

**TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY**



**M.B.B.S DEGREE COURSE**

**TO GRANT CONTINUANCE OF PROVISIONAL  
AFFILIATION AT THE TIME OF 4<sup>TH</sup> RENEWAL FOR**

**M.B.B.S COURSE**

**FOR 150 ADMISSIONS**

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**M.B.B.S. DEGREE COURSE**

**APPLICATION FOR THE CONTINUANCE OF PROVISIONAL AFFILIATION  
AT THE TIME OF 4<sup>TH</sup> (FORUTH) RENEWAL FOR M.B.B.S COURSE FOR 150  
ADMISSIONS**

**SECTION – A. GENERAL INFORMATION**

1. Name of the Society/Trust :  
and its registered address  
(Copy of Regd. Trust deed  
to be enclosed)
  
2. Name of the proposed Medical :  
College and its full postal address
  
3. Address where the Medical :  
College is to be located with  
Telephone No. etc.
  
4. Name of the other courses run :  
by the Trust. (Note: Please furnish  
Name and address of the College  
Course wise):
  
5. Number of candidates proposed to :  
be admitted in the First-Year  
M.B.B.S. Degree Course:
  
6. LAND: Details of the extent of :  
land available for the proposed  
Medical College

**Note:**

1. The teaching Hospital and the administrative block should be located in a suitable single plot of land measuring not less than 25 acres owned and possessed by the

applicant. (UNITARY COMPLEX) (This should be certified by an authority not lower than Deputy Tasildhar)

- i) If the college is located in an urban agglomeration or Municipal Zone or rural area specify the same:
- ii) Extent of the land available for the Institution:
- iii) Whether all the provision of the relevant Acts on the subject such as the Tamil Nadu Urban Land (ceiling and regulation) Act, 1978. (Tamil Nadu Act 24 of 1978), Tamil Nadu Town and Country Planning Act, 1971 (Tamil Nadu Act 35 of 1972) and Tamil Nadu Land Reforms (fixation of ceiling on land) Act, 1961 (Tamil Nadu Act 58 of 1961) as inforce, etc., have been fulfilled.

2.

- i) Documentary evidence from the concerned Urban Land Tax Authorities (not lower than Assistant Commissioner) or from the Government stating that the entire ear-marked registered land for the proposed medical college does not attract any of the provisions of the Tamil Nadu Urban Land Ceiling and Regulation Act 1971 and Tamil Nadu Land Reforms Act 1961 for the total extent of land shown for starting of the Medical College to be produced.
- ii) The Trust is requested to produce the exemption certificate permission) obtained from the Government exempting them from the respective land Ceiling Act in force.

3. List of enclosures to be sent:

- i) Copy of Registered Sale Deed regarding ownership:

- ii) Sworn Affidavit stating that the details of land furnished above are ear-marked for the Proposed Medical College only. (To be furnished in the enclosed format).
- iii) Legal opinion of the Government pleader on the ear-marked land showing the details of survey nos, along with registered sale deed no. and date extent of area and possession of ownership of the land/clear title.
- iv) Encumbrance Certificate on the entire land for the last 15 years covering the latest period obtained from the Registering Authority.
- v) Whether all infrastructural facilities such as Administrative Block, Teaching Hospital, Hostel, Central Library etc. are available in one campus.
- vi) Details regarding applicant owns and manages a Hospital of not less than 300 beds with necessary infrastructural facilities and capable of being developed into a teaching institution as prescribed by the Medical Council of India in the vicinity of proposed medical college
- vii) Details regarding the administrative block of the Hospital and its location.
- viii) Details of the Hospital plan, owned by the Trust / Society:
  - a) Details of the Staff working (both in hospital and administration to be furnished as Annexure)
  - b) Proof of ownership of running 300 bedded hospital with outpatient sections like Medicine, Surgery, Paediatrics, Midwifery, Ortho, E.N.T., Ophthalmology.

- c) Whether facilities are available for Radiology, Clinical Laboratory, Blood Bank and Operation Theatre etc.
  - d) Daily outpatients turn over:
  - e) Bed occupancy:
  - f) Approved Master Plan of Hospital duly indicating the office ref. no. & date, office date, seal, town planning authorities approval for the plan etc. for the development of the Hospital as a future teaching Hospital with all necessary facilities and scope for further development including specialties (Approved plan proceedings orders to be enclosed)
  - g) Facilities for Provision like workshop, laundry, canteen, auditorium etc.
  - h) Staff quarters details
  - i) Master plan of the college and hospital complex, either in toto or phased programme.
  - j) Ready Built Area: Approved plan duly indicating the Panchayat Union/Municipal Office Ref. No. and date along with Town Planning authorities signature, date and office seal of the proposed Medical College and Hospital by the competent authority should be produced. (Approved plan proceedings orders to be enclosed.)
7. Particulars as of the availability of training facility for the students to be admitted in the college.
8. Particulars as to the availability of ready built area for the accommodation of the academic complex and residential quarters for the staff of the proposed college

9. Particulars regarding location availability of Play Ground
10. Details regarding the location of Hostel for men and women students
11. Total population of the area in and around 20 kms. of radius of the area in which the medical college is to be located
12. Availability of Water supply, transport facilities development potential etc.
13. Details regarding the financial soundness of the Trust/Society with supporting documents to show that it has the capacity to deposit 50 Lakhs (Rupees fifty lakhs only)
  - a) The applicant Trust/Society shall also furnish proof to show that it has an annual income of Rs.15,00,000 (rupees Fifteen Lakhs Only) excluding the interest drawn from the amount referred to in sub-statute (1) above
14. An undertaking sworn Affidavit before a Notary Public stating the Trust has not admitted any student in the proposed Medical College and the students will be admitted only after the grant of provisional affiliation from the university.
15. To start First MBBS Degree Course

The applicant Trust/Society shall, before applying for affiliation for the first MBBS Degree course of study, fulfil the following conditions, namely;

Details regarding the hospital run by the Trust/Society well organised with 300 bedded hospital with out-patient sections such as Medicine, Surgery, Paediatrics, Midwifery, Ortho, E.N.T., Ophthalmology with facilities like Radiology,

Clinical Laboratory, Blood Bank, Operation Theatre etc. and capable of being developed into 750 bedded teaching hospital within the vicinity of the proposed medical college and with such other facilities as detailed below. (Along with Hospital building approved plan to be enclosed)

**Bed Strength for various departments from the inception.**

Medicine & allied specialities

General Medicine	180
Paediatrics	90
TB & Chest	30
Skin & STD	15
Psychiatry	15

Surgery & allied specialities

General Surgery	180
Orthopaedics	90
Ophthalmology	30
E.N.T.	30

Obstetrics. & Gynaecology.

Obstetrics	54
Gynaecology	36

Total	----- 750 -----
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1. The applicant for establishing a medical college in India is required to fulfill the qualifying criteria prescribed in the Establishment of Medical College Regulations, 1999 as amended in December, 2009 and in addition shall have the full complement of staff as given.

**150 ADMISSIONS**

**FACILITIES REQUIRED TO BE PRESENT FOR GRANT OF CONTINUANCE OF PROVISIONAL AFFILIATION AT THE TIME OF 4<sup>TH</sup> (FOURTH) RENEWAL FOR M.B.B.S. COURSE FOR 150 ADMISSIONS**

**SECTION (B) GENERAL INFRASTRUCTURAL FACILITIES**

**ADMINISTRATIVE BLOCK**

Accommodation shall be provided for Principal/Dean's office (36.sq.m), Staff Room (54 sq.m), College Council Room (80 sq.m), Office Superintendents Room (10 sq.m), Office Room (150 sq.m), Record room (100 sq.m), Examination Hall (400 sq.m), separate common room for Male and Female students with attached toilets (30 sq.m each) and Cafeteria (40-50 sq.m).

<b>S.NO</b>	<b>Facilities required</b>	<b>Required</b>	<b>Available</b>
1	<b>Principal / Dean</b> (36 Sq. m)	1	
2	<b><u>Administrative Block</u></b>		Accommodation to be in position from inception with computer and internet facilities
	i. Principal/Dean Office Complex		
	ii. Accounts section	100% of staff	
	iii. Academic section	component	
	iv. Establishment section		
3	<b>Examination Hall cum Auditorium (A/c)</b>	Examinations Hall/Auditorium for 750 seating capacity	
4	<b>Lecture Theatre of gallery type air-condition</b>	4 theatres of 180 seating capacity & 1 theatre of 350 seating capacity each.	

		OHP	
		LCD & Slide Projector	
		Microphone	
5	<b>College Council (80 Sq.m)</b>	From inception	
6	<b>Animal House</b> (maintained by Dept of Pharmacology)	From inception	
		<b><u>Staff:</u></b>	
		1. Veterinary Officer - 1	
		2. Animal Attendants - 2	
		3. Technician for animal Operation room - 1	
		4. Sweepers - 1	
7	<b>Central Library 2400 Sq.m</b>  With adequate lighting and ventilation  - Adequate space for stalking and display of books/journals  - Journals continuous subscription  - Number of copies of text books in each subject of undergraduate teaching shall be 10	Seating arrangement for 150 students  <b><u>Staff:</u></b>  1. Librarian with a degree in Library Science - 1  2. Deputy Librarian - 1  3. Documentalist - 1  4. Cataloguer - 1  5. Library Assistants - 4  6. Daftaries - 2  7. Peons - 2	

		<b><u>Books</u></b> - 11000	
		<b><u>Journals</u></b>	
		Indian – 70	
		Foreign - 30	
		<b><u>Accommodation</u></b>	
		1. Staff reading room for 30 persons.	
		2. Students reading room <ul style="list-style-type: none"> <li>- Inner room for 150 students</li> <li>- Outer room for 75 students</li> </ul>	
		3. Room for Librarian	
		4. Room for Daftaries / Book binders	
		5. Microfilm reading room	
		6. Journal room	
		7. Xerox room / Video cassette room	
		8. Computer / Medlar / Internet facility	

8	<b>Central Photographic and AV Unit</b> With studio, Dark Room, Enlarging & Photostat work.  Room for Artist, Medical Illustrators and Modellers.	Photographer - 1	Operational from inception. Full fledged staff at the end of 4 <sup>th</sup> year.
		Artist - 1	
		DRA - 1	
		AV Technician - 1	
		Storekeeper/Clerk - 1	
		Attendant - 1	
9	<b>Central Workshop</b>	For repair of equipment and instruments.	Operational from inception. Full fledged staff at the end of 4 <sup>th</sup> year
		Superintendent (Qualified Engineer) - 1	
		Senior Technician - 4 (Mechanical, Electrical, Electronic, Refrigeration)	
		Junior Technicians - 2	
		Carpenter - 1	
		Blacksmith - 1	
		Attendants - 1	
10	<b>Laboratories</b>	6 Nos. OP – 225 sq.m each	
		2 Nos. IP - 90 sq. m	
11	<b>Central Research Laboratory</b>	From inception	
12	<b>Central Incineration Plant</b> or other system approved by State Pollution Control Board.	From inception	

13	<b>Hostel for Boys and Girls</b> (no. to be covered)	560	
14	<b>Interns Hostel</b> (no. to be covered)	150	
15	<b>Nurses Hostel / Quarter</b> (no. to be covered)	72	
16	<b>Staff Quarters</b> (no. to be covered)	Teaching - 30	
		Non teaching – 36	
17	<b>Residents Quarters</b> (no. to be covered)	115	
18	<b>Centralized computerized Statistical unit.</b>	From inception	Fully functional at the end of 1 <sup>st</sup> Renewal
19	<b>Medical Education Unit</b>	From inception	
	Officer in charge	Principal / Dean - 1	
	Co-ordinator	Head of Dept. - 1	
	Faculty	5-6 motivated teacher from the college faculty	
	<b><u>Supportive staff:</u></b>		
	Stenographer	1	
	Computer Operator	1	
Technicians in AV aids Photography and Artist	2		
20	<b>Intercom Network</b>	100%	
		With Paging / Bleep System	
21	<b>Play Ground</b>	Qualified Physical Education Instructor	At inception onwards

22	<b>Gymnasium</b>	At the time of 1 <sup>st</sup> renewal	
23	<b>Dept. of Anatomy</b>	100% from inception	
24	<b>Dept. of Physiology</b>	100% from inception	
25	<b>Dept. of Bio-Chemistry</b>	100% from inception	
26	<b>Dept. of Community Medicine / P.S.M.</b>	Operational at the time of inception and fully functional at the time of 2 <sup>nd</sup> Renewal	
27	<b>Dept. of Pharmacology</b>	Operational at the time of inception and fully functional at the time of 1 <sup>st</sup> Renewal	
28	<b>Dept. of Pathology</b>	Operational at the time of inception and fully functional at the time of 1 <sup>st</sup> Renewal	
29	<b>Dept. of Microbiology</b>	Operational at the time of inception and fully functional at the time of 1 <sup>st</sup> Renewal	
30	<b>Dept. of Forensic Medicine</b>	Operational at the time of inception and fully functional at the time of 1 <sup>st</sup> Renewal	
31	<b>i. All Clinical Depts.</b> With all required facilities Including laboratory & blood banks (except TB, Dermatology, Psychiatry)	Operational at the time of inception and fully functional at the end of 2 <sup>nd</sup> Renewal	Operational at the time of inception and fully functional at the end of 3 <sup>rd</sup> Renewal
	ii. TB, Dermatology and Psychiatry		
32	<b>Operation Theatre</b> (No of Units)	10	
33	<b>Radiology</b>	<u>X-ray machine</u>  Static            - 6 (2 x 300mA, 2x500& 2x 600mA) IIT Flouroscopy system  Mobile            - 6 (2 of 30mA & 3 of 60mA)  Ultrasound Machine    - 3	

33	<b>Radiology</b>	CT Scan Unit	
34	<b>ICU</b>	5 Beds	
35	<b>ICCU</b>	5 Beds	
36	<b>Paediatrics ICU / Neonatal ICU</b>	5 Beds	
37	<b>Respiratory ICU</b>	5 Beds	
38	<b>Bed Occupancy</b>	80%	
39	<b>OPD attendance</b>	1200	
40	<b>Electricity Supply</b>	Electricity with stand-by UPS or Generator	
41	<b>Central Kitchen</b>	Should be commodious, airy and sunny	
		Clean with proper flooring, exhaust system	
		Cooking done either by electricity or gas.	
		Clean platforms	
		Separate store area	
		Service trolleys and closed stainless steel vessels.	
42	<b>Central Hospital Stores</b>	To stock & supply drugs & equipments, etc.,	
43	<b>Central Hospital Pharmacy</b>	With qualified pharmacist in-charge and other certified staff to dispense the drugs.	
44	<b>Transport facilities in college and hospital</b>		
45	<b>Central Casualty Services</b>	20 Beds	From Inception

