISTORY OF THE COLLEGE**

Vinayaka Mission's Kirupananda Variyar Medical College is located in Salem, Tamilnadu and strives for achieving academic excellence. It was started in the year 1995-96, and was affiliated to the Tamilnadu Dr. MGR Medical University. In 2005-06 it became a constituent unit of Vinayaka Mission's Research Foundation (Deemed to be University) (VMRF-DU), Salem, Tamilnadu. Eligible students are admitted by counseling after NEET examination.

The Institution has a limpid vision of providing service to the humanity at large, by making available, the best form of health care possible in the world to the local community.

## **FACILITIES**

The unitary campus houses a teaching hospital and hostels with adequate space for future expansion.

**INFRASTRUCTURE :** The infrastructure is adequate and is designed to create a learning atmosphere. All the departments specified under the MCI are available as per norms. They are spacious and well furnished. Information Communication Technology (ICT) enabled air-conditioned lecture halls with the necessary equipments and latest teaching aids are available. The pre and para-clinical departments have updated laboratories which periodically undertake Internal and External Quality Assurance evaluations.

The campus houses separate blocks for the college, hospitals and hostels. College blocks accommodate pre & para-clinical departments with Gallery type A/C lecture halls with audiovisual aids like LCD, OHP, etc., and well equipped labs, seminar halls & demonstration rooms in each department.

### **PRECLINICAL DEPARTMENTS**

Anatomy  
Physiology  
Biochemistry

### **PARA-CLINICAL DEPARTMENTS**

Pathology  
Microbiology  
Pharmacology  
Forensic Medicine  
Community Medicine

## **HOSPITAL**

The 650 bedded hospital with world class facilities with all innovative and sophisticated state-of-the-art equipment and technology is available. Highly qualified and experienced health personnel manage the hospital.

The student is tuned to gain indepth knowledge in medical subjects through the use of appropriate and innovative participatory teaching techniques using the latest tools and inputs.

## **CLINICAL DEPARTMENTS**

General Surgery	General Medicine
Orthopaedics	Paediatrics
Ophthalmology	Chest & TB
ENT	Skin & STD
Obstetrics & Gynaecology	Psychiatry
Anaesthesia	Radiology
Community Medicine	Emergency Medicine

## **SUPER-SPECIALTY DEPARTMENTS**

Cardiothoracic Surgery	Cardiology
Neurosurgery	Neurology
Surgical Oncology	Urology
Paediatric Surgery	Nephrology
Plastic Surgery	Neonatology
	Oncology

## **OTHER FACILITIES**

- A/C auditorium with a seating capacity of 750
- Separate common rooms for boys & girls.
- Printing, Scanning & Photocopying facilities are available in the library. Question bank is also available.
- There are play grounds in the campus for hockey, foot-ball, volley-ball, cricket, badminton, throw ball, tennikoit and running track. Indoor games facility for TT & carrom are available. Gym facilities are available for the students.
- The campus is WiFi enabled.
- 2 cafeterias are available in the campus which provide the students with tasty & hygienic multicuisine food (Indian, Chinese etc.).
- A stationery and novelty store in the hospital and in hostel premises provide all the necessary items to students and staff.

**LIBRARY:** An upgraded library with the latest collections of books and journals in addition to internet facilities is available.

Central library with 7000 titles is open from 8 am to 12 midnight. Separate reference, journals and Internet sections are present. Students & faculty can easily access them.

**MENTORSHIP:** Well qualified and dedicated faculty, facilitate learning and address the issues of students through a Mentorship Programme. Innovative evaluation methods including formative and summative evaluation address the components of student assessment in a transparent manner.

**RESEARCH:** The Institution provides a good research ambience for conduct of research studies and quality health surveys. National (ICMR) and International (WHO) collaborative studies are conducted by the faculty members as well as a few medical students. The faculty and students are deputed frequently to Scientific Conferences and Workshops.

**POSTGRADUATE PROGRAMMES** in Ophthalmology, ENT, General Medicine, Psychiatry, Radiology, Skin and STD, Paediatrics, General Surgery, Orthopedics, Anaesthesiology, Obstetrics and Gynaecology, Emergency Medicine, Transfusion Medicine, Microbiology, Pharmacology, Biochemistry, Physiology, and Anatomy are being conducted.

**EXTRACURRICULAR ACTIVITIES:** Facilities are also available for extra curricular activities (play grounds, basket ball courts, sports kits for both outdoor and indoor games and well equipped gymnasium).

**STUDENT SUPPORT PROGRAMMES** like Seminars, Symposia, CME, Small Group Teaching, Mentorship and Counseling are provided. The Alumni Association of the Institution is strong and helps the students to upgrade their knowledge with scientific updates. Meritorious students get recognition in the form of awards and medals.

**SPORTS & GAMES:** Intramural, intercollegiate and interuniversity programs provide an opportunity for physical fitness.

The Vinayaka Missions Institutions having reached the path of academic excellence will continue to strive for global sustenance.

#### **PLEDGE**

We, the students of Vinayaka Mission's Kirupananda Variyar Medical College, Salem [Vinayaka Mission's Research Foundation (Deemed to be University)] pledge that

- I, \_\_\_\_\_ (name), being admitted to the study of medicine – the art of healing, shall dedicate myself totally to uphold and contribute productively to the nobility of the profession.
- I shall use my education & knowledge to acquire the ability to look into the present and future health needs of our country as well as that of the world.
- I shall strengthen the core values of our national ethos, healthy living, liberty, unity in diversity; truth and common good in all my endeavours.
- I shall treat my parents, peers, teachers and elders with great respect.
- I shall show empathy and concern to the sick & patients and dotards & down trodden people.
- I shall consider all men as equal and “the plurality and multi-ethnicity” woven India's secular fabric, shall become my “preferred priority” while interacting with others.
- I shall remember the great leaders of our nation, abide by their teaching and steadfastly work hard towards our Mission's objectives to build a stronger nation through medical education.

## THE COLLEGE ANTHEM

Vinayaka thy name is the glory  
Vinayaka thy saga divine  
Vinayaka a star in the sky  
A ray of hope through troubled times

Vinayaka thy legacy unfathomed  
Vinayaka thy medicos shine  
Vinayakans they'll be there through turbid times  
Duty to them is blessing divine

Vinayakans have the heart of the winner  
They stand united together as one  
They are the winners under the sun  
Winners under the sun

## RULES AND REGULATIONS OF THE COLLEGE

### I. GENERAL :

- a) All students must wear a clean, doctor's white overcoat with half sleeve & identity card in the premises of the College & Hospital.
- b) No meeting or demonstration should be held in the premises of College / Hospital and Hostels.
- c) Ragging in any form is strictly forbidden within or outside the College and Hospital premises.
- d) Students are forbidden to take part in political agitations, Strikes and Demonstrations.
- e) Students are required to observe discipline at all times in the College and not to make any noise when they go from one class room to another class room.
- f) Students must be punctual to lecture classes & practicals / hospital clinics.

### II. COLLEGE RULES :

- a. **ATTENDANCE:** Students should be punctual to the hospital and college and should have a minimum of 80 % attendance in each subject to appear for University Examination. Students who lack the minimum 80 % of attendance in any one subject will not be permitted to write the examination. However, the Vice-Chancellor has the discretionary power to allow a condonation of shortage of attendance upto a maximum of 10% in the prescribed minimum attendance for admission to an examination. A candidate lacking in attendance should submit an application in the prescribed form, endorsed by the Head of the department / the Head of the Institution to the Vice Chancellor for approval for admission to the examination. Every student must have cleared all the arrears of fees in Hostel and College and must get a "No Due" Certificate from the warden and Vice-Principal before submitting the application for University Examination.
- b. **LEAVE :** Students should avail leave only with the previous sanction of the Head of the Department. When leave is availed for unforeseen causes the application must be made soon after availing the leave. Leave letter on medical grounds should always accompany a medical certificate by a medical officer. The copy of the leave letter will be sent to the parent for endorsement if needed.

- c. **DAMAGES:** Students should pay for any breakage / loss in the laboratories.
- d. **FEES :** The Examination application of students will not be forwarded to the University if they have any dues regard to Tuition Fees, Special Fees and Hostel Fees or any other arrears.
- e. **EXAMS :** In each department 4 Internal Assessment examinations will be conducted out of which the best of 3 Internal Assessment marks will be considered for University Examinations.
- f. **RECORDS :** Practical record note books should be completed & submitted in time.
- g. **CELL PHONE** usage is prohibited during class hours (theory/practicals). If cell phones were to be found being used during class hours, they would be confiscated.

### **III. DRESS CODE :**

- 1. Formal wear for both girls and boys.
- 2. Girls should tie their hair up & wear cut shoes; avoid bracelets, finger rings, anklets & flowers.
- 3. Nails should be trimmed & not painted.
- 4. Boys should wear formal clothes (avoid fluorescent and flashy colored pants/ Jeans/Shorts/T-shirts) with black or brown shoes. Hair should be trimmed & boys should be clean shaven (face).
- 5. Half sleeved white coat should be worn inside the college campus.

### **IV. ANTI RAGGING REGULATIONS :**

#### **INTRODUCTION**

This Regulation has been brought forth by the University Grants Commission in consultation with the Councils to prohibit, prevent and eliminate the scourge of ragging.

UGC REGULATIONS ON CURBING THE MENACE OF RAGGING IN HIGHER EDUCATIONAL INSTITUTIONS, 2009.

(under Section 26 (1)(g) of the University Grants Commission Act, 1956)

#### **OBJECTIVES**

To eliminate the Attitude of Ragging, the following understanding of the term “Ragging” is of prime importance. Ragging is inclusive of any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student or indulging in rowdy or indisciplined activities by any student or students which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear or apprehension thereof in any fresher or any other student or asking any student to do any act which such student will not in the ordinary course do and which has the effect of causing or generating a sense of shame or torment or embarrassment so as to adversely affect the physique or psyche of such fresher or any other student, with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student, in all higher education institutions in the country and thereby, to provide for the healthy development, physically and psychologically, of all students.

#### **WHAT CONSTITUTES RAGGING**

Ragging constitutes one or more of any of the following acts carried out in any area inside or outside the College Campus.

- A. Any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student;
- B. Indulging in rowdy or indiscipline activities by any student or students which causes or is likely to cause annoyance, hardship, physical or psychological harm or to raise fear or apprehension thereof in any fresher or any other student;
- C. Asking any student to do any act which such student will not in the ordinary course do and which has the effect of causing or generating a sense of shame, or torment or embarrassment so as to adversely affect the physique or psyche of such fresher or any other student;
- D. Any act by a senior student that prevents, disrupts or disturbs the regular academic activity of any other student or a fresher;
- E. Exploiting the services of a fresher or any other student for completing the academic tasks assigned to an individual or a group of students.
- F. Any act of financial extortion or forceful expenditure burden put on a fresher or any other student by students;
- G. Any act of physical abuse including all variants of it: sexual abuse, homosexual assaults, stripping, forcing obscene and lewd acts, gestures, causing bodily harm or any other danger to health or person;
- H. Any act or abuse by spoken words, emails, post, public insults which would also include deriving perverted pleasure, vicarious or sadistic thrill from actively or passively participating in the discomfiture to fresher or any other student ;
- I. Any act that affects the mental health and self-confidence of a fresher or any other student with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student.

#### **ADMINISTRATIVE ACTION IN THE EVENT OF RAGGING**

Anyone found guilty of ragging and/or abetting ragging, whether actively or passively, or being a part of a conspiracy to promote ragging, is liable to be punished in accordance with these Regulations as well as under the provisions of any penal law for the time being in force.

The institution shall punish a student found guilty of ragging after following the procedure and in the manner prescribed herein under:

- A. The Anti-Ragging Committee of the institution shall take an appropriate decision, in regard to punishment or otherwise, depending on the facts of each incident of ragging and nature and gravity of the incident of ragging established in the recommendations of the Anti-Ragging Squad.
- B. The Anti-Ragging Committee may, depending on the nature and gravity of the guilt established by the Anti-Ragging Squad, award, to those found guilty, one or more of the following punishments :-
  - i. Suspension from attending classes and academic privileges.
  - ii. Withholding/ withdrawing scholarship/ fellowship and other benefits.
  - iii. Debarring from appearing in any test/ examination or other evaluation process.
  - iv. Withholding results.

- v. Debarring from representing the institution in any regional, national or international meet, tournament, youth festival, etc.
- vi. Suspension/ expulsion from the hostel.
- vii. Cancellation of admission.
- viii. Rustication from the institution for period ranging from one to four semesters.
- ix. Expulsion from the institution and consequent debarring from admission to any other institution for a specified period.

**Mobile inspection squads have been formed to carry out surprise checks in hostels and transport.**

**Website: <https://antiragging.in>**

## **LIBRARY RULES & REGULATIONS**

### **1. Working Hours:**

- a. The library is kept open from 8.00 a.m. to 12 midnight on all working days.

### **2. Membership:**

1. The Library is open to all students and members of the staff of the college and hospitals.
2. Outsiders and students who have left the college, dismissed or under suspension cannot have the privilege of using the library except with the special permission of the Dean.

### **3. Issue and Return of books:**

No student will be allowed to take books or journals outside the library.

### **4. Dos & Don'ts:**

1. Students must use only the allotted space for studying
2. Strict silence must be maintained inside the library
3. Students wishing to use the computer terminals should obtain permission of the librarian. Use of computers must be for academic purpose only and not for entertainment.

### **5. Photocopier Facility:**

Students can use the photocopying facility for the required academic materials after permission and payment to the Librarian.

