MINIMUM STANDARD REQUIREMENTS FOR THE MEDICAL COLLEGE FOR 50 ADMISSIONS ANNUALLY REGULATIONS, 1999



(AMENDED – UP TO MARCH 2014)

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MEDICAL COUNCIL OF INDIA New Delhi, dated the 30th March 1999

No. MCI 35(1)98-med (ii) 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. (i) Short title and commencement: (1) These regulations may be called the "Minimum requirements for 50 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 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 50 M.B.B.S admissions annually shall have the following departments, namely :-
 - (1) HUMAN ANATOMY
 - (2) HUMAN PHYSIOLOGY*

* As per the terms of Notification published on 15.07.2009 in the Gazette of India DELETED "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 *
- (iii) * As per the terms of Notification published on 15.07.2009 in the Gazette of India DELETED "Including Paediatric Surgery"

4. Every Medical college and Medical institution and its associated teaching hospitals for 50 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 OR MEDICAL INSTITUTION 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 (For the medical colleges/Institutions established upto 30.11.2008).

The medical college or medical institution shall be housed in a unitary campus of not less than 25 acres of land. However, this may be relaxed in a place especially in Urban areas where the population is more than 25 lakhs, hilly areas, and notified tribal areas 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 otherpiece of land. Proper landscaping should be done. (For the medical colleges/Institutions established from 01.12.2008 to 12.11.2009).

* Companies registered under Company Act may also be allowed to open medical colleges. Permission shall be withdrawn if the colleges resort to commercialization.

* As per the terms of Notification published on 15.07.2009 in the Gazette of India.

*The medical college or medical institution shall be housed in a unitary campus of not less than 20 acres of land except in metropolitan (New Delhi, Mumbai, Kolkata & Chennai) 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, (**other than the nine cities mentioned in the Clause), hilly areas, notified tribal areas, North Eastern States, Hill states and Union Territories of Andaman & Nicobar Islands, Daman & Diu & Dadra & Nagar Haveli, *and Lakshadweep, 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 (New Delhi, Mumbai, Kolkata & Chennai) 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 built up area required for total infrastructure of a medical institute i.e., affiliated teaching hospital, residential complex, with regard to amendment in 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.

- * As per the terms of Notification published on 13.11.2009 in the Gazette of India.
- ** As per the terms of Notification published on 02.02.2010 in the Gazette of India.

*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 50 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. (APPENDIX -I)

* As per the terms of Notifications published on 26.02.2010 in the Gazette of India.

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.), separate common room for Male and Female students with attached toilets (*50 Sq.m.each), cafeteria (*100 Sq.m.)."

*As per the terms of Notification published on 15.07.2009 in the Gazette of India. "Examination Hall 200 Sq.m.) has been "DELETED".

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 four 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 an air-conditioned Central Library (1000 Sq.m) with seating arrangement for at least 100 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 50 students inside and one room for 50 students outside. It should have

not less than 5000 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 15 persons;
- b. Rooms for librarian and other staff;
- c. Journal room;
- d. Room for copying facilities;
- e. Video and Cassette room;
- f. Air-conditioned Computer room with Medlar and Internet facility with minimum of 15 nodes.

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

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

A.1.5 Lecture theatre

* There shall be a minimum of three lecture theatres preferably air conditioned, of gallery type in the Institution out of which two will be of seating capacity for 80 students and one will be of capacity for 150 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.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

A.1.6 Auditorium/Examination Hall:

* Auditorium/Examination Hall (Multi-purpose):

There shall be an auditorium-cum-examination hall of 500 sq.m. area in not more than three levels.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

A.1.7 Central Photographic Section:

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 Modelers. 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:

*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.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

*For teaching Physiology and Pharmacology in UG curriculum, the required knowledge and skills should be imparted by using computer assisted module. Only an animal hold area, as per CPCSEA Guidelines is required.

*As per the terms of Notification published on 19.03.2014 in the Gazette of India.

A.1.10 Central Incineration Plant:

*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.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

A.1.11 Gas Plant: "DELETED" as per the terms of Notification published on 15.07.2009 in the Gazette of India.

A1.12 Statistical Unit: "DELETED" as per the terms of Notification published on 15.07.2009 in the Gazette of India.

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 beep 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 play ground 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 (men and women), technical and other staff in all sections as required. *Arrangements must be made so that plumbers are available round the clock.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

*A.1.19 There shall be 6 laboratories (100 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 60 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; Heamatology 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. Each medical college shall have Pharmaco-Vigilance Committee.

*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.

*A1.21 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.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

The following clause to be added, as under:

*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.

*As per the terms of Notification published on 26.02.2010 in the Gazette of India.

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 (30 sq.mt.each) fitted with strip chairs, Over Head Projector, Slide Projector, Television, Video and other audiovisual aids, so as to accommodate at least 25 to 30 students.
- (C) Dissection Hall There shall be a dissection hall (175 sq.mt.) to accommodate at least 50 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 five 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 2 storage tanks (one of 3 sq.m. & one of 1.5 sq.m. each) and cold storage room with space for 6-8 dead bodies (18 sq.m.area) or cooling cabinets.
- (D) Histology- There shall be Histology Laboratory (100sq.mt.) with accommodation for work benches fitted with water taps, sinks, cupboards for microscope storage and electric points for 30 students. There shall be a preparation room (18 sq. mt.) for technicians and storage of equipment.
- (E) Research- There shall be one research laboratory (50sq.m.area) for research purposes.
- (F) Museum-There shall be a museum (100sq.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 trolly tables, X-ray view boxes shall be multistand type to take 4 plates standard size 3 boxes (3view boxes for 50 students). Adequate seating accommodation for 15 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 (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.

- (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-one rooms (15 Sq.m.area);
 - 3. Asstt. Professor/Lecturers (Two)-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

- (A) Lecture Theatre as per item A.1.5
- (B) Demonstration Room-There shall be one demonstration room (30 sq.mt.) fitted with strip chairs, Over head Projector, Slide Projector, Television, Video and other audiovisual aids, so as to accommodate at least 25-30 students.
- (C) Practical rooms- The following laboratories with adequate accommodation shall be provided to accommodate 30 students.
 - (i) Amphibian laboratory (one)-(100 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 and steam proof top. One preparation room (14 Sq.m. area) shall be provided with the amphibian laboratory.
 - (ii) Mammalian laboratory (one)-(40 Sq.m.area) shall be provided with two tables (2mx0.6m,) 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. On preparation room (14 sq.m. area) shall be provided with the Mammalian laboratory.
 - (iii) Human Laboratories:
 - a) Haematology Lab. (100 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 (40 Sq.m.area) provided with 6 tables (height 0.8 m.) with mattresses and adjustable head-end.

(D) 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.

- (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-One rooms (15 Sq.m.area);
 - 3. Asstt. Professor/Lecturers (one)-One room (15 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)

(3) DEPARTMENT OF BIOCHEMISTRY

- (A) Lecture theatre As per item A.1.5
- (B) Demonstration Room-There shall be one demonstration room (30 sq.mt.) fitted with strip chairs, Over head Projector, Slide Projector, Television, Video and other audiovisual aids, so as to accommodate at least 25-30 students.
- (C) Practical class room-

There shall be a laboratory (100 Sq.m.) with benches fitted with shelves and cupboards, water taps, sinks, electric and gas connections so as to accommodate 40 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 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, namely:-
 - 1. Professor & Head of the Department- (18 Sq.m.area);
 - 2. Associate Professor/Reader-One rooms (15 Sq.m.area each);
 - 3. Asstt. Professor/Lecturers (Two)-One room (12 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 (12 sq.m. area)

(4) DEPARTMENT OF PATHOLOGY

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

- (B) Demonstration room-There shall be one demonstration room (25 Sq. mt.) fitted with Over Head Projector, Slide projector, Television Video and other audiovisual aids, to accommodate at least 25-30 students.
- (C) There shall be Practical Laboratories for Morbid Anatomy and Histopathology / Cytopathology (100 Sq.mt.area) and for clinical pathology/Haematology (100 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 40 students to carry out exercises.
- (D) There shall be a separate service laboratory each (25 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 (60 Sq.mt.) for specimens, charts, models with a sitting capacity of atleast 15 students. All the specimens shall be labelled and at least 5 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 10-15 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 books 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:
 - 1. Professor & Head of the Department- (18 Sq.m.area);
 - 2. Associate Professor/Reader-One room (15 Sq.m.area);
 - 3. Asstt. Professor/Lecturers -One room (14 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 (12 sq.m. area)

(J) BLOOD BANK

There shall be an airconditioned 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, syphillis, 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, 1945 amended from time to time.

