

### LIFE TO LIFE SUPER MULTISPECIALITY HOSPITAL

Life to life super multispecialty hospital is going to be set up/established by Life to life Sansthan. This Hospital will also have under it, its own medical college along with Research Facility. The hospital will be equipped with latest Equipment and technology and best medical man- power of the world. It will make arrangements with best specialists even from Abroad whose services will be available on calls. Further there will be provision of Air Ambulance, Helicopters for receiving Doctors from Abroad and Patients from anywhere/ any part of the world.

The project report highlights on following points:

- 1. Services offered in the hospital
- 2. Details of Hospital Equipment
- 3. Supportive facilities
- 4. List of medical equipment
- 5. Details of Fixed Assets
- 6. Details of medical/paramedical/non-medical staff
- 7. Cost of Material and consumable
- 8. Revenue details
- 9. Man and material movement aspect.
- 10. Estimation of cost of Project and means of financing.
- 11. Estimates of Profitability
- 12. Estimation of payback period and Break Even Point etc.

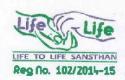
There will be separate hospital for treatment of each of following disease/sickness

- 1. Cardiology
- 2. Urology
- 3. Nephrology
- 4. Orthopedic
- 5. Cancer
- 6 ENT
- 7. Gynecology
- 8. General Surgery
- 9. Neurology
- 10. Plastic Surgery
- 11. Physiotherapy
- 12. Child Care Unit
- 13. Stem Cell Centre
- 14. Endoscopy
- 15. Anatomy
- 16. HIV/AID
- 17. T.B.
- 18. Dental
- 19. Micro Biology
- 20. Eye

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### Specialties of Hospital

- Transport Facility: Air Ambulance, Helicopter, Road Ambulance, Mobile Medical –Van, Ambulance which can run on 8' to 10' Road, All ambulances equipped with first Aid facility, with doctor.
- Key Clientele: The patients will not only visit from India only, they can be from any part of the
  world. Apart from India the patients are expected to visit our hospital for their treatment from
  Nepal, Bangla Desh, Sri Lanka, Mauritius, Middle East, Europe, USA, UK etc.
- 3. Facilities: Apart from Traditional specialized Allopathy medical facilities the hospital will have facility to Indian Heritage Treatment Apathies such as Ayurvedic, Unani, Homeopathy, Naturopathy, Acu pressure, Yoga etc.
- 4. **Key Expertise**: The Hospital will have best specialist of the world for the treatment of Cancer, paralysis, Heart Problems, (Change of valve, pacemaker, Angioplasty, etc.) Diabetes, Organ transplanting, Bone Marrow, stone, Kidney transplant, etc.
- 5. Free quality medical facilities to economically weaker section of the society, and nominal charges from others arrived at on no profit no loss basis.
- Medi Claim facility: Hospital will have tie up with various Govt. Depts: and General Insurance companies for medi - claim facility for indoor patients.

#### **PREAMBLE**

Recent advancements in medical science and technology have radically changed the part and practice of contemporary medicine. Many new diagnostic and therapeutic modalities have been developed and perfected during the past two decades.

Although, most of these techniques are capital intensive, they are highly efficient, safe and cost effective.

Improvements in National economy and literacy rates have changed the pattern and extent of the use of health care services in the country. People are becoming aware of their health needs and are acquiring the ability to make a deliberate choice of the health services they need. Consequently, the demand for better quality Medicare is rapidly increasing. Staff benefits in government, trade and industry and third party financing of Medicare through voluntary and social insurance are further increasing this growing demand.

India is a developing economy with diverse needs. On account of resource constraints and overriding priorities in other sectors, public investment in health care has not kept pace with the increasing demand and the gap between need and availability of health care facilities is rapidly widening. This inadequacy is further compounded due to technical efficiency and inequitable distribution of the existing health infrastructure. In order of facilitate balanced development of health care facilities in the country, voluntary and corporate investment in contemporary Medicare at secondary and terrier levels is being encouraged through a policy to complement the efforts of the government and to maintain equilibrium between the three level of health care.

The proposed hospital will provide services to the Terrier and Apical Care Level in Respiratory, Critical Care and Sleep Medicine. In addition the hospital will also provide support services for the above specialties especially for the care of the critically is like support of internal medicine, Neurosurgay Gastroenterology, Nephrology etc.