### **6. Mobile phones:**

Use of mobile phones in the library is not permitted.



## **Vinayaka Mission's Research Foundation (Deemed to be University)**

### **Administrators**

- **CHANCELLOR** : Dr. A.S. Ganesan
- **PRO-CHANCELLOR** : Dato' Sri. Dr. S. Sharavanan
- **VICE PRESIDENTS** : Mr. J. S. Sathish Kumar  
Mr. N. V. Chandrasekar
- **DIRECTORS** : Mr. K. Jaganathan  
Mr. N. Ramaswamy
- **VICE CHANCELLOR** : Prof. Dr. P.K. Sudhir
- **PRO-VICE CHANCELLOR** : Prof. Dr. P.S. Manoharan
- **REGISTRAR** : Prof. Dr. B. Jaykar
- **DIRECTOR (ACADEMICS)** : Prof. Dr. J. Sabarinathan
- **CONTROLLER OF EXAMINATIONS** : Dr. C.L. Prabhavathi
- **DIRECTOR (STUDENTS WELFARE)** : Prof. Dr. R.S. Shanmuga Sundaram

## Hospital & College Administrators

- **DEAN** : Prof. Dr. Milind V. Bhutkar, M.D., MNAMS,
- **MEDICAL SUPERINTENDENT** : Prof. Dr. G. Kannan, M.D.,
- **DIRECTOR, HOSPITAL DEVELOPMENT COMMITTEE** : Prof. Dr. K. Ezhil Vendhan, M.S.,
- **DEPUTY DEAN** : Prof. Dr. Deepti Shastri, M.S., MNAMS,
- **DEPUTY MEDICAL SUPERINTENDENT** : Prof. Dr. E.M.J. Karthikeyan, M.S.,
- **DEPUTY MEDICAL SUPERINTENDENT** : Prof. Dr. S. Senthil Priya, M.D.,
- **LIBRARIAN** : Mr. R. Kathirvel, MSc., MLIS, MPhil, PhD.,
- **DEPUTY WARDEN (MALE)** : Mr. S. Syed Liyakath Ali, M.Sc.(Med. Phy)
- **DEPUTY WARDEN (FEMALE)** : Dr. Reena Rajan, MSc., (Med Micro), Ph.D.,

**Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals,  
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VINAYAKA MISSION'S RESEARCH FOUNDATION (Deemed to be University)

**ANTI –RAGGING COMMITTEE**

**Academic year 2020-2021**

S.No	Name	Designation	Mobile No	E-Mail
<b>1.</b>	<b><u>Chairperson</u></b>			
	Dr. Milind V. Bhutkar	DEAN	9443227878	dean.vmkvmc@vmu.edu.in
<b>2.</b>	<b><u>Members</u></b>			
	Mr. Rajini Kanth	Civil (Advocate )	9360838477	-
<b>3.</b>	<b><u>Police Administration (SP / Inspector)</u></b>			
	Mr. Uma Shankar, IPS	Rural DSP	9498167667	-
	Mr. Kulasekaran	Rural – Inspector of Police	9498167900	-
	Mr. Thangavelu	Sub - Inspector of Police (Attayampatti)	9498171885	-
<b>4.</b>	Mr. Senthil	Local Media	9498100980	-
<b>5.</b>	<b><u>Non –Govt Organization</u></b>			
	Mr. Yuvaraj	Blessing Youth Mission	9943756835	yuvaraj.bym@gmail.com
	Mrs. Devika	Bharathiyar Malaival Makkal Nalvalvu Sangam	9787088088	devikafaith@gmail.com
<b>6</b>	<b><u>Representative of Faculties</u></b>			
	Dr. G. Kannan	Convenor, Medical Superintendent	9843337407	drkannang@yahoo.com
	Dr. Deepti Shastri	Deputy Dean Professor, Dept. of Anatomy	9842724197	deepthirahul@yahoo.co.in
	Dr. K. Ezhil Vendhan	Director, Hospital Development Committee Prof.& HOD, Dept of Ophthalmology	9360838468	hospitaleye@gmail.com
	Dr. J. Sridhar	Prof .& HOD, Dept of Surgery	9843096700	drsridhar2002@yahoo.com
<b>7</b>	<b><u>Youth activities (Red Cross, NSS &amp; Red Ribbon Club)</u></b>			
	Dr.S.Rajaram	Professor, Dept of Pharmacology & Red Cross-co-ordinator	9443086300	drrjrm@gmail.com
	Dr. R. Shankar	Professor of Community Medicine & Red Ribbon Club	9655368498	shnkr_radhakrishnan@yahoo.com
	Dr. Gowri Sankar R.	Asso. Professor of Pathology & NSS-co-ordinator	9894957670	gowrishines@gmail.com

S.No	Name	Designation	Mobile No	E-Mail
	Dr. R. Sudha	Mentorship Programme Co-ordinator, I year & Asso. Professor, Dept of Biochemistry	9443370319	shanshan1718@gmail.com
	Dr. Roopmala M.	Mentorship Programme Co-ordinator, II year & Asso. Professor, Dept of Pathology	9080889277	rubynandaarya@gmail.com
	Dr. R. Shankar	Academic Co- ordinator, Final MBBS Part I & Professor, Dept of Community Medicine	9655368498	shnkr_radhakrishnan@yahoo.com
	Dr. Senthil Priya S.	Academic Co- ordinator, Final MBBS Part II & Professor, Dept of Obs. & Gyn.	8300142244	senthilpriya2000@gmail.com
	Dr. Reena Rajan	Deputy Warden, Girls Hostel	9894990961	reenarajan83@gmail.com
	Mr. S. Syed Liyakath Ali	Deputy Warden Boys Hostel	9944813369	s.syedliyakathali@gmail.com
<b>8</b>	<b><u>Representative of parents (I MBBS)</u></b>			
	Dr. Pugalagiri		9843053736	drpugal@vadamalayan.org
<b>9</b>	<b><u>Representative of Freshers</u></b>			
	Mr. Nithin T.	I MBBS (2020 – 2021)	8072147447	nithintamilselvan19@gmail.com
	Ms. Prithi Nivethitha	I MBBS (2020 – 2021)	8296287562	prithinivethitha@gmail.com
<b>10</b>	<b><u>Representative of Students (Senior)</u></b>			
	Priyadarshini Inkarsal	I MBBS (2019 – 2020)	8291227388	inkarsal.p@gmail.com
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	Charan Sankar S.	CRRI	8344672196	charansankar97@gmail.com
	Keerthana K.	CRRI	8754837700	keerthanakumar03@gmail.com
<b>11</b>	<b><u>Non-teaching Staff</u></b>			
	Mr. K. Arun Kumar	Chief Computer Programmer	9443848613	karunhari@gmail.com
	Mr. P. Dhanasekaran	Office Superintendent	9942406667	-

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**VINAYAKA MISSION'S RESEARCH FOUNDATION**

(Deemed to be University)

**ANTI –RAGGING SQUAD (2020 – 2021)**

S. No.	Name	Designation	Mobile No	E-Mail
1	Dr. Milind V. Bhutkar	Dean	7639552776	dean.vmkvmc@vmu.edu.in
2	Dr. G. Kannan	Medical Superintendent	9843337407	<a href="mailto:drkannang@yahoo.com">drkannang@yahoo.com</a>
3	Dr. K. Ezhil Vendhan	Director, Hospital Development Committee	9360838468	hospitaleye@gmail.com
4	Dr. Deepti Shastri	Deputy Dean Professor, Dept of Anatomy	9842724197	deepthirahul@yahoo.co.in
5	Dr. Karthikeyan E.M.J.	Deputy Medical Superintendent Professor, Dept of Surgery	9842256564	emjkarthik@yahoo.co.in
6	Dr. S. Senthil Priya	Deputy Medical Superintendent Professor, Dept of Obs. & Gyn.	8300142244	senthilpriya2000@gmail.com
7	Dr. E. Manivannan	Prof. & HOD, Dept. of Pharmacology	9790644978	manipoo73@gmail.com
8	Dr. Gowri Sankar R.	Associate Professor, Dept. of Pathology	9894957670	gowrishines@gmail.com
9	Dr. J. Sridhar	Prof. & HOD, Dept of Surgery	9843096700	drsridhar2002@yahoo.com
10	Dr. B. Jayaprakash	Asso. Professor, Dept. of Ophthalmology	9944622660	<a href="mailto:jai311010@gmail.com">jai311010@gmail.com</a>
11	Dr. K. Kirubhakaran	Asso. Professor, Dept. of General Medicine	9786876687	<a href="mailto:dr.kirubhakaran@gmail.com">dr.kirubhakaran@gmail.com</a>
12	Dr. Preethi S..	ARMO	9500245900	preethi201010@gmail.com
13	Mr. S. Syed Liyakath Ali	Deputy Warden – Boys hostel	9944813369	s.syedliyakathali@gmail.com

14	Dr. Sheerin Fathima	Deputy Warden – Girls Hostel	9486170816	dr.assf@gmail.com
15	Dr. Nirmal Sujitha I.J.	Deputy Warden – VIPQ Girls Hostel	8220393525	nsuji.ij@gmail.com
16	Dr. Harshavarthanan. V	Deputy Warden – VIPQ Gents Hostel	8220067690	vharshav215@gmail.com
17	Dr. Reena Rajan	Deputy Warden – Kirupa Girls hostel	9894990961	reenarajan83@gmail.com
18		Assistant Warden Boys hostel		
19	Ms. Geetha	Assistant Warden – Girls hostel	9019428773	

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**VINAYAKA MISSION'S RESEARCH FOUNDATION  
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**Internal Complaints Committee 2020-2021**

1.	Dr. V. Sivasankari, Professor, Dept. of Pharmacology	Presiding Officer & Convener	9443515035 drvsivasankari@gmail.com
2.	Dr. S. Senthil Priya, Professor, Dept. of Obs. & Gyn.	Faculty	8300142244 senthilpriya2000@gmail.com
3.	Dr. E.M.J. Karthikeyan, Professor, Dept. of General Surgery	Faculty	9842256564 emjkarthik@yahoo.co.in
4.	Mr. P. Dhanasekaran Office Superintendent	Member	9942406667
5.	Mrs. S. Sudha Attender	Member	9688906311
6.	Samyuktha B.S. UG Student	Final year MBBS	samsaro2322@gmail.com 8220652520
7.	Dr. Jenny. V Paediatrics - PG Student	Member	9944733840 jennyvk29494@gmail.com
8.	Mrs. Pratima M. Bhutkar Ph.D. Scholar	Member	8903351576 pratimab13@rediffmail.com
9.	Mrs. Ruby Thiyagarajan	NGO Representative	9894999574 ywcasalem@rediffmail.com ywcasalem7@gmail.com

**MEDICAL EDUCATION UNIT CONSTITUTION**

<b>Sr. No</b>	<b>Name</b>	<b>Designation &amp; Department</b>	<b>Mobile</b>	<b>E-mail</b>
1	Dr. Milind V. Bhutkar	Dean & Professor, Department of Physiology (Officer In-charge)	7639552776	dr_mvbhutkar@rediffmail.com
2.	Dr. K.C. Shanthi	MEU Coordinator & Professor & Head, Department of Anatomy	9443370319	shanshan1718@gmail.com
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5.	Dr. S. Rajaram	Professor, Department of Pharmacology	9443086300	drsjrm@gmail.com
6.	Dr. R. Thamilselvi	Professor & Head, Department of Pathology	9842744313	drselpipatho@yahoo.com
7.	Dr. R. Shanmugasundaram	Professor, Department of General Medicine (Medicine & allied disciplines)	9043855853	drsambu123@yahoo.in drsambu123@gmail.com
8.	Dr. Karthikeyan E.M.J.	Professor, Department of General Surgery (Surgery & allied disciplines)	9842256564	emjkarthik@yahoo.co.in emjkarthik@gmail.com
9.	Dr. V. Suganthi	Professor & Head, Department of Physiology	9443908855, 8825422128	vsuganthiarasan@gmail.com
10.	Dr. E. Manivannan	Professor & Head, Department of Pharmacology	9790644978	manipoo73@gmail.com



## COURSE DESCRIPTION

Every MBBS student shall undergo a period of certified study extending over 4½ academic years followed by one year of compulsory Rotatory internship.

The period of 4½ years is divided into three phases as follows:

### **I.1. Phase I (I MBBS):**

1. Phase I (I MBBS) (One year) consisting of Preclinical subjects (Human Anatomy, Physiology, Bio-Chemistry) & introduction to Community Medicine including humanities.

### **I.2. Phase II (II MBBS):**

Phase II (II MBBS) (1½ years) consisting of Para-clinical / Clinical subjects.

During this phase teaching of Para-clinical and Clinical subjects shall be done concurrently.

The Para-clinical subjects shall consist of Pathology, Pharmacology, Microbiology, Forensic Medicine including Toxicology and part of Community Medicine.

The clinical subjects shall consist of all those detailed below in Phase III.

### **I.3. Phase III (III MBBS):**

During Phase III of the M.B.B.S. course the clinical subjects of Medicine, Pediatrics, Surgery, Ophthalmology, Otorhinolaryngology and Obstetrics and Gynaecology are taught besides Community Medicine.

**Part I:** At the end of one year of study in Phase III the candidate shall be examined in three subjects namely Ophthalmology, Otorhinolaryngology and Community Medicine in the Part I examination of III M.B.B.S.

**Part II:** At the end of 3½ years of study in Phase II and Phase III the candidate shall be examined in four subjects namely Medicine, Surgery, Obstetrics and Gynaecology and Pediatrics in the Part II examination of III M.B.B.S.