(5) DEPARTMENT OF MICROBIOLOGY

- (A) Lecture Theatre-as per item A.1.5.
- (B) Demonstration room-There shall be one demonstration room (30 Sq. mt.) fitted with strip chairs, Over Head Projector, Slide projector, Television Video and other audiovisual aids, to accommodate at least 25-30 students.
- (C) Practical laboratory There shall a practical laboratory (100 sq. mt. Area) with benches fitted with shelves, cupboards, sinks, water taps, light for microscopy and burners for 40 students (100 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 25 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 (40 Sq. mt.) for specimens, charts, models, with a seating capacity of at least 15 students. All the specimens shall be labelled and atleast 5 copies of catalogue 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/Lecturer One room (12 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 (12 sq.m. area)

(6) DEPARTMENT OF PHARMACOLOGY

- (A) Lecture theatre As per item A.1.5
- (B) Demonstration room-There shall be one demonstration room (30 sq.mt.area) fitted with strip chairs, Over Head Projector, Slide projector, Television Video and other audiovisual aids, to accommodate at least 25-30 students.
- (C) Practical laboratories There shall be a practical laboratory with accommodation for 25-30 students for the following, namely:
 - i) Experimental Pharmacology (100 Sq.m. area) with ante-room (14 Sq. m. area for smoking and varnishing of kymograph papers.
 - ii) Clinical pharmacology and pharmacy (100 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 (75 sq.mt.) for specimens, charts, models, with a separate section depicting "History of Medicine", with a seating capacity of at least 15 students. All the specimens shall be labeled and at least 5 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 anyone books 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-One room (15Sq.m. area);
 - 3. Asst. Professor/Lecturers- One room (12 sq.m. area)
 - 4. Tutors/ 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

(7) DEPARTMENT OF FORENSIC MEDICINE INCLUDING TOXICOLOGY

- (A) Lecture theatre- As per item A.1.5.
- (B) Demonstration room There shall be one demonstration room (30 sq.mt.) fitted with strip chairs, Over Head Projector, slide projector, Television, Video and other audiovisual aids, to accommodate at least 25-30 students.
- (C) There shall be a museum (100 Sq.m. area) to display medico-legal specimens charts, models, prototype fire arms, wax models, slides, poisons, photographs etc. with

seating arrangements for 15-20 students. All the specimens shall be labelled and at least 5 copies of catalogues for student use be provided.

- (D) There shall be a laboratory (100 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 15-20 students, waiting hall, office etc. The location of mortuary/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-One Room (15 Sq.m.area);
 - 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 room (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 one demonstration room (30 sq.mt.) fitted with strip chairs, Over Head Projector, Slide projector, Television Video and other audio-visual aids, to accommodate at least 25-30 students.
- (C) There shall be a laboratory (100 Sq.m.area) with facilities for purposes of demonstration of various laboratory practicals.
- (D) Museum-There shall be a museum (75 Sq.m.area) for the display of models, charts, specimens and other material concerning communicable diseases, Community Health, Family Welfare planning, Biostatics, 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-One Room (15 Sq.m.area);
 - 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-One room (15 Sq.m.area)
 - 7. Department office cum Clerical room one room (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** 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 Paediatrics 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.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

The first para shall be substituted, as under:

A functional teaching hospital with 300 beds having a minimum of 60% bed occupancy shall be available at the time of submission of application to Medical Council of India, at the time of inception of the hospital by the Medical Council of India and upto 2^{nd} renewal of the medical college.. There shall be minimum of 75% bed occupancy at the time of inspection for third renewal and thereafter for subsequent renewals and recognition.

*As per the terms of Notification published on 03.11.2010 in the Gazette of India.

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 Paediatrics 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.

- **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 Suprintendent's room and office, waiting space for visitors, *along with computer and internet facility in each department. There shall also be accommodation for:
 - a) Enquiry office,
 - b) Reception area (300 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 (150 Sq.m.)
 - e) Linen Rooms.
 - f) Hospital and Staff Committee room (50 Sq.mt.)

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

B.1.3 One Central lecture theatre of gallery type with a seating capacity of 100 persons and audio-visual aids shall be provided in the hospital, * in addition to those in medical college/institution.

*As per the terms of Notification published on 15.07.2009in the Gazette of India.

- **B.1.4** Central Registration and statistics department with computer facilities shall be provided.
- **B.1.5** Intercom network along with 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 * etc.

* DELETED - Registrar As per the terms of Notification published on 15.07.2009 in the Gazette of India.

B.1.7 *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.

*As per the terms of Notification published on 15.07.2009in the Gazette of India.

B.1.8 Indoor beds occupancy-Average occupancy of indoor beds shall be a minimum of 75% per annum.

* Provided that it shall be minimum 50% at the time of inception which shall be increased to minimum of 60% for subsequent annual renewals and recognition for a college having annual intake of 50 students in North Eastern States and Hill States, on assessment **notified Tribal Areas, Union Territories of Andaman & Nicobar Island, Daman & Diu, Dadra & Nagar Haveli and Lakshadweep.

- * As per the terms of Notification published on 13.11.2009 in the Gazette of India.
- ** As per the terms of Notification published on 02.02.2010 in the Gazette of India.

*******The above clause shall be substituted with the following:

Provided that it shall be minimum 50% at the time of inception which shall be increased to minimum of 60% for subsequent annual renewals and recognition for a college having annual intake of 50 students in North Eastern States and Hill States, on assessment.

*** As per the terms of Notification published on 03.11.2010 in the Gazette of India.

B.1.9 Clinical Departments in the Hospital.

*Requirement of Beds and units:

The number of beds required for 50 admissions annually is 300. They may be distributed for the purposes of clinical teaching as under, namely: -

(i) MEDICINE AND ALLIED SPECILITIES:-

No	or of beds and units required
	Beds/units
1. General Medicine	72/3
2. Paediatrics	24/2
3. Tuberculosis and Respiratory Diseases	8/1
4. Dermatology, Venerealogy and Leprosy	8/1
5. Psychiatry	<u>8/1</u>
	120/8

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 Disease.

(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 and units required

1.	General Surgery	90/3
2.	Department of Orthopaedics	30/2
3.	Department of Ophthalmology	10/1
4.	Oto-Rhinolaryngology	<u>10/1</u>
		140/7

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

(iii) OBSETETRICS AND GYNAECOLOGY

(iv)

No. of beds and units required

GRAND TOTAL	300/17
	40/2
2. Gynaecology	15
1. Obstetrics	25

- 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 specialty depending upon their patients load.

*As per terms of Notification published on 03.11.2010 in the Gazette of India.

- ***B.1.10** Dean, Medical Superintendent and each department shall have independent computer and printer facility.
- **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.

*As per terms of Notification published on 15.07.2009 in the Gazette of India.

2. CLINICAL DEPARTMENTS-INDOOR

- **B.2.1.** *The following accommodation shall be available with each ward, namely:
 - 1. Accommodation in a General Ward shall not exceed 30 patients hall 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.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

B.2.2. *The following additional accommodation shall be provided for each of the departments.

- 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. **Departmental Library-cum-Seminar room (30sq.mt.) with a seating capacity of 50 students DELETED as per the terms of Notification published on 15.07.2009in the Gazette of India.
- 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.

*,**As per the terms of Notification published on 15.07.2009 in the Gazette of India.

B.2.3. Research Laboratories; DELETED as per the terms of Notification published on 15.07.2009 in the Gazette of India.

B.2.4. OPERATION THEATRE UNIT :

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

- 1. Waiting room for patients.
- 2. *Pre-anaesthetic/preparation room at least 4 beds.
- 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.

*One such units may be provided for General Surgery, for ENT; for Orthopaedics; for Ophthalmology and for Obstetrics & Gynaecology and 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.

* As per the terms of Notification published on 15.07.2009 in the Gazette of India.

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 sterilize, 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.

*The physical facilities for housing the laundry equipment shall be provided in the campus. However, services can be handed over the any agency but with overall supervision of Hospital Administrator.

* As per the terms of Notification published on 15.07.2009 in the Gazette of India.

B.2.7. * 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, Fluroscopy System (36 sq.m.).

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

Subclause I (a) shall be further amended/substituted as under:

*a) Room for 300mA, 500mA, 800mA, I.I.T.V. System, Fluoroscopy System (36 Sq.m.)

* As per the terms of Notification published on 02.02.2010 in the Gazette of India.

(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 Stablizer shall be provided. The total area requirement is 80 sq.m.
- (e) There shall be preferable a Magentic 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.

B 2.8 DEPARTMENT OF ANAESTHESIOLOGY

Accommodation for the department of Anaesthesia shall 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 one 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), intracavitory treatment room (50 sq.m.area) interstitial, endocavitory, surface mould therapy room (50 sq.m.area), planning room (50 sq.m.area), rooms for metalling treatment planning equipments, mould room (50 sq.m.area), record room (100sq.m.area), medical physics laboratory (50sq.m.area) outpatient waiting room (200 sq.m.area), indoor beds (at least 20 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 1500-2000 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 (1500 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 plant 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 3.2** Reception and Waiting Hall for Patients.
- **B. 3.3.** A seminar room for students.

B.4 CENTRAL LABORATORIES:

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

B.5 CENTRAL CASUALTY DEPARTMENT:

(a) 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 fifteen 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) 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 10. ICU should be located near casualty. These shall be functional at the time of inception of the college.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

B.6 CENTRAL HOSPITAL PHARMACY

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

The following to be added, as under:

1. Space Requirement -

Dispensary: 2000 Sq.ft. (It should include all areas of dispensing services available in wards and OPDs, patient counseling, Inventory, staff and all stores).

Drug and poison information services

They are being provided by the Pharmacology Department as a part of MBBS curriculum & should be continued as such.

2. <u>Staff requirement</u> –

As per existing Regulations of Minimum Standard Requirements for the Medical College for 50 Admissions Annually Regulations, 1999 under point number B6 "Central Hospital Pharmacy" – the Incharge of central hospital pharmacy should be a qualified pharmacist. He should be preferably B. Pharma from a recognized university/D.Pharma from a recognized body. He/she may be Head of the central hospital pharmacy and should work under the supervision of Medical Superintendent.

Other staff certified by statutory authorities should be available to dispense the drugs.