	Casualty Medical Officers	4	
	Operation Theatre Staff to function on 24 Hour round the clock basis	as required	
	Stretcher bearers	6	
	Receptionist cum Clerks	2	
	Ward boys	6	
	Nursing and paramedical staff	6	
	Clinical staff for casualty beds	as required	
46	<b>Blood Bank(A/C) 100 Sq.m</b>  Equipment and accessories shall be provided as prescribed in part XII-B of schedule F to the Drugs and Cosmetics Act 1940 as amended from time to time	Room for Registration and Medical examination	
		Blood collection room	
		Laboratory room for blood group and serology	
		Laboratory room for Transmissible diseases like Hepatitis, Syphilis Malaria, HIV antibodies etc.	
		Sterilization and washing room	
		Refreshment room	
		Store and records room	
	<b><u>Staff:</u></b>  Professor / Reader	1	



	Lecturer	1	
	Technicians	6	
	Lab. Attendants	6	
	Store Keepers	6	
	Record clerks	2	
47	<b>Central Sterilization Services Department</b>	From inception	
	Matron	1	
	Staff Nurse	4	
	Technical Asst.	8	
	Technician	8	
	Ward Boys	8	
	Sweeper	4	
48	<b>Laundry</b>	From inception	
	Supervisor	2	
	Dhobi/Washermen / Women	12	
	Packer	12	
49	<b>Gas Plant</b>	Central Gas plant or Gas Supply unit	

50	<b>Sanitation and Water Supply</b>	<b><u>Toilets / Bathroom</u></b>	
		Men Students	
		Women Students	
		Teaching & Technical Staff	
		Other Staff	
		<b><u>Water Supply</u></b>	
		Drinking water facility	
51	<b>Medical Record Section</b>	From inception	
	Medical Record Officer	1	
	Statistician	1	
	Coding Clerks	4	
	Record Clerks	6	
	Daftaries	2	
	Peons	2	
	Stenotypist	1	
52	<b>Pharmacovigilance Committee</b>	Functional at the time of 1 <sup>st</sup> Renewal	
53	<b>Website</b>	Operational with details as specified at the time of inception	

#### **54. TOTAL NUMBER OF STAFF REQUIRED FOR 150 ADMISSION**

Department	750 Beds	
	Staff Nurse	Sister
Wards	250	30
ICCU & ICUs	15	9
OT	30	3
Casualty	3	3
OPD	11	-
Nursing Supdt	5	
DNS	1	
ANS	12	
<b>Grand Total</b>	<b>367</b>	

	LOP
Teaching Staff	152
Resident Doctors	115
Non-teaching Staff	182

#### **55. BED STRENGTH REQUIRED**

DEPT./ STAFF	REQUIRED	AVAILABLE
<b>Medicine &amp; Allied Specialities</b>		
Gen. Medicine	180	
Paediatrics	90	
TB & Chest	30	
Skin & STD	15	
Psychiatry	15	
	<b>330</b>	
<b>Surgery &amp; Allied Specialities</b>		
Gen Surgery	180	
Orthopaedics	90	
Ophthalmology	30	
E.N.T.	30	
	<b>330</b>	
<b>Obst. &amp; Gynae.</b>		
Obstetrics	54	
Gynaecology	36	
	<b>90</b>	
<b>GRAND TOTAL</b>	<b>750</b>	

**TARGETS TO BE ACHIEVED YEARLY IN RELATION TO SETTING UP OF NEW  
MEDICAL COLLEGES/INSTITUTIONS IN RESPECT OF STAFF REQUIREMENTS  
OF A NEW MEDICAL COLLEGE FOR 150 ANNUAL ADMISSIONS**

**SECTION II - DEPARTMENTAL FACILITIES**

**100% from inception**

**1. ANATOMY**

<b>DEPARTMENT/STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof	2	
Asst. Prof	3	
Tutor/Demons.	4	
Technicians	1	
Dissection Hall Attendants	4	
Storekeeper / Clerk / Computer Operator	1	
Sweeper	2	
<b>Demonstration Rooms – 2 Nos. (60 Sq.m each)</b>  Accommodation for 75-100 each	Strip chairs	
	OHP	
	Slide Projector	
	TV	

	Other Video	
	Other AV Aids	
<b>Dissection Hall (325 Sq.m)</b> Air conditioned  Accommodation for 150 students	Ventilation with exhaust fans	
	Ante-room for students with lockers and ten wash basins	
	Adequate teaching aids	
	<u>Embalmng room</u> (12 Sq.m area)	
	<u>Storage tanks 3 Nos.</u> One of 3 Sq.m Two of 1.5 Sq.m each	
	<u>Cold Storage room (18 sq.m) or Cooling Cabinets</u> for 10-12 dead bodies	
<b>Histology Laboratory (200 Sq.m)</b>  Accommodation for 90 students	Work benches fitted with water taps and sinks	
	Cupboards for microscope storage	
	Electric points for 90 Students	
	<u>Preparation room</u> (18 sq.m) - for technicians and storage of equipments	
<b>Research Laboratory</b>	50 Sq.m area	
<b>Museum (200 Sq.m)</b>  To accommodate 35 students	Racks and shelves for storing and display of wet and dry specimen and Embryological sections and models	
	Revolving stands for X-rays, CT scan and MRI pictures Trolley tables.	

	<p><u>Preparation room</u> (15 sq.m each 2 nos). For artists and modelers. To prepare models &amp; specimens</p> <p>Multi stand type for X-ray view boxes – 3 nos.</p>	
<b>Artist Room (15 Sq.m)</b>	Room for artists and modelers	
<b>Departmental Library / Seminar Room (30 Sq.m)</b>	80-100 books	
	Not more than two copies of anyone book shall be counted towards computation of the total number of books	
<b><u>Accommodation for Staff:</u></b>		
Professor & Head of Dept	1 Room (18 sq.m area)	
Assoc. Prof / Reader	2 Rooms (15 sq.m area each)	
Asst. Prof / Lecturers	1 Room (20 sq.m area)	
Tutor/Demonstrators	1 Room (15 sq.m area)	
Dept. office cum clerical room	1 Room (12 sq.m area)	
Working accommodation for non-teaching staff	1 Room (12 sq.m area)	

Equipments refer page# 61-63

## 2. PHYSIOLOGY

DEPARTMENT / STAFF	REQUIRED	AVAILABLE
<b><u>Staff</u></b>		
Professor	1	
Assoc. Prof	2	
Asst. Prof	3	
Tutor/Demons.	4	
Technicians	1	
Lab Attendants	-	
Store Keeper / Clerk / Computer Operator	1	
Sweepers	2	
<b>Demonstration Room</b> <b>- 2 Nos. (60 Sq.m each)</b>  Accommodation for 75-100 each	Strip chairs	
	OHP / Slide Projector	
	TV	
	Video	
	Other AV Aids	

<b><u>Practical Room</u></b>		
<b>Amphibian Laboratory (200 Sq.m) - one</b>  Accommodation for 90 students	Continuous working tables with stainless steel wash basin and steam / fire proof top having one drawer and one cupboard for each student	
	An electric point with provision for light source on each table	
	<u>Preparation room</u> (14 sq.m area)	
<b>Mammalian Laboratory (80 Sq.m) - one</b>  Accommodation for 90 students	Six tables (2m x 0.6m) with 2 Large wash basins (stainless steel) and cupboards for storing equipments.	
	Tables provided with stainless steel top and operating light	
	<u>Preparation room</u> (14 sq.m area)	
<b>Human Laboratories:</b>	Continuous working tables with stainless steel wash basin and steam / fire proof top having one drawer and one cupboard for each students	
a) <u>Haematology Lab</u> (200 sq.m area)	An electric point with provision for light source on each table	
	<u>Preparation room</u> (14 sq.m area)	
b) <u>Clinical Physiology Lab</u> (90 Sq.m area)	10 tables (height 0.8m) with mattresses & adjustable head-end	
<b>Research Laboratory</b>	50 Sq.m area	
<b>Departmental Library / Seminar Room (30 Sq.m area)</b>	80-100 books	
	Not more than two copies of anyone book shall be counted towards computation of the total number of books	
<b><u>Accommodation for Staff:</u></b>		
Professor & Head of Dept	1 Room (18 sq.m area)	



Assoc. Prof / Reader	2 Rooms (15 sq.m area each)	
Asst. Prof / Lecturers	1 Room (20 sq.m area)	
Tutor/Demonstrators	1 Room (15 sq.m area)	
Office cum clerical room	1 Room (12 sq.m area)	
Working accommodation for non-teaching staff	1 Room (12 sq.m area)	

Equipments refer page# 63-68

### **3. BIO-CHEMISTRY**

<b>DEPARTMENT / STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
<b><u>Staff</u></b>		
Professor	1	
Assoc. Prof / Reader	1	
Asst. Prof / Lecturers	2	
Tutor/Demons.	4	
Technicians/Tech Asst.	2	
Store Keeper / Clerk / Computer Operator	1	
Lab Attendant	1	
Sweepers	2	
<b>Demonstration Room - 2 Nos. (60 Sq.m each)</b>	OHP / Slide Projector	
Accommodation for 75-100 students	TV and Video	

	Other AV Aids	
<b>Practical class room laboratory (200 Sq.m area)</b> Accommodation for 90 students	Benches fitted with shelves and cupboards, water taps, sinks	
	Electric and gas connections	
	Ante-rooms 2 nos.(14 sq.m area each) for technicians & stores. Preparation room. Balance and distillation apparatus to be provided	
<b>Departmental Library / Seminar Room (30 Sq.m area)</b>	80-100 books	
	Not more than two copies of anyone book shall be counted towards computation of the total number of books	
<b>Research Laboratory</b>	50 Sq.m area	
<b><u>Accommodation for Staff:</u></b>		
Professor & Head of Dept	1 Room (18 sq.m area)	
Assoc. Prof / Reader	1 Room (15 sq.m area)	
Asst. Prof / Lecturers	1 Room (20 sq.m area)	
Tutor/Demonstrators	1 Room (15 sq.m area)	
Office cum clerical room	1 Room (12 sq.m area)	
Working accommodation for non teaching staff	1 Room (12 sq.m area)	

Equipments refer page# 68-70

#### 4. PATHOLOGY

STAFF	REQUIRED	AVAILABLE
Professor	1	
Assoc. Prof	3	
Asst. Prof	4	
Tutor/Demonstrator	6	
Technicians / Technical Asst.	4	
Laboratory Attendants	2	
Steno cum computer operator	1	
Store Keeper cum Record Clerk	1	
Sweepers	2	
<b>Demonstration Rooms</b> – 2 Nos. (60 Sq.m each) Accommodation for 75-100 each	Strip chairs	
	OHP	
	Slide Projector	
	TV	
	Video	
	Other AV Aids	
<b><u>Practical Lab</u></b>		
<b>A. Morbid Anatomy &amp; Histo-pathology/Cyto-pathology (200 sq.m)</b>	Accommodation for 90 students	

<b>B. Clinical Pathology/Haematology (200 sq.m)</b> Accommodation for 90 students <u>Preparation room</u> – 14 Sq.m	Benches/work table fitted with shelves.	
	Light source for microscopy	
	Cupboards, sinks and water tap with burners to carryout exercises.	
<b>C. Service Lab (30 sq.m)</b>	For Histo-pathology, Cytopathology, Haematology and other specialized work suitably equipped in the hospital	
<b>D. Additional Facilities</b>	Balance Room - 14 sq.m	
	Store Room - 14 sq.m	
	Centrifuge Room- 14 sq.m	
	Wash Room - 14 sq.m	
<b>E. Museum (90 Sq.m)</b> Accommodation for 40 students	For specimens, charts, models. All specimens labeled and 15 copies of catalogue to be provided. <u>Ante room</u> (14 sq.m)	
<b>F. Autopsy Block (400 sq.m)</b>	Mortuary and autopsy may be located either in the hospital or adjacent to the hospital in a separate structure and may be shared with the department of forensic medicine.	
Accommodation for 30-40 students	Cold storage for cadavers.	
Ante room with washing facility.	Waiting hall and office	
<b>Departmental Library / Seminar Room (30 Sq.m area)</b>	80-100 books	
	Not more than two copies of anyone book shall be counted towards computation of the total number of books	
<b>Research Laboratory (50 sq.m)</b>	For research purposes	
<b><u>Accommodation for Staff:</u></b> Professor & Head of Dept	1 Room (18 sq.m area)	

Assoc. Prof / Reader	3 Rooms (15 sq.m area each)	
Asst. Prof / Lecturers	2 Rooms (14 sq.m area)	
Tutor/Demonstrators	3 Rooms (15 sq.m area)	
Office cum clerical room	1 Room (12 sq.m area)	
Working accommodation for non-teaching staff	1 Room (12 sq.m area)	

Equipments refer page# 70-75

### **5. MICROBIOLOGY**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof	2	
Asst. Prof	2	
Tutor/Demonstrator	4	
Technicians / Technical Asst.	7	
Laboratory Attendants	2	
Steno cum computer operator	1	
Store Keeper cum Record Clerk	1	
Sweepers	2	
<b>Demonstration Rooms – 2 Nos. (60 Sq.m each)</b>	Strip chairs	
Accommodation for 75-100 each	OHP	

	Slide Projector	
	TV	
	Video	
	Other AV Aids	
<b><u>Practical Lab</u></b> <b>(200 sq.m)</b>	Benches/work table fitted with shelves, cupboards, sinks, water tap, light source for microscope, burners and electric points.	
Accommodation for 90 students	<u>Preparation Room</u> (14 sq.m)	
<b>Service Laboratory</b> <b>(35 sq.m each)</b>	Media preparation and storage room 20 sq.m	
Bacteriology (including anaerobic) Serology, Virology, Parasitology, Mycology, Tuberculosis and Immunology with 35 sq.m area separately for each.	Autoclaving room 12 sq.m	
	Washing and drying room(12 sq.m) with continuous water supply for contaminated culture plates, test tubes and glassware	
<b>Museum</b> <b>(80 Sq.m)</b>	For specimens, charts, models. All specimens labeled and 15 copies of catalogue to be provided for students use.	
Accommodation for 40 students		
<b>Departmental Library / Seminar Room</b> <b>(30 Sq.m area)</b>	80-100 books	
	Not more than two copies of anyone book shall be counted towards computation of the total number of books	
<b>Research Laboratory</b> <b>(50 sq.m)</b>	For research purposes	
<u>Accommodation</u>		
Professor & Head of Dept	1 Room (18 sq.m area)	
Assoc. Prof / Reader	2 Rooms (15 sq.m area each)	