Besides clinical posting the rest of the teaching hours shall be divided between didactic lectures, demonstrations, seminars, group discussions etc. in various subjects. The training in Medicine and its allied specialties will include General Medicine, Pediatrics, Tuberculosis and Chest, Skin and Sexually Transmitted Diseases, Psychiatry, Radio-diagnosis, Infectious diseases etc. The training in Surgery and its allied specialties will include General Surgery, Orthopaedic Surgery including Physiotherapy and Rehabilitation, Ophthalmology, Otorhinolaryngology, Anaesthesia, Dentistry, Radio-therapy etc. The Obstetrics & Gynaecology training will include Family Medicine, Family welfare planning etc.

## **II . Record Note books:**

Every student must maintain a record of the Practical / Clinical work assigned to him in the record note books. These shall be submitted periodically to the respective Professors. At the end of the course the Practical / Clinical case record note books shall be submitted to the Heads of the departments who shall evaluate and include the marks in the Internal assessment.

At the time of Practical / Clinical examination each candidate shall submit to the Examiner his / her Clinical / Laboratory note books duly certified by the Head of the department as a bonafide record of the work done by the candidate.

In respect of failed candidates the marks awarded for records at the first attempt may be carried over to the next examination attempt. If a candidate desires he/she may be permitted to improve on the performance by submission of fresh record note books.

**Integration:** Each of the departments shall provide integrated teaching with pre-clinical, para-clinical and clinical departments to expose the students to the full range of disciplines relevant to each area of study. Problem Based Learning (PBL) shall be emphasized.

## **III. Internal Assessment:**

- a. A minimum of four written examinations shall be conducted in each subject during an academic year and the average marks of the three best performances shall be taken into consideration for the award of internal assessment marks. Assignments completed by candidates as home work or vacation work may also be considered.
- b. A minimum of three Practical / Clinical examinations shall be conducted in each subject during an academic year and the average marks of the two best performances shall be taken into consideration for the award of internal assessment marks. Mark awarded for maintenance of records should be included in the internal assessment of practical / clinical performance.
- c. A failed candidate in any subject shall be provided an opportunity to improve his / her internal assessment marks by conducting a minimum of two examinations each in theory and practical separately and the average shall be considered for improvement.
- d. The internal assessment marks awarded both in Written and Practical / Clinical separately shall be submitted to the University endorsed by the Head of the institution atleast fifteen days prior to the commencement of the theory examinations.
- e. A candidate should obtain a Minimum of 50 % of marks in internal assessment in a subject to be permitted to appear for the University examination in that subject. For this purpose the candidate has to obtain 50 % of marks in Theory and Practical / Clinical separately.

## **IV. Competitive Prize Exams:**

Students who pass all the internal assessment examinations with more than 60% marks are eligible to appear for competitive prize exams in the subjects concerned conducted by the respective departments.

**V. High achievers** in each subject are encouraged and trained to participate in scientific conferences, dissertation competitions and quizzes.

## **VI. University Examinations**

### **1. Timing of Examinations (August and February) :**

I Professional examination: At the end of one academic year.

II Professional examination: At the end of 1½ years from the commencement of Phase II.

III Professional Part I examination: At the end of one year of Phase III.

III Professional Part II (Final Professional) examination: At the end of 2 years of Phase III.

### **2. Exemption in passed subjects:**

Candidates who fail in an examination but obtain pass mark in any subject shall be exempted from re-examination in that subject.

### **3. Carry over of failed subjects:**

1. Passing in First MBBS Professional examination is compulsory before proceeding to Phase II training.
2. A student who fails in the II MBBS Professional examination shall be permitted to carry the failed subjects to Phase III of the MBBS course but shall not be allowed to appear in III MBBS Professional Part I examination unless he/she passes all the subjects of the II MBBS Professional examination. Passing in II MBBS Professional examination is compulsory before entering Part II of Phase III (final year) of the course.
3. Passing in III MBBS Professional (Part I) examination is not compulsory before entering for Part II training; however passing of III MBBS Professional (Part I) is compulsory for being eligible to appear for III-MBBS Professional (Part II) examination.

### **4. Classification of successful candidates**

- a) A successful candidate securing 75 % or above of the marks in the aggregate in any subject in the first appearance will be declared to have passed the examination in that subject with distinction.
- b) First class may be awarded to such candidates who have passed all the subjects at the first appearance and obtained 60 % of marks and above in the aggregate of all the subjects he/she had appeared in the particular phase of the MBBS course.
- c) Candidates who have passed all the subjects at the first appearance and obtained 75 % of marks and above in all the subjects he/she had appeared shall be awarded first class with distinction.
- d) All other successful candidates shall be declared to have passed in second class.

### **5. Attendance required for Admission to Examination:**

- a) No candidate shall be permitted to any one of the parts of MBBS Examinations unless he / she has attended the course in the subject for the prescribed period in an affiliated institution recognised by this University and produces the necessary certificate of study, attendance and progress from the Head of the Institution.
- b) A candidate is required to put in minimum 80 % of attendance in both theory and practical / clinical separately in each subject before admission to the examination.
- c) A candidate lacking in the prescribed attendance and progress in any one subject in the first appearance shall be denied admission to the entire examinations.
- d) Failed candidates who are not promoted to the next phase of study are required to put in minimum 80 % attendance during the extended period of study before appearing for the next examination.

**VII. Awards:**

- a) Certificates of Merit are awarded to the students securing the overall highest marks in all the internal assessment exams.
- b) Prizes are awarded to students scoring the highest marks in the competitive prize exams conducted by various departments.
- c) Proficiency certificates are awarded to the students securing the highest marks in each subject in the University examinations.
- d) The student securing the highest overall marks throughout the course of MBBS study (regular students) in the University exams - institution as well as university ranking, is presented with the Dr. A. Shanmugasundaram - The Founder Chancellor, VMRF(DU)'s, Gold Medal for the BEST OUTGOING STUDENT award.

**VIII. Working Days:**

Each academic year consists of approximately 240 teaching days. Each day comprises of 8 working hours including an hour's interval. The clinical posting is done in the forenoon session. Rest of the teaching hours are divided between didactic lectures, practicals, demonstrations, seminars, symposia, group discussions etc. in various subjects.

**Parents-Teachers Virtual Communication :**

Parents are encouraged to communicate with the faculty regarding the progress of their wards. Parents-Teachers Meetings are arranged by the departments including Face-To –Face as well as by virtual communication.

**Clinical Society Meetings:**

These are held regularly once a month and interesting clinical cases are presented and discussed on intriguing aspects of the clinical presentation, diagnosis and management of the patients.

**Medical Audit Meetings** are held regularly as an internal quality assurance process to improve patient care and outcomes.

**Rural Health Centre:**

The VMKV Medical College & Hospital runs a Rural Health Centre by the Community Medicine Department. Two Primary Health Centres are also attached to the institution.

**VINAYAKA MISSION'S KIRUPANANDA VARIYAR MEDICAL COLLEGE & HOSPITALS, SALEM.**

**TIME TABLE FOR Final MBBS Part II**

Day	8 -9.30 AM	9.30-10 AM	10 – 12 Noon	12 -1 PM	1 – 2 PM Lectures	2 – 3 PM Lectures	3-4 .15 PM Tutorials
Monday	OPD Clinics	Tea Break	Ward Clinics (Every day One batch to attend Skills Lab)	Lunch Break	Medicine	Surgery	O & G
Tuesday					Surgery	O&G	Medicine
Wednesday					O & G	<b>I Week</b> -Radiology <b>II Week</b> – Mentor Programme <b>III Week</b> – Swayam prabha <b>IV Week</b> – Anaesthesia <b>V Week</b> – Library	Surgery
Thursday					Orthopaedics	O & G	Paediatrics
Friday					Paediatrics	Medicine	Orthopaedics
Saturday					Vertical Integrated teaching on Rotation <b>I Week</b> – Medicine / Surgery(Ortho) <b>III Week</b> –O& G / Paediatrics	<b><u>Internal Assessment Exam</u></b>	
		<b>I Saturday</b> – Medicine & Paediatrics <b>III Saturday</b> – Obs & Gyn & Surgery / Ortho					

**General Clinics at 10.00 – 12.00 Noon**

- 1<sup>st</sup> Saturday** - Medicine / Surgery[Ortho] (Rotation)
- 3<sup>rd</sup> Saturday** - Obg & Gyn. / Paediatrics (Rotation)
- 5<sup>th</sup> Saturday** - On rotation by above departments.

**VINAYAKA MISSION'S KIRUPANANDA VARIYAR  
MEDICAL COLLEGE & HOSPITAL, SALEM**

**Exam pattern (Medicine, Surgery and Obs. & Gyn.)**

**MBBS Degree Exam pattern for all departments:**

<b>Theory Paper I</b>	-	<b>80 Marks</b>
<b>Theory Paper II</b>	-	<b>80 Marks</b>
<b>Practicals</b>	-	<b>60 Marks</b>
<b>Viva</b>	-	<b>20 Marks</b>
<b>IA</b>	-	<b>60 Marks</b>

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**300 Marks**  
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**Theory Question pattern** - **80 Marks**

<b>Type of question</b>	<b>Numbers X Marks</b>	<b>Total marks</b>
<b><u>Section – A</u></b>		
<b>Multiple Choice Questions</b>	<b>15 X 1</b>	<b>15</b>
<b><u>Section - B</u></b>		
<b>Essay</b>	<b>2 X 15</b>	<b>30</b>
<b>Short notes</b>	<b>5 X 5</b>	<b>25</b>
<b>Brief answers</b>	<b>5 X 2</b>	<b>10</b>
<b>Total</b>		<b>80</b>

**Internal Assessment - 60 Marks**

<b>Theory</b>	<b>Practical</b>	<b>Record</b>	<b>Total</b>
<b>30 Marks</b>	<b>20 Marks</b>	<b>10 Marks</b>	<b>60 Marks</b>

**Pass : Theory** - **50 %**

**Practical** - **50 %**

**Internal Assessment (IA)** - **50 %**

**Aggregate (Theory, Practical, Viva & IA) - 50%**

**VINAYAKA MISSION'S KIRUPANANDA VARIYAR**  
**MEDICAL COLLEGE & HOSPITAL, SALEM**

**Exam pattern (Paediatrics)**

**MBBS Degree Exam pattern for all departments:**

<b>Theory Paper</b>	-	<b>80 Marks</b>
<b>Practicals</b>	-	<b>30 Marks</b>
<b>Viva</b>	-	<b>10 Marks</b>
<b>IA</b>	-	<b>30 Marks</b>

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**150 Marks**  
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**Theory Question pattern - 80 Marks**

<b>Type of question</b>	<b>Numbers X Marks</b>	<b>Total marks</b>
<b><u>Section – A</u></b>		
<b>Multiple Choice Questions</b>	<b>15 X 1</b>	<b>15</b>
<b><u>Section - B</u></b>		
<b>Essay</b>	<b>2 X 15</b>	<b>30</b>
<b>Short notes</b>	<b>5 X 5</b>	<b>25</b>
<b>Brief answers</b>	<b>5 X 2</b>	<b>10</b>
<b>Total</b>		<b>80</b>

**Internal Assessment – 30 Marks**

<b>Theory</b>	<b>Practical</b>	<b>Record</b>	<b>Total</b>
<b>15 Marks</b>	<b>10 Marks</b>	<b>5 Marks</b>	<b>30 Marks</b>

<b>Pass : Theory</b>	<b>- 50 %</b>
<b>Practical</b>	<b>- 50 %</b>
<b>Internal Assessment (IA)</b>	<b>- 50 %</b>
<b>Aggregate (Theory, Practical, Viva &amp; IA)</b>	<b>- 50%</b>

# **Syllabus**



## **1. GENERAL MEDICINE**

### **1. PREAMBLE**

The teaching and training in clinical subjects will commence at the beginning of Phase II and continue throughout.

The clinical subjects will be taught to prepare the MBBS graduates to understand and manage clinical problems at the level of a practitioner. Exposure to subject matter will be limited to orientation and knowledge required of a general doctor. Maximum attention to the diagnosis and management of the most common and important conditions encountered in general practice should be emphasized in all clinical subject areas. Instructions in clinical subjects should be given both in outpatient and in-patient during clinical posting.

Each of the clinical departments shall provide integrated teaching calling on pre-clinical, Para-clinical and other clinical departments to join in exposing the students to the full range of disciplines relevant to each clinical area of study. Problem approach will be emphasized based on basic social sciences and a continuation of clinical and laboratory syllabi to optimally understand and manage each clinical condition.

The course shall comprise of Medicine and its Allied Specialties

### **2. MEDICINE**

#### **2.1. GOAL**

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

#### **2.2. OBJECTIVES**

##### **2.2.1. Knowledge**

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

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

##### **2.2.2. Skills**

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

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

### **2.2.3. Integration**

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

## **3. PSYCHIATRY**

### **3.1. GOAL**

The aim of teaching the undergraduate student in psychiatry is to impart such knowledge and skills that may enable him to diagnose and treat common psychiatric disorders, handle psychiatric emergencies and to refer complications/unusual manifestations of common disorders and rare psychiatric disorders to the specialist.