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Minimum bed will be two hundred and having all the required facilities for the surgery. Child care, Maternity and Control T.B. and other section for General and Specialized diseases like Cancer, Parkinson etc. the facilities proposed will be comparable to the best not only in the country but will be International Standards.

### **OBJECTIVES**

The hospital will have a hierarchy of objectives viz. Services, Training and Research. The most important objective for which the hospital will make all-out effort will be to provide high quality service at an affordable cost not only for the affluent sections of the society, but also to those who may not be economically well off. The outpatient services will be provided on the concept of polyclinics and referral clinics. The outpatient service will be provided not only in the morning hours but also through special clinics in the afternoon and in the evening.

It would be endeavor of the hospital to treat patients through ambulatory care as far as possible.

Those who need admission will first be fully investigated wherever possible through the diagnosis departments.

As far diagnosis standards are concerned the hospital will be a rich adjustment with all the required equipment's like:

- X-ray unit
- 2. Radiology machine
- 3. Screening machine
- 4. E.C.G. unit
- 5. X-Viewer
- 6. Blood pressure measuring instruments
- 7. Stethoscopes
- 8. Surgical instruments.
- 9. Wheeled chairs, Stretchers
- 10. Ambulance
- 11. Staff cars
- 12. Various staff uniforms including gloves
- 13. Masks and appearing
- 14. Oxygen cylinders
- 15. Blood bank
- 16. Glucose & water introducing equipment's.

Ultra sound and several other equipment's and other instruments of use of diagnosis of the diseases and its treatment relating to hearts, lungs, kidney, ear, nose and throat and similar other organs of the body.

Brain and bone specialization, cancer treatment and research will take special status in the R & D of the hospital in the Allopathy line of treatment. Separate T.B. Wing, Homeopathy, Yunani, Ayurvedic, Yoga and Meditation treatment provisions and bed facilities will be a special feature of the hospital.

Specialists will be duly appointed in the fields of medicines and surgery. This will ensure maximizing the inpatient beds, provide quality care, and provide cost reduction and affordable services to the patients.



The hospital will also take services to the community as Out Reach Programs through camp approach, domiciliary car, home-care program etc. so that there is no wall between the hospital and the community and the hospital truly becomes an integral part of the community.

#### **TRAINING**

The component of training will be built in form the beginning itself so that only staff having proper training will be permitted at the time of appointment and periodic training and periodic training both inservice and on job while in hospital. The hospital will also have formal teaching for the nurses and the Paramedical staff. The hospital will also have the recognition of DNB course where by not only will a big level of teaching for the whereby not only will a high level of teaching be ensured but will also ensure super specialty training and education for doctors. The hospital will also have international affiliations and exchange programs. This will ensure high standards of patient care.

### **PRINCIPLES**

The principles which have been kept in mind while making the report are as under:

- The hospital will take into consideration the requirement of the patients and the community inter-alia the cultural environmental and social background of the community and the adjoining areas.
- Taking into consideration the principle at Sub-Para above it is however, desired that the hospital after commissioning must be able to break-even income versus expenditure as early as possible.
- The design of building will be prepared so as to fully satisfy the professional requirement of the medical staff, nursing staff, paramedical staff etc. and that the modern principle of planning i.e., "design must follow function" is completely followed. The design of the building will also take into consideration the requirements of the patients, relations and the other community members so that they are satisfied and also their socio-cultural background is provided. The building design will take into considerations, maintenance and housekeeping so that after commissioning, it is easy and economical to maintain.

The aforesaid principles will be kept in mind while working out the human resource requirement, equipment etc.

#### **PLANNING PARAMETERS**

In order to provide efficient hospital care and to achieve patients and community satisfaction the hospital will have the following:

### WATER

Water will be available in all areas, in all the taps, round the clock so that good hygiene practices are ed carried out and various hospital procedures are aseptically performed. The water requirements will be 600 liters per patient per day with a holding factor of 6 days to provide adequate capacity in case the supply from the mains of water is temporarily cut off for reasons of maintenance, testing etc. the probability of water will be ensured through quality control. Hospital will have pipelines for drinking water and for sewage requirement of hospital for which tube well water may be used. As these



alterations are not possible after the drinking purpose for use in case corporation supply is temporarily

R.O. water will be supplied for drinking purpose in the hospital.

