

**MINIMUM STANDARD REQUIREMENTS FOR  
THE MEDICAL COLLEGE  
FOR 150 ADMISSIONS ANNUALLY  
REGULATIONS, 1999**



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MEDICAL COUNCIL OF INDIA  
New Delhi, dated the 30<sup>th</sup> March 1999

No. MCI 35(1)98-Med (iii) In exercise of the powers conferred by section 33 of the Indian Medical Council Act, 1956 (102 of 1956), the Medical Council of India with the previous sanction of the Central Government, hereby makes the following regulations namely:-

1. **Short title and commencement:**

(i) These regulations may be called the "Minimum Requirements for 150 M.B.B.S. Admissions annually Regulations, 1999.

(ii) They shall come into force on the date of their publication in the Official Gazette.

2. **Objective :-** The objective of these regulations is to prescribe for a medical college and Medical Institution approved for One Hundred Fifty admissions of MBBS students annually, the minimum requirements of accommodation in the college and its associated teaching hospitals, staff (teaching and technical both) and equipment in the college departments and hospitals.

3. Every medical college and Medical Institution for 150 M.B.B.S admissions annually shall have the following departments, namely :-

- (1) HUMAN ANATOMY
- (2) HUMAN PHYSIOLOGY INCLUDING BIOPHYSICS
- (3) BIOCHEMISTRY
- (4) PATHOLOGY (INCLUDING BLOOD BANK)
- (5) MICROBIOLOGY
- (6) PHARMACOLOGY
- (7) FORENSIC MEDICINE INCLUDING TOXICOLOGY
- (8) COMMUNITY MEDICINE
- (9) MEDICINE
- (10) PAEDIATRICS
- (11) PSYCHIATRY
- (12) DERMATOLOGY, VENEREALOGY AND LEPROSY
- (13) TUBERCULOSIS AND RESPIRATORY DISEASES
- (14) SURGERY INCLUDING PAEDIATRIC SURGERY
- (15) ORTHOPAEDICS
- (16) RADIO-DIAGNOSIS
- (17) RADIOTHERAPY
- (18) OTO-RHINOLARYNGOLOGY
- (19) OPHTHALMOLOGY
- (20) OBSTETRICS AND GYNAECOLOGY
- (21) DENTISTRY

Beside the above-said departments the Medical colleges and Medical institution running Postgraduate degree/diploma courses in various specialties may have other departments to meet teaching needs of the college or Medical Institution and healthcare needs of the public.

4. Every Medical college and Medical institution and its associated teaching hospitals for 150 MBBS admissions annually shall have the accommodation for teaching and technical

staff and equipment for each department as given in the Schedule-I, II, III respectively annexed with these regulations.

## SCHEDULE I

### ACCOMMODATION IN THE MEDICAL COLLEGE AND ITS ASSOCIATED TEACHING HOSPITALS

#### A-COLLEGE

##### A.1 GENERAL:

###### A.1.1 CAMPUS

The medical college or medical institution shall be housed in a unitary campus near its teaching hospital having room for future expansion. However the existing medical colleges shall make efforts to have their teaching hospital within a radius of five kilometer of the campus.

###### A.1.2 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 superintendent's room (10 Sq.m.), Office (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), cafeteria (40-50 Sq.m.).

###### A.1.3 College Council:

Every medical college or Medical Institution shall have a College Council comprising of the Head of departments as members and Principal/Dean as Chairperson. The Council shall meet at least 4 times in a year to draw up the details of curriculum and training programme, enforcement of discipline and other academic matters. The Council shall also organise interdepartmental meetings like grand rounds, statistical meetings and clinico pathological meetings including periodical research review in the Institution regularly.

###### A.1.4. Central library

There shall be a Central Library (1200 Sq.m) with seating arrangement for at least 150 students for reading and having good lighting and ventilation and space for stalking and display of books and journals. There shall be minimum one room for 150 students inside and one room for 75 students outside. It should have not less than 10000 text and reference books. In a new medical college the total number of books should be proportionately divided on yearly basis in five years. The number of journals shall be 100 out of which one-third shall be foreign journals and subscribed on continuous basis. The number of copies of textbooks in each subject of undergraduate teaching shall be ten.

There shall be provision for –

- a) Staff reading room for 30 persons;
- b) Rooms for librarian and other staff;
- c) Room for daftaries and book binders;
- d) Microfilm reading room;
- e) Journal room;
- f) Room for copying facilities;
- g) Video and Cassette room (desirable); and
- h) Air-conditioned Computer room with Medlar and Internet facility.

#### A.1.5 Lecture theatres

There shall be a minimum of four lecture theatres of gallery type in the college or Medical Institution, three with seating capacity for 180 students and one with seating capacity for 375 students. These shall be built with good acoustics. Lecture Theatres shall be provided with necessary independent audio visual aids including over-head projector, slide projector and a microphone. These lecture theatres are to be shared by various departments.

#### A.1.6 Auditorium/Examination Hall:

There shall be an auditorium where 750-1000 persons could be seated and an examination hall, preferably air-conditioned for atleast 375 students.

#### A.1.7 Central Photographic Section:

There shall be Central photographic and audiovisual sections with accommodation for studio, dark room, enlarging and photostat work. Accommodation shall be provided for Artist and Medical Illustrators and Modellers etc. Facilities for microphotography and mounting shall be provided.

#### A.1.8. Central Workshop:

There shall be central workshop having facilities for repair of mechanical, electrical and electronic equipments of college and the hospitals. It shall be manned by qualified personnel.

#### A.1.9. Animal House:

There shall be a Central Animal House (135 Sq.m.area) for maintenance, breeding and supply of animals and facilities for experiment etc.

#### A.1.10. Central Incineration Plant:

There shall be a Central incineration plant commensurate with the hospital bed strength.

#### A.1.11 Gas Plant:

There shall be a Central Gas Plant or Gas supply unit.

#### A1.12. Statistical Unit

There shall be a centralized computerized statistical unit.

A.1.13. Medical Education Unit – There shall be a Medical Education Unit or Department for faculty development and providing teaching or learning resource material.

#### A.1.14 Research work:

Space as indicated in the concerned departments shall be provided in each department, duly furnished and equipped for research work and further expansion of its activities.

#### A.1.15. Intercom Network:

Intercom network including paging and bleep system between various sections, hospitals and college shall be provided for better services, coordination and patient care.

#### A.1.16. Playground and Gymnasium:

There shall be a playground and Gymnasium for the staff and students. A qualified physical education instructor shall look after the sports activities and maintenance.

#### A.1.17 Electricity:

There shall be continuous electricity supply, as well as standby UPS or Generator.

#### A.1.18 Sanitation and water supply:

Adequate sanitary facilities (toilets and bathrooms separately for women) and safe continuous drinking water facilities must be provided for the teaching staff, students, technical and other staff in all sections as required.

### **A.2. DEPARTMENTS**

#### **(1) DEPARTMENT OF ANATOMY**

(A) Lecture theatre – As per Item A.1.5

(B) Demonstration Room – there shall be two demonstration rooms (60 sq.mt.each) fitted with strip chairs, Over Head Projector, Slide Projector, Television, Video and other audiovisual aids, so as to accommodate at least 75 to 100 students.

(C) Dissection Hall – There shall be a dissection hall (325 sq.mt.) to accommodate at least 150 students at a time. It shall be well lit, well-ventilated with exhaust fans and preferably centrally air-conditioned. There shall be an ante-room for students with lockers and fifteen Wash basins. There shall be adequate teaching aids in the hall. In addition, there shall be an embalming room (12 sq.m.area), space for 3 storage tanks (one of 3 sq.m. & two of 1.5 sq.m.each) and cold storage room with space for 15-18 dead bodies (18 sq.m.area) or cooling cabinets.

(D) Histology- There shall be Histology Laboratory (200sq.mt.) with accommodation for work benches fitted with water taps, sinks, cupboards for microscope storage and electric points for 90 students. There shall be a preparation room (18 sq. mt.) for technicians and storage of equipment.

(E) Research- There shall be one research laboratory (50 sq.m.area) for research purposes.

(F) Museum-There shall be a museum (200 sq.m.)-provided with racks and shelves for storing and proper display of wet and dry specimen and embryological sections, models, revolving stands for skiagrams, CT scan, MRI and trolley tables, X-ray view boxes shall be multistand type to take 4 plates standard size 3 boxes (3 view boxes for 150 students). Adequate seating accommodation for 35 students to study in the museum shall be provided. There shall be

two attached rooms (15 sq.mt. each) for the preparation of models/specimens and for artists and modellers.

(G) Departmental Library- There shall be a Departmental library-cum-seminar room (30 sq.m. area) with at least 80-100 books. However, not more than two copies of any one book shall be counted towards computation of the total number of books.

(H) Accommodation for Staff- Accommodation shall be provided for the staff as under namely;

1. Professor & Head of the Department- (18 Sq.m.area);
2. Associate Professor/Reader-Two rooms (15 Sq.m.area each);
3. Asstt. Professor/Lecturers (Three)-One room (20 Sq.m.area );
4. Tutor/Demonstrators-One room (15 Sq.m. area)
5. Department office cum Clerical room - one room (12 Sq.m.area); and
6. Working accommodation for non-teaching staff (12sq.m. area)

## (2) DEPARTMENT OF PHYSIOLOGY INCLUDING BIO-PHYSICS

(A) Lecture Theatre – As per Item A.1.5.

(B) Demonstration Room-There shall be two demonstration rooms (60 sq.mt.) fitted with strip chairs, Over head Projector, Slide Projector, Television, Video and other audiovisual aids, so as to accommodate at least 75-100 students

(C) Practical rooms- The following laboratories with adequate accommodation shall be provided to accommodate 90 students.

(i) Amphibian laboratory (one)-(200 sq.m.area) shall be provided with continuous working tables. Every seat shall be provided preferably with stainless steel washbasin. Every workings table shall have one drawer and one cupboard, an electric point and with fire/steam proof top. One preparation room (14 Sq.m. area) shall be provided with the amphibian laboratory.

(ii) Mammalian laboratory (one)-(80 Sq.m.area) shall be provided with six tables (2m X 0.6m) with stainless steel top and operating light. The laboratory shall have attached instrument rack, two large size wash-basins (stainless steel) and cupboards for storing equipments. One preparation room (14 sq.m. area) shall be provided with the Mammalian laboratory.

(iii) Human Laboratories:

a) Haematology Lab. (200 Sq.m.area) provided with continuous working tables. Every seat shall be provided preferably with stainless steel wash basin. Every working table shall have one drawer and one cupboard, an electric point and with fire/steam proof top including provisions of light sources on each table. One preparation room (14 Sq.m.area) shall be provided with this laboratory.

b) There shall be a Clinical Physiology Laboratory (90Sq.m.area) provided with 10 tables (height 0.8 m.) with mattresses and adjustable hand-end.

(D) Departmental Library-There shall be a Departmental library-cum-seminar room (30Sq.m.area) with at least 80-100 books. However, not more than two copies of anyone book shall be counted towards computation of the total number of books.

(E) Research - There shall be one research laboratory (50 Sq.m.area) for research purposes.

- (F) Accommodation shall be provided for the staff as under:-
1. Professor & Head of the Department- (18 Sq.m.area);
  2. Associate Professor/Reader-Two rooms (15 Sq.m.area each);
  3. Asstt. Professor/Lecturers (Three)-One room (20 Sq.m.area );
  4. Tutor/Demonstrators-One room (15 Sq.m.area)
  5. Department office cum Clerical room – (one) (12Sq.m.area); and
  6. Working accommodation for non-teaching staff (12sq.m. area)

### (3) DEPARTMENT OF BIOCHEMISTRY

- (A) Lecture theatre - As per Item A.1.5.
- (B) Demonstration Room-There shall be two demonstration rooms (60 sq.mt.) fitted with strip chairs, Over head Projector, Slide Projector, Television, Video and other audiovisual aids, so as to accommodate at least 75-100 students.
- (C) Practical class room-  
There shall be a laboratory (200 Sq.m.) with benches fitted with shelves and cupboards, water taps, sinks, electric and gas connections so as to accommodate 90 students. Two Ante rooms (14 Sq.m. area) each for technicians, stores, preparation room, balance and distillation apparatus shall also be provided.
- (D) Departmental library- There shall be a Departmental library-cum-seminar room (30Sq.m.area) with at least 80-100 books. However, not more than two copies of any one book shall be counted towards computation of the total number of books.
- (E) Research - There shall be one research laboratory (50 Sq.m.area) for research purposes.
- (F) Accommodation shall be provided for the staff as under:-
1. Professor & Head of the Department- (18 Sq.m.area);
  2. Associate Professor/Reader-Two rooms (15 Sq.m.area);
  3. Asstt. Professor/Lecturers (four)-Two rooms (12 Sq.m.area each);
  4. Tutor/Demonstrators-One room (15 Sq.m.area)
  5. Department office cum Clerical room – (one) (12 Sq.m.area); and
  6. Working accommodation for non-teaching staff (12 sq.m. area)

### (4) DEPARTMENT OF PATHOLOGY

- (A) Lecture theatre - As per Item A.1.5.
- (B) Demonstration room-There shall be two demonstration rooms (60 Sq. mt.) fitted with Over Head Projector, Slide projector, Television Video and other audiovisual aids, to accommodate at least 75-100 students.
- (C) There shall be Practical Laboratories for Morbid Anatomy and Histopathology/ Cytopathology (200 Sq.mt. area) and for clinical Pathology/Haematology (200 sq.mt.area) with preparation room (14 sq.mt.area) with benches, fitted with shelves cupboards, sinks, water taps, light for microscopy and burners for 90 students to carry out exercises.
- (D) There shall be a separate service laboratory each (30 Sq.mt.) for histopatholgy, cytopathology, Haematology and other specialised work in the hospital suitably equipped.



In addition there shall be a balance room (14 Sq. mt.), store room (14 sq.mt.) and special room for high speed centrifuge (14 sq.mt.) and a wash room (14 sq.mt.) with continuous water supply.

- (E) Museum-There shall be a museum (90 Sq.mt.) for specimens, charts, models with a sitting capacity of atleast 40 students. All the specimens shall be labelled and at least 15 copies of catalogues for student use be provided. In addition, there shall be an ante room.
- (F) Autopsy Block- There shall be an Autopsy room (approx. 400 sq.mt. area) with facilities for cold storage, for cadavers, ante-rooms, washing facilities, with an accommodation capacity of 30-40 students, waiting hall and office. The location of mortuary and autopsy block should be either in the hospital or adjacent to the hospital in a separate structure and may be shared with the department of Forensic Medicine.
- (G) Departmental library-  
There shall be a Departmental library-cum-seminar room (30 sq.m. area) with at least 80-100 books. However, not more than two copies of anyone book shall be counted towards computation of the total number of books.
- (H) Research-There shall be one research laboratory (50 Sq.m. area) for research purposes.
- (I) Accommodation shall be provided for the staff as under, namely:
  - 1. Professor & Head of the Department- (18 Sq.m.area);
  - 2. Associate Professor/Reader-four rooms (15 Sq.m.area each);
  - 3. Asstt. Professor/Lecturers (five)-Three rooms (14 Sq.m.area each);
  - 4. Tutor/Demonstrators-Three room (15 Sq.m.area each)
  - 5. Department office cum Clerical room - one (12 Sq.m.area); and
  - 6. Working accommodation for non-teaching staff (12 sq.m. area)

(J) BLOOD BANK

There shall be an air conditioned Blood Bank (100 Sq. mt. Area) and shall include-

- (a) Registration and Medical Examination Room and selection of donors room with suitable furniture and facilities.
- (b) Blood collection room.
- (c) Room for Laboratory for Blood Group serology;
- (d) Room for Laboratory for Transmissible diseases like hepatitis, syphilis, Malaria, HIV antibodies etc;
- (e) Sterilisation and washing room;
- (f) Refreshment room; and
- (g) Store and Records room.