3. Infrastructural Requirements (Numbers may vary as required) -

Refrigerators	:	<i>02</i>
Tables	:	10
Chairs	:	15
Dispensing tables (2x8 ft)	:	05
Computers(depending on the need)	:	05
Computer chairs	:	05
File cabinets	:	<i>02</i>
Text book racks	:	<i>02</i>
Computer tables	:	05
Telephone facilities		
Printing facilities		
Internet facilities (high speed)		

The above numbers are minimum requirement. However the actual number may vary as per requirement of the hospital.

4. <u>Resources required for Drug information</u>

Pharmacopoeias/National Formularies & important text books & journals should be available in Central library as per recommendation of Prof. & HOD, Pharmacology Department.

*As per the terms of Notification published on 26.02.2010 in the Gazette of India.

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/*HOSPITAL WASTE MANAGEMENT

*Facilities for hospital waste management, commensurate with the State Regulatory Authorities etc. shall be provided.

*As per the **terms of Notification published on 15.07.2009 in the Gazette of India**.

B.9 CENTRAL DISINFECTION PLANT: DELETED as per the terms of Notification published on 15.07.2009 in the Gazette of India.

B10 STAFF QUARTERS

B 10.1 *There shall be sufficient number of quarters for covering 100 per cent of the total Sr. Residents and Jr. Residents as required.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

B10.2 *There shall be sufficient number of quarters for covering at least 20% each of the Nurses, teaching and non-teaching staff.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

B 11 CENTRAL HOSPITAL STORES

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

B 12 HOSTELS FOR STUDENTS

*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.

*As per the **terms of Notification published on 15.07.2009 in the Gazette of India**.

SCHEDULE - II STAFF REQUIREMENTS

A. GENERAL REMARKS:

- 1. Emphasis in medical education being on practical instruction and demonstration in small groups. The number of teachers must be as per provisions of this Schedule adequate to enable such instruction to be imparted effectively.
- 2. The teaching staff of all departments of medical college, shall be full-time.
- 3. *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.

*As per the terms of Notification published on 15.07.2009 in the Gazette of India.

- 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.
- In department of anatomy, Physiology, Biochemistry, Pharmacology and 5. 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 nonclinical departments, relaxation upto the Head of the department may be given to nonmedical 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 However, a non-medical person cannot be appointed of India. 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 recognized 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

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

(2) DEPARTMENT OF PHYSIOLOGY

Staff Strength Required

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

(3) DEPARTMENT OF BIOCHEMISTRY

Staff Strength Required

1	Professor	1
2	Assoc. Prof./Reader	1
3	Asstt. Prof. /Lecturer	1
4	Tutors/Demonstrators	2
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

Staff Strength Required

1	Professor	1
2	Assoc. Prof. /Reader	1
3	Asstt. Prof. /Lecturer	2
4	Tutors/Demonstrators	3
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

Staff Strength Required

1

Professor

2	Assoc. Prof. /Reader	1
3	Asstt. Prof. /Lecturer	1
4	Tutors/Demonstrators	2
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

Staff Strength Required

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

(7) DEPARTMENT OF FORENSIC MEDICINE

Staff Strength Required

1	Professor	1
2	Assoc. Prof. /Reader	
3	Asstt. Prof. /Lecturer 5	1*
4	Tutors/Demonstrators	1
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: In case of postmortem work of more than 500 annually, two additional Tutors/Demonstrators shall be provided.

*As per the **terms of Notification published on 03.11.2010 in the Gazette of India.**

(8) DEPARTMENT OF COMMUNITY MEDICINE

Staff Strength Required

Professor	1
Assoc. Prof. /Reader	1
Asstt. Prof./Lecturer	1
Epidemiologist-cum-Assistant Professor	1
Statistician-cum-Assistant Professor	1
Tutors/Demonstrators	2
Medical Social Worker	1
Technical Asstt./Technicians	1
Stenographers	1
	Assoc. Prof. /Reader Asstt. Prof./Lecturer Epidemiologist-cum-Assistant Professor Statistician-cum-Assistant Professor Tutors/Demonstrators Medical Social Worker Technical Asstt./Technicians

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.

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.
- A Unit shall have not more than 30 beds in its charge. However, in departments of 3. Tuberculosis & respiratory diseases, Dermatology, Veneralogy & 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.
- The minimum staff complement of each unit shall consist of the following, namely:-4.
 - (a) Professor/Reader 1 1
 - (b) Lecturer.

(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:		3/72
		Staff strength required
1.	Professor	1
2.	Associate Professor/Reader	2
3.	Assistant Professor/Lecturer	3
<i>4</i> .	Sr. Resident*	5**
5.	Junior Residents	9

*With three years Resident experience.

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

(b) TUBERCULOSIS & RESPIRATORY DISEASES

No. of units/beds:		1/8
		Staff strength required
1.	Professor	1
2.	Assistant Professor	1
<i>4</i> .	Sr. Resident*	2**
5.	Junior Residents	3

* With three years Resident experience.

As per the **terms of Notification published on 04.11.2010 in the Gazette of India.

(c) DERMATOLOGY, VENEREOLOGY & LEPROSY

No. of units/beds:	1/8
	Staff strength required
1. Professor/	1

1.	110103301/	1
2.	Assoc.Prof./Reader	
3.	Asst.Prof./Lecturer	1

<i>4</i> .	Tutor / Registrar/Sr. Resident*	2**
5.	Junior Residents	3

* With three years Resident experience.

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

(d) **PSYCHIATRY**

No. of units/beds:

1/8 Staff strength required

1.	Professor/	1
2.	Assoc.Prof./Reader	
3.	Asst.Prof./Lecturer	1
<i>4</i> .	Tutor/Registrar/Sr. Resident*	2**
5.	Junior Residents	3

* With three years Resident experience.

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

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

(3) DEPARTMENT OF PAEDIATRICS

No. of units/beds:	2/24
	Staff strength required

1.	Professor/	1
2.	Assoc.Prof./Reader	1
3.	Asst.Prof./Lecturer	2
<i>4</i> .	Tutor / Registrar/Sr. Resident*	3**
5.	Junior Residents	6

The following ancillary staff shall be provided.

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

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

(4) DEPARTMENT OF GENERAL SURGERY

No. of units/beds:		3/90 Staff strength required
1. 2.	Professor Associate Professor/Reader	1
2. 3.	Assistant Professor/Lecturer	3
<i>4</i> .	Sr. Resident*	5**
5.	Junior Residents	9

* With three years Resident experience.

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

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:		2/30
		Staff strength required
1.	Professor/	1
2.	Assoc.Prof./Reader	1
3.	Asst.Prof./Lecturer	2
<i>4</i> .	Tutor / Registrar/Sr. Resident*	3**
5.	Junior Residents	6

* with three years resident experience.

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

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-LARYGOLOGY

No. of units/beds:

1/10 Staff strength required

1.	Professor	1
2.	Assoc.Prof./Reader	
3.	Asst.Prof./Lecturer ∫	1
<i>4</i> .	Tutor / Registrar/Sr. Resident*	2**
5.	Junior Residents	3

* with three years resident experience.

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

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. o	f units/beds:	1/10
		Staff strength required
4		1
1.	Professor	1
2.	Assoc.Prof./Reader	1
3.	Asst.Prof./Lecturer	
<i>4</i> .	Tutor / Registrar/Sr. Resident*	2**
5.	Junior Residents	3

* with three years resident experience.

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

The following ancillary staff shall be provided.

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

(8) DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

No. of units/beds:		2/40 Staff strength required
1.	Professor/	1
2.	Assoc.Prof./Reader	1
3.	Asst.Prof./Lecturer	3*
4.	Tutor / Registrar/Sr. Resident*	3**
5.	Junior Residents	6

* with three years resident experience.

*As per the **terms of Notification published on 03.11.2010 in the Gazette of India.** **As per the **terms of Notification published on 04.11.2010 in the Gazette of India.**

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

Staff Strength Required

1. 2.	Professor Associate Professor/Reader	1
3.	Assistant Professor/Lecturer	1*
<i>4</i> .	Sr. Resident*	3**
5.	Junior Residents	1
6.	Radiographic technicians	8
7.	Dark room assistant	4
8.	Stenographers	1

9.	Storekeeper	1
10.	Record clerk	1

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(10) DEPARTMENT OF RADIO-THERAPY (OPTIONAL)

	1	Staff Strengt	th Required
1.	Professor	-	1
2.	Assoc.Prof./Reader		1
3.	Asst.Prof./Lecturer		2
4.	Tutors/Registrars		3
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.	Associate Professor/Reader	1
3.	Assistant Professor/Lecturer	2
<i>4</i> .	Sr. Resident*	5**
5.	Junior Residents	2

* with three years resident experience.

**As per the terms of Notification published on 04.11.2010 in the Gazette of India.

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.	Assoc.Prof./Reader	
3.	Asst.Prof.Lecturer	1

4.	Senior Residents	2
5.	House Surgeon/Junior Resident	1
The st	aff 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
11.	Stenographer	1
12.	Record Clerk	1
13.	Store keeper	1
14.	Class IV workers	4

(13) **DEPARTMENT OF DENTISTRY**

Staff Strength required

1.	Professor/	1
<i>2</i> .	Assoc.Prof./Reader	
<i>3</i> .	Asst.Prof./Lecturer	1*
<i>4</i> .	Tutor/Registrar/Sr. Resident	2**
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.