### ELECTRICITY

Hospital will have a HT line supply of 2000 KVA. The line will be supplied from 2 grids to ensure continuity of electricity in care of power failure of any of the Grids. Hospital will have a step down transformer which will step down the supplied to required levels. Hospital will have 3 Nos. standby (Silent) Generators to maintain the emergency requirement of the hospital in the vent of power failure. The generators will be on AMF panel to ensure that the electricity supply is restored automatically within a few seconds of power failure. Selected areas of the hospital will also be backed by 4-5 Nos. Online UPS [15 KVA with 3 phase in 3 phase out and] connection of ensure 'zero' breakdown in essential areas.

### SEWAGE DISPOSAL

Hospital distinctly adheres to the pollution control norms. The sewage will be first treated through the 'Sewage Treatment Plant' prior to release to the Corporation sewer line. The final affluent will be in accordance to the Pollution control norms.

#### GARBAGE DISPOSAL

The garbage arising out of the hospital will be segregated at the source itself in 4 different colored bags. These bags will be stored in the corresponding color coded garbage drums and disposed through ingemination, microwave and shredding. The syringes and needles will be destroyed prior to disposal in the garbage.

### PRIORITIES IN HEALTH SECTOR

The government is actively promoting projects in health sector for achieving significant reduction in the levels of morbidity and mortality due to communicable and non-communicable diseases. The diseases given special emphasis during the eight five-year plan were:

- 1. Malaria Eradication
- 2. Kala Azar And Japanese Encephalitis
- 3. Leprosy Eradication
- 4. Tuberculosis Control
- 5. Blindness Control Program
- 6. Guinea Worm Eradication
- 7. Aids Control
- 8. Diarrhea Diseases
- 9. Cancer Control
- 10. Control Of Iodine Deficiency Disorders

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- 11. Diabetics Control
- 12. Mental Health Services





Above all the existing facilities for critical care are totally lacking in the country. A large number of people are dying because Critical Care treatment could not be available to them. The facility for pulmonary and sleep medicine is also relatively unknown in the country. These facilities are going to benefit a large number of patients suffering from these disorders.

Delhi and the adjoining areas have a heavy amount of atmospheric pollution because of which a number of persons are suffering from Respiratory ailments. Facilities provided by the hospital will be a soon for these patients.

### **FIVE-YEAR PLAN**

Health of the people is not only a desirable goal but is also an essential investment in human resources. The National Health Policy (1983) reiterated India's commitment to attain "Health for All (HFA) by the year 2000 A.D.". Primary Health Care has been accepted as the main instrument for achieving this goal. Accordingly, a vast network of institutions at primary, secondary and terrier levels have been established. Control of communicable diseases through national program and development of trained health manpower have received special attention.

### PROGRAM THRISTS IN THE PLAN

It is fowards human development that health and population control are listed as two of the six priority objectives of this plan. Health facilities must reach the entire population by the end of the eight plans. The health of ALL (HFA) paradigm must take into account not only high-risk vulnerable groups: i.e., mother and children, but must also focus sharply on the under privileged segments within the vulnerable groups. Within the HFA strategy "Health for under privileged" will be promoted consciously and consistently. This can only be done through emphasizing the community- based systems reflected in our planning of infrastructure, with about 30,000 populates as the basic unit for primary health care.

### SECONDARY AND TERTIARY CARE SERVICES

Along with the emphasis on consolidation of primary health care, the strengthening of secondary care services and optimization of tertiary care services would be the key objectives.

The sub-divisional and district hospitals, which are the secondary level, medical care institutions, lack adequate manpower and facilities, to be able to discharge their responsibilities satisfactorily. In view of the resource constraints, there is need for raising resources to maintain the quality of care and meet rising expectations of the people. It is time that the concept of free medical care is received and people are required to pay, even if partially for the services. The systems can be so designed that the truly indigent population are able to get free/highly subsidized medical care. Innovative approaches /practices to this end a system of medical audit will be developed during the plan. Maximum cost-effective utilization of existing services will be another item on the agenda.

In accordance with the new policy of the Government to encourage private initiatives, private hospitals, clinics will be supported subject to maintenance of minimum standard and suitable returns for the tax incentives norms for minimal facilities and accreditation of private hospitals clinics would be developed to maintain quality of patient care.

The medical college hospitals and specialized hospitals have to be used exclusively as terries care centers and for health manpower development. Important prerequisites for this would be only

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- improvement in the facilities and standards of care available at secondary care level and development of strong referral system.
- A conscious decision has to be taken to enforce a balanced development of primary, secondary and terrier care services in the country with priority for primary health care. Otherwise there is distinct risk of the paradigm of primary health care as a tool for "Health For All" being overrun by the mechanism of all for a few. This tendency and trend can be halted only with scientific arguments for witch sound epidemiological health management and health financing data is need and hence the need for health systems research.