Asst. Prof / Lecturers	1 Room (12 sq.m area)	
Tutor/Demonstrators	2 Rooms (15 sq.m area)	
Office cum clerical room	1 Room (12 sq.m area)	
Working accommodation for non-teaching staff	1 Room (12 sq.m area)	

Equipments refer page# 75-78

## **6. PHARMACOLOGY**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof	2	
Asst. Prof	2	
Tutor/Demonstrator	3	
Laboratory Attendant	2	
Store keeper / Clerk / Computer Operator	1	
Sweepers	2	
<b>Demonstration Rooms – 2 Nos. (60 Sq.m each)</b> Accommodation for 75-100 each	Strip chairs	
	OHP	
	Slide Projector	
	TV	
	Video	
	Other AV Aids	

<b><u>Practical Lab</u></b>		
<b>Experimental Pharmacology (200 Sq.m)</b> Accommodation for 75-100 students	Ante room (14 sq.m) for smoking and varnishing of Kymographic paper	
<b>Clinical Pharmacology &amp; Pharmacy (200 Sq.m)</b> Accommodation for 75-100 students	<u>One ante room</u> (14 Sq.m area) for technician, storage of equipment and appliances and preparation.	
<b>Museum (125 Sq.m)</b> Accommodation for 40 students	For specimens, charts, models with separate section depicting "History of Medicine"	
	All specimens labeled and 15 copies of catalogue to be provided	
<b>Departmental Library / Seminar Room (30 Sq.m area)</b>	80-100 books	
	Not more than two copies of anyone book shall be counted towards computation of the total number of books	
<b>Research Laboratory (50 sq.m)</b>	For research purposes	
<b><u>Accommodation for Staff:</u></b>		
Professor & Head of Dept	1 Room (18 sq.m area)	
Assoc. Prof / Reader	2 Rooms (15 sq.m area each)	
Asst. Prof / Lecturers	1 Room (12 sq.m area)	
Tutor/Demonstrators	1 Room (15 sq.m area)	
Office cum clerical room	1 Room (12 sq.m area)	
Working accommodation for non-teaching staff	1 Room (12 sq.m area)	

Equipments refer page# 78-87



**SECTION - III**

**7. FORENSIC MEDICINE including TOXICOLOGY**

STAFF	REQUIRED	AVAILABLE
Professor	1	
Assoc. Prof	1	
Asst. Prof	2	
Tutor/Demonstrator	3	
Technicians / Technical Asst.	2	
Laboratory Attendants	2	
Steno Typist	1	
Store Keeper/Clerk/Computer Operator	1	
Sweepers	4	
<b>Demonstration Rooms</b> – 2 Nos. (60 Sq.m each) Accommodation for 75-100 each	Strip chairs	
	OHP	
	Slide Projector	
	TV	
	Video	
	Other AV Aids	
<b>Museum</b> (175 Sq.m) Accommodation for 40-50 students	To display medico-legal specimens, charts, models. Prototype fire-arms, wax models slides, poisons, photographs, etc.	

	All specimens labelled and 15 copies of catalogue to be provided for students use.	
<b>Laboratory (200 Sq.m)</b>	For specimen examination, tests and forensic histopathology, serology, anthropology & toxicology tests.	
<b>Autopsy Block (Mortuary) (400 Sq.m)</b> Accommodation for 40-50 students	Location either in the hospital or adjacent to the hospital in a separate structure.	
	Cold storage for cadavers.	
	Ante rooms with washing facility	
	Waiting hall and office	
<b>Departmental Library / Seminar Room (30 Sq.m area)</b>	80-100 books	
	Not more than two copies of anyone book shall be counted towards computation of the total number of books	
<b>Research Laboratory (50 sq.m)</b>	For research purposes	
<b><u>Accommodation</u></b>		
Professor & Head of Dept	1 Room (18 sq.m area)	
Assoc. Prof / Reader	1 Room (15 sq.m area)	
Asst. Prof / Lecturers	1 Room (12 sq.m area)	
Tutor/Demonstrators	1 Room (15 sq.m area)	
Office cum clerical room	1 Room (12 sq.m area)	
Working accommodation for non-teaching staff	1 Room (12 sq.m area)	

Equipments refer page# 87-89

## **8. COMMUNITY MEDICINE / PREV. & SOC. MEDICINE**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	2	
Asst. Prof.	3	
Epidemiologist cum Asst. Prof	1	
Statistician cum Asst. Prof	1	
Tutor/Demonstrator	4	
M.S.W.	1	
Technicians / Technical Asst.	1	
Stenographer	1	
Record Keeper cum Clerk cum computer operator	1	
Store Keeper	1	
Sweepers	2	
<b><u>Staff for Rural Health Training Centre (including field work Epidemiological Studies)</u></b>		
Medical Officer of Health cum Lecturer/Asst. Prof	1	
Lady Medical Officer	1	
Medical Social Workers	2	
Public Health Nurse	1	

Health Inspectors/Health Asst. (Male)	1	
Health Educator	1	
Technicians / Technical Asst.	1	
Peon	1	
Van Driver	1	
Store Keeper cum Record Clerk	1	
Sweepers	2	
<b><u>URBAN Training Health Centre</u></b>		
Medical Officer of Health cum Lecturer/Asst. Prof	1	
Lady Medical Officer	1	
Medical Social Workers	2	
Public Health Nurse	1	
Health Inspectors/Health Asst.	2	
Health Educator	1	
Technicians / Technical Asst.	2	
Peon	1	
Van Driver	1	
Store Keeper	1	
Record Clerk	1	

Sweepers	2	
<b>Demonstration Rooms – 2 Nos. (60 Sq.m each)</b> Accommodation for 75-100 each	Strip chairs	
	OHP	
	Slide Projector	
	TV	
	Video	
	Other AV Aids	
<b><u>Practical Lab</u> (200 Sq.m)</b>	With facilities for demonstration of various laboratory practicals	
<b>Museum (125 Sq.m)</b>	Display of models, charts, specimens, etc.	
	Display materials concerning <ul style="list-style-type: none"> <li>- communicable diseases</li> <li>- Community health</li> <li>- Family welfare planning</li> <li>- Bio-statistics, sociology</li> <li>- National Health Programmes</li> <li>- Environmental sanitation etc.</li> </ul>	
<b>Departmental Library / Seminar Room (30 Sq.m area)</b>	80-100 books	
	Not more than two copies of anyone book shall be counted towards computation of the total number of books	
<b>Research Laboratory (50 sq.m)</b>	For research purposes	
<b><u>Accommodation</u></b> Professor & Head of Dept	1 Room (18 sq.m area)	

Assoc. Prof / Reader	2 Rooms (15 sq.m area each)	
Asst. Prof / Lecturers	1 Room (15 sq.m area)	
Statistician cum Asst. Prof.	1 Room (12 sq.m area)	
Epidemiologist cum Asst. Prof.	1 Room (12 sq.m area)	
Tutor/Demonstrators	2 Rooms (15 sq.m area)	
Office cum clerical room	1 Room (12 sq.m area)	
Working accommodation for non-teaching staff	1 Room (12 sq.m area)	

Primary health centre/Rural Health Training Centre – Every medical college shall have three primary health centres/rural health training centres for training of students in community based health education for the rural community attached to it. Out of these one primary health centre shall be one hour of community distance from the medical college. Separate residential arrangements for boys and girls, interns and undergraduates with mess facilities shall also be provided in atleast one of the primary health centres/rural health training centres which shall be under the full administrative jurisdiction of the medical college. Adequate transport work, teaching and training activities by the Department of Community Medicine and other departments (both for staff and students).

I. Urban Health Training Centre – It shall be under the administrative control of department of Community Medicine. Adequate transport shall be provided for commuting the staff and students.

Equipments refer page# 89-91

## SCHEDULE II - TEACHING HOSPITAL

### GENERAL REMARKS

1.All the teaching hospitals shall be under the academic, administrative and disciplinary control of the Dean / Principal of the medical college or medical institution.

### Accommodation

S.NO	Facilities required	Required	Available
1	<b>Dean</b> (36 Sq. m)		
2	<b>Medical Superintendent</b> (36 Sq. m)		
3	<b>Hospital offices for supportive staffs</b>		
4	<b>Nursing superintendent room and office</b>		
5	<b>Visitors waiting room</b>		
6	<b>Addl. Accommodation</b>		
i)	<b>Enquiry Office / Reception area (400 Sq.m)</b>	With Public Telephones	
		Waiting space for patients and visitors	
		Drinking water and toilet facilities	
ii)	<b>Store Rooms</b>		

iii)	<b>Linen Rooms</b>		
iv)	<b>Hospital &amp; Staff committee room (80 Sq.m)</b>		
v)	<b>Central lecture theatre of gallery type with a seating capacity of 200 persons - one</b>	with audio visual aids	
vi)	<b>OPD Attendance – Minimum of 8 patients (old and new) per day per student intake</b>		
vii)	<b>Inpatient occupancy</b>	Minimum 80% per annum	
7	<b>Admission</b>	For 150 students admission number of beds required 750 per annum.	

### SECTION I

#### CLINICAL DEPARTMENT – OUTPATIENTS

S.NO	Facilities required	Required	Available
1	<b>Accommodation</b>	Patient waiting hall/reception space	
		Enquiry and record room	
		Examination room (Cubicles) – 4 nos.	
		Case demonstration rooms for each department	
2	<b>Dispensary</b>		



<b>3</b>	<b>Additional Accommodation</b>	
	<b>i) Surgery Department</b>	Dressing room – Male - Female
		OP Operation Theatre
	<b>ii) Ophthalmology</b>	Refraction room
		Dark room
		Dressing room
	<b>iii) Ortho Section</b>	Plaster room
		Plaster cutting room
		Dressing room
		OP x-ray unit
	<b>iv) E.N.T</b>	Audiometry room
		ENG lab
		Speech-therapy facility
	<b>v) Paediatrics</b>	Child welfare clinic
		Immunization clinic
		Child Guidance clinic
		<u>Child Rehabilitation clinic</u> - Speech and Occupational Therapy

	<b>vi) Obst &amp; Gynaecology</b>	Separate male and female duty room attached to lab room	
		Antenatal clinic	
		Family Welfare clinic	
		Steriity clinic	
		Cancer detection clinic	

## SECTION II

### CLINICAL DEPARTMENTS - IN PATIENTS

#### WARDS

<b>S.NO</b>	<b>Facilities required</b>	<b>Required</b>	<b>Available</b>
<b>1</b>	<b>Accommodation</b>	Nurses duty room	
		Lab for routine examination	
		Examination and treatment room	
		Ward pantry	
		Store room for linen & other equipments	
		Rooms for Duty (Resident) Doctors and students	

<b>2</b>	<b>Addl. Accommodation</b>	Office for Head of Department and Head of Units	
		For unit staff	
		Clinical Demonstration room (atleast one for each department)	
		Room for <u>departmental library/seminar room (30 sq. m)</u> with a seating capacity of 50 students	
<p>Note: The size and number of staff rooms shall be as per the guidelines given in the pre and para clinical departments for the prescribed number of staff members in the department.</p>			
<b>3</b>	<b>Research Lab</b>	Research laboratory connected with the specialized work in all the fields	
<b>4</b>	<b>Operation Theatre Unit</b>	Waiting room for patients	
		Preparation room	
		Washing room for surgeons and assistants	
		Operation Theatre Rooms	
		Post-operative recovery room(minimum of 10 beds)	
		Surgeons and anaesthetists rooms (separate for male and female)	
		Assistants room	

		Nurses room	
		Instrument room	
		Sterilisation room	
		Observation gallery for students	
		Store rooms	
		Students washing up and dressing up room	
		Linen room for soiled clothes	

**Requirement of beds and units:**

The number of beds required for 150 admissions annually is 750. They may be distributed for the purposes of clinical teaching as under, namely,

**i) Medicine and Allied Specialities**

	No. of beds and units required beds/units
1. General Medicine	180
2. Paediatrics	90
3. Tuberculosis and Respiratory Diseases	30
4. Dermatology, Venereology and Leprosy	15
5. Psychiatry	15

**Note:**

There shall be well equipped and updated intensive care Unit (ICU) intensive coronary care unit (ICCU) intensive care paediatric beds and preferably intensive care in Tuberculosis and respiratory diseases.	Well equipped/updated ICU, ICCU, PICU, NICU, RICU	
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2. Wherever possible, the facilities available in larger tuberculosis and chest diseases hospitals, infectious diseases hospitals and mental hospitals may be utilized for training in these specialties. However if these hospitals are not under the total administrative control of the Medical college, the required beds in these specialties shall have to be provided in the attached teaching hospital itself.

**9. GENERAL MEDICINE**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	5	
Asst. Prof.	6	
Sr. Residents	6	
Jr. Residents	18	
Electro Cardiograph Technician	1	
Technicians / Technical Asst.	1	
Laboratory Attendant	2	
Store Keeper*	1	
Steno Typist*	1	
Record Clerk	1	

\* Common for the Department of General Medicine / TB & Rep. Diseases / DVL / Psychiatry Equipments refer page# 92-95

**10. T.B & CHEST**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	

Assoc. Prof.	1	
Asst. Prof.	1	
Sr. Residents	1	
Jr. Residents	2	
Record Clerk**	1	
Laboratory Attendant	1	
TB & Chest Diseases Health Visitor	2	

\* \*\*Common for the Department of General Medicine / TB & Rep. Diseases / DVL / Psychiatry Equipments refer page# 99

#### **11. DERMATOLOGY, VENEROLOGY & LEPROSY**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	-	
Asst. Prof.	1	
Sr. Residents	1	
Jr. Residents	3	
Technical Asst / Technician	1	
Laboratory Attendant	1	

Equipments refer page# 99

## 12. PSYCHIATRY

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	-	
Asst. Prof.	1	
Sr. Residents	3	
Jr. Residents	3	
Technical Asst. / Technician	1	
Psychiatric Social Workers	2	

Equipments refer page# 100

## 13. PAEDIATRICS

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	3	
Asst. Prof.	2	
Sr. Residents	3	
Jr. Residents	9	
Child Psychologist	1	
Health Educator	1	
Technicians / Technical Asst.	1	

Laboratory Attendant	1	
Store Keeper	1	
Steno Typist	1	
Record Clerk	1	
Social Worker	1	

Equipments refer page# 95-98

**ii) SURGERY AND ALLIED SPECIALITIES**

	No. of beds
1. General Surgery	180
2. Department of Orthopaedics	90
3. Department of Ophthalmology	30
4. Oto-Rhinolaryngology (ENT)	30

**Note:** There shall be well equipped and updated intensive care burns units and surgical post operative critical care unit.