### **3.2. OBJECTIVES**

#### **3.2.1. Knowledge**

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

1. Comprehend nature and development of different aspects of normal human Behavior like learning, memory, motivation, personality and intelligence;
2. Recognize differences between normal and abnormal behavior;
3. Classify psychiatric disorders;
4. Recognize clinical manifestations of the following common syndromes and plan their appropriate management of organic psychosis, functional psychosis, schizophrenia, affective disorders, neurotic disorders, personality disorders, psycho-physiological disorders, drug and alcohol dependence, psychiatric disorders of childhood and adolescence;

5. Describe rational use of different modes of therapy in psychiatric disorders.

### **3.2.2. Skills**

The student should be able to:

1. Interview the patient and understand different methods of communication in patient-doctor relationship;
2. Elicit detailed psychiatric case history and conduct clinical examination for assessment of mental status;
3. Define, elicit and interpret psycho-pathological symptoms and signs.
4. Diagnose and manage common psychiatric disorders;
5. Identify and manage psychological reactions and psychiatric disorders in medical and surgical patients in clinical practice and in community setting.

### **3.2.3. Integration**

Training in Psychiatry should prepare the students to deliver preventive, promotive, curative and rehabilitative services for the care of patients both in the family and community and to refer advance cases to a specialized Psychiatry/Mental Hospital. Training should be integrated with the departments of Medicine, Neuro Anatomy, Behavioral Sciences and Forensic medicine.

## **4. DERMATOLOGY AND SEXUALLY TRANSMITTED DISEASES**

### **4.1. GOAL**

The aim of teaching the undergraduate student in Dermatology, S.T.D. and Leprology is to impart such knowledge and skills that may enable him to diagnose and treat common ailments and to refer rare diseases or complications/unusual manifestations of common diseases, to the specialist.

### **4.2. OBJECTIVES**

#### **4.2.1. Knowledge**

At the end of the course of Dermatology -S.T.D. and Leprology, the student shall be able to:

1. Demonstrate sound knowledge of common diseases, their clinical manifestations, including emergent situations and of investigative procedures to confirm their diagnosis;
2. Demonstrate comprehensive knowledge of various modes of therapy used in treatment of respiratory diseases;
3. Describe the mode of action of commonly used drugs, their doses, side effects/toxicity, indications and contra-indications and interactions;

4. Describe commonly used modes of management including the medical and surgical procedures available for the treatment of various diseases and to offer a comprehensive plan of management for a given disorder;

#### **4.2.2. Skills**

**The student should be able to:**

1. Interview the patient, elicit relevant and correct information and describe the history in a chronological order.
2. Conduct clinical examination, elicit and interpret physical findings and diagnose common disorders and emergencies;
3. Perform simple, routine investigative and office procedures required for making the bedside diagnosis, especially the examination of scrapings for fungus, preparation of slit smears and staining for AFB for leprosy patients and for STD cases;
4. Take a skin biopsy for diagnostic purposes;
5. Manage common diseases recognizing the need for referral for specialized care, in case of inappropriateness of therapeutic response;
6. Assist in the performance of common procedures, like laryngoscopic examination, pleural aspiration, respiratory physiotherapy, laryngeal intubation and pneumo-thoracic drainage/aspiration.

#### **4.2.3. Integration**

The broad goal of effective teaching can be obtained through integration with departments of Medicine, Surgery, Microbiology, Pathology, Pharmacology and Preventive & Social Medicine.

### **5. DEPARTMENT OBJECTIVES**

At the end of the clinical postings in General Medicine, the medical student should:

- 5.1. Be able to evaluate each patient as a person in society and not merely as a collection of organ systems.
- 5.2. Have developed an interest in and care for all types of patients.
- 5.3. Recognize differences between normal and abnormal behavior
- 5.4. Be able to discern the hopes and fears of patients which inevitably underlie the symptom complexes and know how to handle these emotions, both in the patient and in others.
- 5.5. Possess sound knowledge of common diseases, their clinical manifestations and natural history

- 5.6. Elicit a good clinical history and physical findings, elucidate the clinical problems based on these and discuss the differential diagnosis.
- 5.7. Requisition relevant laboratory tests and perform common side lab procedures.
- 5.8. Be familiar with common imaging techniques, their advantages, disadvantages and indications; be aware of radiation hazards and measures to protect there from.
- 5.9. Outline the principles of management of various diseases, including the medical and surgical procedures available.
- 5.10. Describe the mode of action of commonly used drugs, their doses, side effects, toxicity, indications, contraindications and drug interactions.
- 5.11. Have an open attitude to the newer developments in medicine to keep abreast of new knowledge.
- 5.12. Diagnose and provide competent initial care to medical emergencies.
- 5.13. Refer medical problems to secondary and tertiary care at appropriate times.
- 5.14. Recognize the problems arising in patients of AIDS.
- 5.15. Have an understanding of the art of medicine involving communication with patients, demonstration of empathy, reassurance, patient education and an understanding of the patient's socio-economic circumstances in relation to management.
- 5.16. Learn to be adaptable to new ideas and new situations where resources may be limited.
- 5.17. Possess knowledge and perform certain procedure.
- 5.18. Understand the ethical and legal implications of one's medical decisions.

## **6. SYLLABUS**

### **6.1. Theory**

#### **6.1.1. Clinical Methods in The Practice of Medicine**

1. Clinical approach to the patient: The art of medicine, doctor-patient relationship, communication skills and doctor's responsibilities.
2. Clinical Approach to disease and care of patient; diagnostic possibilities based on interpretation of history, physical findings and laboratory investigations and principles of rational management.

#### **6.1.2. Common Symptoms of Disease**

Pain: Pathophysiology, clinical types, assessment and management - Fever: Pathophysiology of heat regulation, its disturbances, clinical types, clinical assessment and management - Cough: ex-pectoration and haemoptysis - Dyspnoea, tachypnoea, and cyanosis- Common urinary symptoms including dysuria, oliguria, nocturia, polyuria, incontinence and enuresis - Oedema and anasarca - Shock and cardiovascular collapse - Cardiac murmurs : functional and organic; Palpitation - Anorexia, nausea and vomiting - Constipation and diarrhea - Haematemesis, malena and haematochezia -Jaundice and hepatomegaly - Abdominal swelling and ascites - Weight loss and weight gain - Fainting, syncope and seizures; head-ache, dizziness and vertigo - Paralysis, movement disorders and disorders of gait - Coma and other disturbances of consciousness- Pallor and bleeding - Enlargement of lymph nodes and spleen -Joint pains and pain in the extremities and back.

### **6.1.3. Nutrition / Exposure to Physical and Chemical Agents**

Nutrition in clinical medicine and dietary management: Nutritional requirements; Protein calorie malnutrition in adults; Obesity; Vitamin deficiency and excess - Fluid and electrolyte balance; aci-dosis and alkalosis in particular relevance to vomiting, diarrhoea, uraemia and diabetic ketoacidosis - Poisonings: phenobarbitone, organophosphorous compounds, sedative / hypnotic and others common in the locality - Acute and chronic effects of alcohol and their management - Venoms, stings, insect bites : poisonous snakes, insects and scorpions - Disturbances of temperature : heat stroke, heat exhaustion and cold exposure - Drowning, electrocution and radiation hazards.

### **6.1.4. Infections**

6.1.4.1. Approach to infectious diseases - diagnostic and therapeutic principles

6.1.4.2. General principles of rational use of antibiotics and other chemotherapy against the following:

Common gram positive infections - Common gram negative infections - Enteric fever - Cholera, gastroenteritis, food poisoning and dysentery - Influenza and other common viral respiratory infections - Rabies - Tetanus - Herpes simplex and herpes zoster -Amoebiasis and worm infestations - Malaria, filariasis, leishmaniasis - Common exanthemata - HIV infection and infections in the immune compromised conditions - Common sexually transmitted diseases - Common fungal infections - Viral encephalitis - Tuberculosis - Leprosy - Infectious mononucleosis - Brucellosis

### **6.1.5. Haematology**

1. Definition, prevalence, etiological factors, pathophysiology, pathology, recognition, investigations and principles of treatment of :

1.1. Anaemias: iron deficiency, megaloblastic and common haemolytic anaemias (thalassemia, sickle cell and acquired haemolytic)

1.2. Common bleeding disorders (thrombocytopenia and hemophilia).

1.3. Agranulocytosis and aplastic anemia.

2.Leukemia.

3.Lymphomas.

4.Blood group and transfusion: Major blood group systems and histocompatibility complex, concepts of transfusion and component therapy; indications for transfusion therapy, precautions to be taken during blood transfusion, hazards of transfusion and safe handling of blood products.

#### **6.1.6. Respiratory System**

Physiology and diagnostic methods: Sputum examination, X-ray chest, pulmonary function tests and bronchoscopy - Upper respiratory infections - Pneumonias - Bronchiectasis and lung abscess- Bronchial asthma and tropical eosinophilia - Chronic obstructive airway disease and cor pulmonale - Acute and chronic respiratory failure - Diseases of pleura : pleural effusion, empyema, pneumothorax - Pulmonary tuberculosis - Neoplasms of lung - Common occupational lung diseases.

#### **6.1.7. Cardiovascular System**

ECG, Xray chest with reference to common cardiovascular diseases - Coronary artery disease - Rheumatic fever and rheumatic heart disease - Infective endocarditis - Hypertension and hypertensive heart disease - Acute and chronic heart failure - Common congenital heart diseases in adolescents and adults : ASD, VSD, PDA, TOF and coarctation of aorta - Common cardiac arrhythmias- Acute and chronic pericarditis, pericardial effusion and cardiac tamponade - Common aortic diseases; peripheral vascular disease: arterial and venous.

#### **6.1.8. Gastrointestinal Tract**

Stool examination, endoscopy and radiology in reference to common gastrointestinal diseases - Acid peptic disease - Malabsorption syndrome - Inflammatory bowel diseases and irritable bowel syndrome - Acute and chronic hepatitis - Cirrhosis of liver -Abdominal tuberculosis

#### **6.1.9. Emergency Medicine**

Cardiopulmonary resuscitation - Acute pulmonary oedema -Hypertensive emergencies - Diabetic ketoacidosis and hypoglycaemia - Status epilepticus - Acute severe bronchial asthma- Shock and anaphylaxis - Acute myocardial infarction - Upper GI bleed and hepatic coma - Diagnosis and management of comatose patient - Management of unknown poisoning.

#### **6.1.10. Nervous System**

Cerebrovascular diseases - Meningitis: Viral, bacterial and tuberculosis - Peripheral neuropathy - Epilepsy - Extraparalytic diseases - Common compressive and non-compressive spinal cord syndromes - Motor system disease - Myasthenia gravis - Common myopathies in India - Degenerative, nutritional and metabolic diseases of the nervous system.

#### **6.1.11. Urinary System**

Acute renal failure - Chronic renal failure - Glomerulonephritis and nephrotic syndrome - Urinary tract infections / pyelonephritis- Tubulointerstitial diseases and toxic nephropathies

#### **6.1.12. Connective Tissue Disorders**

Rheumatoid arthritis - Degenerative joint disease including cervical spondylitis - Systemic lupus erythematosus, systemic sclerosis and other collagen vascular diseases - Gout

#### **6.1.13. Endocrines**

Diabetes mellitus - Hypo and hyperthyroidism; iodine deficiency disorders - Cushing's syndrome and Addison's disease; Hyperaldosteronism - Pituitary disorders: Gigantism, Acromegaly and Sheehan's syndrome - Calcium and phosphorus metabolism: parathyroid and metabolic bone disease

#### **6.1.14. Geriatrics**

Biology of aging; Factors accelerating senescence - Age related changes in various organ systems - Presentation of diseases in the elderly; Identification of common diseases - Diet for the aged; Management of Nutritional disorders - Acute medical problems -infections, dehydration, acute confessional states - Osteoporosis:

Degenerative joint diseases; effects of immobility; prevention of contracture and bed sores - Neurological disturbances: management & rehabilitation - Psychogeriatric: Sensory deprivation; personality changes, depressive illness - Social problems in the elderly: Joint family system; Day care centre and Day hospital; home for the aged - Rehabilitation: Assessment of functional status; Activities of daily living, Instrumental activities of daily living, Role of physiotherapist and Social Worker

### **7. UNIVERSITY EXAMINATION PATTERN**

<b>Exam</b>	<b>Marks</b>
Theory Paper - I	80
Theory Paper – II	80
Practicals	60
Viva	20
IA	60
Total	300

#### **7.1. Theory**

7.1.1. It has two papers each of 3 hours duration and carrying 80 marks each

7.1.2. Each paper will have Section A & Section B having equal number of questions and the equal weightage.

#### **7.2. Type of question and its marks**



<b>S. No.</b>	<b>Nature of Paper</b>	<b>Section</b>	<b>Type of questions</b>	<b>Marks for the questions</b>
1	Theory	A & B	2 Essay each carrying 10 marks	20
		A & B	8 Short notes each carrying 5 marks	40
		A & B	10 Brief answers each carrying 2 marks	20
2	Practical		1 Long case	30
			1 Short case	20
			2 Spotters each carrying 5 marks	10
3	Oral		Specimen / Slide / Instruments / Drugs / Charts / X-Ray / Viva	20

## **2. GENERAL SURGERY, ORTHOPEDICS**

### **1. GENERAL SURGERY INCLUDING PAEDIATRIC SURGERY**

#### **1.1. GOAL**

The broad goal of the teaching of undergraduate students in Surgery is to produce graduates capable of delivering efficient first contact surgical care.

#### **1.2. OBJECTIVES**

##### **1.2.1. Knowledge**

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

1. Describe aetiology, pathophysiology, principles of diagnosis and management of common surgical problems including emergencies, in adults and children.
2. Define indications and methods for fluid and electrolyte replacement therapy including blood transfusion.
3. Define asepsis, disinfection and sterilization and recommended judicious use of antibiotics.
4. Describe common malignancies in the country and their management including prevention.
5. Enumerate different types of anaesthetic agents, their indications, mode of administration, contraindications and side effects.