### **ACCIDENTS**

For the treatment and rehabilitation of accident victims, accidents and trauma services will be started in major cities and also on pilot scale along some of the high traffic density national highways.

### MEDICAL RESEARCH

The Indian Council of Medical Research (ICMR) is the premier institution, which is responsible for carrying out bio-medical and operational research in India important achievements of the ICMR during previous plans include; demonstration of improved vector control using bioenvironmental techniques FOR CONTROL OF MALARIA AND FILARIAL; establishment of national Cancer Registry: multi drug therapy and short course chemistherapy for leprosy and TB Respectively and a national surveillance system for AIDS Infection. Various other institutions under the Ministry of Health & Family Welfare and medical colleges have done notable work in the field of medical research.

#### The following function areas and services have been identified:

- Entrance
- Ambulatory Care
- Intermediate Care
- Critical Care
- Operation Theatres
- Casualty And Accident Emergency Care Services
  - Clinical
  - Diagnostic
  - Dietary

### OTHER AREAS

- · Administrative Wing
- Conference Room With Audio-Visual Aids
- Research And Development Areas
- Central Store
- Manifold Room
- Medical Record Department (MRD)
- Hospital Library

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- Telephone Exchange
- Air-Conditioning Plant
- **Electric Substation**
- Generator Room
- Water Tank
- Work Shop
- Bio-Medical And Computer Engineering
- **Public Relations**
- Publications, Documentation And Photographic Center
- Mortuary
- Area For Waste Disposal

#### **RESIDENTIAL AREA**

- Director Residence
- Residence For Nursing Superintendent
- Staff Quarters
- Guest House
- Recreation Center

### COMMUNITY CENTER

- Canteen Cum Fast Food Counter
- Computer Facility
- Telecommunication Center

#### **Entry Areas**

Hospital will have four entrances for regulation of traffic to Hospital patient and attendants.

- 1 OPD Entrance
- 2 Entrances for Accident and Casualty Cases
- 3 Main Entrance for visitors etc.

4 Service Entrance

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### Chairman / Secretary

### **Ambulatory Care**

The ambulatory care service comprises OPD Patients. Broadly the Ambulatory Service comprises of Consultation chamber, Diagnostic services and supportive services for OPD patients. The Ambulatory care diagnostic will provide the services of Imaging, Laboratory, Respiratory Lab, Sleep Lab, and the non-Non-invasive Cardiac Lab.

The support services will also provide facilities for minor surgery, injection, Dressing, E C G. etc.



### Mobile Health Clinic:

The mobile health Clinic will be developed to cover the rural and urban masses belonging to below poverty line, residing in remote distance area where there are no medical facilities. Further it will be used to attend accidental emergencies, pregnancy emergencies etc. Mobile Health Unit will be managed through Mobile Medical Van.

### Intermediate Care Area

The intermediate care area will provide services based on concept of progressive patient care. It will consist of General ward, Economy ward, Semi private ward, VIP suit and the critical Care Area. The charges will be graded to suit the socio economic status, his capacity to Pay, type of facility used by him. It may be Zero (i.e. free) for patients belonging to economically backward class.

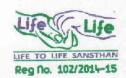
The category wise is distribution of the Hospital for 1000 bed will be as under:

Area	Number of Beds
Critical Care Unit- I	50
Critical Care Unit II	50
Private Suit	25
Private Single bed Room	200
Semi Private Twin Sharing Bed	200
Economy Ward	200
General Ward For LIFE	250 XUM
Isolation Bed Chairman / Secre	25
Critical Care Units	
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The Critical Care Areas will provide facilities for treatment to the critically ill patients. Hospital will have 2 critical areas Unit-I and Unit-II. Facilities of the best of its kind will be made available for these patients. Critical Care specialists will manage the unit round the clock. High Quality equipment will be made available so that the patient could have better chances of survival.

### **Operation Theater Complex**

Hospital will aim at performing surgery in an environment whereby the incident of infection during surgery is brought to minimum possible level. The Operation theaters will be centralized and clubbed together under one complex. Operation theaters will be planned on the Zonal Concept. It will have the following zones.