The equipment and accessories etc. shall be provided as prescribed in Part XII-B in Schedule F to the Drugs and Cosmetics Rules, 1940 as amended from time to time.

(5) DEPARTMENT OF MICROBIOLOGY

- (A) Lecture Theatre-as per item A.1.5.
- (B) Demonstration room-There shall be two demonstration rooms (60 Sq. mt.) fitted with strip chairs, Over Head Projector, Slide projector, Television, Video and other audiovisual aids, to accommodate at least 75-100 students.

- C) Practical laboratories-There shall be a Practical laboratory (200 Sq.mt. Area) with benches fitted with shelves cupboards, sinks, water taps, light for microscopy and burners for 90 students (200 sq.m. area) with laboratory benches, gas, water and electric points, microscopes and light with a preparation room (14 sq.m.area).
- D) There shall be a separate service laboratory each for (1) Bacteriology including Anaerobic; (2) Serology; (3) Virology; (4) Parasitology; (5) Mycology; (6) Tuberculosis; and (7) immunology.

Area for each service laboratory shall be 35 Sq.m. Separate accommodation for (1) Media preparation and storage (20 Sq.m.area) (2) Auto Claving (12 Sq.m. area) (3) Washing & drying room with regular and continuous water supply (12 sq.m.area) for contaminated culture plates, test tubes and glassware shall be provided.

- E) Museum- There shall be a museum (80 Sq. mt.) for specimens, charts, models, with a sitting capacity of atleast 40 students. All the specimens shall be labelled and atleast 15 copies of catalogues for students use be provided.
- F) Departmental Library- There shall be a Departmental library-cum-seminar room (30Sq.m.area) with at least 80-100 books. However, not more than two copies of anyone book shall be counted towards computation of the total number of books.
- (G) Research: There shall be one research laboratory (50 Sq.m.area) for research purposes.
- (H) Accommodation shall be provided for the staff as under:
1. Professor & Head of the Department- (18 Sq.m.area);
  2. Associate Professor/Reader-One room (15 Sq.m.area);
  3. Asstt. Professor/Lecturers -Two rooms (12 Sq.m.area each);
  4. Tutor/Demonstrators-two rooms (15 Sq.m.area each)
  5. Department office cum Clerical room - one (12 Sq.m.area); and
  6. Working accommodation for non-teaching staff (12 sq.m. area)

#### (6) DEPARTMENT OF PHARMACOLOGY

A) Lecture theatre- As per Item A. 1.5.

B) Demonstration room-There shall be two demonstration rooms (60 sq.mt.area) fitted with strip chairs, Over Head Projector, Slide projector, Television, Video and other audiovisual aids, to accommodate at least 75-100 students.

C) Practical Laboratories – There shall be a Practical Laboratory with accommodation for 75-100 students for the following namely :

- i) Experimental Pharmacology (200 Sq.m. area) with ante-room (14 Sq. m. area for smoking and varnishing of kymograph papers.
  - ii) Clinical pharmacology and pharmacy (200 Sq.m. area) with one ante-room (14 Sq.m. area) for technicians, storage of equipment and appliances and preparation room.
- (D) Museum- There shall be a museum (125sq.mt.) for specimens, charts, models, with a separate section depicting “ History of Medicine”, with a seating capacity of at least 40 students. All the specimens shall be labeled and at least 15 copies of catalogues for student use be provided.

(E) Department Library-

There shall be a Departmental library-cum-seminar room (30sq.m.area) with at least 80-100 books. However, not more than two copies of any one book shall be counted towards computation of the total number of books.

(F) Research- There shall be one research laboratory (50 Sq.m.area) for research purposes.

(G) Accommodation shall be provided for the staff as under:-

1. Professor and Head of the Department- (18 Sq.m.area);
2. Associate Prof./Reader-Two rooms (15 sq.m. area);
3. Asst. Professor/Lecturers- Two rooms (12 sq.m. area)
4. Tutors/ Demonstrators- Two rooms (15 Sq.m. area);
5. Department office cum Clerical room one (12 Sq.m. area); and
6. Working accommodation for non-teaching staff (12 Sq.m. area)

(7) DEPARTMENT OF FORENSIC MEDICINE INCLUDING TOXICOLOGY

(A) Lecture theatre- As per item A.1.5.

(B) Demonstration room - There shall be two demonstration rooms at least (60sq.mt.) fitted with strip chairs, Over Head Projector, Slide projector, Television, Video and other audiovisual aids, to accommodate at least 75-100 students.

(C) There shall be a museum (175 Sq.m. area) to display medico-legal specimens charts, models, prototype fire arms, wax models, slides, poisons, photographs etc. with seating arrangements for 40-50 students. All the specimens shall be labelled and at least 15 copies of catalogues for student use be provided.

(D) There shall be a laboratory (200 Sq.m.area) for examination of specimens, tests and Forensic histopathology, Serology, anthropology and toxicology.

(E) Autopsy Block - There shall be an autopsy room (approx. 400 Sq. mt.area) with facilities for cold storage, for cadavers, ante-rooms, washing facilities, with an accommodation capacity of 40-50 students, waiting hall, office etc. The location of mortuary or autopsy block should be either in the hospital or adjacent to the hospital in a separate structure and may be shared with the department of Pathology.

(F) Departmental Library-

There shall be a Departmental library-cum-seminar room (30 Sq.m.area) with at least 80-100 books. However, not more than two copies of anyone book shall be counted towards computation of the total number of books.

(G) Research-There shall be one research laboratory (50 Sq.m.area) for research purposes.

(H) Accommodation shall be provided for the staff as under, namely:-

1. Professor & Head of the Department- (18 Sq.m.area);
2. Associate Professor/Reader-Two rooms (15 Sq.m.area each);
3. Asstt. Professor/Lecturers -One room (12 Sq.m.area );
4. Tutor/Demonstrators-One room (15 Sq.m.area)

5. Department office cum Clerical room - one (12 Sq.m.area); and
6. Working accommodation for non-teaching staff (12 sq.m. area)

#### (8) DEPARTMENT OF COMMUNITY MEDICINE

(A) Lecture theatre – As per Item A.1.5

(B) Demonstration room-There shall be two demonstration rooms (60 sq.mt.) fitted with strip chairs, Over Head Projector, Slide projector, Television Video and other audio-visual aids, to accommodate at least 75-100 students.

(C) There shall be a laboratory (200 Sq.m.area) with facilities for purposes of demonstration of various laboratory practicals.

(D) Museum-There shall be a museum (125 Sq.m.area) for the display of models, charts, specimens and other material concerning communicable diseases, Community Health, Family Welfare planning, Biostatistics, Sociology, National Health Programmes, Environmental Sanitation etc.

(E) Departmental Library-

There shall be a Departmental library-cum-seminar room (30 Sq.m.area) with at least 80-100 books. However, not more than two copies of anyone book shall be counted towards computation of the total number of books.

(F) Research- There shall be one research laboratory (50 Sq.m.area) for research purposes.

(G) Accommodation shall be provided for the staff as under, namely:-

1. Professor & Head of the Department- (18 Sq.m.area);
2. Associate Professor/Reader-Two rooms (15 Sq.m.area each);
3. Asstt. Professor/Lecturers -One room (15 Sq.m.area );
4. Statistician cum Lecturer-One room (12 Sq.m.area)
5. Epidemiologist cum Lecturer-One room (12 Sq.m.area)
6. Tutor/Demonstrators-Two rooms (15 Sq.m.area each)
7. Department office cum Clerical room - one (12 Sq.m.area); and
8. Working accommodation for non-teaching staff (15 sq.m. area)

(H) 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 oriented primary health care and rural based health education for the rural community attached to it. Out of these one primary health centre shall be within a distance of 30 km. or within one hour of commuting distance from the medical college. Separate residential arrangements for boys and girls, interns and undergraduates with mess facilities shall also be provided in at least one of the primary health centres/rural health training centres which shall be under the full administrative jurisdiction of the medical college. Adequate transport shall be provided for carrying out field 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 Deptt. of community Medicine. Adequate transport shall be provided for commuting the staff and students.

## **B. TEACHING HOSPITAL**

### **B.1 GENERAL REMARKS**

B.1. 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.

B.1.2. Accommodation shall be provided for Dean (36 Sq.mt.) and Medical Superintendent (36 Sq.mt.) and hospital offices for the supportive staff, Nursing Superintendent's room and office, waiting space for visitors. There shall also be accommodation for:

- (a) Enquiry office,
- (b) Reception area (400 Sq.mt.) including facilities for public telephone, waiting space for patients and visitors, drinking water facility with nearby toilet facilities.
- (c) Store rooms.
- (d) Central Medical Record Section (250 Sq.m.)
- (e) Linen Rooms.
- (f) Hospital and Staff Committee room (80 Sq.mt.)

B.1.3. One Central lecture theatre of gallery type with a seating capacity of 200 persons and audio-visual aids shall be provided in the hospital.

B.1.4. Central Registration and statistics department with computer facilities shall be provided.

B.1.5. Intercom network alongwith paging and bleep system between various sections, hospitals and college shall be provided for better service, coordination and patient care.

B.1.6 Residential accommodation shall be provided in the hospital campus for interns, Jr. Residents, Senior Residents, Registrars etc.

B.1.7 There shall be a minimum OPD attendance of 8 patients per day (old and new) per student intake.

B.1.8 Indoor beds occupancy-Average occupancy of indoor beds shall be a minimum of 80% per annum.

B.1.9. Clinical Departments in the Hospital.

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 SPECILITIES:-

No. of beds and units required

	Beds/units
General Medicine	180/6
Paediatrics	90/3
Tuberculosis and Respiratory Diseases	30/1
Dermatology, Venereology and Leprosy	15/1
Psychiatry	<u>15/</u>
	<u>330</u>

Note: (1) There shall be well equipped and updated intensive Care Unit (I.C.U.), Intensive Coronary Care Unit (I.C.C.U.) Intensive Care Paediatric beds and preferably Intensive care in Tuberculosis and Respiratory Diseases.

(2) Wherever possible, the facilities available in larger tuberculosis and chest diseases hospitals, infectious diseases hospitals and mental hospitals may be utilised 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 specialities shall have to be provided in the attached teaching hospital itself.

(ii) SURGERY AND ALLIED SPECIALITIES:

	No. of beds/units required
1. General surgery	180/6
2. Department of Orthopaedics	90/3
3. Department of Ophthalmology	30/1
4. Oto-Rhinolaryngology	<u>30/1</u>
	330

Note: There shall be well-equipped and updated intensive Care Burn Unit and Surgical post operative critical care Unit.

(iii) OBSETETRICS AND GYNAECOLOGY

	No. of beds and units required
1. Obstetrics	50
2. Gynaecology	32
3. Postpartum	08
	90/3
(iv) GRAND TOTAL	750

Note : (1) In case a super speciality is developed, it shall necessitate creation of extra beds alongwith additional staff over and above the minimum requirement stated hereinabove in accordance with the provisions of the Postgraduate Medical Education Regulations, 1971.

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

## B.2. CLINICAL DEPARTMENTS-INDOOR

B.2.1. The following accommodation shall be available with each ward, namely:-

1. Accommodation to be provided for Nurses Duty Room.
2. Laboratory for routine examinations.
3. Examination and treatment room.
4. Ward Pantry.
5. Store room for linen and other equipment; and

## 6. Resident Doctors and students Duty Room.

B.2.2. The following additional accommodation shall be provided for each of the departments, namely:-

1. Offices for Head of Departments and Head of Units.
2. Accommodation for the other unit staff.
3. Clinical demonstration rooms (at least one for each department) and
4. Departmental Library-cum-Seminar room (30sq.mt.) with a seating capacity of 50 students.

NB:- 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 a department.

## B.2.3. RESEARCH LABORATORIES:

There shall be a Research Laboratory commensurate with the specialised work in all fields.

## B.2.4. OPERATION THEATRE UNIT :

The Operation Theatre Unit shall have the following facilities; namely:-

1. Waiting room for patients.
2. Preparation room
3. Operation theatre.
4. Post-operative recovery room (minimum of 10 beds).
5. Soiled Linen room.
6. Instrument room.
7. Sterilisation room.
8. Nurses rooms.
9. Surgeon's and anaesthetist's room (separate for male and female).
10. Assistant's room.
11. Observation gallery for students.
12. Store rooms
13. Washing room for Surgeons and Assistants; and
14. Students washing up and dressing up room.

Four such units may be provided for General Surgery (including one for septic cases); one for ENT; one for Orthopaedics; one for Ophthalmology and two for Obstetrics and Gynaecology.

In addition, one or more extra theatre/s for other surgical specialities and one theatre for emergency-casualty area shall be provided.

## B.2.5 CENTRAL STERILISATION SERVICES:

There shall be an independent Central Sterilization unit capable of taking the total working load of operation theatres, laboratories close to or in the operation theatre block itself. It shall have adequate equipment like bulk sterilize with separate ends for loading unsettle material, unloading sterile, cold sterilize, Ethylene oxide sterilize, freon ethylene instruments and mattress sterilizer, sterile racks, mixers, and trays for instruments.

This department shall work round the clock and all materials, instruments, trays, and dressing material etc. shall be supplied round the clock.

## B.2.6 LAUNDRY

The Central Mechanical laundry shall be provided with bulk washing machine, Hydro-Extractor, flat rolling machine. Laundering of hospital linen shall satisfy two basic considerations, namely, cleanliness and disinfection. The hospital could be provided with necessary facilities for drying, pressing and storage of soiled and cleaned linens.

## B.2.7. DEPARTMENT OF RADIO-DIAGNOSIS:

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 125kv or above the control panel must be installed in a separate control room located outside but contiguous to the X-Ray room. Rooms housing fluroscopy 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."

Accommodation shall be provided for the following, namely:-

- (a) Room for 300mA, 500mA, 600mA. I.I.TV System, Fluroscopy System (36 sq.m.)
- (b) Ultrasound Room (15 sq.m.)
- (c) Room for 60mA Mobile X-Ray System (15 sq.m.)
- (d) Accommodation for CT Scan System. There shall be three equipment rooms, (examination room, control room, and computer room). In addition, a services room for Electrical Panels, UPS and Servo Stabilizer shall be provided. The total area requirement is 80 sq.m.
- (e) There shall be preferably a Magnetic Resonance Imaging (MRI) System. The space requirement shall be according to the standard specifications.
- (f) Store room for X-Ray films and related material (15sq.m.)
- (g) Museum (25 sq.m.).
- (h) Waiting room for patient , enquiry office and staff rooms shall be provided as per requirement.

## B 2.8 DEPARTMENT OF ANAESTHESIOLOGY

Accommodation for the department of Anaesthesia should be provided for staff on duty in operation theaters in that block itself as far as possible in addition to following accommodation; namely:-

1. Offices for Heads of Departments and Heads of Units.
2. Accommodation for the other unit staff.
3. Clinical demonstration rooms (at least two for each department); and
4. Departmental Library-cum-Seminar room (30 Sq.m.) with a seating capacity of 50 students.