##### **1.2.2. Skills**

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

1. Diagnose common surgical conditions both acute and chronic, in adult and children.
2. Plan various laboratory tests for surgical conditions and interpret the results.
3. Identify and manage patients of hemorrhagic, septicemic and other types of shock.
4. be able to maintain patent air-way and resuscitate:
  - 4.1. a critically injured patient
  - 4.2. Patient with cardio-respiratory failure
  - 4.3. a drowning case
5. Monitor patients of head, chest, spinal and abdominal injuries, both in adults and children.

6. Provide primary care for a patient of burns.

7. Acquire principles of operative surgery, including pre-operative, operative and post-operative care and monitoring.

8. Treat open wounds including preventive measures against tetanus and gas gangrene.

9. Diagnose neonatal and pediatric surgical emergencies and provide sound primary care before referring the patient to secondary/ tertiary centres.

10. Identify congenital anomalies and refer them for appropriate management.

In addition to these he/she should have observed/assisted/ performed the following:

1. Incision and drainage of abscess

2. Debridement and suturing open wound

3. Venesection

4. Excision of simple cyst and tumours

5. Biopsy of surface malignancy

6. Catheterisation and nasogastric intubation

7. Circumcision

8. Meatotomy

9. Vasectomy

10. Peritoneal and pleural aspirations

11. Diagnostic proctoscopy

12. Hydrocele operation

13. Endotracheal intubation

14. Tracheostomy and cricothyroidotomy

15. Chest tube insertion.

### **1.2.3. Integration**

The undergraduate teaching in surgery should be integrated at various stages with different pre and para and other clinical de-partments.

## **2. ORTHOPEDICS**

### **2.1. OBJECTIVES**

#### **2.1.1. Knowledge**

The student should be able to:

- 1.Explain the principles of recognition of bone injuries and dis-location.
- 2.Apply suitable methods to detect and manage common infec-tions of bones and joints.
- 3.Identify congenital, skeletal anomalies and their referral for ap-proprite correction or rehabilitation.
- 4.Recognize metabolic bone diseases as seen in this country.
- 5.Explain etiogenesis, manifestations, diagnosis of neoplasm af-fecting bones.

#### **2.1.2. Skills**

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

- 1.Detect sprains and deliver first aid measures for common frac-tures and sprains and manage uncomplicated fractures of clavicle, Colles's, forearm, phallanges etc.
- 2.Techniques of splinting, plaster, immobilization etc.
- 3.Management of common bone infections, learn indications for sequestration, amputations and corrective measures for bone de-formities.
- 4.Aspects of rehabilitation for Polio, Cerebral Palsy and Amputation.

#### **2.1.3. Application**

Be able to perform certain orthopedic skills, provide sound advice of skeletal and related conditions at primary or secondary health care level.

#### **2.1.4. Integration**

Integration with anatomy, surgery, pathology, radiology and Fo-rensic Medicine is done.

## **3. RADIO-DIAGNOSIS AND RADIOTHERAPY**

### **3.1. RADIODIAGNOSIS & IMAGING**

#### **3.1.1. GOAL**

The broad goal of teaching the undergraduate medical students in the field of Radio-diagnosis should be aimed at making the students realize the basic need of various radio-diagnostic tools in medical practice. They should be aware of the techniques required to be undertaken in different situations for the diagnosis of various ailments as well as during prognostic estimations.

#### **3.1.2. OBJECTIVES**

##### **3.1.2.1. Knowledge**

**The student should be able to:**

1. Understand basics of X-ray production, its uses and hazards.
2. Appreciate and diagnose changes in bones - like fractures, infections, tumours and metabolic bone diseases.
3. Identify and diagnose various radiological changes in disease conditions of chest and mediastinum, skeletal system, G.I. Tract, Hepatobiliary system and G.U. system.
4. Learn about various imaging techniques, including isotopes C.T., Ultrasound, M.R.I. and D.S.A.

##### **3.1.2.2. Skill**

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

1. Use basic protective techniques during various imaging procedures.
2. Interpret common X-ray, radio-diagnostic techniques in various community situations.
3. Advise appropriate diagnostic procedures in specialized circumstances to appropriate specialists.

### **3.2 RADIOTHERAPY**

#### **3.2.1. GOAL**

The broad goal of teaching the undergraduate medical students in the field of Radiotherapy is to make the students understand the magnitude of the ever-increasing cancer problem in the country. The students must be made aware about steps required for the prevention and possible cure of this dreaded condition.

#### **3.2.2. OBJECTIVES**

## **1. Knowledge**

**The students should be able to:**

1. Identify symptoms and signs of various cancers and their steps of investigations and management.
2. Explain the effect of radiation therapy on human beings and the basic principles involved in it.
3. Know about radio-active isotopes and their physical properties
4. Be aware of the advances made in radiotherapy in cancer management and knowledge of various radio therapeutic equipment while treating a patient

## **2. Skill**

At the completion of the training programme, the student should be able to:

1. Take a detailed clinical history of the case suspected of having a malignant disease.
2. Assist various specialists in administration of anticancer drugs and in application and use of various radio-therapeutic equipment, while treating a patient.

## **4. DEPARTMENT OBJECTIVES**

### **4.1. General Surgery**

Aims of the surgical education for undergraduates are to develop a primary care physician with appropriate knowledge, skill and attitude to treat common disease at the primary care level. Emphasis will be laid on the primary care of the injured, care of comatose, common wounds and ulcers, resuscitation of patient with cardiac arrest, initial care of acute abdominal conditions and other emergencies. Diagnosis, workup and proper referral of common

conditions viz. hernia, lumps in breast, thyroid, piles and fissure & fistula, abdominal lumps, renal stones, varicose veins will be covered substantially.

### **4.2. Orthopedics**

At the end of the training the student should be able to describe the aetiology, pathophysiology, principles of diagnosis and management of common orthopaedic problems including emergencies.

## **5. SYLLABUS**

### **5.1. Theory**

#### **5.1.1. General Surgery**

## **1.General Principles**

Wound Healing and Management; Scars; Hypertrophic and Ke-loid; First aid management of severely injured - Asepsis, antiseptics, sterilization - Surgical sutures, knots, drains, bandages and splints - Surgical infections and rational use of antibiotics; Causes of infection, prevention of infection, common organisms causing infection - Boils, cellulitis, abscess, and necrotizing fasciitis - Tetanus and Gas gangrene: Prevention and treatment - Chronic specific infections: Tuberculosis, Filariasis, Leprosy - Antibiotic therapy -Hospital infection - AIDS and hepatitis B - Mechanisms and management of missile, blast and gunshot injuries - Surgical aspects of diabetes mellitus - Bites and stings - Organ transplantation: Basic Principles -Nutritional support to surgical patients.

## **2.Resuscitation**

Fluid and Electrolyte balance - Shock: Etiology, Pathophysiology and Management - Blood Transfusion: Indications and hazards - Common postoperative complications.

## **3.Common Skin and Subcutaneous Conditions**

Sebaceous cyst, dermoid cyst, lipoma, Haemangioma, Neurofibroma, pre-malignant conditions of the skin, Basal cell carcinoma, squamous cell carcinoma, Naevi and malignant melanoma - Sinus and fistulae - Pressure sores: prevention and management.

## **4.Arterial Disorders**

Acute arterial obstruction: diagnosis and initial management; types of gangrene; diagnosis of chronic arterial insufficiency with emphasis on Buerger's disease, atherosclerosis; Investigation in case of arterial obstruction - Amputations, Vascular injuries: Basic principles of management.

## **5.Venous Disorders**

Varicose veins: diagnosis and management; deep venous thrombosis; diagnosis, prevention, principles of therapy; thrombophlebitis.

## **6.Lymphatics and Lymph Nodes**

Diagnosis and principles of management of lymphangitis, lymph edema, acute and chronic lymphadenitis; cold abscess, lymphomas; surgical manifestations of filariasis

## **7.Burns**

Causes, prevention and first aid management; Pathophysiology; assessment of depth and surface area, fluid resuscitation; skin cover; prevention of contractures

## **8.Scalp, Skull and Brain**

Wounds of scalp and their management; recognition, diagnosis and monitoring of patients with head injury including unconsciousness; Glasgow coma scale; recognition of acute cerebral compression

### **9. Oral Cavity, Jaw, Salivary Glands**

Cleft lip and palate; Leukoplakia; retention cysts; ulcers of the tongue - Features, diagnosis and basic principles of management of carcinoma lip, buccal mucosa and tongue, prevention and staging of oral carcinomas - Salivary Glands; Acute sialoadenitis, neo-plasms; diagnosis and principles of management - Epulis, cysts and tumors of jaw; maxillofacial injuries; salivary fistulae.

### **10. Neck**

Branchial cyst; cystic hygroma - Cervical lymphadenitis: Non-specific and specific, tuberculosis of lymph nodes, secondaries in neck - Thoracic outlet syndrome; diagnosis.

### **11. Thyroid Gland**

Thyroid: surgical anatomy, physiology, investigations of thy-roid disorders; types, clinical features, diagnosis and principles of management of goitre, thyrotoxicosis and malignancies; thyroglos-sal cyst and fistula - Thyroiditis, Hypothyroidism.

### **12. Parathyroid and Adrenal Glands**

Clinical features and diagnosis of hyperparathyroidism, adre-nal hyperfunction/ hypo-function

### **13. Breast**

Surgical anatomy; nipple discharge; acute mastitis, breast ab-scess; mammary dysplasia; gynaecomastia; fibroadenomas - As-sessment and Investigation of a breast lump - Cancer breast: diag-nosis, staging , principles of management .

### **14. Thorax**

Recognition and treatment of pneumothroax, haemothorax, pul-monary embolism; prevention / recognition and treatment; flail chest; stove in chest ; postoperative pulmonary complications - Principles of management of pyothorax; cancer lung.

### **15. Heart and Pericardium**

Scope of cardiac surgery

### **16. Oesophagus**

Dysphagia: Causes, investigations and principles of manage-ment - Cancer esophagus: principles of management.



## **17. Stomach and Duodenum**

Anatomy, Physiology; Congenital hypertrophic pyloric stenosis; Aetiopathogenesis, diagnosis and management of: peptic ulcer, cancer stomach; upper gastrointestinal haemorrhage with special reference to bleeding varices and duodenal ulcer.

## **18. Liver**

Clinical features, diagnosis and principles of management of : Amoebic liver abscess, hydatid cyst and portal hypertension - Surgical anatomy; primary and secondary neoplasms of liver.

## **19. Spleen**

Splenomegaly: causes, investigations and indications for splenectomy; splenic injury.

## **20. Gall Bladder and Bile Ducts**

Anatomy, Physiology and investigations of biliary tree; clinical features, diagnosis, complications and principles of management of cholelithiasis and cholecystitis; obstructive jaundice - Carcinoma gall bladder, choledochal cyst

## **21. Pancreas**

Acute pancreatitis: clinical features, diagnosis, complications and management - Chronic pancreatitis, cancer pancreas.

## **22. Peritoneum, Omentum, Mesentery and Retroperitoneal Space:**

**Peritonitis:** causes, recognition and principles of management intra peritoneal abscesses - Laparoscopy.

## **23. Small and Large Intestines**

Diagnosis and principles of treatment of: Intestinal amoebiasis, tuberculosis of intestine, carcinoma colon; lower gastrointestinal haemorrhage - Ulcerative colitis, premalignant conditions of large bowel - Intestinal Obstruction: Types, etiology, diagnosis and principles of management; paralytic ileus - Acute Abdomen: Causes, approach, diagnosis and principles of management - Appendix: Diagnosis and management of acute appendicitis, appendicular lump and abscess

## **24. Rectum**

Carcinoma of rectum: diagnosis, clinical features and principles of management: indications and management of colostomy - Prolapse of rectum.

## **25. Anal Canal**

Surgical anatomy: Clinical features and management of: fis-sure, fistula in ano, perianal and ischiorectal abscess and haemorrhoids; Diagnosis and referral of anorectal anomalies - Anal carcinoma

## **26. Hernias**

Clinical features, diagnosis, complications and principles of management of : umbilical, inguinal and femoral hernia - Epigastric hernia; omphalitis; umbilical fistulae; burst abdomen and ventral hernia

## **27. Genito-Urinary System**

Symptoms and Investigations of the urinary tract - Investigation of renal mass; diagnosis and principles of management of urolithiasis, hydronephrosis, pyonephrosis, perinephric abscess and renal tumours - Renal tuberculosis - Causes, diagnosis and Principles of management of haematuria, anuria and acute retention of urine -Benign prostatic hyperplasia; diagnosis and management; carcinoma prostate - Diagnosis and principles of management of Phimosi, paraphimosis and carcinoma penis - Principles of management of urethral injuries - Diagnosis and principles of treatment of undescended testis, torsion testis, hydrocele, haematocoele, pyocoele, epididymo orchitis and testicular tumours - Varicocele.