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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 (Principal/Dean)	1
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. BLOOD 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, namely:

RECOMMENDED NORMS FOR HOSPITAL NURSING SERVICE

(STAFF)		(TEACHING HOSPITAL)
Staffing:	 Nursing Superintendent Deputy Nursing Superintendent Asstt. Nursing Superintendent (ANS) 	1 (for minimum of 150 beds) 1 1

(for every additional 50 beds one more Assistant Nursing Superintendent)

	Staff Nurse	Sister	Department Sister/Assistant Nursing Superintendent
Medical Ward.	1:3	1:25	each Shift 1 For3-4 wards
Surgical Ward Orthopaedic ward Paediatric ward Gynaecology ward Maternity ward (Including new borns	1:3 1:3 1:3 1:3 1:3	1:25 1:25 1:25 1:25 1:25	,, -do- ,, -do- ,, -do- ,, -do- ,, -do-
Intensive Care Unit	1:1 (24 Hrs.)	1 each shift 1 I	Departmental Sister/ANS for 3- 4 units.
Coronary Care Unit	1:1	1 each shift	
Special wards Eye, 1 ENT etc.	:1 (24 hrs.)	1 each shift	1 Departmental Sister / Assistant Nursing Superintendent for 4 – 5 Operation Theatres
Operation Theatre	3 for 24 hrs. per table	1 each shift	
Casualty & Emergency Unit	2 - 3 S.N. depending on the no. of beds	1 each shift	1 Departmental – 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:

- 1. Needs may vary from hospital to hospital depending on the size of hospital and service rendered more staff than anticipated will be required.
- 2. Special attention is needed for supervision of patient care on the evening and night shift.
- 3. 30% leave reserve is suggested because nurses get 2 off, 30 Earned Leave and 12Casual 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.

- 4. 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.
- 5. Pharmacists: As required for Hospital.
- 6. 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 50 (admissions)
Table with marble tops or stainless steel tops 6'1" x 2' x3'	10
Tables with marble tops or stainless steel,	
Half standard size.	2
Drill machine	2 2
Hand saw	
Band saw for sectioning body and limbs	1
Stools, preferably metal	30
Brain knife	3
Mortuary cooler with arrangement to keep	
at least 8 bodies or suitable alternative arrangement.	1/2
Storage tank to hold 10 cadavers, made of	
concrete with copper lid.	1
Plastic tanks for storing soft and dissected parts.	5
Trolly Table (Steel, Light).	3
Projectors including overhead projectors	2 + 2
X-ray Viewing lobby.	2
Charts, Diagrams, Models, Slides etc.	As required
Dissecting instruments	As required
Meat cutting machine for thin body sections	
(trans and vertical) for gross anatomy sectional study	1

FOR

(b) APPARATUS AND INSTRUMENTS FOR HISTOLOGY

Microscopes, Monocular	30
Dissection microscope	5
Microtomes, rotary	2
Microtomes, Sledge, large cutting	1
Cabinet for slides (1000)	6
Incubators	1
Paraffin embedding bath	1
Hot plates for flattening sections	2
Hot air cover fro drying slides $(45^{\circ}C)$	1
Balance Analytical capacity 200 grms.	
and Sensitivity 1/10 mg.	1
Balance Earanger capacity 6 kilos Sensitivity, 1/5 gram	2
Refrigerators	2
Distilled water still menesty type capacity gallon	
per hour	2
Diamond pencils	4
7 colours marking pencils	2
Anatomy Museum	

Skeletons articulated Bones (Dis-articulated) sets	5 10
Specimen jars	As required
Racks steel Embalming machines for cadavers	As required 2

Computer for keeping student records, marks, stores etc.

(2) DEPARTMENT OF PHYSIOLOGY

(a) Office table, small and big, office chairs, museum almirahs, study table, staff room and library almirahs, stock almirahs, store room racks, laboratory benches with cupboards and racks for reagent set up for experimental physiology including Sherrington Starling Kymograph (Presferably electrically driven) Myograph stand, inductorium, simple key short circulating key, pohl's commutator, vibrating interrupter, Muscle through, Muscle liver, Muscle grip of femur clamp, Hook and weight set, heart liver, frog board for dissection, enamel tray for above, frog board cork-lined with 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 50 (admissions)

Electric time makers, 100/sec. Tuning fork, time marker, 100/sec.	4 4
Electrodes, X-blocks, burrette 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 Dale's bath for internal organ	3 6
Isolated Organs. Bath for students complete with liver etc.	6
Animal Weighing Machine, for small and big animals (for each) Mary's Tambour	1 10
Venus and arterial canula (different sizes) (each) Smoking outfit, with fume cupboard	10 1
Varnishing outfit, for long and short papers	1
Anaesthesia boxes.	1
Surgical instruments for operative procedures, syringes, pulleys, etc.	As required
(c) HUMAN AND OTHER EXPERIMENTS:	
Microscopes, Oil immersion Demonstrations eye piece Double Demonstration eye piece Stage incubator Wastergen's Pipettes for E.S.R. on Stand (with space pipettes) Perimeter Priestly Smith S/LP.984 B & T 4	20+4 2 2 1 10

Haemogiobinometer, Sahil or hellige (with spaces) Haemocytometers Sphygmomanometer Stethoscopes	20 20 6 6
Stethoscopes, Demonstration with Multipleear pieces Polygraphs Venus Pressure apparatus	2 1 1
Spirometer, Ordinary	4
Gas analysis apparatus, Haldane's students type	1
Van Slyko's apparatus manometric	1
Gas analyzer – automatic for CO^2 , O^2 , N^2 Douglas bag, complete	1 4
Basal metabolism apparatusa Erogograph Mosse's Clinical thermometer Compas Thermanaesthesiometer Algometer Apparatus for passive movement Knee hammer Stethograph Bicycle ergometer Olfactometer Olfactometer Opthalmoscope Schematic eye Phakoscope Perimeters, with charts Colour percetion lantern Edridge Green Maddox rod Newtons colour wheel	$ \begin{array}{c} 1 \\ 4 \\ 10 \\ 10 \\ 1 \\ 1 \\ 1 \\ 5 \\ 5 \\ 2 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$
Tuning forks to test hearing 32-10,000 cps (sets) Dynamometer Otorhinolaryngoscope Steriliser Electric Instrument trolley Stop watches	1 1 1 2 1 4

GENERAL

Physiograph, 3 channels, complete with accessories

1

Physiograph, single channel, with accessories	4
Centrifuge, high speed with technometer etc.	1
Calorimeter, photo-electric	1
pH meter, electric	1
Refrigerator, 9-10c ft.	1
Oxygen Cylinder with trolley	4
Co cylinder with trolley	1
Electronic stimulator	1
Water distillation still, with spare heating elements	1
All glass distillation apparatus double stage	1
Voltage stabilizer	2
Stepdown transformers	1
Thermometers, balances, microslides and glassware	As required

(3) DEPARTMENT OF BIOCHEMISTRY

Fume cupboards	2
Boiling Water baths, with lids having	8-12
Holes	4
Autoclave electric	2
Balance open pan	4
Balance semi micro	1
Balance micro	1
Votex mixers	2
Urinometers	25
Constant temperature water bath	2
Ryles tube	2
Incubator electric with thermostat	2
Hot air oven	2
Magnetic stirrer	2
Pump vaccum	1
Calorimeters	3
Refrigerators	2
Flame Photometer	1
Thermometers 0-250°C	2
Thermometers 0-110 ^o C	2
Cork borer set	1
Stop watch	2
Spirit lamp	25
Chromatographic chamber	2
Water distillation plant (metallic)	2 2
All glass distillation apparatus	
Desicators large size	4
Desicators small size	4
Centrifuge clinical for 12 tubes	4
PH meters	2

Homogeniser Microscopes	2 4
Ultra Violet (U.V.) lamp	1
Tools for small workshop for glass	
blowing and mending	1 set
Bottle dispensers	10
Samplers (autopipettes) different	
volume range	10
Electrophoresis apparatus with	
power supply for Paper	
PAGE AGAROSE	4
Spectrophotometer	1
Binocular research microscopes	2
Glass ware as required by standard	
lab. Like pipettes, beakers and	
conical flasks.	As required.

(4) DEPARTMENT OF PATHOLOGY

(a) General

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

(b) Morbid Histology and Morbid Anatomy Sections

Weighing machine for cadavers	1
Rotary Microtomes	2
Freezing Microtome with a stand for	
carbondioxide cylinder	1
Hot plates	2
Hot air (50 degree Celsus) for	
special staining	2
^a Paraffin embedding bath (Ordinary)	2
@ Electric vacuum embedding baths	2
@ if Histo Kinette 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	10
Troughs for staining in bulk	12
Coplin jars	24
Water bath electric (Tissue Floatation	2
Balance, Chemical with weights	2
Microscopes, Monocular, with double	
nose piece, High power objective	
2 eye-pieces, mechanical stage	
and condensor	30
Oil immersion lens for above	30
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	4
Laboratory stirrer	1
Automatic timer	2
Balance for weighing organs	1
Saws, wire for cutting bones	1
Slide boxes for 100 slides for students	60
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	1
Microprojection apparatus	2
Sternal puncture needle Adulet size	2
Sternal puncture needle child size	2
Liver Biopsy needle	2 2 2
Box weight analytical	2
Stop watch reading at 1/5 second.	6
Ultraviolet lamp.	1
pH Meter electric.	1
Microscope, Binacular, research.	1
Paper Electrophoresic apparatus vertical	1
Paper electrophoresis apparatus, horizontal	1
Water still electric	1
2 x 2 slide Projector.	2
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	
Chemicals etc. for photo artist	1 set
Glassware, stains, chemicals reagents	

for Histological work.