**14. GENERAL SURGERY**

STAFF	REQUIRED	AVAILABLE
Professor	1	
Assoc. Prof.	5	
Asst. Prof.	6	
Sr. Residents	6	
Jr. Residents	18	
Technicians / Technical Asst.	3	
Laboratory Attendant	4	



Store Keeper	1	
Steno Typist	1	
Record Clerk	2	

Equipments refer page#100-105

### **15. ORTHOPAEDICS**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	2	
Asst. Prof.	3	
Sr. Residents	3	
Jr. Residents	9	
Technicians / Technical Asst.	1	
Laboratory Attendant	1	
Store Keeper	1	
Steno Typist	1	
Record Clerk	1	

Equipments refer page# 105

### **16. OPHTHALMOLOGY**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	

Assoc. Prof.	-	
Asst. Prof.	1	
Sr. Residents	1	
Jr. Residents	3	
Technicians / Technical Asst.	1	
Laboratory Attendant	1	
Store Keeper	1	
Steno Typist	1	
Record Clerk	1	

Equipments refer page# 106

**17. E.N.T**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	-	
Asst. Prof.	1	
Sr. Residents	1	
Jr. Residents	3	
Technicians / Technical Asst.	1	
Laboratory Attendant	1	

Store Keeper	1	
Steno Typist	1	
Record Clerk	1	
Audiometry Technician	1	
Speech Therapist	1	

Equipments refer page# 108-117

**iii) OBSTETRICS AND GYNAECOLOGY**

	No. of beds/units required
Obstetrics	54
Gynaecology	36
	90

**iv) GRAND TOTAL**

**750**

**Note:**

1. In case a super specialty is developed, it shall necessitate creation of extra beds alongwith additional staff over and above the minimum requirement stated herein above in accordance with the provisions of the Post-graduate Medical Education Regulations 1971.

2. The teaching hospital may provide additional beds in any specialty depending upon their patients load.

**18. OBST. & GYNAE.**

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	2	
Asst. Prof.	3	
Sr. Residents	3	

Jr. Residents	9	
Antenatal Medical Officer cum Lecturer/Asst. Prof	1	
Maternity and Child Welfare Officer cum Lecturer/Asst. Prof	1	
Social Worker	2	
Technicians / Technical Asst.	2	
Laboratory Attendant	2	
Stenographer	1	
Record Clerk	1	
Store Keeper	1	

Equipments refer page# 117-125

**TOTAL NUMBER OF OPERATION THEATRE - 10**

(should be shared by the following departments)

	<b>No. of Operation Theatre</b>
General Surgery	3+1 (Septic Theatre - 1)
ENT	1
Orthopaedics	1
Ophthalmology	1
Obstetrics & Gynaecology	2
Emergency Casualty	1
Surgical specialities	One or more

## 19. RADIO DIAGNOSIS

### i) STAFF

	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	2	
Asst. Prof	3	
Sr. Residents	4	
Radiographic Technicians	8	
Dark Room Assistant	4	
Stenographer	1	
Store Keeper	1	
Record Clerk	1	

ii) The room sizes for various diagnostic imaging systems shall be as per the following provision of the Atomic Energy Regulatory Board Safety code, namely: The room size of the room housing x-ray equipment must not be less than 25 sq.m for a general purpose x-ray machine in case of diagnostic x-ray equipment operating at 125 KV or above the control panel must be installed in a separate control room located outside but contiguous to the x-ray room. Rooms housing fluoroscopy equipment must be so designed that adequate darkness can be achieved conveniently when desired. Patient waiting areas must be provided outside the x-ray room and a dark room must be provided.

### iii)

X-ray equipment room (25 sq.m)	For General purpose X-ray	
Diagnostic X-ray equipment with 125 KV with control panel	Installed outside or contiguous to the x-ray room	

Fluroscopy room	with adequate darkness	
	Patient waiting room	
<b><u>Accommodation for the following</u></b>		
	36 sq.m area room for 300mA, 500 mA, 800 mA I.I.TV system, fluoroscopy system	
	Ultrasound room (15 sq.m)	
	Mobile x-ray room room for 60 mA (15 sq.m)	
CT Scan Room Facilities (80 sq.m)	Examination room	
	Control room	
	Computer Room	
	Services room for electrical panels, UPS & Stabiliser	
Magenetic Resonance Imaging	Space for MRI system	
Store Room (15 sq.)	For x-ray films and related material	
Museum (25 sq.m)		
Waiting Room	For patients, enquiry office and staff rooms	

Equipments refer page# 127

## **20. ANAESTHESIOLOGY**

Accommodation for the staff on duty should be provided in the operation theatres in that block itself as far as possible in addition to following accommodation namely,

1. Office for Head of Departments and Head of Units
2. Accommodation for the other unit staff
3. Clinical demonstration room (at least two for each department) and

4. Departmental library cum seminar room (30 sq.m) with a seating capacity of 50 students.

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	3	
Asst. Prof	4	
Sr. Residents	7	
Technicians / Technical Asst.	8	
Steno Typist	1	
Record Clerk	1	
Store Keeper	1	

Equipments refer page# 126-127

### SECTION III - OPTIONAL DEPARTMENTS

#### **21. DEPARTMENT OF RADIO THERAPY**

##### **i). STAFF**

STAFF	REQUIRED	AVAILABLE
Professor	-	
Assoc. Prof.	1	
Asst. Prof	1	
Senior Residents	2	
Physicist	1	
Radio-Therapy Technician (for every Treatment unit)	2	
Dark Room Assistant	1	
Stenographer	1	
Store Keeper	1	
Record Clerk	1	

- ii) The department needs to be planned in such a way that there is a minimum movement of Radio-active sources through the general corridors of the hospital. It is therefore desirable that the outpatient wing, treat wing, dosimetry/planning equipments, wards, operation theatre and other facilities are located in the same block may be on connected with the rest of the hospital to facilitate free interaction of the facilities of various disciplines for multi disciplinary management of the patients. Separate rooms should be provided for Teletherapy Unit (100 sq.m area), intracavitary treatment room (50 sq.m area) interstitial, endocavitary surface mould therapy room (50 sq.m area) planning room (50 sq.m area) rooms for metalling treatment planning equipments, mould room (50 sq.m area) record room (100 sq.m area) medical physics laboratory (50 sq.m area) outpatient waiting room (200 sq.m area) indoor beds (atleast 40 beds and an isolation ward) (200 sq.m area), day care ward for short Chemotherapy/radiotherapy procedures etc.(70 sq.m area). The minimum floor area shall be 2000-2500 sq.m Prior BARC approval of the radiation therapy rooms/plan alongwith complete layout of the entire department is mandatory.



**iii) Accommodation**

Room for Teletherapy	100 Sq.m	
Intracavitary treatment room	50 Sq.m	
Endocavitary surface mould therapy room	50 Sq.m	
Planning room	50 Sq.m	
Rooms for metalling treatment planning equipment & mould room	50 Sq.m	
Record room	50 Sq.m	
Medical physics lab	50 Sq.m	
Outpatient waiting room	200 Sq.m	
Indoor beds (atleast 40 beds and an isolated ward)	200 Sq.m	
Day care ward for short Chemotherapy/radiotherapy procedures etc	70 Sq.m	

Minimum floor area of 2000-2500 sq.m prior BARC approval of radiation therapy rooms/plan alongwith complete layout of the entire department is mandatory.

**Equipments refer page# 127-129**

**22. DEPARTMENT OF PHYSICAL MEDICINE & REHABILITATION**

<b>Total Accommodation 2000 Sq.m</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
<u>Evaluation Room</u>	For professor and other teaching staff	
	Paramedical personnel and non medical staff	
	Physiotherapy, Electrotherapy, Hydrotherapy, Occupational therapy, Speech therapy separately	

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	1	
Asst. Prof	1	
Sr. Residents	2	
Jr. Residents	1	
Physiotherapist	2	
Occupational Therapist	2	
Speech Therapist	1	
Prosthetic and Orthotic Technician	2	
Workshop workers	6	
Clinical Psychologist	1	
Medical Social worker	1	
Public Health Nurse/Rehabilitation Nurse	1	
Vacational Counsellor	1	
Multi-rehabilitation Worker (MRW) / Technician/Therapist	4	
Stenographer	1	
Record Clerk	1	
Store Keeper	1	
Class IV Staff	4	

Equipments refer page# 129

### **23. DENTISTRY**

Note: Where Dental College or Dental wings of Medical college exist, the services of teachers of these may be utilized in the instruction of medical students in Dentistry and no separate staff in the Medical College shall be necessary.

<b>STAFF</b>	<b>REQUIRED</b>	<b>AVAILABLE</b>
Professor	1	
Assoc. Prof.	1	
Asst. Prof	1	
Tutor / Registrar	1	
Dental Technicians	4	
Store Keeper cum Clerk	1	

<b>Accommodation required</b>	<b>Required</b>	<b>Available</b>
	For Dental Surgery and Prosthetic Dentistry	
	Reception and waiting hall for patients	
	Seminar room for students	

### **SECTION IV – STAFF REQUIREMENTS**

#### **GENERAL REMARKS**

1. Emphasis in medical education being on practical instruction and demonstration in small groups. The number of teachers must be as per provisions of this Schedule adequate to enable such instruction to be imparted effectively.

2. The teaching staff of all departments of a medical college shall be full-time.
3. These regulations cover the minimum requirements of under graduate medical education. Additional teaching staff will be required in institutions where post-graduate education is also imparted. Additional teaching staff will also be required where the work load involved in emergency care, patient care, clinical laboratory work and field work is heavy of a specialized nature.
4. To ensure the exposure of undergraduate students to experienced teachers, it is essential to provide adequate number of higher posts (Professors/Readers) in every department of teaching.
5. In the department of Anatomy, Physiology, Bio-Chemistry, Pharmacology and Microbiology, non-medical teachers may be appointed to the extent of 30% of the total number of posts in department. A non-medical approved medical M.Sc qualification shall be a sufficient qualification for appointment as lecturer in the subject concerned but for equivalent qualification. However, in the department of Bio-chemistry, non-medical teachers may be appointed to the extent of 50% of the total number of posts in the department. In view of the paucity of teachers in non-clinical departments relaxation upto the Head of the department may be given to non-medical persons in case a suitable medical teacher in the particular non-clinical speciality is not available for the said appointment in said department. However, all such appointments will be made only with the prior approval of the Medical Council of India. However, a non-medical person cannot be appointed as Director / Principal / Dean / Medical superintendent or equivalent of an institution in any case. In the statistician cum lecturer in statistics should possess M.A/M.Sc qualification in that particular subject from & recognized university. These requirements are as per the Teachers Eligibility qualifications regulations.
6. Teachers in higher specialties like Cardiology, Neurology, Neuro-surgery shall not be counted against the complement of teachers required for under graduate medical education.

#### **SECTION V - OTHER HOSPITAL STAFF**

1. **NURSING STAFF**: The nursing staff shall be provided as per the following recommendations of the Nursing Council namely:

#### **Recommended Norms For Hospital Nursing Service**

	<b>STAFF</b>	<b>TEACHING HOSPITAL</b>
1	Nursing Superintendent	1 for minimum of 150 beds (3 Nos.)

2	Deputy Nursing Superintendent	1
3	Assistant Nursing Superintendent	12

(For every additional 50 beds one more Asst. Nursing Superintendent)

Wards	Staff Nurse	Sister	Department Sister / ANS	
Medical Ward	1:3	1:25	1 each shift	For 3-4 wards
Surgical Ward	1:3	1:25	-do-	-do-
Orthopaedic Ward	1:3	1:25	-do-	-do-
Paediatric Ward	1:3	1:25	-do-	-do-
Gynaecology Ward	1:3	1:25	-do-	-do-
Maternity Ward (including Newborns)	1:3	1:25	-do-	-do-
Intensive Care Unit	1:1 (24 Hours)	1 each shift	1 Departmental sister/ANS for 3-4 units	
Coronary Care Unit	1:1 (24 Hours)	1 each shift		
Special Wards Eye, ENT etc.	1:1 (24 Hours)	1 each shift		
Operation Theatre	3 for 24 hours per table	1 each shift	1 Departmental sister/ANS for 4-5 Operation Theatres	
Casualty & Emergency Unit	2-3 Staff Nurse depending on the number of beds	1 each shift	1 Departmental sister/ANS for Emergency casualty etc	

### Out patient Department-Base on Actual observation

1	Minor Operation Theatre	1 staff nurse for every 13 patients
2	Injection Room	1 staff nurse for every 86 patients
3	Surgical	1 staff nurse for every 120 patients
4	Medical	1 staff nurse for every 140 patients
5	Gynaecology	1 staff nurse for every 35 patients

6	Children (Paediatric)	1 staff nurse for every 85 patients
7	Orthopaedic	1 staff nurse for every 120 patients
8	Dental	1 staff nurse for every 120 patients
9	ENT	1 staff nurse for every 120 patients
10	Eye	1 staff nurse for every 86 patients
11	Skin	1 staff nurse for every 100 patients

Similarly other out patient Departments need to be staffed based on actual observation.

### **Justifications**

- a) Needs may vary from hospital to hospital depending on the size of hospital and service rendered more staff than anticipated will be required.
- b) Special attention is needed for supervision of patient care on the evening & night shift.
- c) 30% leave reserve is suggested because nurses get 2 off, 30 Earned Leave and 12 Casual Leave/24 days off in a year. Also it has been observed that on any working day 25% of the staff is off duty, on casual leave.

A nurse works for 240 days in a year whereas hospital require nursing services for 365 days, for 24 hours, which means to depth work for 1 1/3 nurse is required that is why 30% leave.

**2. Dieticians :** In order to prescribe diet on the scientific lines for different types of patients the services of qualified dietician are essential in all the teaching hospitals

**3. Pharmacists :** As required for hospitals.

**4. Class III and IV Personnel :** As required for hospitals.

## **EQUIPMENT (FOR VARIOUS DEPARTMENTS IN THE COLLEGE & HOSPITALS)**

**Note :** These recommendations are minimum requirements and will serve as a guide to the institutions with regard to the equipment required. They are not meant to be an exhaustive list and the staff of the various departments will use their initiative and experience for equipping the departments.

### **SECTION I - NON-CLINICAL DEPARTMENTS**

#### **1. DEPARTMENT OF ANATOMY**

Furniture and Fixtures : Office tables small and big, office Chairs, museum almirahs study tables, staff room and library almirah, store almirahs, store racks, lockers with coat hangers almirah, store almirahs, store racks, lockers with coat hangers and drawers as required. Laboratory benches with cup-boards and rack for reagent bottles and laboratory glasswares as required, water and gas and electric points operation tables etc. as necessary.