## OPTIONAL DEPARTMENTS.



## B.2.9 DEPARTMENT OF RADIOTHERAPY;

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, treatment wing, dosimetry/planning equipments, wards, operation theatre and other facilities are located in the same block, may be on two floors. It should be closely connected with the rest of the hospital to facilitate free interaction of the facilities of various disciplines for multidisciplinary 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 (50sq.m.area), rooms for metalling treatment planning equipments, mould room (50 sq.m.area), record room (100sq.m.area), medical physics laboratory (50sq.m.area) outpatient waiting room (200 sq.m.area), indoor beds (at least 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.

## B.2.10 DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION:

Accommodation (2000 sq.meter) shall be provided for professor and other teaching staff, paramedical personnel and non-medical staff, evaluation room, physiotherapy, Electrotherapy, Hydrotherapy, Occupational Therapy, Speech therapy, separately, as far as possible.

## B 3 CLINICAL DEPARTMENTS-OUT DOOR

### B 3.1 Accommodation shall be provided for:-

1. Waiting/reception space rooms for patients and attendants,
2. Enquiry and record room.
3. Four examination rooms (cubicles) and case demonstration rooms to be provided for each department in the outdoor in self-contained blocks with their sub-sections. Each clinical unit in the out-patient department shall be provided with examination cubicles.
4. Dispensary.
5. The following additional accommodation shall be provided in the departments specified below:-
  - (a) In Surgery & its specialities:  
Dressing room for men and women patients respectively.  
Operation theatre for out patient surgery.
  - (b) In Ophthalmic Section:  
Refraction rooms, dark rooms, dressing rooms etc.
  - (c) In Orthopaedics Section:  
Plaster room, Plaster-cutting room, out-patient X-ray desirable.
  - (d) In ENT Section:  
Sound proof audiometry Room, ENG laboratory and speech therapy facilities.
  - (e) In Paediatrics:

Child Welfare including Immunization Clinic  
Child Guidance Clinic

Child Rehabilitation Clinic including facilities for speech therapy and occupational therapy.

- (f) In obstetrics and Gynaecology:  
Antenatal Clinic, Family Welfare Clinic  
Sterility Clinic  
Cancer Detection Clinic.

There shall be an additional students duty room (separately for males and females) attached to the labour room.

- (g) In Dental Section:  
Accommodation for Dental Surgery and Prosthetic dentistry.

B 2.2 Reception and Waiting Hall for Patients.

B. 2.3. A seminar room for students.

#### **B.4 CENTRAL LABORATORIES:**

There shall be well-equipped and updated central laboratories preferably alongwith common collection entire for all investigations in histopathology, cytopathology, haematology, immunopathology, microbiology, biochemistry and other specialized work if any.

#### **B.5 CENTRAL CASUALTY DEPARTMENT**

There shall be a Central Casualty department wherein consultancy services shall be provided by the teachers of relevant Departments.

Accommodation for Resuscitation Services including Oxygen supply, ventilators, defibrillator and two fully equipped disaster trolleys (emergency trolleys), Emergency X-ray, investigative facilities, Operation theatre etc., shall be provided. These shall all be fully equipped.

A casualty ward with at least twenty five beds is also necessary. Accommodation for staff on duty (Doctors, Nurses, Students and others) shall be provided.

Adequate sanitary arrangements (toilet and bathrooms) & drinking water facilities for patients, their attendants and the staff of the department shall be provided in the respective blocks.

#### **B.6 CENTRAL HOSPITAL PHARMACY**

It shall have qualified pharmacist incharge and other staff certified by statutory authorities to dispense the drugs.

#### **B.7 CENTRAL KITCHEN**

The Central Kitchen shall be commodious, airy, sunny, clean with proper flooring with exhaust system. The cooking should be done either by electricity or by gas. It should be provided with proper and clean working platforms. A separate store area with proper storage facilities should also be provided. The services trolleys for food should be hot and closed stainless steel ones.

#### **B.8 INCINERATING PLANT**

A modern incinerating plant capable of taking hospital waste shall be provided.

**B.9 CENTRAL DISINFECTION PLANT**

There shall be Central disinfection plant.

**B.10 STAFF QUARTERS**

B10.1 There shall be sufficient number of quarters for covering 100 per cent of the total nursing staff and resident doctors staff strength.

B10.2 There shall be sufficient number of quarters for covering at least 50% of the teaching staff and class IV strength.

**B. 11 CENTRAL HOSPITAL STORES**

There shall be a central hospital stores for stocking & supply of drugs, equipments etc.

**B.12 HOSTELS FOR STUDENTS**

It is desirable that medical college should be a residential unitary complex. Each hostel room shall not have more than three occupants.

## GENERAL REMARKS

### Schedule - II - STAFF REQUIREMENTS

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 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 postgraduate education is also imparted. Additional teaching staff will also be required where the work load involved in emergency care patient care, clinical laboratory work/field work is heavy or 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 department of anatomy, Physiology, Biochemistry, Pharmacology and Microbiology, non-medical teachers may be appointed to the extent of 30% of the total number of posts in the department. A non-medical approved medical M.Sc. qualification shall be a sufficient qualification for appointment as lecturer in the subject concerned but for promotion to higher teaching post a candidate must require Ph.D. degree qualification or equivalent qualification. However, in the department of Biochemistry, 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 department of Community medicine, Statistician cum Lecturer in Statistics should possess M.A./M.Sc. qualification in that particular subject from a recognised university. These requirements are as per the Teacher Eligibility Qualification Regulations.
6. Teacher in higher specialities like Cardiology, neurology, Neuro-Surgery shall not be counted against the complement of teachers required for under graduate medical education.

DEPARTMENTWISE STAFF REQUIREMENTS-NON-CLINICAL

(1) DEPARTMENT OF ANATOMY

Staff Strength Required

Professor	1
Reader	3
Lecturer	4
Tutors/Demonstrators	6
Technical Asstt./Technician	4
Modeller	1
Dissection Hall Attendants	6
Steno typist	1
Store Keeper cum clerk	1
Sweepers	6

(2) DEPARTMENT OF PHYSIOLOGY

Staff Strength Required

Professor	1
Reader	3
Lecturer	3
Tutors/Demonstrators	1
Technical Asstt./Technician	6
Steno typist	1
Store Keeper cum clerk	1
Sweepers	2

(3) DEPARTMENT OF BIOCHEMISTRY

Professor	1
Reader	1
Lecturer	2
Tutors/Demonstrators	3
Technical Asstt./Technician	4
Storekeeper cum Clerk	1
Lab. Attendant	1
Sweepers	2

(4) DEPARTMENT OF PATHOLOGY

Professor	1
Reader	4
Lecturer	5
Tutors/Demonstrators	9
ARTIST	1
Technical Asstt./Technician	8
Lab. Attendants	5
Steno typist	1
Clerks	2
Store Keeper	1
Record clerk	1

Sweepers 4

(5) DEPARTMENT OF MICROBIOLOGY

Professor 1  
Reader 2  
Lecturer 2  
Tutors/Demonstrators 3  
Technical Asstt./Technician 4  
LAB. ATTENDANTS 3  
Store Keeper 1  
Record Clerk 1  
Steno Typist 1  
Sweepers 3

(6) DEPARTMENT OF PHARMACOLOGY

Professor 1  
Reader 2  
Lecturer 3  
Tutors/Demonstrators 6  
Pharm. Chemist 1  
Technical Asstt./Technician 3  
Store Keeper cum clerk 1  
Steno Typist 1  
Laboratory Attendants 3  
Sweepers 2

(7) DEPARTMENT OF FORENSIC MEDICINE

Professor 1  
Reader 2  
Lecturer 2  
Tutors/Demonstrators 3  
Technical Asstt./Technician 2  
Laboratory Attendants 2  
Steno Typist 1  
Store Keeper cum clerk 1  
Sweepers 2

Note: For postmortem work and other medico-legal work extra staff shall be provided.

(8) DEPARTMENT OF COMMUNITY MEDICINE

Professor 1  
Reader 2  
Lecturer 3  
Epidemiologist cum Lecturer 1  
Statistician cum Lecturer 1  
Tutors/Demonstrators 6

Medical Social Worker	2
Technical asstt./Technicians	2
Stenographers	1
Record Clerk	1
Store Keeper	1
Sweepers	2

**Staff for Rural Training Health Centre**  
(including field work and epidemiological studies.)

Medical Officer of Health-cum-lecturer/ Assistant Professor.	1
Lady Medical Officer	1
Medical Social Workers	2
Public Health Nurse	1
Health Inspectors	2
Health Educator	2
Technical Asstt./Technicalns	2
Peons	1
Van Driver	1
Store Keeper	1
Record Clerk	1
Sweepers	2

**Urban Training Health Centre**

Medical Officer of Health-cum-lecturer/ Assistant Professor.	1
Lady Medical Officer	1
Medical Social Worker	2
Public Health Nurse	1
Health Inspector	2
Health Educator	1
Technical Asstt./Technicians	2
Store keeper	1
Record clerk	1
Van Driver	1
Peon	1
Sweepers	2

Note: The Urban and Rural Training Health Centres should be under the direct administrative control of the Dean/Principal of the college.

**C. DEPARTMENT WISE STAFF REQUIREMENTS-CLINICAL DEPARTMENTS**

**(1) GENERAL**

1. Each department shall have a Head of the Department of the rank of full time Professor who shall have overall control of the Department.

2. The Staffing pattern of the departments shall be organised on the basis of units.
3. A Unit shall have not more than 30 beds in its charge. However, in departments of Tuberculosis & respiratory diseases, Dermatology, Venereology & Leprosy, Psychiatry, Ophthalmology & ENT one unit shall be of MCI sanctioned strength for that speciality even if the total number of beds is less than 30.
4. The minimum staff complement of each unit shall consist of the following, namely:-
  - (a) Professor/Reader 1
  - (b) Lecturer. 1
  - (c) Senior Resident/Tutor/Registrar 1
  - (d) Junior Residents 3 to 4

In addition to the above staff, additional Sr. Residents and Junior Residents shall be provided according to the load in Burn Ward ICU, emergency, ICCU, Nursery, Labour Room and in other critical/intensive care unit/units for providing services round the clock.

## (2) DEPARTMENT OF GENERAL MEDICINE

The Number of units, beds and staff for each department shall be as follows;

### (a) GENERAL MEDICINE

No. of units/beds:	6/180	
		Staff strength required
1. Professor	1	
2. Reader	5	
3. Lecturer	6	
4. Tutor / Registrar/Sr. Resident*	6	
5. Junior Residents	18	

With three years Resident experience.

### (b) TUBERCULOSIS & RESPIRATORY DISEASES

No. of units/beds:	1/30	
		Staff strength required
1. Professor/	1	
2. Reader		
3. Lecturer	1	
4. Tutor / Registrar/Sr. Resident*	1	
5. Junior Residents	3	

\* With three years Resident experience.

### (c) DERMATOLOGY VENERELOGY & LEPROSY

No. of units/beds:	1/15	
		Staff strength required
1. Professor/	1	
2. Reader		
3. Lecturer	1	
4. Tutor / Registrar/Sr. Resident*	1	
5. Junior Residents	3	



\* With three years Resident experience.

(d) PSYCHIATRY

No. of units/beds:		1/15
		Staff strength required
1.	Professor/	1
2.	Reader	
3.	Lecturer	1
4.	Tutor / Registrar/Sr. Resident*	1
5.	Junior Residents	3

\* With three years Resident experience.

The following ancillary staff shall be provided.

*Staff Strength required*

1.	E.C.G. Technician	1
2.	Technical Asstt./Technician	3
3.	Lab. Attendants	4
4.	Store Keeper	1
5.	Steno Typist	1
6.	Record clerks	2
7.	T.B. and Chest Diseases Health Visitors	2
8.	Psychiatric Social Workers	2

DEPARTMENT OF PAEDIATRICS

No. of units/beds:		3/90
		Staff strength required
1.	Professor/	1
2.	Reader	3
3.	Lecturer	2
4.	Tutor / Registrar/Sr. Resident*	3
5.	Junior Residents	9

\*with three years Resident experience

The following ancillary staff shall be provided.

1.	Child Psychologist	1
2.	Health Educator	1
3.	Technical Asstt./Technician	1
4.	Lab attendant	1
5.	Store Keeper	1
6.	Steno Typist	1
7.	Record clerks	1
8.	Social worker	1

(4) DEPARTMENT OF GENERAL SURGERY

No. of units/beds:	6/180
	Staff strength required
1. Professor/	1
2. Reader	5
3. Lecturer	6
4. Tutor / Registrar/Sr. Resident*	6
5. Junior Residents	18

\* With three years Resident experience.

The following ancillary staff shall be provided.

1. Technical Assistant/Technicians	3
2. Laboratory Attendants	4
3. Store keeper	1
4. Steno-Typist	1
5. Record Clerks	2

#### (5) DEPARTMENT OF ORTHOPAEDICS

No. of units/beds:	3/90
	Staff strength required
1. Professor/	1
2. Reader	2
3. Lecturer	3
4. Tutor / Registrar/Sr. Resident*	3
5. Junior Residents	9

\* with three years resident experience.

The following ancillary staff shall be provided.

1. Technical Assistant/Technicians	1
2. Laboratory Attendants	1
3. Store keeper	1
4. Steno-Typist	1
5. Record Clerks	1

#### (6) DEPARTMENT OF OTO-RHINO-LARYNGOLOGY

No. of units/beds:	1/30
	Staff strength required
1. Professor } 2. Reader } 3. Lecturer }	1
4. Tutor / Registrar/Sr. Resident*	1
5. Junior Residents	3

\* with three years resident experience.

The following ancillary staff shall be provided.

1. Technical Assistant/Technicians	1
2. Laboratory Attendants	1
3. Store keeper	1
4. Steno-Typist	1
5. Record Clerks	1
6. Audiometry Technician	1
7. Speech Therapist	1

### (7) DEPARTMENT OF OPHTHALMOLOGY

No. of units/beds:	1/30
	Staff strength required
1. Professor	1
2. Reader	1
3. Lecturer	
4. Tutor / Registrar/Sr. Resident*	1
5. Junior Residents	3

\* with three years resident experience.

The following ancillary staff shall be provided.

1. Technical Assistant/Technician	1
2. Lab Attendant	1
3. Stenotypist	1
4. Store keeper	1
5. Record Clerk	1
6. Refractionist	1

### (8) DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

No. of units/beds:	3/90
	Staff strength required
1. Professor/	1
2. Reader	2
3. Lecturer	3
4. Tutor / Registrar/Sr. Resident*	3
5. Junior Residents	9

The following ancillary staff shall be provided.