(C) Clinical Laboratory:

Microscope high power with oil immersion lens moveable stage and condensor for the routine microscope work. Bottles Sp. Gravity 25 cc Micro burretes 5 cc PH meter, with ultra micro blood PH electrodes and Electrical Contrifuge One higher power contrifuge for serological works,	15 2 2
one for haematological work and one other	3
	0
Incubator Haemacytometers with red and white pipettes Haemoglobinometers, Sahili'type	1 30 30
Sedimentation apparatus-one wester green and one wintrobole	2 sets
Syringes disposable one set from 10 cc to 2cc 30 of each	As required
Staining jars for slides.	12 9
Urinometers Albuminometers, esbachs & Aufrech's type	9 1
Urine Glasset (Conical) Water baths with lids and holes thereon	12
for holding test tubes etc.	1
Centrifuge tubes graduated	36
Crusible with china ltd. Crusible Gooch with adapter	2 2
Graduated cylinders for various	2
capaciies ranging from 100 cc to 1000 cc.	6 of each.
Pipettes of various sizes, graduated sets	As required
Reagent bottles.	As required
Dropping bottles	As required
Dropping bottles 4 ounce Reagents	As required As required
Balances-(1) Sensitive balance	2
(2) Chemical balance with weight boxes	2

(5) **DEPARTMENT OF MICROBIOLOGY**

Incubators, electrical (large) 37 degree Celsius

	_
Autoclave	2
Hot air sterliser	2
Arnolds sterilizer	1
Serum inspissators	1
Balance, Chemical	1
Lovibond comparators	1
Flasks flat bottom 50 cc.	6
Microscope oil-immersion moveable	
stage Abbe, condenser etc.	30
Micropscope, dark ground work with	
Arc lamp arrangement etc.	1
Refrigerators	2
Micrometer eye pieces	2
Micrometer stage	2
Centrifuge, electrical high power	2
Refrigerated centrifuge	1
Distilled water plant	2
Distilled water plant all glass	1
Oil immersion lens for students microscope.	30
Dropping bottles for stains (Plastic)	250
Staining troughs	50
Anaerobic apparatus	2
Electrophorosis complete set	1
B.O.D. incubator	1
Laminer flow table	1
Ultra Violet (U.V.) Lamps	1
Venereal Diseases Research	
Laboratory (V.D.R.L.) shaker	1
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, dispensor and washer	1
Binocular microscope	2
	-
Culture facilities	
Thormomotors (Assorted)	10
Thermometers (Assorted)	10
Glassware, such as pipettes burettes,	
beakers, conical flasks, petri dishes	A
of different sizes, reagent bottles etc.	As required
Material for preparation of media	As required
Stains	As required
PH Determination apparatus	1
Reagent bottles with stopper 2000 cc	12
1000 cc	24
500 cc	24

250 cc	12
100 cc	60
50 cc	60
Test tubers hard glass 150 mm x 18 mm	8 Gross
100 mm x 12 mm	8 Gross
75 mm x 12 mm	8 Gross

(6) DEPARTMENT OF PHARMACOLOGY

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 2 2
Centrifuge	
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 gunea pig	3
b) Machine for big animals like dogs	3
Dissection instruments and injection syringes (The experimental physiology laboratory	As required

can be used if available for the students)

* Kymograph (students) Electric independent unit	50
* Electric Motor ¹ / ₄ with split pulleys	2
* Shafting steel rod ³ / ₄ " 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
* Not required in case of independent units.	

X-blocks Hook grip rods Plain stand Apparatus for isolated rabbit intestine etc. Jacquets graphic chronometer Frog Boards Palmer c. 120 Jackson's Enterograph Hair Aesthesiometer-Palmer W.290 Long Extension for paper palmer A-130 Animal Balance Tripple Beam Manometers mercury Palmer C-200 Metronome Palmer B-5 Oncometer Kidney Oncometer Heart Copper Trays (10"x8"x1") Thermometer (upto 110 degree Celsius) Distillation apparatus Microscopes ordinary Working tables with racks each table 36' long Chemical Balance-Sensitive Dissection instrument Plethysmograph assorted Pneumograph Palmer E Piston Recorder Palmer C.51 Tambours mareys Palmer C.5 & C.11 Tetanus Set Palmer H2O Stop Watches Jacquets Oxygen Cylinders with Trolleys 20 cu.ft	As required As required 50 50 1 50 3 1 2 2 6 2 2 50 50 2 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 4 5 0 50 2 2 2 3 2 2 2 4 5 0 50 50 1 1 2 2 2 2 3 2 2 2 3 2 2 2 3 2 2 2 3 1 2 2 3 1 2 2 2 3 1 2 2 2 3 1 2 2 2 3 1 2 2 2 3 1 2 2 2 3 1 2 2 2 2
	-
Carbon-di-oxide cylinder	1
Operating lamps-Phillips	2
Animal trolley with 12 cages	2

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

(c) Pharmacy Laboratory:

Dispensing Balance with metric system weights	20
Pill Tiles	20
Suppository moulds	20
Procelain dishes	5
Crucibles with tongs	5
Pestle and Mortar	20
Iron Spatula	20
Measure glass all sizes	20
Water bath, metal	5

Miscellaneous:

Chemicals, drugs, glass rods,	
funnels and filter	As required

(d) <u>SPECIAL CHEMICALS AND PHARMACOLOGICAL EQUIPMENT</u>

Stimulator Electronic Arthus Thomas Balance Semi micro Analytical Pan Mottler Electrocardiograph Spectophotometer Model Du-Backman (UV Visible range) Skin and Rectal Thermometer Barun Antihistamine Chamber with manometer Flame photometer Stop clock Water bath 4 hole electrically heated Bell jars Assorted	1 1 1 1 1 1 6 12 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	2
Microscope students type with	
mechanical stage and oil immersion	4
Microscope lamps	4
Magnetic stirrer B.T.L. Autoclave electric Waring Blender M.S.E. Hot air oven size 14"x14"x14" Incubator Electric Size 14"x14"x14" Vacuum & Pressure Pump Cenco Instruments Sterilliser Electric size 12" x 8"x6"	1 1 1 1 2 2
B.P. Apparatus	4

Distilled water still Manesty Electrical Cap. 2 gallon per hour Stethescope	2 4
Multimeter	1
Temperature controlled water bath 37 °C	1
Razor Hone	2
Electric Hot Plate	2
Deionizer-two of capacity 20 litres per hour and 6 litres per hour (mixed bed type) connected in series Physiographs with Transducers and other relevant accessories (may substitute kymographs)	20
Vortex mixer	2
Actophotometer	1
Rotarod Assembly	1
Electro-Convulsiometer	1
Cook's Pole Climbing Apparatus	1
Metabolic Cagges (Dieuretic Study)	3-4
Digital pH meter	1
Tablet Disintegration Machine	1
Glass tubing (length of 6 ft.)	As required.
Glass rods-assorted sizes of 6 ft.	50
Glass mortar & pestles	
* }	12
capacity of 500 and 200 cc	Each
Cork borer set of 12	1 set
Holder for platinum wireloop	60
Lancet spring (disposable)	60
Lamp for microscope	As required
Magnifying glass with metal handle	30
Metal mincing machine	1
Postmortem instruments sets complete	1 set
Suction pumps	1
Filtering apparatus sietz	
filter and Millipore filter- each	2
Dessicators	2
Vacuum Desicators	1
Apron plastic for postmortem	2 2
Apron rubber for postmortemt * Lyophilizer	1
*Thermal Cycler	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 Microbiol	ogy.

(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	1
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	15
Microscope Binocular, research	2
Stopwatch	
X'ray view box one in four	2 3 2 3
View Box Two in one	2
B.P. Apparatus	3
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 projecter	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, trolly, filing cabinet with folders, filing cabinets	

As required

(8) DEPARTMENT OF COMMUNITY MEDICINE

for almirahs etc.

Comparator, Nessler		1
Barometer, Fotin		1
Extraction Apparatus, fat, complete		1
Filter, Pasteur chamberland, complete set		1
Filter, berke fed		1
Hydrometres, Spirit		2
Hydrometres, milk		2
Hydrometers, wet and dry BULB		1
Incubator, electric		1
Museum jars		As required
Models, charts, diagrams etc.		As required
Balance Analytical 200 gm		2
Balance for weighing food stuff Capacity 2 Kg.		1
Centrifuge clinical		1
Weighing machine adult		4
Salters Baby weighing machine		4
Harpenders Callipers (for skin fold thickness)		2
Height measuring stand		1
Aqua guard		1
Refrigerator 9 cu.ft.		1
Ice Lined Refrigerator (I.L.R.)		1
Dissecting microscope		20
Microscope oil immersion		2
T.F., V.C.R.		1 each
Still for distilled water		1
Autoclave		1
Sterilizers, electric		1
Computer		1
Over Head Projector	1	-
5 (el 11eua 110jectol	*	

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	20
Ophthalmoscope	6
Lumbar puncture needles (disposable)	As required
Haemocytometer	3
Light Microscope	1
Haemoglobinometer	3
Centrifuge Machine	1
Urinometer	1
Plural biopsy needs (disposable)	As required
Liver biopsy needs (disposable)	As required
Kidney Biopsy needs (disposable)	As required
X-ray viewing box	15
Overhead projector	1
Slide Projector	1
Upper Gl endoscope	1
Colonoscope	1
Sigmoidoscope	1
Proctoscope	6
Facilities for doing tests for malabsorption	As required
Ultra sound machine	1
Fiberoptic bronchoscope	1
Spirometer	1
Bed side Cardiac monitors	8
Central Cardiac monitor Console	1
Defibrillator	8
Non-invasive B.P.Apparatus	8
Pulse oxymeter	8
Equipment for ardiac pacing	1
Ambu bag	8
Laryngoscope	8
ECG Machine	8
Echocradiography machine	1
Tread Mill test machine	1
Haemodialysis machine	3
Peritoneal dialysis catheters	As required
Areterial blood gas analyzer	1
Na/K analyzer	1
Equipment for measuring diffusion capacity	1