<b>Name of the Articles</b>	<b>Quantity Required for 150 (admissions)</b>	<b>Available</b>
Table with marble or stainless steel tops 6' 1 x 2' x 3'	20	
Tables with marble tops or stainless steel half standard size	5	
Drill machine	3	
Hand saw	4	
Hand saw for sectioning body and limbs	1	
Stools, preferably metal	90	
Brain Knife	5	
Mortuary cooler with arrangement to keep at least 8 bodies or suitable alternative arrangement.	1/2	
Storage tank to hold 10 cadaver made of concrete with copper lid	1	

Plastic tanks for storing soft and dissected parts	10	
Trolley Table (Steel, Light)	3	
Projectors including overhead projectors	2 + 2	
X-ray Viewing lobby	3	
Charts, Diagrams, Models, Slides etc.	as required	
Dissecting instruments	as required	
Meat cutting machine for thin body sections (trans and vertical) for gross anatomy sectional study	1	
<b>B. APPARATUS AND INSTRUMENTS FOR HISTOLOGY</b>		
Microscope Monocular	90	
Dissection Microscope	5	
Microtomes, rotary	2	
Microtomes, Sledge, large cutting	1	
Cabinet for Slides (1000)	6	
Incubators	1	
Paraffin embedding bath	1	
Hot plates for flattening sections	2	
Hot air cover for drying slides (45 0C)	1	
Balance Analytical capacity 200 grams and Sensitivity, 1/10 gram.	1	



Balance Earanger capacity 6 kilos Sensitivity, 1/5 ft rams	2	
Refrigerators	2	
Distilled water still – menesty type capacity gallon per hour	2	
Diamound pencils	4	
7 colours marking pencils Anatomy Museum	2	
Skeletons articulated	5	
Bones (Dis - articulated) sets	30	
Specimen Jars	as required	
Racks Steel	as required	
Embalming machines for cadavers	2	
Computer for keeping student records, marks stores etc.	Should be provided	

## **2. DEPARTMENT OF PHYSIOLOGY**

a) Office table, small and big, office chairs, museum almirahs, study table, staff room and library almirahs, stock almirahs store room racks, laboratory benches with cupboards and racks for reagent set up for experimental physiology including Sherrington Starling Kymograph (preferably electrically driven) Myograph stand, inductorium, simple key short circulating key, Pohl's commutator, vibrating interrupter, muscle through, muscle liver, Muscle grip of femur clamp, Hook and weight set heart liver, frog board for dissection, enamel tray for above, frog board cork – lined with bosshead 36 sets + 6 spares.

Low voltage units for tapping 2 to 4 volts for stimulation at each seat as required.

### **Note:**

1. Time markers can also be made available at each seat – as along with low voltage unit.
2. Electronic stimulators, students type can be used instead of low voltage units Nife cells. This will also dispense with the need for induction coil interrupter. Transistor ones are preferred.

	<b>Required</b>	<b>Available</b>
Electric time markers 100 / sec.	10	
Tuning fork, time marker 100 / sec.	10	
Electrodes, X blocks, burette Clamps, enamel bowls brass uprights with coarse and fine adjustments basin, spirit lamps, copper wire (double cotton covered) Kymograph paper etc.	as required	
<b><u>B. MAMMALIAN EXPERIMENTS</u></b>		
Large extension Kymographs – Brodie Starling complete with respiration pump motor time marker manometer etc.	as required	
Operation Table	1	
Volume recorders	8	
Dale's bath for internal organs Isolated organs bath for students	30	
Isolated organs birth for students complete with liver etc	40	
Animal weighing Machine for small and big animals (for each)	1	
Mary's Tambour	40	
Venus and arterial canula (different sizes (each)	40	
Smoking outfit, with fume cupboard	1	
Varnishing outfit for long and short papers	1	
Anesthesia box	5	

Surgical instruments for operative procedures, Syringes, pulleys, etc.	as required	
<b><u>(C) HUMAN AND OTHER EXPERIMENTS</u></b>		
Microscopes, Oil immersion	50 + 8	
Demonstrations eye piece	4	
Double Demonstration eye piece	4	
Stage incubator	1	
Westergen's Pipettes for E.S.R. on stand (with space pipettes)	40	
Perimeter Priestly Smith S/LP. 984 B & T	10	
Haemoglobinometer, Sahli or Hellige (with spaces)	40	
Heamocytometers	40	
Sphygmomanometer	15	
Stethoscopes	20	
Stethoscopes, Demonstration with multiple ear pieces	4	
Polygraph	4	
Venus pressure apparatus	2	
Spirometer, Ordinary	10	
Gas analysis apparatus, Haldane's students type	1	
Van Slyke' apparatus manometric	2	

Gas analyser – Automatic for CO <sub>2</sub> , O <sub>2</sub> N <sub>2</sub>	1	
Douglas bag complete	6	
Basal Metabolism apparatus	1	
Erogograph Mosse's	10	
Clinical thermometer	30	
Compas	10	
Thermanaesthesiometer	5	
Algometer	5	
Apparatus for Passive movement	5	
Knee hammer	15	
Stethograph	15	
Bicycle ergometer	6	
Olfactometer	1	
Ophthalmoscope	2	
Schematic eye	4	
Phakoscope	2	
Perimeters with charts	5	
Colour perception lantern Edridge Green	1	

Moddox rod	1	
Newtons colour wheel	1	
Tuning forks to test hearing 32-10,000 cps (sets)	4	
Dynamometer	2	
Otorhinolaryngoscopies	5	
Sterilizer Electric	2	
Instrument troller	1	
Stop watches	10	
<b><u>(D) GENERAL</u></b>		
Physiograph, 3 Channels, complete with accessories	2	
Physiograph, single Channel, with accessories	8	
Centrifuge, high speed with techno meter etc.	1	
Calorimeter, photo electric	2	
PH meter electric	2	
Refrigerator 9 – 10 ft.	2	
Oxygen Cylinder with trolley	8	
Co Cylinder with trolley	3	
Electronic stimulator	2	

Water Distillations still with spare heating elements	1	
All glass distillation apparatus double stage voltage stabilizer	1	
Step down transformers	4	
Thermometer, Balances, Micro slides and glassware.	as required.	

### **3. DEPARTMENT OF BIO-CHEMISTRY**

	<b>Required</b>	<b>Available</b>
Fume cupboards	2	
Boiling Water baths, with lids having 8-12 holes	8	
Authoclave electric	2	
Balance Open pan	6	
Balance Semi Micro	2	
Balance Micro	1	
Vortex mixers	2	
Urinometers	75	
Constant temperature water bath	6	
Ryles tube	4	
Incubator electric with thermostat	4	
Hot air oven	4	

Magnetic stirrer	2	
Pump Vacuum	2	
Calorimeters	9	
Refrigerators	5	
Flame Photometer	2	
Thermometers 0-250c	6	
Thermometers 0-110c	6	
Cork borer set	1	
Stop watch	6	
Spirit lamp	75	
Chromatographic chamber	3	
Water distillation plant (metallic)	4	
All glass distillation apparatus	4	
Dessicators large size	8	
Dessicators small size	8	
Centrifuge clinical for 12 tubes	8	
PH meters	4	
Homogeniser	4	

Microscopes	8	
Ultra Violet (U.V.) Lamp	2	
Tools for small workshop for blowing and mending	1 Set	
Bottle dispensers	20	
Samplers (autopipettes) different volume range	20	
Electrophoresis apparatus with power supply for Paper Page Agarose	8	
Spectrophotometer	2	
Binocular research microscopies	2	
Glass ware as required by standard lab like pipettes, beakers and conical flasks etc..	as required	

#### **4. DEPARTMENT OF PATHOLOGY**

##### **a) General**

Office table small and big, office chairs; museum almirahs, study table, staff room and library almirahs, stock almirahs, store room racks, lockers with coat hangers and drawers as required. Laboratory benches with cupboards and rack for reagent bottles, water, gas and electric points, operation tables etc. as necessary.

##### **b) Morbid Histology and Morbid Anatomy Sections**

Weighing machine for cadavers	1	
Rotary Microtomes	2	
Freezing Microtome with a stand for carbon dioxide cylinder	1	
Hot plates	2	
Hot air (50 degree Celsius) for special staining	2	



@ Paraffin embedding bath (ordinary)	2	
@ Electric vacuum embedding baths	2	
@ if Histo Kinetite is not available.		
Autoclave electric	2	
Distilled water still	1	
Water bath 57 degree Celsius	1	
Rectangular water bath	1	
Centrifuge machine Electric Rotofix	1	
Colorimeter Photoelectric Klett	1	
Cabinet for 1000 slides	as required	
Hand Saw	1	
Autopsy tables	2	
Automatic tissue processor	1	
Histokinmettee or similar, complete	1	
Staining racks for staining in bulk	15	
Troughs for staining in bulk	18	
Coplin jars	24	
Water bath electric (Tissue Flootation)	2	

Balance, chemical with weights	2	
Microscopes, Monocular, with double nose piece, High power objective 2 eye-pieces, mechanical stage and condensor	90	
Oil immersion lens for above	90	
Polarising attachments for microscopes	1	
Micrometers, ocular	1	
Demonstration eye pieces	6	
Magnifying lens	6	
Blood pressure instrument	2	
Micrometer stage	2	
Hot plate electric	2	
Laboratory counter nine keys clay Adams	8	
Laboratory stirrer	1	
Automatic timer	2	
Balance for weighing organs	1	
Saws, wire for cutting bones	1	
Slide boxes for 100 slides for students	200	
Drill for boring glass	2	

Blow piece with bellows for bending glass	2	
Microphotographic apparatus	1	
X-ray viewing box	2	
Double Demonstration Eye piece	2	
Microprojection apparatus	2	
Sternal puncture needle Adult size	2	
Sternal puncture needle Child size	2	
Liver Biopsy needle	2	
Box weight analytical	2	
Stop watch reading at 1/5 second	6	
Ultraviolet lamp	1	
PH meter electric	1	
Microscope, Binocular, research	1	
Paper Electrophoresis apparatus horizontal	1	
Water still electric	1	
2 X 2 slide projector	3	
Overhead projector	1	
Museum Jars	as required	

Drawing instruments and colours for photo-artist	1 set	
Surgical instruments	1 set	
Dark room lamp, developing troughs chemical etc. for photo artist	1 set	
Glassware, stains, chemicals reagents etc. for Histological work	As required	
<b>C) Clinical Laboratory</b>		
Microscope high power with oil immersion lens movable stage and condenser for the routine microscope work	15	
Bottles Sp. gravity 25cc	2	
Micro burettes 5 cc	2	
PH meter, with ultra micro blood PH electrodes and Electrical	3	
Contrifuge one higher power contrifuge for serological works, one for Haematological work and one other Incubator	1	
Haemacytometers with red and white pipettes	90	
Haemoglobinometers, sahilitype	90	
Sedimentation apparatus - one wester green and one wintrobole	2 sets	
Syringes disposable one set from 01cc to 2 cc	30 of each	
Staining jars for slides	12	
Urinometers	9	
Albuminometers, esbaches & Aufrech's type	1	

Urine glasset (conical)	12	
Water baths with lids and holes thereon for holding test tubes etc.	2	
Centrifuge tubes graduated	36	
Crusible with china lid	2	
Crusible Gooch with adapter	2	
Graduated cylinders of various capacities ranging from 100 cc to 1000 cc	6 of each	
Pipettes of various sizes graduated sets	as required	
Reagent bottles	as required	
Dropping bottles 4 ounce	as required	
Reagents	as required	
<b>Balances</b> 1) Sensitive balance	2	
2) Chemical balance with weight boxes	2	

### **5. DEPARTMENT OF MICROBIOLOGY**

Incubators, electrical (large) 37 degree Celsius	4	
Autoclave	3	
Hot air steriliser	2	
Arnolds steriliser	2	

Serum inspissators	2	
Balance, Chemical	2	
Lovibond comparators	1	
Flasks flat bottom 50 cc	6	
Microscope oil-immersion movable stage Abbe, condenser etc.	55	
Microscope, dar ground work with arc lamp arrangement etc.	1	
Refrigerators	3	
Micrometer eye pieces	2	
Micrometer stage	2	
Centrifuge, electrical high power	3	
Refrigerated Centrifuge	1	
Distilled water plant	2	
Distilled water plant all glass	1	
Oil immersion lens for students microscope	80	
Dropping bottles for stains (Plastic)	750	
Staining troughs	100	
Anaerobic apparatus	4	
Electrophoresis complete set	1	

B.O.D. incubator	2	
Laminar flow table	1	
Ultra Violet (U.V.) lamps	1	
Venereal diseases research	2	
Laboratory (V.D.R.L.) shaker computer unit	1	
Overhead Projector	1	
Water bath (Serological) 37 degree Celsius	1	
Water bath (Serological) 56 degree Celsius	1	
Deep freeze (-20 degree Celsius)	1	
Elisa Reader, Dispenser and washer	1	
Binocular microscope	3	
<b><u>Culture facilities</u></b>		
Thermometers (Assorted)	12	
Glassware, such as pipettes, burettes, beakers, conical flasks, petri dishes of different sizes, reagent bottles etc.	As required	
Material for preparation of media	As required	
Stains	As required	
PH determination apparatus	2	

<u>Reagent bottles with stopper</u>		
2000 cc	12	
1000 cc	40	
500 cc	24	
250 cc	24	
100 cc	60	
50 cc	60	
<u>Test tubers hard glass</u>		
150 mm x 18 mm	10 Gross	
100 mm x 12 mm	20 Gross	
75 mm x 12 mm	20 Gross	

## **6. PHARMACOLOGY DEPARTMENT**

Office table small and big, Office chairs, museum almirahs, study tables, staff room and library almirahs, stock almirahs, store room racks, lockers with coat hanger and drawers as required. Laboratory benches with coat hanger and drawers as required. Laboratory benches with cupboards and with racks for reagent bottles, water, gas and electric points, operation tables, as necessary.