1. Antenatal Medical officer-cum-lecturer/ Assistant Professor	1
2. Maternity and Child Welfare Officer- cum-lecturer/ Assistant Professor	1
3. Social Worker	2
4. Technical Asstt./Technicians	2
5. Lab Attendants	2
6. Stenographer	1
7. Record Clerk	1
8. Store Keeper	1

### (9) DEPARTMENT OF RADIO-DIAGNOSIS

1. Professor	1
2. Reader	2
3. Lecturer	3
4. Tutors/Registrars	4

5.	Radiographic technicians	8
6.	Dark room assistant	4
7.	Stenographers	1
8.	Storekeeper	1
9.	Record clerk	1

(10) DEPARTMENT OF RADIO-THERAPY (OPTIONAL)

1.	Professor	1
2.	Reader	}
3.	Lecturer	
4.	Tutors/Registrars	2
5.	Physicist	1
6.	Radiotherapy technicians (for every treatment unit)	2
7.	Dark room assistant	1
8.	Stenographer	1
9.	Storekeeper	1
10.	Record clerk	2

(11) DEPARTMENT OF ANAESTHESIOLOGY  
Staff strength required

1.	Professor	1
2.	Reader	3
3.	Lecturer	4
4.	Tutors/Registrars/Senior Residents	7

The staff in the department shall consist of :

1.	Technical Asstt. Technicians	8
2.	Stenotypist	1
3.	Record clerk	1
4.	Store keeper	1

(12) DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION (OPTIONAL)  
Staff Strength required

1.	Professor/	1
2.	Reader	
3.	Lecturer	1
4.	Senior Residents	2
5.	House Surgeon/Junior Resident	1

The staff in the department shall consists of :

1.	Physiotherapists	2
2.	Occupational Therapists	2
3.	Speech Therapists	1
4.	Prosthetic and Orthotic Technicians	2
5.	Workshop Workers	6

6.	Clinical Psychologist	1
7.	Medico-social Worker	1
8.	Public Health Nurse/Rehabilitation Nurse	1
9.	Vocational Counsellor	1
10.	Multi-rehabilitation Workers/(MRW)/ Technician/Therapist	4
Non-medical Personnel		
	Stenographer	1
	Record Clerk	1
	Store keeper	1
	Class IV workers	4

(12) DEPARTMENT OF DENTISTRY  
Staff Strength required

1.	Professor	1
2.	Reader	1
3.	Lecturer	1
4.	Tutor/Registrar	1
5.	Dental Technicians	4
6.	Store Keeper cum clerk	1

Note: Where Dental College or Dental wings of medical Colleges 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.

D. STAFF REQUIREMENT FOR-ANCILLARY SERVICES

I CENTRAL RECORD SECTION

The staff of the section shall consist of

1.	Medical Record Officer	1
2.	Statistician	1
3.	Coding Clerks	4
4.	Record Clerks	6
5.	Daftaries	2
6.	Peons	2
7.	Stenotypist	1

II. CENTRAL ANIMAL HOUSE

The staff shall consist of :

1.	Veterinary Officer	1
2.	Animal Attendants	2
3.	Technicians for animal operation room	1
4.	Sweepers	2

III CENTRAL LIBRARY

The staff in library shall consist of:

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

#### IV. CENTRAL PHOTOGRAPHIC CUM AUDIOVISUAL UNIT

1.	Photographers	1
2.	Artist Modellers	1 each
3.	Dark Room Assistant	1
4.	Audiovisual Technician	1
5.	Store Keeper cum Clerk	1
6.	Attendant	1

#### V. MEDICAL EDUCATION UNIT

1.	Officer In-charge	1 (Principal/Dean)
2.	Coordinator	1 (Head of a deptt. nominated by Principal/Dean.)
3.	Faculty	5-6 motivated teachers from the college faculty on part time basis.

Supportive Staff:

1.	Stenographer	1
2.	Computer Operator	1
3.	Technicians in Audio-visual aids, Photography and Artist	2

#### VI. CENTRAL STERLIZATION SERVICES DEPARTMENT

1.	Matron	1
2.	Staff Nurse	4
3.	Technical Assistant	8
4.	Technician	8
5.	Ward Boys	8
6.	Sweeper	4

#### VII. LAUNDRY

1.	Supervisor	2
2.	Dhobi/Washerman/Women	12
3.	Packer	12

#### VIII. BLOOK BANK

1.	Professor /Reader	1
2.	Lecturer	1

3.	Technicians	6
4.	Laboratory Attendants	6
5.	Store Keepers	6
6.	Record Clerks	2

#### IX. CENTRAL CASUALTY SERVICES

The staff in the department shall consist of :

1.	Casualty Medical Officer	4
2.	Operation Theatre staff to function on 24 Hours round the clock basis.	As required
3.	Stretcher bearers	6
4.	Receptionist-cum-clerks	2
5.	Ward boys	6
6.	Nursing and Para-medical staff	6
7.	Clinical staff for casualty Beds.	As required.

#### X. CENTRAL WORKSHOP

1.	Superintendent – who shall be a qualified engineer	1
2.	Senior Technicians	4 (Mechanical, Electrical, Electronic, Refrigeration)
3.	Junior Technicians	2
4.	Carpenter	1
5.	Blacksmith	1
6.	Attendants	4

#### XI. OTHER HOSPITAL STAFF

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

#### RECOMMENDED NORMS FOR HOSPITAL NURSING SERVICE

	(STAFF)	(TEACHING HOSPITAL)	
Staffing:			
1.	Nursing Superintendent (for minimum of 150 beds)	1	
2.	Deputy Nursing Superintendent	1	
3.	Asstt. Nursing Superintendent (for every additional 50 beds one more Assistant Nursing Superintendent)	2	
Staff Nurse	Sister	Department Senior/Astt. Nursing Supdt.	
Medical Ward.	1:3	1:25	Each Shift
Surgical Ward	1:3	1:25	”
Orthopaedic ward	1:3	1:25	”
			1 for 3-4 wards
			-do-
			-do-



Paediatric ward	1:3	1:25	”	-do-
Gynaecology ward	1:3	1:25	”	-do-
Maternity ward	1:3	1:25	”	-do-

(Including new borns)

Intensive Care Unit	} 1:1 (24 Hrs.)	1 each shift	1 Departmental Sister/ Asst. Nursing Supdtd. for 3-4 units.
Coronary Care Unit			
Special wards Eye, ENT etc.	} 1:1 (24 hrs.)	1 each shift	
Operation Theatre	3 for 24 hrs. per table	1 each shift	1 Departmental sister/ ANS for 4-5 Operation Theatre
Casualty & Emergency Unit	2-3 Staff Nurse depending on the No. of beds	1 each shift	1 Depttl. Sister/ANS for emergency casualty etc.

### Out patient Department-base on Actual observation.

a)	Minor Operation Theatre	1 Staff Nurse for every 13 Patients
b)	Injection Room	1 Staff Nurse for every 86 patients
c)	Surgical	1 Staff Nurse for every 120 patients
d)	Medical	1 Staff Nurse for every 140 patients
e)	Gynae.	1 Staff Nurse for every 35 patients
f)	Children (Paediatric)	1 Staff Nurse for every 85 patients
g)	Orthopaedic	1 Staff Nurse for every 120 patients
h)	Dental	1 Staff Nurse for every 120 patients
i)	ENT	1 Staff Nurse for every 120 patients
j)	Eye	1 Staff Nurse for every 86 patients
k)	Skin	1 Staff Nurse for every 100 patients

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

### JUSTIFICATIONS:

- Needs may vary from hospital to hospital depending on the size of hospital and service rendered more staff than anticipated will be required.
- Special attention is needed for supervision of patient care on the evening and night shift. 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 on casual leave etc.

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 1/3 nurse is required that is why 30% leave reserve is needed.

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 hospital.
3. Pharmacists: As required for Hospital.
4. Class III and IV personnel-as required for hospital.

### SCHEDULE III

#### EQUIPMENT ( for various departments in the College and 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.

#### A. NON CLINICAL DEPARTMENTS

##### 1. DEPARTMENT OF ANATOMY

(a) **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 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.

NAME OF THE ARTICLE	QUANTITY REQUIRED FOR 150 (admissions)
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Table with marble for stainless steel tops 6'1" x 2' x3'	20
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Tables with marble top or stainless steel, Half standard size.	5
Drill machine	3
Hand saw	4
Band saw for sectioning body and limbs	1
Stools, preferably metal	90
Brain knife	5

Mortuary cooler with arrangement to keep



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 boss-head-36 sets + 6 spares.

Low voltage units, for tapping 2 and 4 volts for stimulation, at each seat-as required.

Note:

1. Time makers can also be made available at each seat alongwith the 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.

NAME OF THE ARTICLE	QUANTITY REQUIRED FOR 150 (admissions)
Electric time makers, 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, cooper wire (double cotton covered) Kymograph paper etc.	As required

(b) MAMMALIAN EXPERIMENTS

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 organ	30
Isolated Organs. Bath 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
Anaesthesia boxes.	5
Surgical instruments for operative procedures, syringes, pulleys, etc.	As required

(c) HUMAN AND OTHER EXPERIMENTS:

Microscopes, Oil immersion	50+8
Demonstrations eye piece	4
Double Demonstration eye piece	4
Stage incubator	1
Wastergen's Pipettes for E.S.R. on Stand (with space pipettes)	40
Perimeter Priestly Smith S/LP.984 B & T	10
Haemoglobinometer, Sahil or hellige ( with spaces)	40

Haemocytometers	40
Sphygmomanometer	15
Stethoscopes	20
Stethoscopes, Demonstration with Multiple ear pieces	4
Polygraphs	4
Venus Pressure apparatus	2
Spirometer, Ordinary	10
Gas analysis apparatus, Haldane's students type	1
Van Slyke's apparatus manometric	2
Gas analyzer – automatic for CO <sup>2</sup> , O <sup>2</sup> , N <sup>2</sup>	1
Douglas bag, complete	6
Basal metabolism apparatus	1
Erogograph Mosse's	10
Clinical thermometer	30
Compass	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
Maddox rod	1
Newtons colour wheel	1
Tuning forks to test hearing 32-10,000 cps (sets)	4
Dynamometer	2
Otorhinolaryngoscope	5
Steriliser Electric	2
Instrument trolley	1
Stop watches	10

(d) GENERAL

Physiograph, 3 channels, complete with accessories	2
Physiograph, single channel, with accessories	8
Centrifuge, high speed with tachometer etc.	1
Calorimeter, photo-electric	1
pH meter, electric	1
Refrigerator, 9-10c ft.	1
Oxygen Cylinder with trolley	6
Co cylinder with trolley	2
Electronic stimulator	1
Water distillation still, with spare heating elements	1
All glass distillation apparatus double stage	1
Voltage stabilizer	3

Stepdown transformers	1
Thermometers, balances, microslides and glassware	As required

### DEPARTMENT OF BIOCHEMISTRY

Fume cupboards	2
Boiling Water baths, with lids having 8-12 Holes	6
Autoclave electric	2
Balance open pan	6
Balance semi micro	2
Balance micro	1
Vortex mixers	2
Urinometers	50
Constant temperature water bath	4
Ryles tube	4
Incubator electric with thermostat	4
Hot air oven	4
Magnetic stirrer	2
Pump vacuum	2
Calorimeters	6
Refrigerators	4
Flame Photometer	2
Thermometers 0-250 <sup>0</sup> C	4
Thermometers 0-110 <sup>0</sup> C	4
Cork borer set	1
Stop watch	4
Spirit lamp	50
Chromatographic chamber	2
Water distillation plant (metallic)	3
All glass distillation apparatus	3
Desicators large size	6
Desicators small size	6
Centrifuge clinical for 12 tubes	6
PH meters	3
Homogeniser	3
Microscopes	6
Ultra Violet (U.V.) lamp	1
Tools for small workshop for glass blowing and mending	1 set
Bottle dispensers	15
Samplers (autopipettes) different volume range	15
Electrophoresis apparatus with power supply for Paper PAGE AGAROSE	6
Spectrophotometer	1
Binocular research microscopes	2
Glass ware as required by standard lab. Like pipettes, beakers and conical flasks, etc.	As required.

## DEPARTMENT OF PATHOLOGY

### 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 carbondioxide cylinder	1
Hot plates	2
Hot air (50 degree Celsus) 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
Band saw	1
Autopsy tables	2
Automatic tissue processor,	
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 Floatation	2
Balance, Chemical with weights	2
Balance, chemical with weights	
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 plat 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	4
Microprojection apparatus	2
Sternal puncture needle Adulet 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 Electrophoresic apparatus vertical	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	1 set
Chemicals etc. for photo artist	
Glassware, stains, chemicals reagents etc. for Histological work.	As required

#### Clinical Laboratory:

Microscope high power with oil immersion lens moveable stage and condensor for the routine microscope work.	15
Bottles Sp. Gravity 25 cc	2
Micro burretes 5 cc	2
PH meter, with ultra micro blood PH electrodes and Electrical	
Contrifuge One higher power contrifuge for serological works, one for haematological work and one other	3
Incubator	1
Haemacytometers with red and white pipettes	90
Haemoglobiometers, Sahili'type	90
Sedimentation apparatus-one wester green and one wintrobole	2 sets
Syringes disposable one set from 10 cc to 2cc	30 of each
Staining jars for slides.	12
Urinometers	9
Albuminometers, esbachs & Aufrech's type	2



Urine Glasset (Conical)	12
Water baths with lids and holes thereon for holding test tubes etc.	3
Centrifuge tubes graduated	36
Crusible with china ltd.	2
Crusible Gooch with adapter	2
Graduated cylinders for 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
Balances-(1) Sensitive balance	2
(2) Chemical balance with weight boxes	2

**(5) DEPARTMENT OF MICROBIOLOGY**

Incubators, electrical (large)	5
37 degree Celsius	
Autoclave	3
Hot air steriliser	3
Arnolds steriliser	3
Serum inspissators	2
Balance, Chemical	2
Lovibond comparators	1
Flasks flat bottom 50 cc.	10
Microscope oil-immersion moveable stage Abbe, condenser etc.	80
Microscope, dark 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 Laboratory (V.D.R.L.) shaker	2
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

### **Culture facilities**

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	
Stains	As required
PH Determination apparatus	2
Reagent bottles with stopper 2000 cc	12
1000 cc	48
500 cc	24
250 cc	24
100 cc	60
50 cc	60
Test tubers hard glass 150 mm x 18 mm	12 Gross
100 mm x 12 mm	25 Gross
75 mm x 12 mm	25 Gross

### **(6) PHARMACOLOGY DEPARTMENT.**

Office tables small and big, office chairs, museum almirahs, study tables, staff room and library almirahs, stock almirahs, store room rack, 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 for 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 and 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

Animal weighing:

a) Machine for small animals like rats and guinea pig	3
b) Machine for big animals like dogs	3
Dissection instruments and injection syringes (The experimental physiology laboratory can be used if available for the students)	As required

* Kymograph (students) Electric independent unit	150
* Electric Motor ¼ with split pulleys	2
* Shafting steel rod ¾” diameter and 18” long	8
* Standard Shafting and fittings	40
* Pulleys	30
Muffs coupling for joining 2 pieces of the above mentioned shafting steel rods	12
* <i>Not required in case of independent units.</i>	
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 Tripple Beam	2
Manometers mercury Palmer C-200	6
Metronome Palmer B-5	2
Oncometer Kidney	2
Oncometer Heart	2
Copper Trays (10”x8”x1”)	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 Palmer H2O	1
Stop Watches Jacquets	12

Oxygen Cylinders with Trolleys 20 cu.ft	6
Carbon-di-oxide cylinder	2
Operating lamps-Phillips	4
Animal trolley with 12 cages	4

**Miscellaneous:**

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
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(c) Pharmacy Laboratory:

Dispensing Balance with metric system weights	50
Pill Tiles	50
Suppository moulds	50
Procelain dishes	15
Crucibles with tongs	15
Pestle and Mortar	50
Iron Spatula	50
Measure glass all sizes	50
Water bath, metal	15