Microprocessor based spectrometer 1	
Gamma cameras	
Glucometer 5	
Radiosotope scan laboratory1	
Electro Encephalogram (EEG) machine 1	
EMC and nerve conduction velocity machine 1	
Fine needle aspiration needle As	s required
Aspiration needle As	s required
Torches 20)
Patient examination table 20)
Rubber Hammer 20)
Reagents for doing Gram's and	
Ziehl Neilson staining As	s required
Computer (one for each medical unit) 2	
Radiopagers 20)
Endotracheal tubes As	s required
Emergency lights 6	

(2) DEPARTMENT OF PAEDIATRICS

(A) Resuscitation equipments:	
Ambu bag	
-infant	2
-children	2
Face mask	2
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	4
(C) Drug Deliver Equipment/ Catheter/tube-	

Intra-venous (I.V.) Drip set	As required
Measured volume	2
Blood transfusion set	2
Intra-venous (I.V.) Canula (Butterfly type)	As required
Intracath	4
Umbilical vein	4

Catheter	
Feeding tubes	As required
Three way and four	2
Way valve	
Malecot's catheter	4
Cut open canula	As required
(D) Massurement Equipments	
(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	1
Nuclear Chamber	2
Hemoglobinometer	2
Test tube	As required
Spirit lamp	2
Stains for – Leishman's staining	As required
- AFB staining	-do-
-Grams staining	-do-
Dextrostix	As required
Multisix	-do-
Uristix	-do-
Micro Erythrocite Sedimntation	
Rate (ESR) tubes	As required
Filter paper	As required
Bone marrow needle	2
Lumber Puncture (L.P.) Needles	2
Pleural aspiration needle	2
Vim-Silveram	2
Biopsy needle	
Mengneiz Needle	2
True cut Renal	2
Biopsy needle	
X-ray view box	1
F) <u>Miscellaneous</u>	
	1
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	1
Nebulizers	2
Intercostal Drainage Facility	2
Pleural Biopsy Needles	2
Pulse Oximeter	1
Fiberopitic Bronchoscope	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-VENEROLOGY & 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 electrosurgery and chemosurgery
- (a) Electro-cautery machine
- (b) Trichloracetic acid

(5) DEPARTMENT OF PSYCHIATRY

Electro Convulsive Therapy (E.C.T.)	
machine preferably with ECG monitoring	1
E.E.G. monitoring	1
ECG machine	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	2
b) Intelligence Tests	2
c) Personality Tests	2
d) Neuro psychological tests	2

(6) DEPARTMENT OF SURGERY

(i) O.P.D	
Blood Pressure Apparatus, Stethoscope,	
diagnostic kit, weighing machine, skin fold	
caliper, eight scale.	4
X-ray viewing box 4 in 1	4

Proctoscope & Gabriel Syringe Sigmoidoscope (Rigid) Flexible Endoscope, Upper Gl, Colonscope (one set in Main O.T.) Diagnostic Crystoscope Ultrasound Uroflowmetry	4 2 2 1 1 1
 (ii) MINOR O.T. Operation Theatre Table Operation Theatre Ceiling light Pedestal lights Electro-surgical unit Suction Pulse oximeter (one for Endoscopy Room) Anaesthesia Equipment Resuscitation kit Assorted surgical instrument for minor operation sets Autoclave 	2 2 4 1 4 4 1 set 1 12 1
 (iii) WARDS B.P. Apparatus, Stethoscope, diagnostic kit (4 sets in each ward) Weighing machine, height scale, skinfold Caliper (2 each in each ward Proctoscope (2 in each ward) 	1 12 sets 6 6
Monitors for pulse rate, Heart Rate, E.C.G., Invasive and non-invasive pressure (2 in each ward) Incubators/Transport incubators Neonatal Bassinet Ultrasound Arterial blood analyzer Oesophageal/Gastric pH & pressure recorder	6 3 1 1 1
 (iv) OPERATION THEATRE Operating tables Operating Ceiling light Paedestal side light (for emergency use) Electrosurgical Unit General Sets (8 for each Operation Theatre) Burr hole set 	8 8 4 10 64 2
Vascular set (1 in each Operation Theatre) Anaesthesia Equipment as per requirement of Anaesthesia department Diagnostic and operative laparoscope Crystoscope and Resectoscope Bronchoscope	2 8 2 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
(v) MISCELLANEOUS	
Photocopier	1
Computer with laser Printer	1
Electronic Typewriters	2
Slide-Projector	4
Overhead projector	4
Video Cassett Recorder/	
video Cassette Player	2

(7) DEPARTMENT OF PAEDIATRIC SURGERY

Resuscitation equipment	
-Ambubags	2
-ET Tubes (all sizes 2.5-8)	4 sets
-Guedell's airway (all sizes)	2 sets
-Laryngoscope	2
Suction Catheters assorted sizes	10 sets
Suction machines	2
Oxygen cylinders Oxygen	4
B.P.Apparatus	4
Slow suction machine	2
Nebulizer	2
Heater	2
I.C.U. equipment incubator	2 sets
Operation Theatre equipment	1
Cystoscope-Paediatrics	1
Rigid Bronchoscope (sets)	1
Oesophageal dilators (sets)	1
Paediatrics Sigmoidoscope	1

(8) DEPARTMENT OF ORTHOPAEDICS

Basic instrumentation set for fracture	3 sets
Small Fragment and large fragment	2
External Fixator	4
C-Arm (Image Intensifier)	1
Portable X-ray Machine	1
Arthroscope	1

Slide Projector	1
Over-head projector	1
Movie Camera for demonstration	
of live operations	1
Plaster room equipment (sets)	
with plastic table.	1
Physiotherapy and occupational	
Therapy equipment sets	
Operation room equipment (sets)	1

(9) DEPARTMENT OF OPHTHALMOLOGY

(i) Out Patient Department	
Snellen Chart/Snellen drum	3
with or without remote control	
Trial set with trail frame	3
both for adult and children	
Bjerrum Screen	1
Perimeter	1
Colour vision chart	3
Near vision chart with different language	3
3 cell torch	6
Opthathalmoscope and Retinoscope	3
common equipments in the	
Outpatient Department slit lamp	1
Applanation tonometer	1
Keatometer	1
Indirect ophthalmoscope	1
Synoptophore	1
Maddox Rod	1
Maddox Wing	1
Diplopia goggles	1
Gonioscope	1
Placido disc	1
Prism Bar	1
Schoutz tonometer	2
(ii) Major Operation Theatre	
Operating miscroscope with TV	
Unit with camera	1
Cryo Unit	1
Cataract set	5
Glaucoma set	2 2 2 2 2 2 2
DCR set	2
Entropian set	2
Enucleation set	2
Evisceration set	2
Squint set	2
(iii) General Ophthalmic Equipments	
Operation Theatre Table	1

Operation Theatre Light

(iv) Minor Operaton Theatre: Minor O.T. should have the equipment for the removal of the foreign body, sutures and chalzion or stye.

(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	1
3 Cell torch	2
Ophthalmoscope and Retinoscope	1

(10) DEPARTMENT OF ENT

(i) OPD	(per doctor)
Nasal Speculum	4
Tongue depressor	4
Laryngeal mirrors	4
Nasopharyngeal mirrors	4
Aural speculum	4
Ear Suction	$\frac{2}{2}$
Nasal Suction	
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 Tonsil scissors	1
Adenotome	1 1
Adenoid curette	1
Yankauer oropharyngeal suction tip	1
	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) Caldwel 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 endoscope	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

*Fibroptic lighting system *Suspension system for Laryngoscope *Microlaryngeal cup forceps * Microlaryngeal Scissors	1 1 1 1
i) *Tympanoplasty set	
*Aural speculum *Drum curette *Drum elevator *Microsuction *Graft knife *Graft [ress	4 2 1 2 1 1
 (j)*Mastoidectomy set * Mallet *Gouge *Endaural retractor/post aural retractor *Electric drill (motor, handpiece and burrs) *Mastoid seeker *Aditus seeker * Malleus head nipper 	1 4 2 1 1 1 1
(k) *Stapedctomy set	
*Pick-straight Angled *Perforator *Measuring rod *Prosthesis crimper	1 1 1 1 1
 (1) *Oesophagoscopy set Oesophagoscopes Lighting Biopsy forceps Foreign body removal forceps Suction Oesophageal dilators 	3 1 1 1 1 1 1 set
 (m) * Bronchoscopy set *Bronchoscopes *Lighting system * Biopsy forceps * Foreign body removal forceps *Suction * Optional for MBBS 	3 1 1 1 1

(n) Tracheostomy set

Needle holder Bard Parker knife handle Ribbon right angled retractors Curved arteries Straight arteries Cricoid hook Tracheal dilator	1 1 2 4 1 1 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
Laryyngeal forceps	As required
Aural Snare	As required
Aural cup forceps	As required
(iv) *WARDS	1
* Semi intensive care unit (4 beds)	As required
* Central suction	As required
* Oxygen	As required
* Humidifier	As required
* Optional for MBBS	
(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) * DrillMastoid set*Optional for MBBS

1

(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 EA + ECC sets PCT forceps Ayers spatula Cytology bottle Microscope MR Syringes Coloposcope Cryo/electro cautery apparatus Simple fetal Droppler	25 10 5 15 15 1 5 1 1 1 1
NST machine	2
Stitch removal sets	5
Dressing sets	5
Ultrasound machine	1
Proctoscope	3
Weighing machine	1
Height scale	1
View box	1
(Blood Pressure apparatus, measuring	
tapes, gloves, syringes, needles, torch)	
Resuscitation tray	1
(Laryngoscope, ET tube, ambu bag,	
suction catheter, essential drugs).	
	1
Suction machine	1
Hysterosalphigogram Canula	5
(ii) MAIN Operation TheatreAbdominal Hysterectomy set(Alteries, scissors, Scalpel, Allis's kelly'sclamp, badcock forceps, thumb forceps,	3

Harington & Richardson retractors.)