## **28.Laparoscopic Surgery :**

History, Advantages, Instruments, preparation, Technique complication, contraindication

## **29.Day Care Surgery**

### **5.1.2. Orthopaedics**

#### **1. Trauma**

1.1. General principles in diagnosis, first aid and treatment methods of closed fractures and open fractures, open reduction including principles of internal fixation and external fixation, their complications, Preservation of amputated parts before transfer

1.2. General principles of diagnosis and management of non-unions and delayed unions

#### **2.Diagnosis, First Aid and Referral of**

Fracture clavicle - Anterior dislocation of shoulder - Fracture proximal end, shaft, supracondylar, and internal condylar humerus- Posterior dislocation of elbow - Fracture shaft of radius and ulna- Fracture of distal radius - Traumatic dislocation of hip - Fracture femur neck, trochanter and shaft - Fracture patella - Fracture shaft tibia and fibula - Haemarthrosis, traumatic synovitis - Injury to muscles and ligaments (shoulder arc syndrome, tennis elbow, ankle sprain) - General principles of management of hand injuries - Peripheral nerve injuries - Spinal injuries - Fracture of olecranon -Monteggia fracture dislocation - Polytrauma - Complications of fracture: Fat embolism, Ischaemic contracture, myositis ossificans, osteodystrophy

### **3.INFECTIONS OF BONES AND JOINTS**

Diagnosis and Principles of Management: Osteomyelitis; pyo-genic, tubercular, fungal (Madurafoot), syphilitic and parasitic in-fection of bone - Arthritis: septic and tubercular - Tuberculosis of the spine - Leprosy: principles of corrective surgery

#### **4.TUMOURS**

Diagnosis and Principles of Management: Benign lesions: Mul-tiple exostosis, Enchondroma, Osteoid osteoma, Simple bone cyst. Osteochondroma - Malignant lesions: Osteosarcoma, Ewing's sarcoma, Giant cell tumor, Chondrosarcoma and Secondary deposits

#### **5.DEGENERATIVE DISEASES**

Diagnosis and Principles of Management: Osteoarthritis -Spondylosis - Degenerative disc diseases.

#### **6.CONGENITAL ANOMALIES**

Diagnosis and Principles of Management: Congenital disloca-tion hip - Congenital talipes equinovarus - Pes Planus

#### **7.BONE DYSPLASIA**

Diagnosis and Principles of Management: Osteogenesis imper-fect - Achondroplasia

#### **8.NEURO-MUSCULAR DISORDERS**

Diagnosis and Principles of Management: Post-polio residual Paralysis - Cerebral palsy

#### **9.OSTEOCHONDROSES**

Diagnosis and Principles of Management: Perthe's disease

#### **10.DEFORMITIES**

Scoliosis: diagnosis and referral - Genu Varum and Valgum: diagnosis

#### **11. PREVENTIVE ORTHOPAEDICS**

#### **12. BASIC PRINCIPLES OF PHYSIOTHERAPY /OCCUPATIONAL THERAPY AND ORTHOTICS / PROSTHETICS**

Physiatric evaluation of common neurological diseases -Physiatric evaluation of common orthopaedic conditions -Principles of Exercise therapy, Electrotherapy and Occupational therapy - Principles of Orthotics and Prosthetics - Principles of Cardiopulmonary Rehabilitation.

13. Adequate working knowledge of total knee arthroplasty, indications and contra indications and total hip arthroplasty with indications and contraindications - Arthroscopy diagnostic and therapeutic in knee

### **5.1.3. BOOKS RECOMMENDED FOR GENERAL SURGERY**

1. Bailey & Love's- Short Practice of Surgery
2. S. Das Manual on Clinical Surgery
3. S. Das Text Book on Surgical Short Cases
4. Pye's Surgical Handicraft
5. Text book of Surgery by DAS
6. Hamilton Bailey Demonstration of Clinical signs & Symptoms in Surgery
7. Principles and Practices of Surgery by Jones Garden (Churchill Livingstone Publication)

### **6. UNIVERSITY EXAMINATION PATTERN**

<b>Exam</b>	<b>Marks</b>
Theory Paper - I	80
Theory Paper – II	80
Practicals	60
Viva	20
IA (The-30, Cli-20, Rec-10)	60
Total	300

#### **6.1. Theory**

6.1.1. It has two papers each of 3 hours duration and carrying 80 marks each

6.1.2. Each paper will have Section A & Section B having equal number of questions and the equal weightage.

#### **6.2. Type of question and its marks**

<b>S. No.</b>	<b>Nature of Paper</b>	<b>Section</b>	<b>Type of questions</b>	<b>Marks for the questions</b>
1	Theory	A & B	2 Essay each carrying 10 marks	20

		A & B	8 Short notes each carrying 5 marks	40
		A & B	10 Brief answers each carrying 2 marks	20
2	Practical		1 Long case in Surgery	25
			One Short case in surgery having (15 marks and one short case in orthopaedics having 10 marks)	25
			2 Spotters (One in General Surgery and another one in Orthopaedics) carrying 5 marks each	10
3	Oral		Specimen / Slide / X-Ray / Instruments / Viva Operative surgery	20

### **3. OBSTETRICS AND GYNAECOLOGY**

Obstetrics and Gynaecology include family welfare and family planning

#### **1.GOAL**

The broad goal of the teaching of undergraduate students in Obstetrics and Gynaecology is that he/she should acquire understanding of anatomy, physiology and pathophysiology of the reproductive system and gain the ability to optimally manage common conditions affecting it.

#### **2.OBJECTIVES**

##### **2.1. KNOWLEDGE**

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

- 1.Outline the anatomy, physiology and pathophysiology of the reproductive system and the common conditions affecting it.
- 2.Detect normal pregnancy, labour puerperium and manage the problems he/she is likely to encounter therein.
- 3.List the leading causes of maternal and perinatal morbidity and mortality.
- 4.Understand the principles of contraception and various techniques employed, methods of medical termination of pregnancy, sterilisation and their complications.
- 5.Identify the use, abuse and side effects of drugs in pregnancy, premenopausal and postmenopausal periods.
- 6.Describe the national programme of maternal and child health and family welfare and their implementation at various levels.
- 7.Identify common gynaecological diseases and describe principles of their management.
- 8.State the indications, techniques and complications of surgeries like Caesarian section, laparotomy, abdominal and vaginal hyster-ectomy, Fothergill's operation and vacuum aspiration for M.T.P.

##### **2.2. SKILLS**

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

- 1.Examine a pregnant woman; recognize high risk pregnancies and make appropriate referrals.
- 2.Conduct a normal delivery, recognize complications and provide postnatal care.
- 3.Resuscitate the newborn and recognize congenital anomalies.

4. Advise a couple on the use of various available contraceptive devices and assist in insertion in and removal of intra-uterine con-traceptive devices.

5. Perform pelvic examination, diagnose and manage common gynaecological problems including early detection of genital malignancies.

6. Make a vaginal cytological smear, perform a post coital test and wet vaginal smear examination for Trichomonas vaginalis, moniliasis and gram stain for gonorrhoea.

7. Interpretation of data of investigations like biochemical, histo-pathological, radiological, ultrasound etc.

### **2.3. INTEGRATION**

The student should be able to integrate clinical skills with other disciplines and bring about coordination of family welfare programmes for the national goal of population control

### **3. GENERAL GUIDELINES FOR TRAINING**

3.1. Attendance of a maternity hospital or the maternity wards of a general hospital including (i) antenatal care (ii) the management of the puerperium and (iii) a minimum period of 5 months in-patient and out-patient training including family planning

3.2. of this period of clinical instruction, not less than one month shall be spent as a resident pupil in a maternity ward of a general hospital.

3.3. During this period, the student shall conduct at least 10 cases of labour under adequate supervision and assist in 10 other cases.

3.4. A certificate showing the number of cases of labour attended by the student in the maternity hospital and/or patient homes respectively, should be signed by a responsible medical officer on the staff of the hospital and should state:

3.4.1. that the student has been present during the course of labour and personally conducted each case, making the necessary abdominal and other examinations under the supervision of the certifying officer who should describe his/her official position.

3.4.2. that satisfactory written histories of the cases conducted including wherever possible antenatal and postnatal observations, were presented by the student and initialed by the supervising officer

### **4. DEPARTMENT OBJECTIVES**

At the end of the training in Obstetrics and Gynaecology the M.B.B.S. student should be able to:

- 4.1. Appreciate the socio-cultural, economic and demographic factors that influence the practice of Obstetrics and Gynaecology.
- 4.2. Appreciate the principles of reproductive anatomy and physiology.
- 4.3. Understand the preconception, antenatal, intranatal and post-natal factors including drugs that affect the mother and foetus.
- 4.4. Recognize the changes and adaptation that occur in the mother during pregnancy, labour and puerperium.
- 4.5. Impart antenatal care, detect deviations from normal pregnancy and refer risk cases appropriately.
- 4.6. Manage normal labour, recognize the factors that may lead to complications and refer such cases appropriately.
- 4.7. Institute primary treatment in Obstetrics and Gynaecological emergencies
- 4.8. Resuscitate and take adequate care of the newborn.
- 4.9. Assist couples with infertility and those requiring contraception.
- 4.10. Know the aetiopathology and management of menstrual abnormalities.
- 4.11. Know about the benign and malignant tumors of the genital tract and appreciate the need for screening and prevention.
- 4.12. Recognize the importance of infections and other diseases of the genital tract and give appropriate treatment.
- 4.13. Know about the displacements of genital tract and injuries.
- 4.14. Understand the implications of medicolegal and ethical issues concerning the speciality.
- 4.15. Acquire communication, decision making and managerial skills.
- 4.16. Acquire skills to perform Obstetrical and Gynaecological examinations and certain minor investigations and therapeutic operative procedures.

## **5. SYLLABUS**

### **5.1. THEORY**

#### **5.1.1. OBSTETRICS**

##### **1.BROAD PERSPECTIVES**



Vital statistics, birth rate, maternal mortality, perinatal and neo-natal mortality, live birth, still birth, abortion, period of viability including definitions of all the above.

## **2.ANATOMY OF THE FEMALE REPRODUCTIVE TRACT**

Basic Anatomy: Relationship to other pelvic organs - Applied Anatomy as related to Obstetric and Gynaecological surgery

## **3.PHYSIOLOGY OF CONCEPTION**

Gametogenesis - Ovulation, menstruation, fertilization and im-plantation.

## **4.DEVELOPMENT OF FOETUS AND PLACENTA**

Basic embryology, factors influencing foetal growth and de-velopment; anatomy of placenta - Teratogenesis, placental barrier.

## **5.DIAGNOSIS OF PREGNANCY**

Clinical features; differential diagnosis; principles underlying the pregnancy test - Immunological tests and their interpretation; ul-tra-sonogram

## **6.MATERNAL CHANGES IN PREGNANCY**

Genital tract, cardiovascular system and hematology - Respi-ratory and gastrointestinal system

## **7.ANTENATAL CARE**

Objectives of antenatal care ; assessment of period of gesta-tion; detect abnormality with the help of gravidogram; clinical moni-toring of maternal and foetal well-being; detect normal foetal pel-vic relation (obstetrical palpation); advise immunization against tetanus; basic investigations - Foetal well-being : biophysical monitor-ing ; pelvic assessment.

## **8.COMPLICATIONS OF EARLY PREGNANCY**

Abortions: Definition, Types, Causes; Management of incom-plete, inevitable abortion - Ectopic Pregnancy: Clinical features; differential diagnosis of acute abdomen; principles of surgical man-agement; Causes and conservative management of ectopic preg-nancy - Hyperemesis Gravidarum : Aetiopathology; Impact on maternal and foetal health; principles of management - Gestational Trophoblastic Tumours: Clinical features; differential diagnosis; principles of management ; follow up; Laboratory investigations and ultrasonography.

## **9.ANTEPARTUM HAEMORRHAGE**

Classification; clinical features ; differential diagnosis ; prin-ciples of management - Aetiopathology; ultrasonography; compli-cations and management.

## **10. ABNORMAL PRESENTATIONS AND CONTRACTED PELVIS**

Causes, salient features; principles of management of occipito-posterior, face and brow presentation - Obstructed labor: definition, clinical features, prevention; mechanism of breech delivery

### **11. MULTIPLE PREGNANCIES**

Clinical features; diagnosis and complications ; principles of management ; investigations - Causes : management.

### **12. PREGNANCY - INDUCED HYPERTENSION**

Definition; early detection; investigations; principles of management of pregnancy - induced hypertension and eclampsia -Aetiopathology; differential diagnosis of convulsions in pregnancy; complications of eclampsia

### **13. ANAEMIA IN PREGNANCY**

Aetiology; classification; diagnosis; investigations; adverse effect on the mother and foetus; management during pregnancy and labour

### **14. OTHER MEDICAL DISORDERS LIKE HEART DISEASE / DIABETES MELLITUS / URINARY TRACT INFECTION / VIRAL INFECTIONS**

Clinical features; early detection; effect of pregnancy on the disease and impact of the disease on pregnancy - Complications of the diseases

### **15. NORMAL LABOUR**

Physiology; mechanism in occipito - anterior presentation -Monitoring : Partogram; conduct of labour; pain relief

### **16. MANAGEMENT OF THIRD STAGE OF LABOUR**

Active management of third stage of labour (AMTSL) - Complications: Predisposing factors; prevention; management of atonic post-partum hemorrhage - Management of injuries to the lower genital tract.

### **17. UTERINE DYSFUNCTION**

Classification; recognition of uterine dysfunction; principles of induction and acceleration of labour

### **18. FOETAL DISTRESS AND FOETAL DEATH**

Clinical features; causes; diagnosis; principles of management; prevention

### **19. HAEMOLYTIC DISEASE INCLUDING Rh ISO IMMUNISATION**

Mechanism; Prophylaxis; foetal complications

## **20. PUERPERIUM**

Physiology; clinical features; complications: recognition and principles of management; prevention of puerperal sepsis.

## **21. BREAST FEEDING**

Physiology of lactation; care of breast; counselling regarding breast feeding; mastitis and breast abscess.

## **22. CARE OF NEW BORN**

Assessment of maturity; detect asphyxia; principles of resuscitation; common problems.