Miscellaneous:

Chemicals, drugs, glass rods, funnels and filter	As required
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**(d) SPECIAL CHEMICALS AND PHARMACOLOGICAL EQUIPMENT**

Stimulator 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 Barun	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 cap.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

Waring Blender M.S.E.	1
Hot air oven size 14"x14"x14"	1
Incubator Electric Size 14"x14"x14"	1
Vacuum & Pressure Pump Cenco	2
Instruments Sterilliser Electric size 12" x 8"x6"	
B.P. Apparatus	12
Distilled water still Manesty Electrical Cap.	
2 gallon per hour	2
Stethoscope	12
Multimeter	1
Temperature controlled water bath 37 <sup>0</sup> 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 Caggies (Diuretic Study)	3-4
Digital pH meter	1
Tablet Disintegration Machine Glass tubing (length of 6 ft.)	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 } Cork borer set of 12	36 Each 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 sets complete	2 sets
Suction pumps	1
Filtering apparatus sietz filter and Millipore filter	1each
Dessicators	2
Vacuum Dessicators	1
Apron plastic for postmortem	2
Apron rubber for postmortemt	2
* Lyophilizer	1
*Thermal Cycller	1
*U.V. Transilluminator 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, dial type human	2
Equipment for reporting height	2
Balance chemical	1
Balance, single pair for weighing foetus	1
Weighing machine for Weighing dead bodies	
Weighing machine for organs	2
Folding metal scale to measure upto 7 ft.	1
Steel tape roll	2
Warnier calipers	1
Autopsy table	2
Styker autopsy saw, with accessories	3
Hacksaw	4
Dissection sets, consisting of cartilage 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 Strops	2
Parafin Bath Embedding	1
Slide Warming Table	1
Stone Carbarandon	2
Water bath (Tissue Flowing)	1
Distilation plant	1
Brain knife	8
Black 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 tissues	As required
Video Camera, Television and Video Cassette Recorder	1 each
Instrument Cabinet, instrument, trolley, filing cabinet with folders, filing cabinets for almirahs etc.	As required

### **(8) DEPARTMENT OF COMMUNITY MEDICINE**

Comparator, Nessler	1
Barometer, Fotin	1
Extraction Apparatus, fat, complete	1
Filter, Pasteur chamberland, complete set	1
Filter, berke fed	1
Hydrometres, Spirit	3
Hydrometres, milk	3
Hydrometers, 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
Salters Baby weighing machine	4
Harpenders Callipers (for skinfold thickness)	2
Height measuring stand	1
Aqua guard	1
Refrigerator 9 cu.ft.	1
Ice Lined Refrigerator (I.L.R.)	1
Dissecting microscope	40
Microscope oil immersion	3
T.F., V.C.R.	1 each
Still for distilled water	1
Autoclave	1
Sterilizers, electric	2
Computer	1
Over Head Projector	2

The Rural and health centers for training of undergraduate students shall be suitably equipped alongwith adequate transport.

### **B. 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-ray, etc.
- (2) Routine treatment, medical and surgical etc.
- (3) Special therapy such as physical, occupational, dietetic etc.

The following equipments for various clinical departments are however the minimum required.

**(1) DEPARTMENT OF MEDICINE**

B.P. Apparatus	40
Ophthalmoscope	10
Lumbar puncture needles (disposable)	As required
Haemocytometer	5
Light Microscope	3
Haemoglobinometer	5
Centrifuge Machine	3
Urinometer	3
Plural biopsy needs (disposable)	As required
Liver biopsy needs (disposable)	As required
Kidney Biopsy needs (disposable)	As required
X-ray viewing box	25
Overhead projector	2
Slide Projector	2
Upper GI endoscope	3
Colonoscope	3
Sigmoidoscope	3
Proctoscope	10
Facilities for doing tests 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 ardiac pacing	1
Ambu bag	16
Laryngoscope	16
ECG Machine	16
Echocradiography machine	2
Tread Mill test machine	1
Haemodialysis machine	5
Peritoneal dialysis catheters	As required
Arterial blood gas analyzer	2
Na/K analyzer	2
Equipment for measuring diffusion capacity	1
Microprocessor based spectrometer	2



Gamma cameras	1
Glucometer	10
Radiosotope scan laboratory	1
Electro Encephalogram (EEG) machine	1
EMC and nerve conduction 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
Radiopagers	40
Endotracheal tubes	As required
Emergency lights	10

## (2) DEPARTMENT OF PAEDIATRICS

### (A) Resuscitation equipments:

Ambu bag	
-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) Oxygen Delivery System-

Oxygen Cylinder	1
Oxygen regulator	1
Oxygen Humidifiers	1
Oxygen headbox (of each size)	1
Nebulisers	8

### (C) Drug Deliver Equipment/ Catheter/tube-

Intra-venous (I.V.) Drip set	As required
Measured volume	4
Blood transfusion set	4
Intra-venous (I.V.) Canula (Butterfly type)	As required
Intracath	8
Umbilical vein	8
Catheter	
Feeding tubes	As required
Three way and four way valve	4
Malecot's catheter	8
Cut open canula	As required

#### (D) Measurement Equipments

Weighing machine	
- Infant	1
-Child	1
- Neonates	1
Infantometer	1
Measuring tape	As required
Shakir's tape	As required

#### (E) Work lab and investigations

Student Microscope	2
Nuclear Chamber	4
Hemoglobinometer	4
Test tube	As required
Spirit lamp	4
Stains for – Leishman's staining	As required
- AFB staining	-do-
-Grams staining	-do-
Dextrostix	As required
Multisix	-do-
Uristix	-do-
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-Silveram	4
Biopsy needle	
Mengneiz Needle	4
True cut Renal	4
Biopsy needle	
X-ray view box	1

#### F) Miscellaneous

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
Intercostals 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-VENEREOLGY 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-Neelsen's stain
- (d) Giemsa stain

Facilities for electosurgery and chemosurgery

- (a) Electro-cautery machine
- (b) Trichloroacetic acid

**(5) DEPARTMENT OF PSYCHIATRY**

Electro Convulsive Therapy (E.C.T.) machine preferably with ECG monitoring	3
E.E.G. monitoring	1
EEG machine	1
Lithium analyzer	1
Biofeed-back instruments (sets)	1
Thin layer chromatography (for drug dependence treatment)	1
Alcohol breath analyzer	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**

(i) O.P.D

Blood Pressure Apparatus, Stethoscope, diagnostic kit, weighing machine, skinfold caliper, eight scale.	8
X-ray viewing box 4 in 1	8
Proctoscope & Gabriel Syringe	8
Sigmoidoscope (Rigid)	2
Flexible Endoscope, Upper Gl,	2
Colonscope (one set in Main O.T.)	
Diagnostic Crystoscope	1
Ultrasound	1
Uroflowmetry	1

(ii) MINOR O.T.

Operation Theatre Table	2
Operation Theatre Ceiling light	2
Pedestal lights	4
Electro-surgical unit	1

Suction	4
Pulse oximeter (one for Endoscopy Room)	4
Anaesthesia Equipment	1 set
Resuscitation kit	1
Assorted surgical instrument for minor operation sets	12
Autoclave	1

### WARDS

B.P. Apparatus, Stethoscope, diagnostic kit (4 sets in each ward)	16 sets
Weighing machine, height scale, skinfold Caliper (2 each 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 analyzer	1
Oesophageal/Gastric pH & pressure recorder	1

### (iii) OPERATION THEATRE

Operating tables	8
Operating Ceiling light	8
Paedestal 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.)`	8
Anaesthesia Equipment as per requirement of Anaesthesia department Diagnostic and operative	
Laparoscope	2
Cryoscope 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

### (iv) MISCELLANEOUS

Photocopier	1
Computer with laser Printer	1
Electronic Typewriters	2
Slide-Projector	4
Overhead projector	8
Video Cassett Recorder/video Cassette Player	2

**(7) DEPARTMENT OF PAEDIATRIC SURGERY**

Resuscitation equipment	
-Ambubags	6
-ET Tubes (all sizes 2.5-8)	10 sets
-Guedell's airway (all sizes)	8 sets
	6
-Laryngoscope	6
Suction Catheters (sets) assorted sizes	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
Oesophageal 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**

**(i) O.P.D.**

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

### Common equipments in the OPD

Slit lamp	3
Applanation tonometer	2
Keratometer	2
Indirect Ophthalmoscope	2
Synoptomphore	2
Maddox Rod	2
Maddox Wing	2
Diplopia goggles	1
Gonioscope	2
Placido disc	2
Prism Bar	2
Schoutz tonometer	4

### (ii) MAJOR OPERATION THEATRE

Operating microscope with TV Unit with camera	2
Crye Unit	2
Cataract set	7
Glaucome set	3
DCTR set	3
Entropian set	3
Enucleation set	3
Evisceration set	3
Squint set	3

### (iii) GENERAL OPHTHALMIC EQUIPMENTS

Operation Theatre Table	2
Operation Theatre Light	2

(iv) Minor Operation Theatre: Minor O.T. should have the equipment for the removal of the foreign body, sutures, and chalazion or sty.

### (v) Ward

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

### (i) OPD

(per doctor)

Nasal Speculum	4
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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 forces	1
Bulls lamp	1
Head lamp	1
ENT examination chair	2
Jobson Horne probe	1
Sterilizer	1
BP apparatus	1
Stethoscope	1

(ii) MAJOR Operation Theatre.

(a) Tonsillectomy and adenoidectomy set Biopod	1
Boyle-Davis mouth gag	1
Tonsil holding forceps	1
Tonsil dissector and pillar retractor	1
Tonsil snare	1
Burkit artery forceps	1
Negus artery forceps	1
Tonsil scissors	1
Adenotome	1
Adenoid curette	1
Yankauer oropharyngeal suction tip	1

(b)Set for nasal bone fracture Asch forceps	1
Walsham forceps	1

(c) Septoplasty set	
Bayonet forceps	1
Killians nasal speculum	1
Freer elevator	1
Ballenger's swivel knife	1
Takahashi forceps	1
Fish tail gouge and mallet	1

(d) Caldwell luc set	
Nasal gouge	1
Mallet	1
Ribbon Retractor	2
Cheek Retractor	2

(e)Antrostomy set

Antral	1
Retrograde gouge	1
Antral rasp	1
(f)*FESS set	
*Rigid nasal endoscope0	1
*Light source	1
*Sickle knife	1
*Retrograde punch	1
*Blakesley forceps – straight	1
- upturn	1
* Optional for MBBS.	
g) Direct laryngoscopy set	
Anterior commissure	1
Laryngoscope`	1
Negus laryngoscope	1
Lighting system for laryngoscopes	1
Biopsy forceps	1
Foreign body removal forceps	1
Laryngeal suctions	1
(h)*Microlaryngoscopy set	
*Kleinsasser’s laryngoscope	1
*Fiberoptic lighting system	1
*Suspension system for Laryngoscope	1
*Microlaryngeal cup forceps	1
* Microlaryngeal Scissors	1
i) *Tympanoplasty set	
*Aural speculum	4
*Drum curette	2
*Drum elevator	1
*Microsuction	2
*Graft knife	1
*Graft press	1
(j)*Mastoidectomy set	
* 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
(k) *Stapedctomy set	
*Pick-straight	1
Angled	1
*Perforator	1
*Measuring rod	1



*Prosthesis crimper	1
(l) *Oesophagoscopy set	
Oesophagoscopes	3
Lighting	1
Biopsy forceps	1
Foreign body removal forceps	1
Suction	1
Oesophageal dilators	1 set
(m) * Bronchoscopy set	
*Bronchoscopes	3
*Lighting system	1
* Biopsy forceps	1
* Foreign body removal forceps	1
*Suction	1
* Optional for MBBS	
(n) Tracheostomy set	
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
(iii) MINOR Operation Theatre	
(a) Antral wash set	
Trocar	2
Canula	2
Higginsons syringe	2
(b) Direct laryngoscope set	
Laryngoscope – Anterior	1
Commissure	
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
Aural Snare	As required
Aural cup forceps	As required
(iv) *WARDS	
* Semi intensive care unit (4 beds)	As required

* Central suction	As required
* Oxygen	As required
* Humidifier	As required
* Optional for MBBS	As required

(v) MISCELLANEOUS EQUIPMENTS

Operating microscope for major Operation Theatre	1
For minor Operation Theatre	1
Puretone audiometer	As required
Impedance audiometer	As required

SPECIAL EQUIPMENT

(a)* Temporal bone lab Microscope	
(b) * Drill	1
Mastoid set	1
*Optional for MBBS	

(vi) ANY OTHER ADDITIONAL EQUIPMENT WHICH ARE DESIRABLE

Flexible nasopharyngolaryngoscope	1
Electronystagmograph	1
Brainstem evoked response audiometer	1
Goggles, plastic apron, gloves for examination of patients with biohazard (HIV and Au positive)	1 set

(11) DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

(i) General

Speculums and retractors	75
EA + ECC sets	30
PCT forceps	15
Ayers spatula	45
Cytology bottle	45
Microscope	3
MR Syringes	15
Coloposcope	3
Cryo/electro cautery apparatus	3
Simple fetal Dropller	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, ambu bag, suction catheter, essential drugs).	

Suction machine	2
Hysterosalphigogram Canula	15

(ii) MAIN Operation Theatre

Abdominal Hysterectomy set (Alteries, scissors, Scalpel, Allis's kelly's clamp, badcock forceps, thumb forceps, Harington & Richardson retractors.)	9
Vaginal Hysterectomy set (Scalpel, scissors, metal catheter, Sim's, Speculum volsellum, Kelly's clamps, right angle retractor, arteries, Allis, uterine sound, bladder sound).	9
Tuboplasty set	6
Myomectomy instruments (Myoma screw, Boney's clamp)	3
Diagnostic laparoscopy set	6
Operating laparoscopy set	6
Hystroscopy set	3
Electronic Carbondioxide insuffator/ Insuffator basic unit	6
Resctoscope	3
Hyseromat	3
Operatin microscope/Loupe	2
Electrocautery	3

iii)SPECIAL EQUIPMENT

Contact microhystroscope	2
Co2 & Nd Yag laser	1

(iv)LABOUR ROOM

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

v)SPECIAL EQUIPMENT

Oxytocin infusion pumps	9
Multichannel monitors	6
Intrauterine Pressure monitoring system	6
*Fetal scalp electrodes Facilities for fetal scalp pH	4

(vi)TEACHING SET

Doll and Dummy	3
Female Pelvis	3
Gross specimens	
X-ray/US films	3

View box	
VCR	2
Overhead Projector	1
Slide Projector	2
Set of instruments/forceps etc.	

(vii) Miscellaneous.

Camera with 200 m lens Endocamera/Television,  
TTL flash light, Carbondioxide Monitor, Calculator  
Channelizer, \*Disposables, to be issued on monthly basis.

(viii) MINOR Operation Theatre.

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)	

xi) MATERNITY O.T.

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
Postputum ligation	6
Outlet forceps	9
Low 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 Theatre lights, Central Oxygen and suction	

(x) SPECIAL EQUIPMENT:

Multichannel monitor with ECG, BP, HR, Pulse oxymetry for high risk pregnant patients (eclampsia, heart diseases etc.)	3
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(xi) WARDS

Blood Pressure 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 analyzer	1
CTG machine	2
Suction machine	4
Resuscitation tray	4
View box	3

(xii) SPECIAL EQUIPMENT

Ultrasound machine with Doppler/Vaginal probe/ facilities for Interventional procedure	2
Multichannel Monitor	2
Fetal Monitor for Antepartum Surveillance	3
Computer for data entry	1
(Gloves, Syringes, needles, torch, measuring tape etc.)	