- 1. Normal Zone
- 2. Protective Zone
- 3. Clean Zone
- 4. Aseptic Zone
- 5. Disposal Zone

The circulation of patient, staff and supplies in the operation theatre will be properly channelized. The complex will have three main theatres and one for minor surgery infected surgery. Operation theatre will also have a Theatre Sterile supply Unit (TSSU) which has facilities for emergency sterilization. The Bulk of the sterile supply will be obtained from the Central Sterile Supply Department (CSSD).

### CASUALTY AND ACCIDENT EMERGENCY DEPARTMENT

All emergencies coming to the hospital will report to the Casualty Department. The Department will have 3 Examination Beds and 4 Observation Beds. The department will share the diagnostic facilities in common with the OPD and will work round the clock.

### CLINICAL SERVICES

Hospital will provide clinical services to the terrier care level in Respiratory Medicine, Critical Care and Sleep Medicine. In addition the center will also provide support services for the above specialties in the other specialties and super specialties.

The consultants will possess a minimum qualification of M.D., M.S., D.M., M.ch or D.N.B. in the respective specialties. The Senior Resident medical Officer will possess Post Graduate Degree/ Diploma. The Resident Medical Officers will have minimum of M.B.B.S. qualification.

### DIAGNOSTIC SERVICES

The hospital wills emphasis on diagnostic services. The mainstay of the diagnostic services will be the imaging, laboratory services and the Noninvasive Cardiac Lab.

### IMAGING SCIENCES AND NUCLEAR MEDICINE

The imaging services will provide facilities for CT Scan, Digital and Conventional X- ray, Ultra sound and Dopier studies.

#### CARDIAC LAB

The Cardiac Lab will have ECG recording, 24 Hours Holder recording and analysis, Stress Testing and Echo Cardiograph.

### LABORATORY

The Laboratory will provide facility for

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- 1. Hematology
- 2. Bio-Chemistry
- 3. Micro Biology
- 4. Histopathology

#### **SLEEP LAB**

The hospital will have 6 Bedded Sleep Lab. The Lab will be equipped with Central Monitoring.

#### **DIETARY SERVICE**

Dietary services of a hospital are an important therapeutic tool. Properly rendered and followed by the patient it helps in speedy recovery of the patients. It is a clinical and administrative means for better recovery of patient.

Hospital will have an in house Kitchen. The hospital Kitchen will be responsible for supply of Diet to the patients, both normal and therapeutic. The kitchen will aim to provide a well cooked and a nutritious diet to the patient. Food will be cooked in hygienic environment. Hospital Kitchen will be monitored by the Dietician of the hospital.

#### Central Store

Hospital will have a central store providing all the hospital supply. The central store will have the subsections of Medical and gasses store, nor medical or store for waist items for sale through auction like IV bottles, used fixer and developer solutions etc.

### CENTRAL STERILE SUPPLY DEPARTMENT (CSSD)

Sterilization of equipment is one of the most essential requirements of the hospital hence will be given the utmost consider action in planning. The department will be centralized because centralization will increase efficiency, improve economy and ensure better supervision and control.

The CSSD department will be responsible for the completer sterile supply requirements of the hospital including the operation theatre. The department will provide provision for high-pressure steam sterilizations as well as dry heat sterilization.

The CSSD department will also undertake the packing of common sets like the syringes and needles, dressing sets etc.

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### **PHARMACY**

It is proposed to have a Pharmacy and a medical store. The pharmacy will be given on contact and will supply only the out patients of the hospital. It will be planned in the community center of the hospital and will be open round the clock. The Medical Store will be of the hospital and will supply medicines to the in patients. The medical store will also be open round the clock.

### **MORTUARY**

This will provide facility for proper storage of dead bodies. The bodies will be stored in a refrigerated mortuary cabinet. Hospital will be not having facility for autopsy.

The mortuary will be so located so that the dead bodies can be transported unnoticed by the general public and patients. Relatives and mourners will have a direct access to the mortuary. The hearse van will also have a direct access to the mortuary whereby the body could be directly removed. The mortuary will have place for performing last rites.

### MANIFOLD ROOM

Hospital will have central supply for central oxygen, central nitrous oxide, central succession and centralized compressed air for vital area of the hospital as well as where heavy commutation is expected Nitrous Oxide and compressed air will be required only in the operation theatre. These facilities will be provided from the manifold room.