Vaginal Hysterectomy set (Scalpel, scissors, metal catheter, Sim's, Speculum volsellum, Kelly's clamps, right angle retractor, arteries, Allis, uterine sound, bladder sound).	3 3
Tuboplasty set	2
Myomectomy instruments	1
(Myoma screw, Boney's clamp)	
Diagnostic laparoscopy set	2
Operating laparoscopy set	2 2 1
Hystroscopy set	
Electronic Carbondioxide insuffator/	2
Insuffator basic unit	
Resctoscope	1
Hyseromat	1
Operatin microscope/Loupe	1
Electrocautery	2
iii)SPECIAL EQUIPMENT	
Contact microhystroscope	1
Co2 & Nd Yag laser	1
(iv)LABOUR ROOM	
Delivery sets	10
Delivery sets B.P. Apparatus	10 3
Delivery sets B.P. Apparatus Weighing machine	
B.P. Apparatus	3
B.P. Apparatus Weighing machine	3 1
B.P. Apparatus Weighing machine Fetal Doppler	3 1 1 3 1
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine	3 1 1 3 1 1
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray	3 1 1 3 1
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT	3 1 1 3 1 1 1
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps	3 1 1 3 1 1 1 1 3
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors	3 1 1 3 1 1 1 1 3
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system	3 1 1 3 1 1 1
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system *Fetal scalp electrodes Facilities	3 1 1 3 1 1 1 1 3 2 2
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system	3 1 1 3 1 1 1 1 3
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system *Fetal scalp electrodes Facilities for fetal scalp pH	3 1 1 3 1 1 1 1 3 2 2
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system *Fetal scalp electrodes Facilities for fetal scalp pH (vi)TEACHING SET	3 1 1 3 1 1 1 1 3 2 2
 B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system *Fetal scalp electrodes Facilities for fetal scalp pH (vi)TEACHING SET Doll and Dummy 	3 1 1 3 1 1 1 1 3 2 2 2 2
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system *Fetal scalp electrodes Facilities for fetal scalp pH (vi)TEACHING SET Doll and Dummy Female Pelvis	3 1 1 3 1 1 1 1 3 2 2 2 2 1
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system *Fetal scalp electrodes Facilities for fetal scalp pH (vi)TEACHING SET Doll and Dummy Female Pelvis Gross specimens	3 1 1 3 1 1 1 1 3 2 2 2 2 1
B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system *Fetal scalp electrodes Facilities for fetal scalp pH (vi)TEACHING SET Doll and Dummy Female Pelvis	3 1 1 3 1 1 1 1 1 3 2 2 2 2 1 1
 B.P. Apparatus Weighing machine Fetal Doppler Cardiotocogram machine Portable ultrasound High suction machine Resuscitation tray v)SPECIAL EQUIPMENT Oxytocin infusion pumps Multichannel monitors Intrauterine Pressure monitoring system *Fetal scalp electrodes Facilities for fetal scalp pH (vi)TEACHING SET Doll and Dummy Female Pelvis Gross specimens X-ray/US films 	3 1 1 3 1 1 1 1 1 3 2 2 2 2 1 1

Slide Projector

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
MTP set
D&C set
Hydrotubation set
IUCD insertion/removal set
High suction machine
Resuscitation tray
E.B. set
(O.T. lights, OT tables)

ix)MATEDNITY Operation Theatra	
ix)MATERNITY Operation Theatre Set for LSCS	5
D&C set	5
MTP set	6
High suction machine	2
Cervical exploration set	2
Uterine packing forceps	2
Abdominal hysterectomy set	1
Diagnostic laparoscopy set	2
Laprocator for tubal ligation	2
Postputum ligation	2
Outlet forceps	3
Low mid cavity forceps/kjielland forceps	3
Vacuum Extractor and suction machine	2
Resuscitation tray	1
Decapitation hook	1
Cranioclast with cephalotribe	1
Oldham Perforator	1
Infusion Pump	3
EB set	4
Operation Theatre table, Operation Theatre lights, Central Oxyge	n and suction

(x) SPECIAL EQUIPMENT:Multichannel monitor withECG, BP, HR, Pulse oxymetry for high riskpregnant patients (eclampsia, heart diseases etc.)

(xi) WARDS Blood Pressure Apparatus

Weighing machine Height scale	1 1
Speculum and retractors	40
Glucometer	1
Microscope	1
Suture removal sets	5
Dressing sets	10
Ultrasound	1
Cutdown sets	1
Blood gas analyzer	1
CTG machine	1
Suction machine	2
Resuscitation tray	2
View box	1
Central O2 and suction	
(xii) SPECIAL EQUIPMENT	
Ultrasound machine with Doppler/Vaginal	1
probe/facilities for Interventional procedure	
Multichannel Monitor	1
Fetal Monitor for	-
Antepartum Surveillance	2
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), includ	ling Serum Blutamase Test
(SBT),	
Electrolytes, Blood sugar	
Culture facilities	
24 hr. urine alb. Creatinine	
VDRL, TORCH	
Serum, BHCG, estriol, MSAFP	
Semen wash	
FSH, LH PROCLACTIN, T3, T4,	
TSH, Testosterone, DHEAS Chlamydia and other reproductive tract infection testing	
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. Cryopresservation. Assisted reproductive techniques.

(12) DEPARTMENT OF ANAESTHESIOLOGY

OPD-Anaesthesia Clinic	
Blood Pressure Instrument (Non-invasive)	1
Weighing machine	1
Height scale	1
Ward (Recovery)	
Resucitation equipments (CPR)	
a) Adult Dummy	1
b) Paediatric dummy	1
c) Artifical breathing bag with face Masks.	
d) Defibrillator	1
Suction machine	
-Electrical	5
-Manual	5
Oxygen therapy unit	2
	2
Pulse oximeter	2
E.C.G. Monitor	$\frac{2}{2}$
E.C.G. Monitor	
E.C.G. Monitor E.T.Co2 Monitor	
E.C.G. Monitor E.T.Co2 Monitor Simple anaesthesia machine with	

(13) DEPARTMENT OF RADIO-DIAGNOSIS

Conventional X-ray Unit for routine	
X-ray and IVV.	4
Mobile X-ray units-	
a) 30 MA	2
b) 60 MA	2
Fluroscopic unit	1
Both conventional and image intensifying	
unit for gastro-enterology & gynae work etc.	1
Ultrasonography equipment	2+1 additional unit
independently for Obstetrics and	
Gynaecology.	
СТ	1
Mammography (preferably)	
MRI (preferably)	

OPTIONAL DEPARTMENTS

(14) RADIO-THERAPY

Examination Table	2
ENT examination set up	1
Gynae./pelvic examination tables	1
Treatment planning and mould room including	
i) Computerised treatment planning system	1
ii) Simulator	1
iii) Immobilization cast making system	1
Brachytherapy setup	
i) Manual after loading intercavitory	1
system (sets)	
ii) Manual afterloading	1
Interstitial/surface mould system (sets)	

Teletherapy set-up1Isocentrically mounted1Rotational telecobalt1Unit minimum 80 cm SSD

Radiation Protection and Dosimetry set-up

i) Secondary standard dosimeter with	h
ionization chamber	1
ii)Survey meter	1
iii) Area/Zone monitors	2
(by BARC)	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 intracavitory system.	1
iii) Remote controlled interstitial system	1
iv) CT-Sim 3D treatment	1
Planning system	
v) Isodose plotte (Automatic)	1
vi) Customised shielding	1
Block making system	
vii) Customised compensator making system	1
viii) Computerised Dosimetry system	1
ix)Thermoluminiscent dosimetry system	1
x) Intra operative Radiotherapy and stereotactic	
radiotherapy set up alongwith linear	
accelerator (multi leaf)	1

<u>N.B.</u> 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 DEPARTMENTS1) 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" Drawing Board size 22" x 30" Instrument Box steadler Plastic Transparent Set square 10"	1 1 1 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 here	1
Modeling Instrument box. 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
ee min shae projector nomen	-

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	1
Electric blower	1
Frequency generator	1
Ampere meter	1
Battery charger	1
Electroplating unit outfit	1
Carpenters section instrument and appliances	
including electric saw and sander	1 set
Glass blowing appliances	1

Note: -

- 1. All kinds of endoscopes shall be fibreoptic 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 requiredfinancial support shall be rendered.