(xiii) Laboratory equipment for following investigations:

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 alb. Creatinine  
 VDRL, TORCH  
 HIV  
 Serum, BHCG, estriol, MSAFP  
 Semen wash  
 FSH, LH PROCLACTIN, T3, T4,  
 TSH, Testosterone, DHEAS  
 Chlamydia and other reproductive tract infection testing.

GENETIC LAB.-Cytology, Chromosome study, PCR for various  
 Abnormalities. Facilities for biochemical tests  
 And enzyme studies for prenatal diagnosis.  
 Blood gas analyzer  
 Thalassemia study.  
 ABO and Rh typing.  
 PCR for tuberculosis.  
 Viral markers for Hepatitic studies.  
 Coagulation profile, fibrinogen degradation products,  
 Blood bank facilities.

Cryopreservation.  
Assisted reproductive techniques.

## **(12) DEPARTMENT OF ANAESTHESIOLOGY**

### OPD-Anaesthesia Clinic

Blood Pressure Instrument (Non-invasive)	1
Weighing machine	1
Height scale	1
Ward (Recovery)	
Resuscitation equipments (CPR)	
a) Adult Dummy	1
b) Paediatric dummy	1
c) Artificial breathing	
Bag with face Masks.	1
d) Defibrillator	1
Suction machine	
-Electrical	5
-Manual	5
Oxygen therapy unit	8
Pulse oximeter	2
E.C.G. 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) 30 MA	3
b) 60 MA	3
Fluroscopic unit	2
Both conventional and image intensifying unit for gastro-enterology & gynae work etc.	2
Ultrasonography equipment unit independently for Obstetrics and Gynaecology.	2+1 additional
CT	1
Mammography (preferably) MRI (preferably)	

## **OPTIONAL DEPARTMENTS**

### **(14) RADIO-THERAPY**

Examination Table	4
ENT examination set up	2
Gynae./pelvic examination tables	2
Treatment planning and mould room including	

i) Computerised treatment planning system	2
ii) Simulator	1
iii) Immobilization cast making system	2

#### **Brachytherapy setup**

i) Manual afterloading intercavitary system (sets)	2
ii) Manual afterloading Interstitial/surface mould system (sets)	1

#### **Teletherapy set-up**

Isocentrically mounted	2
Rotational telecobalt Unit minimum 80 cm SSD	

#### **Radiation Protection and Dosimetry set-up**

i) Secondary standard dosimeter with ionization chamber	2
ii) Survey meter	2
iii) Area/Zone monitors (by BARC)	4
As per the number of staff members in the department	

#### **Radiotherapy department**

i) Dual 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) Thermoluminescent dosimetry system	1
x) Intra operative Radiotherapy and stereotactic radiotherapy set up alongwith linear accelerator (multi leaf)	1

N.B. Normally one teletherapy 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 set-ups.
2. Remedial and recreational set up.
3. Electrotherapy equipments.
4. Prosthetic-Orthotic Workshop equipments.

### **C. OTHER DEPARTMENTS**

#### **1) MEDICAL EDUCATION UNIT**

Overhead Projectors

2

Slide Projector	2
Computer with printer:	1
Electronic Typewriter:	1
Video Camera:	1
Video Cassette Recorder:	1
Television	1
Blackboard`	2
Zerox Copier	1
Books and Journals	As required

## **(2) DEPARTMENT OF AUDIO VISUAL AIDS**

### **ARTIST SECTION**

Drawing Board size 42"x27"	1
Drawing Board size 22" x 30"	1
Instrument Box steadler	1
Plastic Transparent Set square 10"	1 pair
Plastic Scale 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"x30"	12
Scolor drawing paper 22"x30"	12
Drawing paper Norway 72 lbs.	12
Water colour tubes "Winsor and Newton"	24
Postercolours in different shades.	13
Reeves Indian Black ink.	12
Water colour box "peliken" Sable Hari brushes 16	1
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

## **(3)MODELLING SECTIONS AND PHOTOGRAPHY**

Modeling Instrument box.	1
Saw for wood work.	1
Ben saw iron.	1
Jamboor	1
Plier	1
Plier Goldsmith.	1
Scissors ordinary	1
Scissors Goldsmith	1
Hammer	1



Mortar Iron.	1
Buck et Iron.	1
Chisel.	1
Tagari Iron	1
E.I. 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 paris	As required
Old raddy	As required
Gum.	As required
Stand paper	As required
Plasticine.	As required
Wires G.I. copper and wire 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"	2
16 mm. Film projector bell and Howell	1
Camera Rollieflex automatic.	1
Camera 35 mm. Contax 4/D with copying attachment.	1
Microscopic attachment of Contax.	1
Micro Projectr Zeiss or B&L.	1
Enlarger Omega D 2.	1
Dark room and developing equipment	1 set
35 mm. Slide projector	
Viewlex.	2

#### 4) WORKSHOP AND ELECTRIC SECTION

Lathe machine 6" center height 10" automatic gear change box (heavy duty with gapped.	1
Lathe machine small 3" center height 8" automatic gear change box. German make.	1
Milling machine type with dividing head attachment	1
Stand Drill Machine electric	1
Shaping machine Bench model	1
Spraying painting composer max. pressure 140 lbs. & continuous pressure must be 30 lbs. 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
Aceytlene welding with oxpacelylene bottle and 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 abroad	
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 appliances	1

Note: -

1. All kinds of endoscopes shall be fiberoptic preferably with a videoscope.
2. For effective teaching and training facilities close circuit TVs (CCTVs) shall be provided in the departments of Microbiology, Pathology, and Surgery and other allied specialities including Gynaecology.
3. In order to make teaching hospital more effective, it is necessary that a periodical upgrading of the instruments in various departments and sections should be undertaken for which required financial support shall be rendered.

MEDICAL COUNCIL OF INDIA

**AMENDMENT NOTIFICATION**

**New Delhi, the 8<sup>th</sup> July, 2009**

No. MCI.34(41)/2009-Med./20072 - In exercise of the powers conferred by Section 33 of the Indian Medical Council Act, 1956(102 of 1956), the Medical Council of India with the previous sanction of the Central Government hereby makes the following regulations to further amend the “Minimum Requirements for **150** MBBS Admissions Annually Regulations, 1999” namely:-

1. These regulations may be called the “Minimum Requirements for **150** MBBS Admissions Annually Regulations (Amendment), **2009**”.
2. In the Minimum Requirements for **150** MBBS Admissions Annually Regulations, 1999, the following **additions / modifications / deletions / substitutions**, shall be as indicated therein:-
  3. In clause 3, at S. No. (2) the words “INCLUDING BIOPHYSICS” **shall be deleted** and at S.No. (14), the words “INCLUDING PAEDIATRIC SURGERY” **shall be deleted**.
- 4(i). In Schedule I Clause A.1.1 under the heading ‘CAMPUS’ **shall be substituted** with the following: -

“Companies registered under Company Act may also be allowed to open medical colleges. Permission shall be withdrawn if the colleges resort to commercialization.”
- (ii) In Schedule (I) Clause A.1.2 under the heading “Administrative Block”, the words “examination hall (450 Sq.m.)” **shall be deleted**, the words (30 Sq.m each,) **shall be substituted** by “(150 Sq.m. each)” and the words “(40-50 Sq. m.)” **shall be substituted** by “(300 Sq.m.)”.
- (iii). In Schedule I Clause A.1.4 under the heading ‘Central Library’, **shall be substituted** with the following: -

“There shall be an air-conditioned Central Library (**2400** Sq.m) with seating arrangement for at least **300** students for reading and having good lighting and ventilation and space for stocking and display of books and journals. There shall be one room for **150** students inside and one room for **150** students outside. It should have not less than **11000** text and reference books. In a new medical college the total number of books should be proportionately divided on yearly basis in five years. The number of journals shall be 100 out of which one-third shall be foreign journals and subscribed on continuous basis. The number of copies of textbooks in each subject of undergraduate teaching shall be ten.

There shall be provision for –

- a. Staff reading room for 30 persons;

- b. Rooms for librarian and other staff;
- c. Journal room;
- d. Room for copying facilities;
- e. Video and Cassette room (desirable);
- f. Air-conditioned Computer room with Medlar and Internet facility with minimum of 40 nodes.

Medical colleges should have skill labs and adopt information technology in teaching medicine. There shall be provision for e-library also.”

(iv). In Schedule I Clause A.1.5 under the heading ‘Lecture Theatres’, **shall be substituted** with the following: -

“There shall be a minimum of **five lecture theatres preferably air conditioned**, of gallery type in the Institution out of which **four** will be of seating capacity for **180** students and one will be of capacity for **350** students each. Lecture theatre shall be provided with necessary independent audio-visual aids including overhead projector, slide projector, LCD projector and a microphone. These lecture theatres shall be shared by all the departments **in a programmed manner**. There shall be provision for E-class. Lecture halls must have facilities for conversion into E-class/Virtual class for teaching. The existing colleges shall introduce these facilities in their lecture hall within one year.”

(v) Clause A.1.6 **shall be substituted** by the following:

“Auditorium/Examination Hall (Multi-purpose):

There shall be an auditorium-cum-examination hall of **1200** sq.m. area in not more than three levels.”

(vi) Clause A.1.9 **shall be substituted** by the following:

“Animal house:

Department animal house may be maintained by the department of Pharmacology. In addition to the animal house, experimental work on animals can be demonstrated by Computer Aided Education.”

(vii) Clause A.1.10 **shall be substituted** by the following:

“Incinerator

An incinerator Plant commensurate with hospital bed strength may be provided.

Alternatively any other system approved by the respective State Pollution Control Board may be provided.

(viii) Clause A.1.11 **shall be deleted.**

(ix) Clause A.1.12 **shall be deleted.**

(x) In Clause A.1.18, the following **shall be added:** “Arrangements must be made so that plumbers are available round the clock”

(xi) After Clause A.1.18, the following **shall be added.**

“A.1.19 There shall be **6** laboratories (225 Sq.m.area each) which will be provided with continuous working tables. Every seat shall be provided with stainless steel wash basin. Every working table shall have drawer or steam proof top, and individual lighting. One preparation room each of 15 Sq.m. area shall be provided with all the laboratories.

There shall be two laboratories of **90** Sq.m. area each.

All of these laboratories may be used in common with various departments e.g.

Histology and Histopathology; Biochemistry and Clinical Pharmacology;

Haematology and Pathology; Microbiology and Community Medicine.

#### Central Research Laboratory

There shall be one well-equipped Central Research Laboratory in the medical college, which will be under the control of the Dean of the college. The existing colleges shall install the laboratory within two years. Each medical college shall have Pharmacovigilance Committee.

(xii) A.1.20 Training of teacher in Medical Education Unit.

The period of training of a teacher in a Medical Education Unit shall be increased from one week to two weeks.

(xiii) A.1.21 Rural Health Training Centre

Every medical college shall have one rural health training centre under Administrative control of Dean of the college for training of students in community oriented primary health care and rural based health education for the rural community attached to it. This health centre shall be within a distance of 30 km. or within one hour of commuting distance from the medical college. Separate residential arrangements for boys, girls and interns with mess facilities shall also be provided. Adequate transport (both for staff and students) shall be provided for carrying out field work and teaching and training activities by the department of Community Medicine.”

5 (i). In Schedule I Clause B.1.1 under the heading ‘General Remarks’ **shall be substituted** with the following: -

“A functional teaching hospital with 300 beds with at least 70% indoor bed occupancy should be available. There should be 80% bed occupancy at the time of inspection for first renewal and thereafter for subsequent renewals.

Lifts for the patients and ramp for fire protective services and for handicapped persons shall be provided in the hospital at the time of letter of permission. An electric generator of not less than 700 KVA shall be provided. A play area including T.V., Music, Toys, Books, etc. shall be provided for Paediatric patients. All the teaching hospitals shall be under the academic, administrative and disciplinary control of the Dean/Principal/Director who shall not be concurrently Head of Department but can be a component of teaching faculty in the concerned respective department.”

(ii) In Clause B.1.2 after the words “space for visitors”, the following **shall be added:**  
“alongwith computer and internet facility in each department”

(iii) In Clause B.1.3 after the words “in the hospital”, the following **shall be added** “in addition to those in medical college/institution.”

(iv) In Clause B.1.6, the words “Jr. Residents, Senior Residents, Registrars etc.” **shall be substituted** by “Jr. Residents and Senior Residents etc.”

(v) Clause B.1.7 **shall be substituted** by the following:

“There shall be a minimum OPD attendance of 4 patients (old & new) per day per student intake of the subjects of Undergraduate curriculum at the time of Letter of Permission. This should be increased in such a manner that at the end of fourth year it comes to 8 patients (old & new) per day per student intake.”

(vi) After Clause B.1.9, the following **shall be added:-**

- (vii) “B.1.10: Dean, Medical Superintendent and each department shall have independent computer and printer facility.
- (viii) B.1.11: Each and every college /institute shall have its own website wherein the following details updated in the first week of every month shall be provided:-
  - a. Details of Dean, Principal and Medical Supdt. including their name, qualification complete address with telephone and STD code, fax and E-mail etc.
  - b. Teaching as well as non-teaching staff.

- c. Details of the sanctioned intake capacity of various courses UG as well as PGs by the MCI.
- d. List of students admitted merit-wise category-wise (UG & PG) for the current and previous year.
- e. Any research publications during the last one year.
- f. Details of any CME programmes, conferences and/or any academic activities conducted by the institution.
- g. Details of any awards and achievement received by the students or faculty.
- h. Details of the affiliated university and its Vice-Chancellor and Registrars.
- i. Result of all the examinations of last one year.
- j. Detailed status of recognition of all the courses.
- k.. Details of clinical material in the hospital.”

6 (i) Clause B.2.1 **shall be substituted** by the following:

“The following accommodation shall be available with each ward, namely:.

1. Accommodation in a General Ward shall not exceed 30 patients and distance between the two beds shall not be less than 1.5m.,
2. Nurses Duty Room/Nursing Station.
3. Ward should be constructed in such a way that the Nurse from her Nursing Station is able to have an overview of all the patients in the wards.
4. Examination and Treatment room.
5. Ward Pantry.
6. Store room for linen and other equipment.
7. Resident Doctors and students Duty Room.
8. Clinical Demonstration Room.

In Schedule I Clause B.2.1 the following **shall be added:** -

“7. Accommodation in general ward shall not exceed 30 patients hall and distance between two beds shall not be less than 1.5 meters.”

(ii) Clause B.2.2 **shall be substituted** by the following:

1. Offices for Heads of Departments and Heads of Units.
2. Accommodation for other unit staff.
3. Clinical demonstration rooms (at least one for each department).
4. Deleted.

Note: The size and number of staff rooms shall be as per the guidelines in the pre and para clinical departments for the prescribed number of staff members in a department.

(iii) Clause B.2.3 **shall be deleted.**

(iv) In Clause B.2.4 at S.No. (2), “Preparation room” **shall be substituted** by “Pre-Anaesthetic/Preparation room – atleast 4 beds.” and para (1 & 2) at S.No. 14 **shall be substituted** by “**Three** such units may be provided for General Surgery, one for ENT; one for Orthopaedics; one for Ophthalmology and **two** for Obstetrics and Gynaecology and one for septic cases”.