### MEDICAL RECORD DEPARTMENT (MRD)

Hospital will provide update facilities for systematic maintenance of records. The records keeping will be fully computerized to start with. The record department will provide ready statistic on the hospital patients for administrative reviews well as for clinical meetings and conferences.

#### **TELEPHONE EXCHANGE**

Hospital will have a centralized EPABN system with adequate capacity. 10 external lines and 100 internal lines will be installed in the initial stage. The system installed will be expandable to suit the later requirements of the hospital.

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### AIR-CONDITIONING

Most of the areas of the hospital will be central Air-Conditioning. The Operation Theatre will have installation of HEPA filters or Electronic Filters, suitable for filtering the micro-organism in addition to the dust and particulate matter. The Intensive care area wills the installation of micro filters.

#### MARKETING STRATEGY

Marketing strategy will play an important role in ensuring the success of this project. There will be a number of obstacles in the way of achieving full utilization of this hospital. There is no doubt that a well-equipped super-specialty hospital of the kind we are planning will be fully utilized in the course of time, but the hospital has to achieve financial viability within a short period. It would there be necessary to ensure maximum utilization right from the first year. Accordingly, a great deal of prelaunch marketing will need to be carried out of order to ensure that the public and medical profession in there fully aware of the sophisticate nature of facilities available. Schemes will need to be introduced in order to ensure that more and more persons find it convenient to use the hospital.

### **PRELAUNCH**

The main objective would be to create awareness for quality health care among various groups of potential user. A network of information and association, for hospitals and doctors in and around the area will need to be built up. Various tieups will need to be established with Government and private hospitals and public and private sector industries. The general public could be informed about the super specialties available, and their interest could be awakened by introducing various schemes like health insurance scheme. Chambers of Commerce and Management Associations could be used to organize insurance tie-ups.

### LAUNCH

This is essential exercise and involves a series of activities, which will ensure that the target market in encouraged using the services of the hospital. The activities will start from the day of Commissioning itself. The hospital will be started after formal inauguration has been done. A high dignitary will be invited for the function as Chief Guest and to cut the ribbon. An all our effort will be made to invite the press and Doordarshan to cover the function LIFE TO LIFE SANST

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The hospital will be started with a professional camp for which a doctor of highest reputes. Indian or International will be invited to see operate case of that specialty.

The hospital will be fully displayed for the doctors and public to see so that opportunity is given to understand the services before the hospital actually starts. Visitors to the hospital will be given a broached of the services, charges and doctors to enable them to make use of the services whenever required. Arrangements will be made to take each of the visitors around the hospital to ensure full acquaintance wills the services from day one.

Visitors on the day of commissioning will be offered Tea, Cold Drinks and Snacks. A small memento key chain, ball pen with the hospital name engraved on it will also be distributed to each of the visitors a reminder if the hospital Direction board of the hospital will be put up over a radius of 10 Kms. For the hospital to ensure on one has to ask the way to the hospital. An effort will be made to Emanuel doctors of repute from day on itself so that patients from day on itself so that patients are encouraged from day on to avail the services of the hospital rather than to have a wait and watch approach.

### PARA MEDICAL

Hospital will have the following PARA MEDICAL facilities for proper diagnosis.

- 1. C T Scan (Multislice, Multidetector)
- 2. X-Ray
- 3 EEG
- 4. TMT
- 5. MIRD
- 6. LABORATORIES
- 7. ENCOSCOPES
- 8. CSSD
- 9. CATH LAB
- 10. INFO TECH
- 11. MRI
- 12. ULTRA SOUND
- 13. ECG
- 14. PERFUSION
- 15, MAMMOGRAPHY
- 16. NUCLEAR MEDICINE
- 17. PHYSIOTHERAPY