### **EXPERIMENTAL PHARMACOLOGY**

Starling's long extension kymographs with time markers	3	
The Ideal Respiration Pump (500 cc. CAP)	3	
Brodi's operation tables	3	



Incubators	2	
Refrigerators	2	
Assembly perfusion apparatus fro mammalian heart	4	
Standard power tables	3	
Assembly for mammalian classes	4	
Automatic electric recording drums	4	
Mechanical Stromhur	2	
Gadum's out-flow recorder	2	
Centrifuge	2	
Colorimeters	3	
Canulas (different types)	48	
Cautery machine, electric Blendsone	1	
Varnishing Tray with foot lever	2	
Four unit isolated organ bath palmer F.67	1	
Analgesiometer	1	
Smoking Burners Palmer A-291, A-265	1	
Tracheal Canula Metal Palmer E.76	4	
Condons Drop Recorder - Palmer B-75	1	

Prof. Inchleys Drop Recorder Palmer B.78	1	
<u>Animal Weighing</u>		
a) Machine for small animals like rats and guinea pig	3	
b) Machine for big animals like dogs	3	
Dissection instruments and injection syringes	As required	
(The experimental physiology laboratory can be used if available for the students).		
*Kymograph (students) Electric independent unit	150	
*Electric motor 1/4 with split pulleys	2	
*Shafting steel rod 3/5" diameter 18" long	8	
*Standard shafting and fittings	40	
*Pulleys	30	
*Muffs coupling for joining 2 pieces of the above mentioned shafting steel rods	12	
*Not required in case of independent units		
X-blocks	As required	
Hook grip rods	As required	
Plain stand	150	
Apparatus for isolated rabbit intestine etc	150	
Jacquets graphic chronometer	3	

Frog Boards Palmer C.120	150	
Jackson's Enterograph	3	
Hair Aesthesiometer Palmer W.290	3	
Long extension for paper palmer A.130	2	
Animal Balance Triple Beam	2	
Manometers mercury palmer C-200	6	
Metronome palmer B-5	2	
Oncometer Kidney	2	
Oncometer Heart	2	
Copper Trays (10" x 8" x 1")	150	
Thermometer (upto 110 degree Celsius)	150	
Distillation apparatus	6	
Microscopes ordinary	4	
Working tables with racks each table 36' long	9	
Chemical balance - ordinary Apothecary's	2	
Chemical balance - Sensitive	2	
Dissection instrument	As required	
Plethysmograph assorted	4	

Pneumograph Palmer E	1	
Piston Recorder Palmer C.51	1	
Tambours Mareys Palmer C.5 & C.11	4	
Tetanus Set Palmet H2O	1	
Stop Watches Jacquets	12	
Oxygen cylinders with trolleys 20 cu. ft	6	
Carbon-di-oxide cylinder	2	
Operating lamps - Philips	4	
Animal trolley with 12 cages	4	
<b><u>Miscellaneous</u></b>		
Electrodes, Ordinary and Non polarisable, insulated wires, time markers, electric signals, Mercury manometer, perfusion apparatus, myograph lever, small pulley's upright stands and chemicals etc.	As required	
<b><u>c) Pharmacy Laboratory:</u></b>		
Dispensing Balance with metric system weights	50	
Pill Tiles	50	
Suppository moulds	50	
Porcelain dishes	15	
Crucibles and tongs	15	

Pestle and Mortar	50	
Iron Spatula	50	
Measure glass all sizes	50	
Water bath, metal	15	
<b><u>Miscellaneous</u></b>		
Chemical, drugs, glass rods, funnels and filter paper	As required	
<b><u>d) Special Chemicals and Pharmacological Equipment</u></b>		
Simulator Electronic Arthus Thomas	1	
Balance Semi Micro Analytical Pan Mottler	1	
Electrocardiograph	1	
Spectrophotometer Model Du-Backman (UV Visible range)	1	
Skin and Rectal Thermometer Braun	1	
Antihistamine Chamber with manometer	1	
Flame photometer	1	
Stop Clock	18	
Water bath 4 hole electrically heated	12	
Bell Jars Assorted	4	
Petri Dishes Assorted	36	

Museum drugs specimen jars	30	
All glass distillation apparatus capacity 2 litres	2	
Centrifuge Electric International R.P.M. 3000	4	
Microscope students type with mechanical stage and oil immersion	4	
Microscope lamps	4	
Magnetic stirrer B.T.L.	1	
Autoclave electric	1	
Warning Blender M.S.E.	1	
Hot air oven size 14" x 14" x 14"	1	
Incubator Electric Size 14" x 14" x 14"	1	
Vacuum & Pressure Pump Cenco	2	
Instruments Steriliser Electric size 12" x 8" x 6"	2	
B.P. Apparatus	12	
Distilled water still Manesty Electrical Cap. 2 gallon per hour	2	
Stethoscope	12	
Multimeter	1	
Temperature controlled water bath 37 C	1	
Razor Hone	2	

Electric Hot Plate	2	
Deionizer - two of capacity 20 litres per hour and 6 litres per hour (mixed bed type) connected in series Physiographs with transducers and other relevant accessories (may substitute kymographs)	60	
Vortex mixer	2	
Actophotometer	1	
Rotarod Assembly	1	
Electro-Convulsiometer	1	
Cook's Pole Climbing Apparatus	1	
Metabolic Cagges (Dieuretic Study)	4-Mar	
Digital PH meter	1	
Tablet Disintegration Machine	1	
Glass tubing (length of 6 ft.)	As required	
Glass rods-assorted sizes of 6 ft.	150	
Glass mortar & pestles capacity of 500 and 200 cc	36 each	
Cork borer set of 12	1 set	
Holder for platinum wireloop	160	
Lancet spring (disposable)	160	
Lamp for microscope	as required	

Magnifying glass with metal handle	80	
Metal mincing machine	1	
Postmortem instruments complete sets	2 sets	
Suction pumps	1	
Filtering apparatus sietz filter and millipore filter	1 each	
Dessicators	2	
Vacuum Dessicators	1	
Apron plastic for postmortem	2	
Apron rubber for postmortem	2	
*Lyophilizer	1	
*Thermal Cyclor	1	
U.V. Trans-illuminator with photography	1	
*Colony counter	1	
*Cold room + 4 degree celsius	1	
*BACTEC system	1	
*Phase contrast Microscope	1	
*Vortex mixer	1	
*Electronic Balance	1	



*Microfuge	1	
*Ultra Centrifuge	1	
*Flourescent Microscope	1	

\*Desirable additional equipment in the department of Microbiology

### **7. DEPARTMENT OF FORENSIC MEDICINE**

Weighing machine, dail type human	2	
Equipment for reporting height	2	
Balance chemical	1	
Balance, single pair for weighing foetus weighing machine for weighing dead bodies	1	
Weighing machine for organs	2	
Folding metal scale to measure upto 1 ft.	1	
Steel tape roll	2	
Warnier calipers	1	
Autopsy table	2	
Styker autopsy saw, with accessories	3	
Hacksaw	4	
Dissection sets, consisting of cartillage knife bone cutting forceps scissors, straight and curved Enterotome Scaples, knives with spare blades, probe metal scale graduated in cms. etc	4	

Rib. shears, right and left	4	
Viscerotome with attachment for illumination (Battery operated)	1	
SLR camera with accessories	1	
Microscope student type	30	
Microscope Binocular, research	4	
Stopwatch	2	
X-ray view box one in four	5	
View Box Two in One	4	
B.P. Apparatus	5	
Anthropometric set	1	
Automatic tissue processing machine	1	
Microtome with knife	1	
Hot plates	1	
L. Modes	16	
Leather Straps	2	
Parafin bath Embedding	1	
Slide Warming Table	1	
Stone Carbarandon	2	

Water Bath (Tissue Flowing)	1	
Distillation Plant	1	
Brain Knife	8	
Block Holder	50	
Digital Spectrometer	1	
Digital PH Meter	1	
Electric Auto Slide Projector	1	
Glass cutting pencil	1	
Hand set Heat Sealer	1	
Spectroscope Lens with adjustable slit	2	
Refrigerator	1	
Cold storage for keeping dead bodies	As required	
Deep freezer for keeping issues	As required	
Video Camera, Television and Video Cassettes Recorder	1 each	
Instrument cabinet instrument trolley, filing cabinet with folders, filing cabinets for alimirahs etc	As required	

### **8. DEPARTMENT OF COMMUNITY MEDICINE**

Comparator, Nessler	1	
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Barometer, Fotin	1	
Extraction Apparatus, fat, complete Filter, Pasteur Chamberland, complete set	1	
Filter, Berke feld	1	
Hydrometres, spirit	3	
Hydrometres, milk	3	
Hydrometres, wet and dry bulb	1	
Incubator, electric	1	
Museum jars	As required	
Models, charts, diagrams etc	As required	
Balance Analytical 200 gm	3	
Balance for weighing food stuff capacity 2 Kg	1	
Centrifuge Clinical	1	
Weighing machine adult	4	
Salter's Baby weighing machine	4	
Herpenders Callipers (for skin fold thickness)	2	
Height measuring stand	1	
Aqua guard	1	
Refrigerator 3 cu.ft	1	

Ice Lined Refrigerator (ILR)	1	
Dissecting microscope	40	
Microscope oil immersion	3	
TV, VCR	1 each	
Still for distilled water	1	
Autoclave	1	
Sterilizers, electric	2	
Computer	1	
Overhead Projector	2	

The Rural and health centres for training of under graduate students shall be suitably equipped along with adequate transport.

## **SECTION II - CLINICAL DEPARTMENTS**

The list of equipment for Clinical departments both indoor and outdoor, may be prepared by the Heads of Departments, who would keep in view the needs for:

1. Special examination with diagnostic aids and investigations such as laboratory, X-rays, etc.,
2. Routine treatment, medical and surgical etc.
3. Special therapy such as physical, occupational, dietetic etc.,

The following equipment for various clinical departments are however the minimum required:

<b>1. DEPARTMENT OF MEDICINE:</b>		
B.P Apparatus	40	
Ophthalmoscope	10	
Lumbar Puncture needles (disposable)	As required	
Haemocytometer	5	
Light microscope	3	
Haemoglovinometer	5	
Centrifuge machine	3	
Urinometer	3	
Plural buopsy needle (disposable)	As required	
Liver biopsy needle (disposable)	As required	
Kidney Biopsy needle (disposable)	As required	
X-ray viewing box	25	
Overhead Projector	2	
Slide Projector	2	
Upper GL endoscope	3	
Colonoscope	3	

Sigmoidoscope	3	
Proctoscope	10	
Facilities for doing test for malabsorption	As required	
Ultra sound machine	1	
Fiberoptic bronchoscope	2	
Spirometer	2	
Bed side Cardiac monitors	16	
Central Cardiac monitor console	1	
Defibrillator	16	
Non invasive B.P. Apparatus	16	
Pulse oxymeter	16	
Equipment for cardiac pacing	1	
Ambu bag	16	
Laryngoscope	16	
ECG Machine	16	
Echocardiography machine	2	
Tread Mill test machine	1	
Haemodialysis machine	5	

Peritoneal dialysis catheters	As required	
Arterial blood gas analyser	2	
Na/K analyser	2	
Equipment for measuring diffusion capacity	1	
Microprocessor based spectrometer	2	
Gamma cameras	1	
Glucometer	10	
Radioisotope scan laboratory	1	
Electro Encephalogram (EEG) machine EMC and nerve conduction	1	
Velocity machine	1	
Fine needle aspiration needle	As required	
Aspiration needle	As required	
Torches	40	
Patient examination table	35	
Rubber Hammer	35	
Reagents for doing Gram's and Ziehl Neilson staining	As required	
Computer (one for each medical Unit)	6	
Radiopapers	40	



Endotracheal tubes	As required	
Emergency lights	10	

## **2. DEPARTMENT OF PAEDIATRICS**

<b>A. Resuscitation Equipments:-</b>		
<b>Ambu bag</b>		
-Infant	4	
-Children	4	
Face mask	4	
Nasal prongs	As required	
Nasal catheters	As required	
Endotracheal tubes	As required	
Suction apparatus	1	
Suction catheters	As required	
Laryngoscope		
-Infant	1	
-Children	1	
<b>B. Oxygen Delivery System:-</b>		

Oxygen cylinder	1	
Oxygen regulator	1	
Oxygen Humidifiers	1	
Oxygen headbox (of each size)	1	
Nebuliser	8	
<b>C. Drug Delivery Equipment/Catheter/Tube:-</b>		
Intra-venous (I.V) Drip set	As required	
Measured volume set	4	
Blood transfusion set	4	
Intravenous (I.V) Cancula (Butterfly type)	As required	
Intracath	8	
Umbilical vein Catheter	8	
Feeding tubes	As required	
Three way and four way value	4	
Malecot's catheter	8	
Cut open canula	As required	
<b>D. Measurement Equipments:-</b>		
Weighing machine		

-infant	1	
-Child	1	
-Naonates	1	
Infantometer	1	
Measuring Tape	As required	
Shakir's Tape	As required	
<b>E. Work Lab and Investigations</b>		
Students Microscope	2	
Nuclear Chamber	4	
Hemoglobinometer	4	
Test Tube	As required	
Spirit Lamp	4	
Stains for Leishman's staining	As required	
-AFB staining	As required	
-Grams staining	As required	
Dextrostix	As required	
Multistix	As required	
Uristix	As required	

Micro Erythrocyte Sedimentation Rate (ESR) tubes	As required	
Filter paper	As required	
Bone Marrow needle	4	
Lumber Puncture (L.P) Needles	4	
Pleural aspiration needle	4	
Vim-Silverman Biopsy needle	4	
Megneiz Needle	4	
True cut renal Biopsy needle	4	
X-ray view box	1	
<b>F. Miscellaneous:</b>		
Radiant Warmer	1	
Infant incubator	1	
Phototherapy Unit	1	
Ophthalmoscope	1	
Thermometer		
-Oral	As required	
-Rectal	As required	

### **3. DEPARTMENT OF TUBERCULOSIS AND CHEST DISEASES:-**

Peak flow meters	3	
Nebulizers	6	
Intercostal Drainage facility	4	
Pleural Biopsy Needles	2	
Pulse Oximeter	2/1	
Fiberoptic Bronchoscope	2/1	
Rigid Bronchoscope	1	
Pulmonary function Test machine with facility for spirometry, lung volume and diffusion capacity	1	
Arterial Blood Gas Machine	1	

### **4. DEPARTMENT OF DERMATOLOGY VENEREOLOGY AND LEPROSY**

Facilities for examining smears for bacteria, fungi, mycobacteria and acantholytic cells

- a. light microscope with facility for dark ground illumination microscopy
- b. Gram's stain
- c. Zeihl-Nielsen's stain
- d. Giemsa stain

Facilities for electrosurgery and chemosurgery

- a. Electro-cautery machine
- b. Trichloroacetic acid

## **5. DEPARTMENT OF PSYCHIATRY**

Electro Convulsive Therapy	3	
(E.C.T) machine preferably with ECG monitoring	1	
ECG machine	1	
Lithium analyser	1	
Biofeed-back Instruments (sets)	1	
Thin layer Chromatography (for drug dependence treatment)	1	
Alcohol breath analyser	1	
Psychological Tests equipment		
a. Project Tests	4	
b. Intelligence Tests	4	
c. Personality Tests	4	
d. Neuro Psychological tests	4	

## **6. DEPARTMENT OF SURGERY:-**

<b><u>i) O.P.D</u></b>		
Blood pressure Apparatus, Stethoscope diagnostic kit, weighing machine skinfold caliper, Height scale	8	