## **23. MEDICAL TERMINATION OF PREGNANCY**

Legal aspects; indications; methods; complications - Management of complications

## **24. CONTRACEPTION**

Various methods and devices; selection of patients; counseling of couples; side effects; failures and complications

## **25. OPERATIVE OBSTETRICS**

Indications, technique and complications for episiotomy, vacuum extraction; low forceps, instrumental evacuation; menstrual regulation - Indications and steps of operation: Caesarean section; assisted breech delivery; external cephalic version; cervical cerclage; intra-amniotic instillation.

## **26. POST-CAESAREAN PREGNANCY**

Risks; identification of scar dehiscence

## **5.1.2. GYNAECOLOGY**

### **1. PHYSIOLOGICAL VAGINAL DISCHARGE**

Clinical characteristics

### **2. PATHOLOGICAL VAGINAL DISCHARGE**

Aetiology; characteristics; clinical recognition; investigation; treatment of common causes; genital hygiene

### **3. ABNORMAL & EXCESSIVE MENSTRUAL BLEEDING**

Definitions: classification of causes; clinical features; principles of investigation; diagnosis and management

#### **4.AMENORRHOEAS**

Causes; principles of management

#### **5.DYSFUNCTIONAL UTERINE BLEEDING**

Aetiopathology; classification; clinical aspects and diagnosis; principles of investigation and management - Hormone therapy; management options

#### **6.FERTILITY AND INFERTILITY**

1.Causes in male and female; Physical examination of both female and male partners; essential investigations and interpretation.

2.Management options; Principles of Medically Assisted Reproductive Technology (MART).

#### **7.ENDOMETRIOSIS & ALLIED STATES**

Aetiopathology; clinical features; principles of investigation and management - Implications on health and fertility

#### **8.GENITAL INJURIES & FISTULAE**

Causes; prevention; clinical features; principles of management

#### **9.GENITAL INFECTIONS**

STD, AIDS and Pelvic Tuberculosis - Infections affecting in-dividual organs - Aetiology; Pathology; clinical features; differential diagnosis; principles of basic investigation; medical therapy -Long term implications; surgical management.

#### **10.DISPLACEMENTS OF UTERUS**

Genital Prolapse: Aetiology; clinical features; differential diagnosis; principles of management; preventive aspects

#### **11.BENIGN TUMOURS OF PELVIC ORGANS**

Ovarian and Uterine tumours: Types; Aetiology; clinical features; differential diagnosis; principles of management

#### **12.MALIGNANCY OF GENITAL TRACT**

1.Cancer cervix uteri: Aetiopathology; clinical features; screening procedures; investigations; diagnosis; principles of management.

2.Epidemiological aspects; management options.

### **13. OPERATIVE GYNAECOLOGY**

Indications, technique and complications: Dilatation and Curet-tage (D & C); Fractional curettage; cervical biopsy – Indications and steps of abdominal hysterectomy; surgery for ovarian tumours; vaginal surgery for utero-vaginal prolapse - Laparoscopy; colpos-copy; hysteroscopy; management of postoperative complications- Re surgery in Gynaecology - Post-operative complications and their management.

#### **5.2. PRACTICAL**

5.2.1. Obtain a proper relevant history and perform a humane and thorough clinical examination including internal examinations (per-rectal and per-vaginal) in adults and children.

5.2.2. Arrive at a logical working diagnosis after examination.

5.2.3. Order appropriate investigations keeping in mind their need, relevance and cost effectiveness.

5.2.4. Plan and institute a line of treatment which is need based, cost effective and appropriate for common ailments taking into consideration:

##### **5.2.4.1. Patient**

##### **5.2.4.2. Disease**

##### **5.2.4.3. Socio-economic status**

##### **5.2.4.4. Institutional/Governmental guidelines.**

5.2.5. Recognize situations which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment.

5.2.6. Demonstrate interpersonal and communications skills befit-ting a physician in order to discuss the illness and its out-come with patient and family.

5.2.7. Determine gestational age.

5.2.8. Maintain an ethical behavior in all aspects of medical practice.

5.2.9. Obtain informed consent for any examination/procedure.

5.2.10. Motivate colleagues, community and patients to partici-pate actively in national health programmes.

5.2.11. Write a complete case record with all necessary details.

5.2.12. Write a proper discharge summary with all relevant information.

- 5.2.13. Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details.
- 5.2.14. Assess the need for and issue proper medical certificates to patients for various purposes.
- 5.2.15. Organize antenatal, postnatal, well-baby and other clinics.
- 5.2.16. Plan and manage health camps such as family welfare camp.
- 5.2.17. Adopt universal precautions for self-protection against HIV and hepatitis and counsel patients.
- 5.2.18. Do and examine a wet film of vaginal smear for Trichomonas and fungus.
- 5.2.19. Take a pap smear.
- 5.2.20. Take punch biopsy of cervix.
- 5.2.21. Conduct normal vaginal delivery.
- 5.2.22. Do artificial rupture of membranes.
- 5.2.23. Perform and suture episiotomies.
- 5.2.24. Assist in application of outlet forceps.
- 5.2.25. Assist in postpartum tubectomy.
- 5.2.26. Assist in performing MTP in the first trimester and be able to do evacuation in incomplete abortion.
- 5.2.27. Assist in Insertion and removal of IUCD.
- 5.2.28. Be able to diagnose and provide emergency management of antepartum and postpartum haemorrhage.

### **5.3. INTEGRATED TEACHING**

Family Planning - Embryology: Integrated foetal growth and development - Acute abdomen - Care of newborn - Prescribing in Pregnancy - Nutrition & Anaemia in Pregnancy - Physiological changes - Neonatal resuscitation problems.

### **5.4. BOOKS RECOMMENDED**

1. Text Book of Obstetrics-Mudaliar Menon
2. Text Book of Obstetrics-Dutta
3. Text Book of Gynaecology-Shaw

4. Text Book of Gynaecology - Dutta

**5.4.1. Reference Books:**

1. Jeffcoate's - Gynaecology

2. Shaw's Operative Gynaecology

3. William's - Obstetrics

**6. UNIVERSITY EXAMINATION PATTERN**

Exam	Marks
Theory Paper - I	80
Theory Paper – II	80
Practicals	60
Viva	20
IA	60
Total	300

**6.1. Theory**

6.1.1. It has two papers each of 3 hours duration and carrying 80 marks each

6.1.2. Each paper will have Section A & Section B having equal number of questions and the equal weightage.

**6.2. Type of question and its marks**

S. No.	Nature of Paper	Section	Type of questions	Marks for the questions
1	Theory	A & B	2 Essay each carrying 10 marks	20
		A & B	8 Short notes each carrying 5 marks	40
		A & B	10 Brief answers each carrying 2 marks	20
2	Practical		1 Long case in Obstetrics	30
			1 Long case in Gynaecology	30
3	Oral		Specimen, Instruments, Dummy Pelvis and Family Planning carrying 5 marks each	20





#### 4. PEDIATRICS INCLUDING NEONATOLOGY

The course includes systematic instructions in growth and development, nutritional needs of a child, immunization schedules and management of common diseases of infancy and childhood, scope of Social Pediatrics and counseling.

##### 1. GOAL

The broad goal of the teaching of undergraduate students in Pediatrics is to acquire adequate knowledge and appropriate skills for optimally dealing with major health problems of children to ensure their optimal growth and development.

##### 2. OBJECTIVES

###### 2.1. KNOWLEDGE

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

1. Describe the normal growth and development during foetal life, neonatal period, childhood and adolescence and outline deviations thereof.
2. Describe the common paediatric disorders and emergencies in terms of epidemiology, etiopathogenesis, clinical manifestations, diagnosis, rational therapy and rehabilitation.
3. State age related requirements of calories, nutrients, fluids, drugs etc. in health and disease.
4. Describe preventive strategies for common infectious disorders, malnutrition, genetic and metabolic disorders, poisonings, accidents and child abuse.
5. Outline national programmes relating to child health including immunization programmes.

###### 2.2. SKILLS

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

1. Take a detailed pediatric history, conduct an appropriate physical examination of children including neonates, make clinical diagnosis, conduct common bedside investigative procedures, interpret common laboratory investigation results and plan and institute therapy.
2. Take anthropometric measurements, resuscitate newborn infants at birth, prepare oral rehydration solution, perform tuberculin test, administer vaccines available under current national programs, perform venesection, start an intravenous saline and provide nasogastric feeding.
3. Conduct diagnostic procedures such as lumbar puncture, liver and kidney biopsy, bone marrow aspiration, pleural tap and ascitic tap.
4. Distinguish between normal newborn babies and those requiring special care and institute early care to all newborn babies including care of preterm and low birth weight babies, provide correct guidance and counseling in breast feeding.

5. Provide ambulatory care to all sick children, identify indications for specialized/inpatient care and ensure timely referral of those who require hospitalization.

### **2.3. INTEGRATION**

The training in pediatrics should prepare the student to deliver preventive, promotive, curative and rehabilitative services for care of children both in the community and at hospital as part of a team in an integrated form with other disciplines, e.g. Anatomy, Physiology, Biochemistry, Microbiology, Pathology, Pharmacology, Forensic Medicine, Community Medicine and Physical Medicine and Rehabilitation.

### **3.1. DEPARTMENT OBJECTIVES**

The objectives of training the undergraduate students in pediatrics are to ensure that at the end of the training he / she will be able to:

- 3.1.1. Diagnose and appropriately treat common pediatric and neonatal illness.
- 3.1.2. Identify pediatric and neonatal illnesses and problems that require secondary and tertiary care and refer them appropriately.
- 3.1.3. Advise and interpret relevant investigations.
- 3.1.4. Counsel and guide patient's parents and relatives regarding the illness, the appropriate care, the possible complications and the prognosis.
- 3.1.5. Provide emergency cardiopulmonary resuscitation to new borns and older children.
- 3.1.6. Describe the normal growth and development during foetal life, neonatal period, childhood and adolescence and outline deviations thereof.
- 3.1.7. State age related requirements of calories, nutrients, fluids, drugs etc. in health and disease.
- 3.1.8. Describe preventive strategies for common infectious disorders, malnutrition, genetic and metabolic disorders, poisonings, accidents and child abuse.
- 3.1.9. Diagnose and effectively treat acute pediatric and neonatal emergencies.
- 3.1.10. Discharge medico-legal and ethical responsibilities.
- 3.1.11. Perform routine investigative and therapeutic procedures.
- 3.1.12. Motivate parents to consent for a diagnostic autopsy.

### **3.2. DEPARTMENT SKILLS**

1. Obtain a proper relevant history and perform a humane and thorough clinical examination of all organs / systems in children including neonates.

2. Arrive at a logical working diagnosis after clinical examination.
3. Order appropriate investigations keeping in mind their need, relevance and cost effectiveness.
4. Plan and institute a line of treatment which is need based, cost effective and appropriate for common ailments taking into consideration :
  - a. Patient,
  - b. Disease,
  - c. Socio-economic status,
  - d. Institutional / governmental guidelines.
5. Recognize situations which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment.
6. Demonstrate empathy and humane approach towards patients, relatives and attendants.
7. Develop a proper attitude towards patients, colleagues and other staff.
8. Maintain an ethical behavior in all aspects of medical practice.
9. Monitor growth and development of children and differentiate normal from abnormal.
10. Assess and manage fluid / electrolyte and acid-base imbalance.
11. Manage diarrheas / dysenteries: Assess dehydration; prepare and administer oral rehydration therapy (ORT).
12. Detect and institute corrective measures for nutritional deficiency.
13. Write a complete case record with all necessary details.
14. Write a proper discharge summary with all relevant information.
15. Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details.
16. Organize antenatal, postnatal, well-baby and other clinics.
17. Motivate colleagues, community and patients to actively participate in national health programmes.
18. Organise and give training in first aid.
19. Adopt universal precautions for self-protection against HIV and hepatitis and counsel patients.
20. Maintain cold chain for vaccines.
21. Perform and read Mantoux test.
22. Start I.V. line and infusion in children and neonates.
23. Do venous cut down.
24. Give intradermal / SC / IM / IV injection.
25. Insert and manage a C.V.P. line.
26. Conduct CPR (cardiopulmonary resuscitation) and first aid in newborns/children including endotracheal intubation.
27. Pass a nasogastric tube.
28. Manage hyperpyrexia.

## **4. SYLLABUS**

### **4.1. THEORY**

#### **4.1.1. VITAL STATISTICS**

Introduction to pediatrics with special reference to age related disorders - Definition of mortality rates and ratios: infant, perinatal, maternal and neonatal - Causes and prevention of infant, perinatal and neonatal mortality - National programmes on maternal and child health including ICDS, IMNCI, RCH-I & RCH-II.

#### **4.1.2. GROWTH AND DEVELOPMENT**

Anthropometric and development assessment, normal and abnormal growth and development patterns, interpretation of growth curves and road to health chart - Psychological and behavioral problems; Approach to a child with growth retardation and short stature

#### **4.1.3. NUTRITION**

Normal requirements of protein, carbohydrate, fat, mineral, vitamins and trace elements for newborns, children, pregnant and lactating mothers - Exclusive breast feeding, advantages of breast feeding, infant feeding, weaning diets, planning of preterm nutrition, therapeutic diet chart - Recognition and treatment of nutritional deficiency disorders - Protein energy malnutrition : classification, causes, management including that of complications - National Nutritional and other child health and welfare programmes - Management of problems related to lactation failure - Hypervitaminosis

#### **4.1.4. IMMUNISATION**

National Immunization programmes; Vaccines and vaccine; preventable diseases - Principles of immunization; Vaccine preservation and cold chain ; Indications, contra-indications, adverse reaction and complications - Investigations and reporting of vaccine preventable diseases - Other newer vaccines - Haemophilus, Pneumococcal, hepatitis, meningococcal, mumps, rubella, influenza vaccine, varicella vaccine.