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19. OTHER FACILITIES

### LIST OF EQUIPMENT

- 1. X-ray Machine (Big)
- 2. X- ray Machine (Small)
- 3. CAT scan Machine
- 4. MRI Machine
- 5. ECG Unit
- 6. Incubator
- 7. Ultra Sound Machine
- 8. Photo Therapy Unit
- 9. Ophiology Scope
- 10. Jan graphic Equipment
- 11. Blood Urine Stool Testing Equipment
- 12. Blood Pressure Equipment
- 13. Surgical Operative Instrument
- 14. Doctor's Stethoscope
- 15. Film Projector
- 16. ENT and Testing Machine
- 17. Eye Testing Equipment
- 18. Dental Equipment and Accessories
- 19. Cardiology Equipment
- 20. ECHO Cartographic Machine
- 21. Medical Kits and Others
- 22. Lab Equipment
- 23 Library
- 24. Hotel Equipment and Accessories
- 25. Hospital Equipment and Accessories
- 26. Ker meter
- 27. Fumigator
- 28. Auto Equalizer
- 29. GBC Equalizer
- 30. Neurological Equipment
- 31, ECHO Endo- Graphic Machine
- 32. Laser Surgical Equipment
- 33. Orthopedic Equipment
- 34. Physiotherapy Equipment
- 35. Ophthalmoscope
- 36, Sand Graphic Equipment
- 37. Heart Surgery Equipment

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- 38. Stem Cell Lab
- 39. HIC/AID Equipment
- 40. Defibrillator
- 41. Monitor
- 42. Respiratory Unit
- 43. Microbiological Equipment
- 44. Bio- Chemistry Equipment
- 45. Serology and Immunology Equipment
- 46. Dialysis Unit
- 47. Chemotherapy Unit
- 48. Histopathology and Cytology
- 49. Radiography
- 50. Other Medical Kits

Due to recent Research and Development lot of new Ultra-Modern machines and equipment are being developed for testing and Surgical Project will definitely be try to introduce the latest Equipment and Technology

### MEDICAL EQUIPMENT

The medical equipment's required for Hospital have been identified in accordance with the following Criteria

To Ensure that each of the department of the hospital preference has been given to equipment based on modular design to upgrade the facility at a later date thus effacing cost saving.

To be cost effective with respect to performance Recommendations are based on latest available equipment without compromising on desired functional capabilities. Reliability of the equipment suppliers in terms of lead time. In staked base, technical specifications and infrastructure available for providing service support during and beyond warranty period.

#### HOSPITAL INFRASTRUCTURE

The various departments' infrastructure of the hospital are as follows: Pathology, pediatrics and neonatology, nephrology, pod gastro entomology, casualty, emergency, cardiology, ophthalmology, physiotherapy, orthopedic gynecology, radiology, Central sterile OT ENT mortuary hospital furniture.

### **PATHOLOGY**

Feature of equipment of each departments

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This department consists of four sections,





Histopathology, hematology, and serology microbiology biochemistry. The equipment in the indeciduate, sections is as below.

#### Histopathology

#### BINOCULAR MICROSCOPE

Automatic tissue processed for complete automatic dehydration and filtration of human tissues unto final fixing in wax. This has a pre-programmable provision for dehydrating cycle (use selectable) Tissues are subjected OT continuous agitation by retaining stainless steel tissue basket for trough penetration of reagents. The wax bath temperature controlled and maintained by a thermostat. Precision rotary microtome for precise serial sectioning Adjustable from 1 to 30micron.

Freezing microtome for freezing with the help of evaporation of Carbon dioxide gas around the specimen. This allows section thickness range between 54C microns in step of 5 microns. It can be clamped at a corner of the work table.

Tissues floatation bath for preparing distortion less and wrinkle free tissue specimens/ the thermostat control provides and accuracy of 2 C with a range from ambient to 70 C for drying the wet slides.

Block holders for holding the wax block for taking sections on the microtone.

Tissue embedding modules for the preparation and taking of tissue section. Blood cell count for counting cells and simple computation including percentage. It thus 6 units each unit count up to 999 and last unit totalized the difference calls. Micro slide cabinet for accommodating 5000 slides.

Vertical laminator airflow cabinet for localized high quality clean working environment. This is catered for to provide an atmosphere free from air born particles with laminar Air flowing downward the worktable. The working area is 4'x 2'x 2' the filter retain all air born particles of size 0.3 microns and larger.

#### **BLOOD BANK**

Refrigerator for keeping Blood Bottles or blood bags. The temperature range is maintained between 4 to 6 degrees centigrade. Audio visual alerts is available in the event of fluctuation exceeding permitted range.

### **HEMATOLOGY AND SIROLOGY**

Water 8ath with evaporating liquid like alcohol or melting solid gas. This can accommodate containers of various sizes and has automatic cut off device when the bath gets dry.

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Water bath (serological) to handle clinical procedures incubating agglutination as well as many serological, pharmaceutical and bio medical procedure. This has 6 racks in the inner chamber and has thermostat control for immersion hearing elements.