X-ray viewing boc 4 in 1	8	
Proctoscope & Gabriel syringe	8	
Sigmoidscope (Rigid)	2	
Flexible Endoscope, Upper GI, Colohoscope (one set in Main O.T)	2	
Diagnostic Cystoscope	1	
Ultrasound	1	
Uroflowmetry	1	
<b><u>ii) Minor Operation Theatre</u></b>		
Operation Theatre Table	2	
Operation Theatre Ceiling Light	2	
Pedastal Lights	4	
Electro Surgical Unit	1	
Suction	4	
Pulse oximeter (one for Endoscopy Room)	4	
Anaesthesia Equipment	1 set	
Resuscitation kit	1	
Assorted Surgical Instruments for Minor Operation sets	12	
Autoclave	1	

<b><u>Wards</u></b>		
B.P. Apparatus, Stethoscope diagnostic kit (4 sets in each ward)	16 sets	
Weighing machine, Height scale, Skinfold caliper (2 in each ward)	8	
Proctoscope (2 in each ward)	8	
Monitors for pulse rate, heart rate, E.C.G. Invasive and non-invasive pressure (2 in each ward)	8	
Incubators/Transport Incubators	4	
Neonatal bassinet	4	
Ultrasound	1	
Arterial Blood Analyser	1	
Oesophagael/gastric pH & pressure recorder	1	
<b><u>iii. Operation Theatre</u></b>		
Operating Tables	8	
Operation ceiling light	8	
Pedestal side light (for emergency use)	4	
Electrosurgical unit	10	
General sets (8 for each Operation Theatre)	64	
Burr hole set	2	
Vascular set (1 in each O.T) Anaesthesia Equipment as per requirement of Anaesthesia department	8	



Diagnostic and Operative laparoscope	2	
Cystoscope and Resectoscope	2	
Bronchoscope	1	
Flexible G.I. Endoscope	1	
Laser (may be shared with other departments)	1	
C-arm image intensifier	1	
Operating microscope, binocular with video monitor	1	
Operative Ultrasound	1	
Stapling device assorted	2 sets	
Endo-stapler	1 set	
Closed circuit T.V	2	
<b><u>iv. Miscellaneous</u></b>		
Photocopier	1	
Computer with laser printer	1	
Electronic Typewriters	2	
Slide Projector	4	
Overhead Projector	8	
Video Cassette Recorder/Video Cassette Player	2	

## **7. DEPARTMENT OF PAEDIATRIC SURGERY**

<b><u>Resuscitation equipment</u></b>		
-Ambubags	6	
-ET Tubes (all sizes 2.5 - 8)	10	
-Guedell's airway (all sizes)	8 sets	
-Laryngoscope	6	
Suction Catheters	30	
Assorted sets	30	
Suction machines	6	
Oxygen cylinders oxygen	12	
B.P. Apparatus	12	
Slow suction machine	4	
Nebulizer	4	
Heater	4	
I.C.U. Equipment incubator sets	4	
Operation Theatre equipment	2	
Cystoscope - paediatrics	2	
Rigid Bronchoscope (sets)	2	

Oesophagael dilators (sets)	2	
Paediatrics sigmoidoscope	2	

### **8. DEPARTMENT OF ORTHOPAEDICS:-**

Basic instrumentation set for fracture	8 sets	
Small fragment and large fragment	4	
External Fixator	8	
C-Arm (Image intensifier)	2	
Portable X-ray machine	1	
Arthroscope	1	
Slide projector	2	
Over-head projector	2	
Movie camera for demonstration of live operations	1	
Plaster room equipment (sets) with plastic table	2	
Physiotherapy and Occupational Therapy equipment sets	1	
Operation room equipment (sets)	2	

**9. DEPARTMENT OF OPHTHALMOLOGY:-**

<b><u>i. O.P.D.</u></b>		
Snellen Chart/Snellen drum with or without remote control	6	
Trial set with trial frame both for adult and children	6	
Bjerrum screen	2	
Perimeter	2	
Colour vision chart	3	
Near vision chart with different language	6	
3 cell torch	12	
Ophthalmoscope and Retinoscope	6	
<u>Common equipments in the OPD</u>		
Slit lamp	3	
Applanation tonometer	2	
Keratometer	2	
Indirect ophthalmoscope	2	
Synoptophore	2	
Maddox Rod	2	
Maddox Wing	2	

Diplopia goggles	1	
Gonioscope	2	
Placido disc	2	
Prism Bar	2	
Schoutz tonometer	4	
<b><u>ii. Major Operation Theatre:-</u></b>		
Operating Microscope with TV unit	2	
Unit with camera	2	
Cryo unit	2	
Cataract set	7	
Glaucoma set	3	
DCR set	3	
Entropian set	3	
Enucleation set	3	
Evisceration set	3	
Squin set	3	
<b><u>iii. General Ophthalmic Equipments:-</u></b>		
Operation Theatre Table	2	

Operation Theatre Light	2	
<b><u>iv. Minor Operation Theatre:-</u></b>		
Minor O.T should have the equipment for the removal of the foreign body, sutures and chaizion or style etc.,		
<b><u>v. Ward:-</u></b>		
Slit lamp	1	
Snellen Chart/Snellen drum with or without remote control	1	
Trial set with trial frame both for adult and children	1	
Bjerrum screen	1	
Perimeter	1	
Colour vision chart	1	
Near vision chart with different language	6	
3 cell torch	6	
Ophthalmoscope and Retinoscope	2	

**10. DEPARTMENT OF ENT:-**

<b><u>i. O.P.D</u></b>	<u>Per Doctor</u>	
Nasal Speculum	4	
Tongue Depressor	4	

Laryngeal mirrors	4	
Nasopharyngeal mirrors	4	
Aural speculum	4	
Ear suction	2	
Nasal suction	2	
Suction apparatus	1	
Siegles speculum	1	
Tuning fork (512 Hz)	1	
Otoscope	2	
Bayonet forceps	1	
Bulls lamp	1	
Head lamp	1	
ENT examination chair	2	
Jobson Horne probe	1	
Sterilizer	1	
BP apparatus	1	
Stethoscope	1	
<b><u>ii. Major Operation Theatre:-</u></b>		

<b><u>a. Tonsillectomy and adenoidectomy set</u></b>		
Biopod	1	
Boyle davis mouth gag	1	
Tonsil holding forceps	1	
Tonil dissector and pillar retractor	1	
Tonil snare	1	
Burkit artery forceps	1	
Negus artery forceps	1	
Negus knot tier	1	
Tonsil scissors	1	
Adenotome	1	
Adenoid curette	1	
Yankauer oropharyngeal suction tip	1	
<b><u>b. Sets for nasal bone fracture</u></b>		
Asch forceps	1	
Walsham forceps	1	
<b><u>c. Septoplasty set</u></b>		
Bayonet forceps	1	



Killians nasal speculum	1	
Freer elevator	1	
Ballenger's swivel knife	1	
Takahashi forceps	1	
Fish tail gouge and mallet	1	
<b><u>d. Caldwell Luc set</u></b>		
Nasal gouge	1	
mallet	1	
Ribbon Retractor	2	
Cheek Retractor	2	
<b><u>e. Antrostomy set</u></b>		
Antral	1	
Retrograde gouge	1	
Antral rasp	1	
<b><u>f. FESS set</u></b>		
Rigid nasal endoscope 0	1	
Rigid nasal endoscope 70	1	
Light source	1	

Sickle knife	1	
Retrograde punch	1	
Blakesley forceps - straight	1	
40 upturn	1	
Optional for MBBS		
<b><u>g. Direct Larynoscopy set</u></b>		
Anterior commissure	1	
Laryngoscope	1	
Negus Laryngoscope	1	
Lighting system for Laryngoscopes	1	
Biopsy forceps	1	
Foreign body removal forceps	1	
Laryngeal suction	1	
Micro-laryngoscopy set		
Kleinsasser's laryngoscope	1	
Fiberoptic lighting system	1	
Suspension system for Laryngoscope	1	
<b><u>h. Micro-laryngeal Cup forceps</u></b>		

Microalaryngeal scissors	1	
<b><u>i. Tympanoplasty set</u></b>		
Aural speculum	4	
Drum curette	2	
Drum elevator	1	
Microsuction	2	
Graft knife	1	
Graft press	1	
<b><u>j. Mastoidectomy set</u></b>		
Mallet	1	
Gouge	4	
Endaural retractor/post aural retractor	2	
Electric drill (motor handpiece and burrs)	1	
Mastoid seeker	1	
Aditus seeker	1	
Malleus head nipper	1	
<b><u>k. Stapedectomy set</u></b>		
Pick straight	1	

Angled	1	
perforator	1	
Measuring rod	1	
Prosthesis crimper	1	
<b><u>l. Oesophagoscopy set</u></b>		
Oesophagoscopes	3	
Lighting	1	
Biopsy forceps	1	
Foreign body removal forceps	1	
Suction	1	
Oesophageal dilators	1 set	
<b><u>m. Bronchoscopy set</u></b>		
Bronchoscopes	3	
Lighting system	1	
Biopsy forceps	1	
Foreign body removal forceps	1	
Suction	1	
Optional for MBBS		

<b><u>n. Tracheostomy set</u></b>		
Needle holder	1	
Bard Parker knife handle	1	
Ribbon right angled retractors	2	
Curved arteries	4	
Straight arteries	1	
Cricoid hook	1	
Tracheal dilator	1	
<b><u>iii. Minor Operation Theatre</u></b>		
<b><u>a. Antral was set</u></b>		
Trocar	2	
Canula	2	
Higginsons syringe	2	
<b><u>b. Direct Laryngoscope set</u></b>		
Laryngoscope - Anterior commissure	1	
Negus	1	
Lighting System	1	
Biopsy forceps	1	

Foreign body removal forceps	1	
Sterilizer	As required	
Aural syringe	As required	
Tracheostomy set	As required	
Intubation set	As required	
Cricothyrotomy set	As required	
Quinsy forceps	As required	
Laryngeal forceps	As required	
Aural snare	As required	
Aural cup forceps	As required	
<b>iv. Wards</b>		
Semi intensive care unit (4 beds)	As required	
Central suction	As required	
Oxygen suction	As required	
Humidifier	As required	
Optional for MBBS		
<b><u>v. Miscellaneous Equipments</u></b>		
Operating microscope for major operation theatre	1	

Operating microscope for minor operation theatre	1	
Puretone audiometer	As required	
Impedance audiometer	As required	
<b><u>Special Equipment</u></b>		
a. Temporal bone lab Microscope	1	
b. Drill		
Mastoid set	1	
Optional for MBBS		
<b><u>vi. Any other Additional equipment which are desirable</u></b>		
Flexible nasopharyngolaryngoscope	1	
Electronystamograph	1	
Brainstem evoked response auditometer	1	
Goggles, plastic apron, gloves for examination of patients with biohazard (HIV and Au positive)	1 set	

## **11. DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY**

<b><u>i. General</u></b>	<b>75</b>	
Speculums and Retractors	30	
EA + ECC sets	15	

PCT forceps	45	
Ayers spatula	45	
Microscope	3	
MR Syringes	15	
Coloposcope	3	
Cryo/electro cautery apparatus	3	
Simple fetal Doppler	3	
NST machine	6	
Stitch removal sets	15	
Dressing sets	15	
Ultrasound machine	3	
Proctoscope	9	
Weighing machine	3	
Height scale	3	
View box	3	
(Blood Pressure apparatus, measuring tapes, gloves, syringes, needles, torch)		
Resuscitation tray	2	
(Laryngoscope, ET tube, ambus bag, suction catheter, essential drugs)		



Suction machine	2	
Hysterosalphigogram canula	15	
<b><u>ii. Main Operation Theatre</u></b>		
Abdominal Hysterectomy set	9	
(arteries, scissors, scalpel, Allis's kelly's clamp, badcock forceps, thumb forceps, Harington & Richardson retractors)		
Vaginal Hysterectomy set	9	
(Scalpel, Scissors, metal catheter, Sim's Speculum, Volsellum, Kelly's clamps, right angel retractor, arteries, allis, uterine sound, bladder sound)		
Tuboplasty set	6	
Myomectomy instruments	3	
(Myoma screy, Boney's clamp)		
Diagnostic laparoscopy set	6	
Operating laparoscopy set	6	
Hystroscopy set	3	
Electric carbondioxide insufflator / Insufflator basic unit	6	
Resotoscope	3	
Hysteromat	3	
Operating microscope/Loupe	2	

Electrocautery	3	
<b><u>iii. Special Equipment</u></b>		
Contact Microhystroscope	2	
Co2 & Nd yag laser	1	
<b><u>iv. Labor Room</u></b>		
Delivery sets	30	
B.P. Apparatus	9	
Weighing machine	2	
Fetal Doppler	3	
Cardiotocogram machine	5	
Portable Ultrasound	2	
High suction machine	3	
Resuscitation tray	3	
<b><u>v. Special Equipment</u></b>		
Oxytocin infusion pumps	9	
Multi-channel monitors	6	
Intrauterine Pressure monitoring system	6	
Fetal scalp electrodes		

Facilities for fetal scalp pH	4	
<b><u>vi. Teaching Set</u></b>		
Doll and Dummy	3	
Female Pelvis	3	
<b><u>Gross Specimens</u></b>		
X-ray/US films view box	3	
VCR	2	
Overhead Projector	1	
Slide Projector	2	
Set of instruments / forceps etc.,		
<b><u>vii. Miscellaneous</u></b>		
Camera with 200 m lens		
Endocamera / Televison		
TTL flash light		
Carbondioxide Monitor		
Caculter Channelizer		
Disposables, to be issued on monthly basis		
<b><u>viii. Minor Operation Theatre:</u></b>		

Cervical Biopsy set	10	
MTP set	15	
D&C set	15	
Hydrotubation set	6	
IUCD insertion/removal set	20	
High suction machine	4	
Resuscitation Tray	1	
E.B. set	10	
(O.T lights, OT tables)		
<b><u>xi. Maternity Operation Theatre</u></b>		
Set for LSCS	12	
D&C set	15	
MTP set	15	
High suction machine	4	
Cervical exploration set	6	
Uterine packing forceps	6	
Abdominal hysterectomy set	3	
Diagnostic laparoscopy set	4	

Laprocator for tubal ligation	6	
Post partum ligation set	6	
Outlet forceps	9	
Los mid cavity forceps/Kjielland forceps	6	
Vacuum Extractor and suction machine	6	
Resuscitation tray	3	
Decapitation hook	3	
Cranioclast with cephalotribe	3	
Oldham perforator	2	
Infusion Pump	6	
EB set	6	
Operation Theatre Table, Operation Theatres lights, Central Oxygen and Suction		
<b><u>x. Special Equipment</u></b>		
Multi-channel Monitor with ECG, BP, HR, Pulse Oxymetry for high risk Pregnant patients (Eclampsia, Heart diseases etc)	3	
<b><u>xi. Wards</u></b>		
B.P. Apparatus	10	
Weighing Machine	1	
Height Scale	1	

Speculum and retractors	100	
Glucometer	2	
Microscope	2	
Suture removal sets	15	
Dressing sets	20	
Ultrasound	2	
Cutdown sets	3	
Blood gas analyser	1	
CTG machine	2	
Suction machine	4	
Resuscitation tray	4	
View box	3	
Central Oxygen and suction		
<b><u>xii. Special Equipment</u></b>		
Ultrasound machine with Doppler/Vaginal probe/facilities interventional procedure	2	
Multi-channel monitor	2	
Fetal monitor for Antepartum Surveillance	3	
Computer for data entry	1	

(Gloves, Syringes, needles, torch, measuring tape etc.)		
<b><u>xiii. Laboratory equipment for following investigations:</u></b>		
H.Gram		
Urine Examination		
Semen Analyses		
Renal Function Test (RFT)		
Liver Function Test (LFT) including Serum Blutamase Test (SBT)		
Electrolytes, Blood sugar		
Culture facilities		
24 hr urine, lab, creatinine		
VDRL, TORCh		
HIV		
Serum, BHCG, Estriol, MSAFP		
Semen wash		
FSH, LH, Prolactin, T3, T4		
TSH, Testosterone, DHEAs		
Chlamydial and other reproductive tract infection testing		

## **GENETIC LAB**

Cytology, Chromosome Study, PCR for various abnormalities, facilities for biochemical tests and enzymes studies for prenatal diagnosis, Blood gas analyser, Thalassaemia study ABO and RH typing, PCR for tuberculosis, Viral Markers for Hepatitis studies, Coagulation profile, fibrinogen degradation products, Blood bank facilities, Cryopreservation, Assisted reproductive techniques.