Other surgical specialities shall have independent separate OT.



Additional space need to be provided for various Endoscopy procedures.

Minor Operation Theatre – one minor operation theatre in addition to above shall be provided for surgical departments in casualty/emergency unit and one such theatre in O.P.D.

(v) In Clause B.2.6 the following **shall be added**:  
“The physical facilities for housing the laundry equipment shall be provided in the campus. However, services can be handed over to any agency but with overall supervision of Hospital Administrator”.

(vi) Clause B.2.7 **shall be substituted** by the following:

“DEPARTMENT OF RADIO-DIAGNOSIS:

(1) The staff of Radio-Diagnosis department shall be covered by Personal Monitoring System of BARC.

Accommodation shall be provided for the following namely:

- (a) Room for 300mA, 500mA, 600mA. I.I.T.V. System, Fluoroscopy System (36 sq.m.).
  - (b) Ultrasound Room (15 sq.m.)
  - (c) Room for 60 mA Mobile X-ray system (15 sq.m)
  - (d) Accommodation for CT Scan system. There shall be three equipment rooms, (examination room, control room and computer room). In addition, a service room for Electrical Panels, UPS and Servo Stabilizer shall be provided. The total area requirement is 80 sq.m.
  - (e) There shall be preferable a Magnetic Resonance Imaging (MRI) system. The space requirement shall be according to the standard specifications.
  - (f) Store room for X-Ray films related material (15 sq.m)
  - (g) Museum (25 sq.m.)
  - (h) Waiting room for patient, enquiry office and staff rooms for Professor & HOD, Assoc. Profs., Asstt. Profs., Residents, Tutor shall be provided as per requirement.
  - (i) Accommodation for demonstration room shall be provided.
- (2) 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 125kV or above the control panel must be installed in 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.

(vii) In Clause B.2.8, the word “should” **be substituted** by “shall”.

(viii). In Schedule I Clause B.5 under the heading ‘CENTRAL CASUALTY DEPARTMENT’ shall be substituted with the following: -

“There shall be well equipped and updated intensive care unit (I.C.U) -5 beds, Intensive Coronary Care Unit (I.C.C.U.)-5 beds, Intensive Care Paediatric/Neonatal Unit -5 beds and preferably Intensive Care in Tuberculosis and Respiratory Diseases. The number of beds in casualty trauma unit shall be **25**. ICU should be located near casualty. These shall be functional at the time of inception of the college.”

7. Clause B8 **shall be substituted** by the following:  
“HOSPITAL WASTE MANAGEMENT  
Facilities for hospital waste management, commensurate with the State Regulatory Authorities etc. shall be provided.”
8. Clause B9 shall be deleted.
9. (i) Clause B.10.1 **shall be substituted** by the following:  
“There shall be sufficient number of quarters for covering 100 per cent of the total Sr. Residents and Jr. Residents as required.”  
  
(ii) Clause B.10.2 **shall be substituted** by the following:  
“There shall be sufficient number of quarters for covering at least 20% each of the Nurses, teaching and non-teaching staff.”
10. In Clause B.11, Schedule – II, Sub-clause no. 3 **shall be substituted** by the following:  
“These regulations cover the minimum requirements of under graduate medical education. Additional teaching and non-teaching staff shall also be required in OPD, Indoors, Operation theatres and Intensive Care areas where the work load involved in emergency patient care, clinical laboratory work/field work is heavy or is of a specialized nature”
11. Clause B12 “HOSTELS FOR STUDENTS” **shall be substituted** by the following:-  
  
“The College/Institution should have at least provision for 75% of the total intake of students at a given time. Each hostel room shall not have more than three occupants. The size of such room shall not be less than 27 sq.mt. Each student shall be provided with an independent and separate furniture which shall include chair, table, bed and full size cupboard at the least. In case of single seated room it should be at least 9 sq. mt. Area. Each hostel shall have a visitor room, a study room with facilities for computer and internet and should be air-conditioned. There shall be a recreational facility room having T.V., Music, Indoor games etc. and messing facilities for the students.”
12. In Schedule II after Clause 6 under the heading ‘DEPARTMENTWISE STAFF REQUIREMENTS – NON- CLINICAL’ shall be substituted with the following: -  
  
“DEPARTMENTWISE STAFF REQUIREMENTS - NON-CLINICAL

(1) DEPARTMENT OF ANATOMY

1.	Professor	1
2.	Assoc. Prof.	2
3.	Asstt. Prof.	3
4	Tutors/Demonstrators	4
5.	Technician	1
6.	Dissection Hall Attendants	4
7.	Store Keeper cum Clerk-cum Computer Operator	1
8.	Sweepers	2

(2) DEPARTMENT OF PHYSIOLOGY

1	Professor	1
2	Assoc. Prof	2
3	Asstt. Prof.	3
4	Tutors/Demonstrators	4
5.	Technician	1
6	Store Keeper cum clerk cum Computer operator	1
7	Sweepers	2

(3) DEPARTMENT OF BIOCHEMISTRY

1	Professor	1
2	Assoc. Prof.	1
3	Asstt. Prof.	2
4	Tutors/Demonstrators	4
5	Technical Asstt./Technician	2
6.	Store-Keeper cum clerk cum Computer operator	1
7.	Sweepers	2
8.	Lab Attendant	1

(4) DEPARTMENT OF PATHOLOGY

1	Professor	1
2	Assoc. Prof.	3
3	Asstt. Prof.	4
4	Tutors/Demonstrators	6
5	Technical Asstt./Technician	4
6	Lab. Attendants	2
7	Steno cum Computer Operator	1
8	Store Keeper cum Record Keeper	1
9.	Sweepers	2

(5) DEPARTMENT OF MICROBIOLOGY

1	Professor	1
2	Assoc. Prof.	2
3	Asstt. Prof.	2
4	Tutors/Demonstrators	4
5	Technical Asstt./Technician	7
6	Lab. Attendants	2
7	Store Keeper cum Record clerk	1
8	Steno cum Computer Operator	1

9 Sweepers 2

(6) DEPARTMENT OF PHARMACOLOGY

1 Professor 1  
2 Assoc. Prof. 2  
3. Asstt. Prof. 2  
4 Tutors/Demonstrators 3  
5. Laboratory Attendants 2  
6. Store Keeper cum clerk cum Computer operator. 1  
7. Sweepers 2

(7) DEPARTMENT OF FORENSIC MEDICINE

1 Professor 1  
2 Assoc. Prof. 1  
3 Asstt. Prof. 2  
4 Tutors/Demonstrators 3  
5 Technical Asstt./Technician 2  
6 Laboratory Attendants 2  
7 Steno Typist 1  
8 Store Keeper cum clerk cum Computer Operator 1  
9 Sweepers 4

Note:- 1. In case of postmortem work of more than 500 annually, two additional Tutors/Demonstrators shall be provided.

(8) DEPARTMENT OF COMMUNITY MEDICINE

1 Professor 1  
2 Assoc. Prof. 2  
3 Asstt. Prof. 3  
4. Epidemiologist-cum-Assistant Professor 1  
5 Statistician-cum-Assistant Professor 1  
6 Tutors/Demonstrators 4  
7 Medical Social Worker 1  
8 Technical Asstt./Technicians 1  
9 Stenographers 1  
10 Record keeper cum clerk cum Computer Operator 1  
11 Store Keeper 1  
12 Sweepers 1

Staff for Rural Training Health Centre (including field work and epidemiological studies.)

1 Medical Officer of Health-cum-lecturer/  
Assistant Professor. 1  
2 Lady Medical Officer 1  
3 Medical Social Workers 2  
4 Public Health Nurse 1  
5 Health Inspector/Health Assistant (Male) 1  
6 Health Educator 1

7	Technical Asstt./Technician	1
8	Peon	1
9	Van Driver	1
10	Store Keeper cum Record Clerk	1
11.	Sweepers	2

Urban Training Health Centre

1.	Medical officer of Health-cum-Lecturer/ Assistant Professor	1
2.	Lady Medical Officer	1
3.	Medical Social Workers	2
4.	Public Health Nurse	1
5.	Health Inspectors	2
6.	Health Educator	1
7.	Technical Assistant/Technicians	2
8.	Peon	1
9.	Van Driver	1
10.	Store Keeper	1
11.	Record Clerk	1
12.	Sweepers	2

Note: The Urban and Rural Training Health Centres should be under the direct administrative control of the Dean/Principal of the college.”

[Lt. Col.(Retd.) Dr. A.R.N. Setalvad]  
Secretary  
Medical Council of India

**Foot Note :** The Principal Regulations namely, “Minimum Requirements for 100 MBBS Admissions Annually Regulations, 1999” were published in Part – III, Section (4) of the Gazette of India on the 29<sup>th</sup> April, 1999, vide Medical Council of India Notification No. 35(1)/1998-Med.(ii) dated the 30<sup>th</sup> March, 1999 and amended vide corrigendum dated 24<sup>th</sup> June,1999 and further amended vide Notification dated 20<sup>th</sup> October, 2008.

# MEDICAL COUNCIL OF INDIA

## NOTIFICATION

New Delhi, the 13<sup>th</sup> November, 2009

No. MCI.34(41)/2009-Med./50261. - In exercise of the powers conferred by Section 33 of the Indian Medical Council Act, 1956(102 of 1956), the Medical Council of India with the previous sanction of the Central Government hereby makes the following regulations to further amend the “Minimum Requirements for **150** MBBS Admissions Annually Regulations, 1999” namely:-

1. (i) These regulations may be called the “Minimum Requirements for **150** MBBS Admissions Annually Regulations (Amendment), **2009**”.
- (ii) They shall come into force from the date of their publication in the Official Gazette.
2. In the Minimum Requirements for **150** MBBS Admissions Annually Regulations, 1999, the following **additions / modifications / deletions / substitutions**, shall be as indicated therein:-
3. In Schedule (I), Clause A.1.1 of the “Minimum Requirements for **150** MBBS Admissions Annually Regulations, 1999”, as amended by “Minimum Requirements for **150** MBBS Admissions Annually Regulations (Amendment), **2009**” vide Notification dated 08/07/2009 under the heading ‘CAMPUS’, **shall be substituted** with the following: -

“The medical college or medical institution shall be housed in a unitary campus of not less than 20 acres of land except in metropolitan and A class cities (Ahmedabad, Hyderabad, Pune, Bangalore and Kanpur). However, this may be relaxed in a place especially in Urban areas where the population is more than 25 lakhs, hilly areas, notified tribal areas, North Eastern States, Hill states and Union Territories of Andaman & Nicobar Islands, Daman & Diu & Dadra & Nagar Haveli, where the land shall not be in more than two pieces and the distance between the two pieces shall not be more than 10 kms. The hospital, college building including library and hostels for the students, interns, PGs/Residents and nurses shall be in one piece of land which shall not be less than 10 acres. Other facilities may be housed in the other piece of land. Proper landscaping should be done.

However, in metropolitan cities and “A” class cities (Ahmedabad, Hyderabad, Pune, Bangalore and Kanpur), the permissible FAR/FSI would be the criterion for allowing the medical colleges provided that the total built up area required for adequate infrastructure including medical college, hospital, hostels, residential quarters, and other infrastructure required as per Minimum Standard requirement

Regulations is made available in an area of not less than 10 acres based upon the permissible FAR/FSI allowed by the competent authority.”

**(Lt. Col. (Retd.) Dr. A.R.N. Setalvad)**  
**Secretary**  
**Medical Council of India**

**Foot Note :** The Principal Regulations namely, “Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999” were published in Part – III, Section (4) of the Gazette of India on the 29<sup>th</sup> April, 1999, vide Medical Council of India Notification No. 35(1)/1998-Med.(ii) dated the 30<sup>th</sup> March, 1999 and amended vide corrigendum dated 24<sup>th</sup> June,1999 and further amended vide Notification dated 20<sup>th</sup> October, 2008.

**MEDICAL COUNCIL OF INDIA**  
**AMENDMENT NOTIFICATION**

**New Delhi, the 18<sup>th</sup> January, 2010**

No. MCI.34(41)/2009-Med./66640. - In exercise of the powers conferred by Section 33 of the Indian Medical Council Act, 1956(102 of 1956), the Medical Council of India with the previous sanction of the Central Government hereby makes the following regulations to further amend the “Minimum Requirements for **150 MBBS Admissions Annually Regulations, 1999**” namely:-

1. (i) These regulations may be called the “Minimum Requirements for **150 MBBS Admissions Annually Regulations (Amendment), 2009**”.
- (ii) They shall come into force from the date of their publication in the Official Gazette.
2. In the Minimum Requirements for **150 MBBS Admissions Annually Regulations, 1999**, the following **additions / modifications / deletions / substitutions**, shall be as indicated therein:-
3. In Clause B.2.7 under the heading “DEPARTMENT OF RADIO-DIAGNOSIS” the sub-Clause 1 (a) as amended vide notification dated 08/07/2009 shall be further amended/substituted as under: -  
  
“(a) Room for 300mA, 500mA, 800mA, I.I.T.V. System, fluoroscopy System (36 sq.m.)”

**(Lt. Col. (Retd.) Dr. A.R.N. Setalvad)**  
**Secretary**  
**Medical Council of India**

**Foot Note :** The Principal Regulations namely, “Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999” were published in Part – III, Section (4) of the Gazette of India on the 29<sup>th</sup> April, 1999, vide Medical Council of India Notification No. 35(1)/1998-Med.(ii) dated the 30<sup>th</sup> March, 1999 and amended vide corrigendum dated 24<sup>th</sup> June,1999 and further amended vide Notification dated 20<sup>th</sup> October, 2008, 8<sup>th</sup> July, 2009 & 13<sup>th</sup> November, 2009.



# MEDICAL COUNCIL OF INDIA

## AMENDMENT NOTIFICATION New Delhi, the 30<sup>th</sup> January, 2010

No. MCI.34(41)/2009-Med./70469 - In exercise of the powers conferred by Section 33 of the Indian Medical Council Act, 1956(102 of 1956), the Medical Council of India with the previous sanction of the Central Government hereby makes the following regulations to further amend the “Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999” namely:-

1. (i) These regulations may be called the “Minimum Requirements for 150 MBBS Admissions Annually Regulations (Amendment), 2010”.
  - (ii) They shall come into force from the date of their publication in the Official Gazette.
2. In the Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999, the following **additions / modifications / deletions / substitutions**, shall be as indicated therein:-
3. (i) In Schedule (I), Clause A.1.1 of the “Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999”, as amended by “Minimum Requirements for 150 MBBS Admissions Annually Regulations (Amendment), 2009” vide Notification dated 08/07/2009 under the heading ‘CAMPUS’, seventh line of the amended text of the notification, after the words “more than 25 lakhs”, the following words **shall be added:-**  
“other than the nine cities mentioned in the Clause”
  - (ii) In Schedule (I), Clause A.1.1 of the “Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999”, as amended by “Minimum Requirements for 150 MBBS Admissions Annually Regulations (Amendment), 2009” vide Notification dated 13/11/2009 under the heading ‘CAMPUS’, in the ninth/tenth line of the amended text of the notification, after the words “Dardra & Nagar Haveli”, the words “and Lakshadweep” **shall be added.**

**(Lt. Col. (Retd.) Dr. A.R.N. Setalvad)**  
**Secretary**  
**Medical Council of India**

**Foot Note :** The Principal Regulations namely, “Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999” were published in Part – III, Section (4) of the Gazette of India on the 29<sup>th</sup> April, 1999, vide Medical Council of India Notification No. 35(1)/1998-Med.(ii) dated the 30<sup>th</sup> March, 1999 and amended vide corrigendum dated 24<sup>th</sup> June, 1999 and further amended vide Notification dated 08/07/2009 & 13/11/2009.