#### **4.1.5. INFECTIOUS DISEASES**

Natural history, clinical course, signs, symptoms, investigations, management and prevention of common bacterial, viral, parasitic and fungal infections with special reference to vaccine preventable disease, tuberculosis, mumps, rubella, typhoid, chicken pox and other common childhood exanthematous diseases, and parasitic infestations like Giardiasis, Malaria, Kala azar, Filariasis and Intestinal Helminthiasis and leptospirosis - Pediatric HIV, and Dengue fever

#### **4.1.6. CENTRAL NERVOUS SYSTEM**

Clinical diagnosis, investigations and treatment of acute CNS infections: Meningitis including tuberculosis, encephalitis, seizure disorders, febrile convulsions, Rheumatic Chorea - Cerebral palsy, mental retardation, hydrocephalus, Microcephaly - Infantile Hemiplegia.

#### **4.1.7. GASTROINTESTINAL SYSTEM**

Clinical diagnosis, relevant investigations and management of: 1.Gastro-oesophageal reflux, GI bleeding, short gut syndrome, acute and chronic diarrhea, complications of gastroenteritis and diarrhea control programme.

2.Common hepatic disorders: Hepatitis, Childhood Cirrhosis, Hepatosplenomegaly, Obstructive Jaundice, Portal Hypertension. 3.Abdominal tuberculosis, acute abdomen including surgical causes paralytic ileus, chronic constipation and rectal bleeding. 4.Budd - Chiari syndrome, Metabolic disorders like Wilson's disease.

#### **4.1.8. GENITOURINARY SYSTEM**

Clinical features, investigations, complications and management of acute glomerulonephritis; nephrotic syndrome; urinary tract in-fecton; acute and recurrent - Acute and chronic renal failure.

#### **4.1.9. CARDIO VASCULAR SYSTEM**

Clinical features, diagnosis, investigation, prevention and treatment of acute rheumatic fever, rheumatic heart disease and complica-tions - Recognition of congenital acyanotic and cyanotic heart dis-eases and management of cyanotic spells - Prevention, recognition and treatment of bacterial endocarditis - Diagnosis and manage-ment of congestive cardiac failure - Clinical features, diagnosis, prevention and treatment of pericardial effusion and myocarditis.

#### **4.1.10. RESPIRATORY SYSTEM**

Epidemiology, clinical features, investigation and management of acute respiratory infections of upper and lower tract and ARI control programme - Diagnosis and management of acute bronchial asthma, status asthmaticus, chronic suppurative lung diseases -Diagnosis and appropriate management of foreign body aspiration- Cystic fibrosis.

#### **4.1.11. ENDOCRINE SYSTEM**

Clinical recognition, causes, laboratory diagnosis, prevention and management of Hypothyroidism (cretinism) - Juvenile diabe-tes mellitus - CAH (Congenital Adrenal Hyperplasia)

#### **4.1.12. HAEMATOLOGICAL SYSTEM**

Recognition of clinical features, diagnosis, laboratory investi-gations and management of Nutritional and Haemolytic Anaemias- Diagnosis and basic investigations of bleeding and coagulation disorders in newborn and older children - Leukaemia and Lymphomas

#### **4.1.13. NEONATOLOGY**

Foetal physiology of normal pregnancy; Identification of ante-natal, intrapartum and immediate postnatal risk factors - Definition, Identification and classification of high risk neonate, Neonatal resuscitation, Gestational age assessment and Care of the normal newborn - Management of neonatal problems : Transient metabolic disorders, Infections, Minor developmental defects, Infants of diabetic mothers, Haemorrhagic Disease of Newborn, Respiratory distress, Feeding difficulties, Birth injuries, Anaemia and Jaundice - Management of meconium aspiration syndrome - Care of the preterm and low birth weight infant : temperature maintenance, feeding, prevention of complications, appropriate method of transfer to tertiary centre - Identification and referral of neonates with congenital malformations like cleft lip, cleft palate, tracheo-oesophageal fistula, diaphragmatic hernia, anorectal anomalies and neural tube defects.

#### **4.1.14. GENETIC DISORDERS**

Principles of inheritance and diagnosis of genetic disorders -Terminologies, Down 's syndrome - Genetic counseling

#### **4.1.15. EMERGENCY PEDIATRICS**

Clinical features, aetiology, laboratory diagnosis, prevention and management of : Status asthmaticus, Status epilepticus, Acute pulmonary oedema, Hypertensive emergencies, Peripheral circulatory failure due to dehydration and haemorrhage, Cardiac failure, Cyanotic spells, Scorpion and snake envenomation, and common poisoning like kerosene, datura, insecticide, and commonly used drugs etc.

#### **4.1.16. MISCELLANEOUS DISORDERS**

Common childhood symptoms that cause undue parental anxiety but are of no serious importance: recurrent common cold, stubbornness, temper tantrum, refusal to eat - Juvenile Rheumatoid Arthritis.

#### **4.2. BOOKS RECOMMENDED**

1. Essential Paediatrics- O.P. Ghai
2. IAP Text Book of Paediatrics

#### **5. UNIVERSITY EXAMINATION PATTERN**

<b>Exam</b>	<b>Marks</b>
Theory Paper - I	80
Practicals	30
Viva	10

IAT	30
Total	150

### 5.1. Theory

5.1.1. It has one paper having 3 hours duration and carrying 80 marks

5.1.2. This paper will have Section A & Section B having equal number of questions and the equal weightage.

#### Type of question and its marks

S. No.	Nature of Paper	Section	Type of questions	Marks for the questions
1	Theory	A & B	2 Essay each carrying 10 marks	20
		A & B	8 Short notes each carrying 5 marks	40
		A & B	10 Brief answers each carrying 2 marks	20
2	Practical		1 Long case	15
			Short Cases and Spotters carrying 7½ marks	15

**Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem – 636308.**  
**Final MBBS Part II -ACADEMIC CALENDER 2020 – 2021**

<b>Date</b>	<b>Events for May 2021</b>	<b>Events for June 2021</b>	<b>Events for July 2021</b>
1	<b>May Day - Holiday</b>		<b>National Doctor's Day</b> Paediatrics – Symposium I
2	<b>Sunday</b>		
3			
4			<b>Sunday</b>
5		General Medicine – 1 <sup>st</sup> Internal Assessment	
6	<b>World Asthma Day</b>	<b>Sunday</b> <b>World Malaria Day</b>	
7		Obs. & Gyn. – 1 <sup>st</sup> Internal Assessment	
8	<b>World Red Cross Day</b>	Medicine – Symposium II	
9	<b>Sunday</b> <b>World Thalassaemia Day</b>	<b>Mentorship Programme</b>	
10			<b>Saturday</b>
11	Medicine – Symposium I		<b>Sunday</b>
12	<b>Mentorship Programme</b>		
13		<b>Sunday</b>	Medicine – Symposium III
14		<b>World Blood Donation Day</b>	Obs. & Gyn. – Symposium I <b>Mentorship Programme</b>
15			
16	<b>Sunday</b>	General Surgery – 1 <sup>st</sup> Internal Assessment	
17			
18			<b>Sunday</b>
19		Paediatrics – 1 <sup>st</sup> Internal Assessment	
20		<b>Sunday</b>	
21			
22			



23	<b>Sunday</b>		
24			<b>Saturday</b>
25		Orthopaedics – 1 <sup>st</sup> Internal Assessment	<b>Sunday</b>
26			
27		<b>Sunday</b>	
28			
29			
30	<b>Sunday</b>		
31		-	<b>Saturday</b>

<b>Date</b>	<b>Events for August 2021</b>	<b>Events for September 2021</b>	<b>Events for October 2021</b>
1	<b>Sunday</b> World Breast Feeding week		
2	World Breast Feeding week	Paediatrics – Symposium II	Gandhi Jayanthi – Holiday
3	World Breast Feeding week		<b>Sunday</b>
4	World Breast Feeding week	General Medicine – 2 <sup>nd</sup> Internal Assessment	
5	World Breast Feeding week	<b>Sunday</b> <b>Teacher’s Day</b>	
6	World Breast Feeding week		General Surgery – 3 <sup>rd</sup> Internal Assessment
7	World Breast Feeding week Obs. & Gyn. – 2 <sup>nd</sup> Internal Assessment		
8	<b>Sunday</b>	<b>Mentorship Programme</b>	
9			
10	Medicine – Symposium IV		<b>Sunday</b> World Mental Health Day
11	<b>Mentorship Programme</b>		
12		<b>Sunday</b>	<b>World Arthritis Day</b> Medicine – Symposium VI
13			Obs. & Gyn. – Symposium III <b>Mentorship Programme</b>
14	<b>Saturday</b>	Medicine – Symposium V	
15	<b>Sunday</b> <b>Independence Day - Holiday</b>	Obs. & Gyn. – Symposium II	
16			Paediatrics – 3 <sup>rd</sup> Internal Assessment
17			<b>Sunday</b>

18	General Surgery – 2 <sup>nd</sup> Internal Assessment		
19	Orthopaedics – 2 <sup>nd</sup> Internal Assessment	<b>Sunday</b>	
20			<b>World Osteoporosis Day</b>
21	Paediatrics – 2 <sup>nd</sup> Internal Assessment		<b>World Iodine Deficiency Day</b> Orthopaedics – 3 <sup>rd</sup> Internal Assessment
22	<b>Sunday</b>		
23			<b>Saturday</b>
24			<b>Sunday</b> <b>World Polio Day</b>
25		<b>Saturday</b>	
26		<b>Sunday</b>	
27		Obs. & Gyn. – 3 <sup>rd</sup> Internal Assessment	
28	<b>Saturday</b>		
29	<b>Sunday</b>		
30			<b>Saturday</b>
31		-	<b>Sunday</b>

<b>Date</b>	<b>Events for November 2021</b>	<b>Events for December 2021</b>	<b>Events for January 2022</b>
1		<b>World AIDS Day</b>	<b>Saturday</b> <b>New Year - Holiday</b>
2			<b>Sunday</b>
3			
4		Paediatrics – 4 <sup>th</sup> Internal Assessment	General Medicine – 4 <sup>th</sup> Internal Assessment
5		<b>Sunday</b>	
6	General Medicine – 3 <sup>rd</sup> Internal Assessment		
7	<b>Sunday</b>		
8		General Surgery – 4 <sup>th</sup> Internal Assessment <b>Mentorship Programme</b>	<b>Saturday</b>
9	Medicine – Symposium VII	Paediatrics – Symposium IV	<b>Sunday</b>
10	<b>World Immunisation Day</b> Obs. & Gyn. – Symposium IV <b>Mentorship Programme</b>		
11	Paediatrics – Symposium III		Medicine – Symposium IX
12		<b>Sunday</b>	<b>Mentorship Programme</b>
13	<b>Saturday</b>		
14	<b>Sunday</b>	Medicine – Symposium VIII	
15			<b>Saturday</b>
16			<b>Sunday</b>
17			
18			
19		<b>Sunday</b>	
20			
21	<b>Sunday</b>		
22	Obs. & Gyn. – 4 <sup>th</sup> Internal Assessment		<b>Saturday</b>
23			<b>Sunday</b>
24			
25		<b>Saturday</b>	

		<b>Christmas – Holiday</b>	
26		<b>Sunday</b>	<b>Republic day</b>
27	<b>Saturday</b>		
28	<b>Sunday</b>		
29			<b>Saturday</b>
30		Orthopaedics – 4 <sup>th</sup> Internal Assessment	<b>Sunday</b> <b>World Leprosy Eradication</b>
31	-		

<b>Date</b>	<b>Events for February 2022</b>		
1	General Medicine-Model exam -Theory Paper I		
2	General Medicine-Model exam -Theory Paper II		
3	General Surgery-Model exam -Theory Paper I		
4	General Surgery-Model exam -Theory Paper II		
5	Obs. & Gyn.-Model exam -Theory Paper I		
6	<b>Sunday</b>		
7	Obs. & Gyn.-Model exam -Theory Paper II		
8	Paediatrics-Model exam -Theory		
9	General Medicine – Medal Exam		
10	General Surgery – Medal Exam		
11	Obs. & Gyn. – Medal Exam		
12	Paediatrics – Medal Exam		
13	<b>Sunday</b>		
14	Orthopaedics – Medal Exam		
15	General Medicine–Model clinics – A Batch General Surgery–Model clinics – B Batch Obs. & Gyn. – Model clinics – C Batch Paediatrics – Model clinics – D Batch		
16	General Medicine–Model clinics – B Batch General Surgery–Model clinics – C Batch Obs. & Gyn. – Model clinics – D Batch Paediatrics – Model clinics – A Batch		
17	General Medicine–Model clinics – C Batch General Surgery–Model clinics – D Batch Obs. & Gyn. – Model clinics – A Batch Paediatrics – Model clinics – B Batch		
18	General Medicine–Model clinics – D Batch General Surgery–Model clinics – A Batch Obs. & Gyn. – Model clinics – B Batch		

	Paediatrics – Model clinics – C Batch		
19			
20	<b>Sunday</b>		
21			
22			
23			
24			
25			
26			
27	<b>Sunday</b>		
28			
29			
30			
31			

Medical Education is not just a program for building  
knowledge and skills in its recipients...  
it is also an experience which creates attitudes and expectations.

*--- Abraham Flexner ---*