## **12. DEPARTMENT OF ANAESTHESIOLOGY**

OPD - Anaesthesia clinic	1	
B.P. instrument (Non - Invasive)	1	
Weighing machine, High scale, Ward (recovery)	1	
Resuscitation Equipments (CPR)		
a. Adult dummy	1	
b. Paediatric dummy	1	
c. Artificial breathing bag with face masks	1	
d. Defibrillator Suction machine		
-Electrical	5	
-Manual	5	
Oxygen therapy unit	8	
Pulse Oximeter	2	
ECG Monitor	2	
E.T. Co2 Monitor	1	



Simple anaesthesia machine with resuscitation equipments and accessories	1	
Mechanical Ventilator	2	

### **13. DEPARTMENT OF RADIO DIAGNOSIS**

Conventional x-ray unit for routine x-ray and IVV	4	
Mobile x-ray units		
a. 30MA	3	
b. 60MA	3	
Fluoroscopic unit	2	
Both conventional and image intensifying unit for Gastro-enterology & Gynae work etc	2	
Ultrasonography equipment	2+1 additional unit independently for Obstetrics and Gynaecology	
CT	1	
Mammography	preferably	
MRI	preferably	

### **14. RADIO-THERAPY**

Examination Table	4	
ENT examination set up	2	

Gynae/Pelvic examination tables	2	
<b>Treatment planning and mould room including</b>		
i. Computerised treatment planning system	2	
ii. Simulator	1	
iii. Immobilisation cast making system	2	
<b><u>Brachytherapy setup</u></b>		
i. Manual afterloading intercavitary system (sets)	2	
ii. Manual afterloading interstitial/surface mould systems sets	1	
<b><u>Teletherapy setup</u></b>		
Isocentrically mounted rotational telecobalt unit minimum 80 cm SSD	2	
<b><u>Radiation Protection and Dosimetry setup</u></b>		
i. Secondary standard dosimeter with ionisation chamber	2	
ii. Survey meter	2	
iii. Area/zone monitors	4	
iv. Film badge services	As per the number of staff members in the department	
Desirable setup of equipments for large medical colleges (more than 3000 new cancer cases)		
<b><u>Radiotherapy Department</u></b>		
i. Durl Photon energy linear accelerator with electrons and multileaf collimeter	1	

ii. Remote controlled intracavitary system	1	
iii. Remote controlled interstitial system	1	
iv. CT-Sim 3D treatment planning system	1	
v. Isodose plotte (Automatic)	1	
vi. Customised shielding block making system	1	
vii. Customised compensator making system	1	
viii. Computerised Dosimetry system	1	
ix. Thermoluminiscent dosimetry system	1	
x. Intra operative Radiotherapy and sterotactic	1	
Radiotherapy setup along with linear accelerator (multileaf)		

Note: Normally one tele-therapy unit should be provided for every 1000 new cancer cases. All radiation therapy equipments (tele/Brachy) should be BARC type approved with BARC sanctioned layout/installation plan.

## **15. PHYSICAL MEDICINE AND REHABILITATION**

- 1.Rehabilitation Diagnosis and treatment equipments including exercise setups.
- 2.Remedial and recreational setup.
- 3.Electrotherapy equipments
- 4.Prosthetic-Orthotic workshop equipments.

**SECTION III - OTHER DEPARTMENTS**

<b>1. MEDICAL EDUCATION UNIT</b>		
Overhead Projectors	2	
Slide Projectors	2	
Computer with printer	1	
Electronic typewriter	1	
Video Camera	1	
Video cassette recorder	1	
Television	1	
Black Board	2	
Xerox copier	1	
Books and journals	as required	
<b>2. DEPARTMENT OF AUDIO VISUALS AIDS</b>		
<b><u>ARTIST SECTION</u></b>		
Drawing Board size 42" x 27"	1	
Drawing Board size 22" x 30"	1	
Instrument Box steadier	1	

Plastic Transparent Set Square 10"	1 pair	
Plastic Transparent 18"	1	
Parallel Ruler 18"	1	
Proportional Compass	1	
Bowpen stanley one for fine and one for thick line	2	
"T" scale 24" wooden	1	
"T" scale 48" wooden	1	
Frenat curves plastic 1 set of 12	1 set	
Protractor plastic semiround 6" dia	1	
Kent paper size 22" x 30"	12	
Scolor drawing paper 22" x 30"	12	
Drawing paper Norway 12 lbs.	12	
Water colour tubes Winsor and Newton	24	
Postercolours in different shades	13	
Reeves Indian Black ink	12	
Water colour box peliken	1	
Sabel Hari Brushes 16 Series No.00 to 6 and 10	8	
Speed ball nibs style A.B.C.D	1 set	

Crequil Nibs	12	
Drawing Nibs 303 and 304	12	
Clip holders	6	
Computer facilities	as required	
<b><u>MODELLING SECTIONS AND PHOTOGRAPHY</u></b>		
Modelling instrument box	1	
Saw for wood work	1	
Bent saw iron	1	
Jamboor	1	
Piler	1	
Piler Gaoldsmith	1	
Scissors ordinary	1	
Scissors goldsmith	1	
Hammer	1	
Mortar iron	1	
Bucket iron	1	
Chisel	1	
Tagari iron	1	

El bowls	4	
Drill Machine	1	
Modelling Clay	as required	
Chalk Clay	as required	
Multani Clay	as required	
Yellow Clay	as required	
Soft Stone powder	as required	
Plaster of parts	as required	
Old raddy	as required	
Gum	as required	
Sand paper	as required	
Plasticine	as required	
Wires G.I. Cooper and Wire	as required	
Netting	as required	
Synthetic Enamel Colours 1/16 gallon	as required	
Oil colour brushes	as required	
Soap and coconut oil	as required	
Epidiascope B&L or Alatis	4	

Radiant Screen size 72" x 72"		
16mm film projector bell and howell	1	
Camera Rollieflex automatic	1	
Camera 35mm contact 4/D with copying attachment	1	
Microscopic attachment of contax	1	
Micro projector Zeiss or B&L	1	
Enlarger Omega D2	1	
Dark room and developing equipment	1 set	
35 mm slide projector Viewiex	2	
<b><u>4. WORKSHOP AND ELECTRIC SECTION</u></b>		
Lathe machine 6" centre height 10" automatic gear change box (heavy duty) with gapped	1	
Lathe machine with 3" centre height	1	
8" automatic gear change box German make Milling machine type with dividing head	1	
Head attachment		
Stand Drill machine electric	1	
Shaping Maching bench model	1	
Spraying painting composer max pressure 140 lbs & continuous pressure must be 30 Ibs. complete with spray gun and pressure rubber tube	1	



Electric welding machine max amperage 200 amp. with accessories electrode, holder, shade and earthing slip and extension wire	1	
Acetylene welding with oxygen acetylene bottle, complete set of torch	1	
Avo's multimeter English make	1	
Electric soldering Henleys 250 watts, 60 watts, with two nose-one fine and one broad	1	
Electric blower	1	
Frequency generator	1	
Ampere meter	1	
Battery Charger	1	
Electroplating unit outfit	1	
Carpenters section instrument and appliances including electric saw and sander	1 set	
Glass blowing appliance	1	

## CRRI TRAINING

1. The following facilities and departments with the staff members stipulated shall have to be provided by the management:-

- i. Whether the institution is having a teaching hospital? If so, give details where it is available: :
- ii. Whether rural centres or the primary health centres with suitable staff and equipments are available: :

Note:

- 1. Details regarding availability of the rural/primary health centres names of the equipments provided and names, designations and qualification of the staff available in these centres may be enclosed as annexure.
  - 2. Details of list of sophisticated equipments etc. available may be enclosed.
  - 3. Details of the availability of Medical and Surgical specialities and the availability of facilities like special wards, pharmacy and canteen attached to hospital, sufficient ambulance services, convenience to the patient and visitors, ICCU of the hospital and availability of equipments thereor may be enclosed.
- iii. a) Total no. of bed strength available in the hospital: :
  - b) No. of free beds available: :
- iv. Whether the hospital is having the following departments with all required equipments and skilled personnels to man them:

S.No	Subject	No. of Beds available
a)	General Medicine	
b)	General Surgery	
c)	Obstetrics & Gynaecology	
d)	Paediatrics	

e)	Orthopaedics	
f)	Neurology	
g)	Neuro Surgery	
h)	Radiology	
i)	Cardiology	
j)	Urology	
k)	E.N.T.	
l)	Ophthalmology	
m)	Denistry	
n)	Plastic Surgery Department	
o)	Department of Physical Medicine and Rehabilitation	

TOTAL

- v. Whether the college/hospital is attached :  
with college of Nursing/Physiotherapy/  
Pharmacy? If so, give details of the name  
of the college with sanctioned strength.
- vi. Average no. of out-patients and :  
in-patients strength per day:
- vii. Whether quarters exclusively for :  
internees with all facilities for  
boarding and lodging at the teaching  
hospital have been provided? If so,  
furnish details regarding the availability  
of facilities for boarding and lodging
- viii. Whether accommodation is provided :  
for men and women candidates who  
are to be posted in Medical, Surgical  
and Obstetrics & Gynaecology wards?  
If so, furnish full details therefor.

ix. Whether Telephone/paging facilities :  
are provided for the interns in the  
quarters. Furnish details of Phone No.  
& No. of pagers available:

x. Whether accommodation with all :  
facilities for men and women students  
and staff is provided at the rural centre  
or centres? If so, furnish full details  
therefor.

xi. Whether the rural centre is well equipped with the following staff and facilities?

S.No	Name of the post	Numbers Required	Numbers Available	Shortage if any
a	Medical Officer or Health-cum-Assistant	1		
b	Lady Medical Officer	1		
c	Medical Social Worker (one male and one female)	2		
d	Public Health Nurse	1		
e	Health Inspectors	2		
f	Health Educator	1		
g	Technicians	2		
h	Peon	1		
i	Van Driver	1		
j	Store Keeper	1		
k	Record Clerk	1		
Total		14		

2. Whether the centre is equipped for :  
carrying out the Community Health  
Services and training the Compulsory  
Rotatory Resident, Internship Trainees?  
If so, furnish the details therefor

3. Whether the following facilities also provided in the teaching hospital :
- Workshop and electric sections
  - Canteen
  - Laundry
  - Auditorium
  - Whether documentation room for maintaining documents of all sections like drugs, details about poisoning cases, operation cases, causes of deaths and details of all cases are available. If so, whether it is properly maintained?
  - Transport facilities in Colleges and hospital

Name of the post	Numbers Required	Numbers Available	Shortage if any
For Students	2		
Ambulances	6		
Mortuary Vans	2		
Pickup vans	2		
Total	12		

Note: Furnish details regarding the name and designations of the drivers available, registration numbers of the vans, ambulances, mortuary vans, pickup vans etc.

4. The University's Proc. No & date in which the college was permitted to conduct C.R.R.I. Training (Copy of proc. may be enclosed) :
5. Whether the Medical Council of India has recognised the course conducted by this college. If so, number of intake permitted from the academic year may be mentioned (copy of Medical Council of India latest letter has to be enclosed as evidence) :

## **6. PAST DEFICIENCIES**

- i. Whether the Medical College have rectified all the past deficiencies, if any, pointed out by the University. If so, give details of rectification made.
- ii. Whether the Inspection Commission verified the rectification of these deficiencies?

The Inspection commission obtain percentage of results subject wise for the past five years to assess the academic standard of the institution by the competent authority.

## **OBSERVATION OF THE INSPECTION COMMISSION**

1. Whether the Trust/Society/Institution/ Colleges has fulfilled all the conditions and equipments as specified in the Medical Council of India Regulation 1999 for continuance of grant of Provisional Affiliation for conducting entire MBBS Degree Course of study from the academic year \_\_\_\_\_
2. Other findings of the Inspection Commission if any (if needed, separate note may be enclosed)

## **SHOW CAUSE NOTICE**

1. Whether show cause notice, if any, was issued for the inadequacy of facilities/ teaching staff etc., Furnish details:

## **DEDUCTION OF SANCTIONED STRENGTH**

1. Reduction of sanctioned strength, if any, was ordered. If so, furnish details regarding the no. of seats reduced and the reasons therefor.

2. The Medical college shall furnish a budget for each year of study and a separate development budget which will cover the expenses for the fulfilment of the requirements prescribed for the MBBS Degree Course of study.

The name and designation of the Officer of the University who is the member nominated under statutes of the Governing Body of the College.

As per Medical Statutes when the last meeting of the Governing Body of the college was met (a copy of the record of the proceedings of the Governing Body meeting may be sent)

Signature of the Member:  
(Name in Block Letters)

Signature of the Convenor  
(Name in Block Letters)