MEDICAL COUNCIL OF INDIA  
**AMENDMENT NOTIFICATION**

New Delhi, the 26<sup>th</sup> February, 2010

No. MCI.34(1)/2009-Med./76566. - In exercise of the powers conferred by Section 33 of the Indian Medical Council Act, 1956(102 of 1956), the Medical Council of India with the previous sanction of the Central Government hereby makes the following regulations to further amend the “Minimum Requirements for **150 MBBS Admissions Annually Regulations, 1999**” namely:-

1. (i) These regulations may be called the “Minimum Requirements for **150 MBBS Admissions Annually Regulations (Amendment), 2010**”.
- (ii) They shall come into force from the date of their publication in the Official Gazette.
2. In the Minimum Requirements for **150 MBBS Admissions Annually Regulations, 1999**, the following **additions / modifications / deletions / substitutions**, shall be as indicated therein:-
4. In Schedule (I), after Clause A.1.21, added vide Notification dated 08/07/2009, the following Clause **shall be added**: -  
“A.1.22        A Day Care Center should be established in the medical college with adequate facilities for taking care of the infants and the children of female students/working personnel and patients.”

**(Lt. Col. (Retd.) Dr. A.R.N. Setalvad)**  
**Secretary**  
**Medical Council of India**

**Foot Note :** The Principal Regulations namely, “Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999” were published in Part – III, Section (4) of the Gazette of India on the 29<sup>th</sup> April, 1999, vide Medical Council of India Notification No. 35(1)/1998-Med.(ii) dated the 30<sup>th</sup> March, 1999 and amended vide corrigendum dated 24<sup>th</sup> June, 1999 and further amended vide Notification dated 20<sup>th</sup> October, 2008, 8<sup>th</sup> July, 2009, 13<sup>th</sup> November, 2009, 18<sup>th</sup> January, 2010 & 30<sup>th</sup> January, 2010.

MEDICAL COUNCIL OF INDIA  
**AMENDMENT NOTIFICATION**  
New Delhi, the 26 February, 2010

No. MCI.34(41)/2009-Med./76567. - In exercise of the powers conferred by Section 33 of the Indian Medical Council Act, 1956(102 of 1956), the Medical Council of India with the previous sanction of the Central Government hereby makes the following regulations to further amend the “Minimum Requirements for **150 MBBS Admissions Annually Regulations, 1999**” namely:-

1. (i) These regulations may be called the “Minimum Requirements for **150 MBBS Admissions Annually Regulations (Amendment), 2010**”.
- (ii) They shall come into force from the date of their publication in the Official Gazette.
2. In the Minimum Requirements for **150 MBBS Admissions Annually Regulations, 1999**, the following **additions / modifications / deletions / substitutions**, shall be as indicated therein:-
4. In Schedule (I), Clause A.1.1 of the “Minimum Requirements for **150 MBBS Admissions Annually Regulations, 1999**”, as amended by “Minimum Requirements for **150 MBBS Admissions Annually Regulations (Amendment), 2009**” vide Notification dated 08/07/2009, 13/11/2009 & 30/01/2010 under the heading ‘CAMPUS’, be further amended by inserting the following proviso in Clause A.1.1 in Schedule I : -

“Provided that the built-up area required for the total infrastructure of a medical institute – i.e. college, affiliated teaching hospital and residential complex with regard to amendments in “Minimum Requirements for the Medical College for 150 Admissions Annually Regulations, 1999” as amended in 2008/2009 as shown in separate table appended herewith is made available by the institute in mega cities (Mumbai, Kolkata, New Delhi and Chennai) and ‘A’ class cities (Ahmedabad, Hyderabad, Pune, Bangalore and Kanpur) based upon permissible FAR/FSI allowed by the competent authority in a plot of an area of not less than 10 acres.”

**(Lt. Col. (Retd.) Dr. A.R.N. Setalvad)**  
**Secretary**  
**Medical Council of India**

**Foot Note :** The Principal Regulations namely, “Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999” were published in Part – III, Section (4) of the Gazette of India on the 29<sup>th</sup> April, 1999, vide Medical Council of India Notification No. 35(1)/1998-Med.(ii) dated the 30<sup>th</sup> March, 1999 and amended vide corrigendum dated 24<sup>th</sup> June, 1999 and further amended vide Notification dated 20<sup>th</sup> October, 2008, 8<sup>th</sup> July, 2009, 13<sup>th</sup> November, 2009, 18<sup>th</sup> January, 2010 & 30<sup>th</sup> January, 2010.

## BUILT UP AREA REQUIREMENTS (150 ADMISSIONS)

ITEM DETAIL	NO.	AREA (Sq.m.) ( each)	Total (Sq.m.)	REMARKS
1	2	3	4	5
<b>Administrative Block</b>				
Principal/Dean's office		36	36	
Staff room		54	54	
College council room		80	80	
Officer Superintendent's room		10	10	
Office		150	150	
Record room		100	100	
Common Room - Boys		150	150	
- Girls		150	150	
Cafeteria		300	300	
Central Library		2400	2400	
Lecture Theatres	4	495	1980	180 seating capacity
	1	600	660	350 seating capacity
Auditorium	1	1200	1200	500-700750-1000
Common Laboratories	6	245	1470	
	2	110	220	
Central Research Laboratory	1	100	100	
<b>Department Total</b>			<b>9060</b>	
<b>DEPARTMENTS</b>				
<b>Anatomy</b>				
Demonstration room	2	60	120	Accommodate atleast 75-100 students
Dissection Hall	1	325	325	Accommodate atleast 150 students
Museum		200	200	Accommodate 35 students to study in the museum
<b>Accommodation for Staff</b>				
Professor & Head	1	18	18	
Asso. Prof./ Reader	2	15	30	
Asst. Prof./ Lecturer	3	20	60	
Tutor/Demonstrators	4	15	60	
Department office/ Clerical room	1	12	12	
Non-teaching staff room	1	12	12	
<b>Department Total</b>			<b>837</b>	
<b>Physiology including Bio-physics</b>				
Demonstration room	2	60	120	
<b>Accommodation for Staff</b>				
Profesor & Head	1	18	18	
Asso. Prof./ Reader	2	15	30	
Asst. Prof./ Lecturer	3	20	60	

1	2	3	4	5
Tutor/Demonstrators	4	15	60	
Department office/ Clerical room	1	12	12	
Non-teaching staff room	1	12	12	
<b>Department Total</b>			<b>312</b>	
<b>Biochemistry</b>				
Demonstration room	2	60	120	
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./ Reader	1	15	15	
Asst. Prof./ Lecturer	2	12	24	
Tutor/Demonstrators	4	15	60	
Department office/ Clerical room	1	12	12	
Non-teaching staff room	1	12	12	
<b>Department Total</b>			<b>261</b>	
<b>Pathology</b>				
Demonstration room	2	60	120	
museum	1	90	90	
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./ Reader	3	15	45	
Asst. Prof./ Lecturer	4	12	48	
Tutor/Demonstrators	6	15	90	
Department office/ Clerical room	1	12	12	
Non-teaching staff room	1	12	12	
<b>Department Total</b>			<b>435</b>	
<b>Blood Bank (includes)</b>		<b>100</b>	<b>100</b>	
a) Registration & Medical Examinatin room				
b) Blood Collection room				
c) Room for Laboratory for Blood Group Serology				
d) room for Lab. For Transmissible diseases like Hepatitis, Syphilis, Malaria, HIV antibodies etc.				
e) Sterilisation and washing room				
f) Refreshment room				
g) Store and Records room				
<b>Microbiology</b>				
Service Laboratory	7	25	175	Each for Bacteriology, serology, virology, parasitology, mycology, tuberculosis and immunology
Museum		80	80	
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./ Reader	2	15	30	
Asst. Prof./ Lecturer	2	12	24	
Tutor/Demonstrators	4	15	60	
Department office/ Clerical room	1	12	12	
Non-teaching staff room	1	12	12	
<b>Department Total</b>			<b>411</b>	

1	2	3	4	5
<b>Pharmacology</b>				
Demonstration room	2	60	120	
Museum		125	125	
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./ Reader	2	15	30	
Asst. Prof./ Lecturer	2	12	24	
Tutor/Demonstrators	3	15	45	
Department office/ Clerical room	1	12	12	
Non-teaching staff room	1	12	12	
<b>Department Total</b>			<b>386</b>	
<b>Forensic Med. Including Toxicology</b>				
Demonstration room	2	60	120	
Autopsy Block		400	400	
museum		175	175	
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./ Reader	1	15	15	
Asst. Prof./ Lecturer	2	12	24	
Tutor/Demonstrators	3	15	45	
Department office/ Clerical room	1	12	12	
Non-teaching staff room	1	12	12	
<b>Department Total</b>			<b>821</b>	
<b>Community Medicine</b>				
museum		150	150	
Primary Health Centre/Rural Health Training Centre				
Urban Health Training Centre				
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./ Reader	2	15	30	
Asst. Prof./ Lecturer	3	15	45	
Statistician cum Lecturer	1	12	12	
Epidemiologist cum Lecturer	1	12	12	
Tutor/Demonstrators	4	15	60	
Department office/ Clerical room	1	12	12	
Non-teaching staff room	1	15	15	
<b>Department Total</b>			<b>354</b>	
<b>COLLEGE TOTAL</b>			<b>12977</b>	
<b>Teaching Hospital</b>				
Dean's room		36	36	
Medical Superintendent's room		36	36	
Hospital offices for the supportive staff		150	150	
waiting space for visitors		450	450	
Enquiry Office		50	50	
Reception		400	400	
Store rooms		600	600	

1	2	3	4	5
Central Medical Record Section		250	250	
Linen rooms		500	500	
Hospital & Staff Committee room		80	80	
Central Lecture theatre of gallery type	1	495	495	seating capacity of 200 persons
Central Registration and statistics department		200	200	
Central Laboratories		150	150	
Central Casualty Department (Incl. Minor O.T.)		150	150	
Central Hospital Pharmacy		100	100	
Central Kitchen		200	200	
Incinerating Plant		40	40	

### Common Facilities

**3887**

### Clinical Departments in the Hospital (No. of beds required for 150 admission annual is 750): - beds/units

General Medicine		180/6		
Paediatrics		90/3		
TB & respiratory Diseases		30/1		
DVL		15/1		
Psychiatry		15/1		
General Surgery		180/6		
Orthopedics		90/3		
Ophthalmology		30/1		
ENT		30/1		
Obstetrics	50			
Gynaecology	32			
Postpartum	8	90/3		
<b>Department Total</b>		<b>750</b>	<b>5250</b>	<b>5250</b>

7 Sq.m. per bed (1.5 m distance b/w 2 beds; Bed width 1 m')

### Clinical Departments - Indoor

Accommodation for Nurses Duty room		20	20
Laboratory for routine examinations		15	15
Examination and treatment room		15	15
Ward Pantry		15	15
Store room for linen and other equipments		15	15
Resident Doctors & students duty room		20	20
office for heads of each department & Heads of Units		20	20
room for other unit staff		20	20
Clinical Demonstration rooms (atleast one for each department)		20	20
<b>Total for 25 Wards / 12 Departments</b>			<b>4000</b>

### Operation Theatre Unit

Waiting room for patients		15	15
Preparation room		15	15
Operation Theatre		75	75

1	2	3	4	5
Post-operative recovery room		30	30	
Soiled Linen room		15	15	
Instrument room		15	15	
Sterilisation room		15	15	
Nurses room		20	20	
Surgeion's and Anaesthetist's room	2	20	40	
Assistant's room		20	20	
Observation gallery for students		60	60	
Store rooms		15	15	
Washing room		10	10	
Dressing up room		10	10	
Central Sterilisation Unit		10	10	
Laundry		10	10	
<b>Total for 11 O.T.s</b>	<b>11</b>		<b>4125</b>	

### Labour Room

Waiting room for patients		15	15	
Preparation room		15	15	
Labour Room		100	100	
Post Partum Recovery Room		75	75	
Soiled Linen room		15	15	
Instrument room		15	15	
Sterilisation room		15	15	
Nurses room		20	20	
Surgeion's and Anaesthetist's room		20	20	
Assistant's room		20	20	
Observation gallery for students		30	30	
Store rooms		15	15	
Washing room		10	10	
Dressing up room		10	10	
Eclampsia Room		75	75	
Laundry		10	10	
<b>Total for Labour room</b>			<b>460</b>	

### Radio-diagnosis

Room for 300mA, 500mA, 800mA IITV system, Fluroscopy System		36	36	
Ultrasound room		15	15	
Room for 60mA Mobile X-Ray System		15	15	
Accommodation for CT Scan System		80	80	
Store room		15	15	
Museum		25	25	
Waiting room		40	40	
<b>Department Total</b>			<b>226</b>	

### Anaesthesiology

Accommodation for the Anaesthesia depart. in operation theatres				
Office for HOD & Heads of Units		20	20	



1	2	3	4	5
Accommodation for other unit staff		20	20	
clinical demonstration rooms		20	20	
<b>Department Total</b>			<b>60</b>	
<b>Optional Departments</b>				
Radiotherapy				
Teletherapy Unit		100	100	
Intracavitary Treatment room		50	50	
Endocavitary surface mould therapy room		50	50	
Planning room		50	50	
room for metalling treatment		50	50	
Record room		100	100	
medical physics lab.		50	50	
out patient waiting room		200	200	
indoor beds		200	200	
day care ward for short chemotherapy/ radiotherapy etc.		70	70	
<b>Department Total</b>			<b>920</b>	
Physical Medicine & Rehabilitation		1500	1500	
<b>Clinical Departments - out door</b>		<b>7500</b>	<b>7500</b>	
Waiting/ reception space rooms for patients and attendants				
Enquiry and record room				
Examination rooms & case demonstration				
rooms for each department	4			For each department
Dispensary				
Dressing room in surgery & its specialities				
Refraction rooms, dark rooms, dressing rooms in Ophthalmic dep.				
Plaster room, plaster cutting room etc. in Orthopedics dep.				
Sound proof audiometry room, ENG lab., speech therapy rooms in ENT dep.				
Child welfare, immunization room etc. in paediatrics dep.				
Antenatal, family welfare, sterility, cancer detection clinics in OBG dep.				
Dental Section				
<b>OPD TOTAL</b>			<b>7500</b>	
<b>HOSPITAL TOTAL</b>			<b>26428</b>	
<b>Residential Quarters / Hostels</b>				
Qtrs. @ 20% teaching (20% of 146 = 30)		200	6000	
Qtrs. @ 20 % Non teaching (20% of 200 = 40)		100	4000	
Nurses @ 20% (20% of 330 = 66)		100	6600	
Residents @ 100% = 115		20	2300	
Interns @ 100%		1500	1500	
Hostels for 563 students(i.e. @75% of 750)		10	6000	
<b>TOTAL RESIDENTIAL COMPLEX</b>			<b>26400</b>	
<b>TOTAL</b>			<b>65805</b>	
ADD 15%			9871	
<b>GRAND TOTAL</b>			<b>75676</b>	