Sd/-[Lt. Col. (Dr.) A.R.N. Setalvad (Retd.)] SECRETARY MEDICAL COUNCIL OF INDIA, NEW DELHI

APPENDIX-I

ITEM DETAILS	NO.	AREA (Sq. M.) Each	Total (Sq. m.)	Remarks
(1)	(2)	(3)	(4)	(5)
Administrative Block				
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		50	50	
Girls		50	50	
Cafeteria		100	100	
Central Library		1000	1000	
Lecture Theatres	3	220	660	80 Seating Capacity
	1	400	400	150 Seating Capacity
Auditorium	1	500	500	250-350 Seating Capacity
Common Laboratories	6	120	720	
	2	75	150	
Central Research Laboratory	1	100	100	
Department Total			4160	_
DEPARTMENTS				-
Anatomy				
Demonstration Room	2	30	60	Accommodate at least 25-30 Students
Dissection Hall	1	175	175	Accommodate at least 50 Students
Museum		100	100	Accommodate 15 students to study in the museum
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./Reader	1	15	15	
Asst. Prof./Lecturer	1	20	20	
Tutor/Demonstrators	2	15	30	
Department Office/Clerical Room	1	13	12	
Non-teaching staff room	1	12	12	
Department Total			442	_
pur those I ofter				_

BUILT UP AREA REQUIREMENTS (50 ADMISSIONS)

Physiology including Bio- physics		
Demonstration Room 1	30 30	Accommodate at least 25-30 Students
Accommodation for Staff		
Professor & Head 1	18 18	3
Asso. Prof./Reader 1	15 15	5
Asst. Prof./Lecturer 1	15 1:	5
Tutor/Demonstrators 2	15 30)
Department Office/Clerical Room 1	12 12	2
Non-teaching staff room 1	12 12	2
Department Total	13	2
Biochemistry		
Demonstration Room 1	30 30	Accommodate at least 25-30 Students
Accommodation for Staff		
Professor & Head 1	18 18	8
Asso. Prof./Reader 1	15 15	5
Asst. Prof./Lecturer 1	12 12	2
Tutor/Demonstrators 2	15 30)
Department Office/Clerical Room 1	12 12	2
Non-teaching staff room 1	12 12	2
Department Total	12	9
Pathology		
Demonstration Room 1	25 25	5 Accommodate at least 25-30 Students
Museum 1	60 60)
Accommodation for Staff		
Professor & Head 1	18 18	8
Asso. Prof./Reader 1	15 15	5
Asst. Prof./Lecturer 2	14 28	8
Tutor/Demonstrators 3	15 45	5
Department Office/Clerical Room 1	12 12	2
Non-teaching staff room 1	12 12	2
Department Total	21	

(a) Registration & Medical Examination 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 Rooms				
Microbiology Service Laboratory	7	25	175	Each for Bacteriology, Serology, Virology, Parasitology, Mycology, Tuberculosis and Immunology
Museum	1	40	40	
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./Reader	1	15	15	
Asst. Prof./Lecturer	1	12	12	
Tutor/Demonstrators	2	15	30	
Department Office/Clerical Room	1	12	12	
Non-teaching staff room	1	12	12	
Department Total			314	-
Pharmacology				-
Demonstration Room	1	30	30	Accommodate at least 25-30 Students
Museum		75	75	
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./Reader	1	15	15	
Asst. Prof./Lecturer	1	12	12	
Tutor/Demonstrators	2	15	30	
Department Office/Clerical Room	1	12	12	
Non-teaching staff room	1	12	12	
Department Total			204	-
Forensic Med. Including				-
Toxicology Demonstration Room	1	30	30	Accommodate at least 25-30 Students.
Autopsy Block		400	400	
Museum		100	100	
Accommodation for Staff				
Professor & Head	1	18	18	
Asso. Prof./Reader	1	15	15	
Asst. Prof./Lecturer	1	12	12	
Tutor/Demonstrators	1	15	15	
Department Office/Clerical Room	1	12	12	
Non-teaching staff room	1	12	12	
				-

Department Total			614																
Community Medicine																			
Museum		100	100																
Primary Health Centre/Rural																			
Health Training Centre																			
Urban Health Training Centre																			
Accommodation for Staff		10	10																
Professor & Head	1	18	18																
Asso. Prof./Reader	1	15	15																
Asst. Prof./Lecturer	1	15	15																
Statistician-cum-Lecturer	1	12	12																
Epidemiologist-cum-Lecturer	1	12	12																
Tutor/Demonstrators	2	15	30																
Department Office/Clerical Room	1	12	12																
Non-teaching staff room	1	15	15																
Department Total			229																
COLLEGE TOTAL			6539																
Teaching Hospital																			
Dean's Room		36	36																
Medical Superintendent's Room		36	36																
Hospital offices for the supportive staff		150	150																
Waiting space for visitors		200	200																
Enquiry office		50	50																
Reception		200	200																
Store Rooms		300	300																
Central Medical Record Section		150	150																
Linen Rooms		300	300																
Hospital & Staff Committee		50	50																
Room		-																	
Central Lecture Theatre of Gallery Type	1	330	330			Seating capa persons	• •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •		• • •	Seating capacity of 100 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		150	150																
Incinerating Plant		40	40																
Common Facilities			2592																
Clinical Departments in the Hospi	tal (No.	of Beds requ	ried for 5()	admiss	admission a	admission annu	admission annual	admission annual is	admission annual is 4	admission annual is 4	admission annual is 4	admission annual is 40	admission annual is 400	admission annual is 400	admission annual is 400			

Clinical Departments in the Hospital (No. of Beds requried for 50 admission annual is 400):-

Beds/Units

General Medicine		96/3
Paediatrics		48/2
TB & Respiratory Diseases		16/1
DVL		8/1
Psychiatry		8/1
General Surgery		96/3
Orthopaedics		48/2
Opthalmology		16/1
ENT		16/1
Obstetrics	30	
Gynaecology	14	
Postpartum	4	48/2

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

Department Total	400	2800	2800
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
Residents 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			
(at least one for each department		20	20
Total for 14 Wards/12			2240
Departments			
Operation Theatre Unit			
Waiting room for patients		15	15
Preparation room		15	15
Operation Theatre		75	75
Post-operative recovery room		30	30
Soiled Linen room		15	15
Instrument Room		15	15
Sterilisation Room		15	15
Nurses Room		20	20
Surgeon'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
Laundary		10	10
Total for 9 O.T.s	9		3375
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
Surgeon's and Anaesthetist's		20	20
Room		• •	
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
Laundary		10	10
Total for Labour Room			460
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
Department Total			226
Anaesthesiology			
Accommodation for the Anaesthesi	a Departn	ent in Opera	tion Theatres
Office for HOD & Heads of Units	_	20	20

Accommodation for other unit	20	20	
staff Clinical Demonstration Rooms	20	20	
Department Total		60	-
Optional Departments			-
Radiotherapy			
Teletharapy Unit	100	100	
Intracavitory Treatment room	50	50	
Endocavitory surface mould	50	50	
therapy room			
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	70	70	
chemotherapy/radiotherapy			_
Department Total		920	_
Physical Medicine &	1500	1500	
rehabilitation			
Clinical Departments - Outdoor	6000	6000	
Waiting/receiption space rooms for		0000	
	patients and		
attendants	patients and		
U	patients and		
attendants	patients and		
attendants Enquiry and record room	4		For each department
attendants Enquiry and record room Examination rooms and case	-		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each	-		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities	4		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres	4		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt.	4 sing rooms in		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et	4 sing rooms in		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt.	4 sing rooms in c., in	v rooms in	For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, ENC	4 sing rooms in c., in G Lab., speech therapy	7 rooms in	For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, EN ENT Deptt. Child welfare, immunization room	4 sing rooms in c., in G Lab., speech therapy	7 rooms in	For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, ENC ENT Deptt. Child welfare, immunization room paediatrics Deptt.	4 sing rooms in c., in G Lab., speech therapy etc. in		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, EN ENT Deptt. Child welfare, immunization room paediatrics Deptt. Antenatal, family welfare, sterility	4 sing rooms in c., in G Lab., speech therapy etc. in		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, ENC ENT Deptt. Child welfare, immunization room paediatrics Deptt.	4 sing rooms in c., in G Lab., speech therapy etc. in		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, ENC ENT Deptt. Child welfare, immunization room paediatrics Deptt. Antenatal, family welfare, sterility in OBG Deptt.	4 sing rooms in c., in G Lab., speech therapy etc. in		For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, ENC ENT Deptt. Child welfare, immunization room paediatrics Deptt. Antenatal, family welfare, sterility in OBG Deptt. Dental Section	4 sing rooms in c., in G Lab., speech therapy etc. in	S	For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, ENC ENT Deptt. Child welfare, immunization room paediatrics Deptt. Antenatal, family welfare, sterility in OBG Deptt. Dental Section OPD TOTAL	4 sing rooms in c., in G Lab., speech therapy etc. in	s 6000	For each department
attendants Enquiry and record room Examination rooms and case demonstration rooms for each Dispensary Dressing room in surgery & its specialities Refraction rooms, dark rooms, dres Opthalmic Deptt. Plaster rom, plaster cutting room et Orthopaedics Deptt. Sound proof audiometry room, EN ENT Deptt. Child welfare, immunization room paediatrics Deptt. Antenatal, family welfare, sterility in OBG Deptt. Dental Section OPD TOTAL HOSPITAL TOTAL	4 sing rooms in c., in G Lab., speech therapy etc. in	s 6000	For each department

88=17)		
Qtrs. @ 20% Non teaching (20%	100	4000
of 200 = 40)		
Nurses @ 20% (20% of 150 = 30)	100	3000
Residents @ 100 % = 74	30	2220
Interns @ 100 %	1000	1000
Hostels for 187 students (i.e. @		1870
75% of 250)		
TOTAL RESIDENTAIL		15490
COMPLEX		
TOTAL		40702
ADD 15 %		6105
GRAND TOTAL		46807