Hot Air Ovens (2 Numbers of different sizes) for destination bacteria, viruses, fungus and sterilize glassware etc. by applying dry Heat with thermostat temperature control between 50-250 degree centigrade.

Bacteriological incubator for a variety of uses drying and staining of slides, paraffin embedding tissue culture work, crystallization study and incubation of hydroxy1 steroids. The temperature control is from ambient to 80 degree centigrade. The size of the inner chamber is 455x455x455 mm.

Shaking Machine is for shaking bottles or flakes of different sizes,

Electrophoresis equipment

Refrigerators 2 nos

Centrifuge.

Modular Microscope

Precision Balance.

Colorimeter for variety of colorimetric analysis. It has 8 filters to cover the whole visible range of the spectrum and the meter reads directly the percentage transmission of the optimal density of the solvent.

### MICRO BIOLOGY

Binocular microscope and some of the equipment of other section will be used by this sections well.

#### **BIO CHEMISTRY**

Lab system analyzer to analyze different blood chemistry test like, glucose, Urea, cholesterol, hemoglobin, Total Protein etc. Spectrophotometer for colorimeter. It has digital display of percentage transmission or optical dentistry, the range is 340 to 950 mile micro is suitable for colorimeter. Flame photometer with compressor for rapid and accurate determination of Alkali and alkali earth metal. Narrow brand pass filter for sodium and potassium are supplied

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standard light emitted by the flame into which a solution of the salt is atomized is measured by a hermetically sealed photo diode.

#### **GLOCOMETER**

Hot air oven for destroying bacteria, viruses fungus and sterilize glassware's etc. by application of dry heat.

#### PEDIATRICS AND NEONATOLOGY

Infant incubators with control for air (or Baby) temperature, humidity and oxygen at uniform selected levels.

Phototherapy unit for treatment of Jaundice in neonates. Cardio Respiratory temperature monitor for reliable detection of anemic episodes and cardiac dysfunction particularly in infants.

### NEPHROLOGY

Hemodialysis machine with deionizer for a single patient which enable diluting dial state concentrate at a prescribed concentration and supplying the diluted dial sate to the dialyses. Both bicarbonate and acetate programmers are available. It has ultra-filtration rate control system which enables top monitor precise fluid removal from the patient's body in accordance with a predetermined time schedule. An accumulative UF amount is displayed at every moment and completion of fluid removal is indicated through an alarm buzzer. Digital display of dial sate pressure, venous pressure and dialysate conductivity with alarm facility is available. This department can be augmented with additional hem dialysis machine depending on the requirement in near future.

#### OUT PATIENT DEPARTMENT (OPD)

Respiratory function inspection analyzer for respiratory function screening to be located in the consulting room. The parameter is automatically calculated with only one examination (taking app. 90seconds) and the result (data curve and judgment) are printed out in approx. 30 seconds. Thus it provide accurate data for effective diagnosis of respiratory function.

B P Apparatus

Stethoscope

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Rectal Thermometer





Each of the consultation rooms in the pod will be suitably equipped for examination. Other facilities available in the OPD are covered under separate heads of functional specialization departments.

### **GASTRO-ENTEROLOGY**

Gastro intestinal fiberscope for endoscopy procedure within narrow 9.8mm insertion tube, wide 2.8mm instrument channel and high quality optics, this serves as a multipurpose fiberscope for treatment and routing examinations.

Colonoscopy for endoscopy procedures. This colon fiberscope has a high degree of insert ability due to its slim external diameter of 13mm and allows for accurate angulations due to application of a wide 120 degree. This scope allows flexibility of function and so also suitable for routine procedure.

#### CASUALTY EMERGENCY

Ambusystem for infents and adults (4 each) are created for use both in emergency / or the facilities available in other department depending upon the requirements.

### CARDIOLOGY

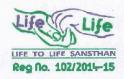
ECG Machine one in Cardiac Centre and two in OPD

Cardiac monitors 3 in ICU, 4 in CCU and 2 in major OTs. Intelligent monitoring with comprehensive alarms, display of selected functions and automatic heart rate setting are available along with peripheral pulse option.

Multi parameter monitors for monitoring ECG, single invasive blood pressure, peripheral pulse, dual temperature and respiration (2 in major OTs one in recovery Room and one in ICU); alarms for Brady cardiac techy cardiac a systole and irregular qtrs. viable, apnea alarms given for delays of 10,20,or 30 seconds, temperature measuring range is 12-44 degree centigrade. Display of blood pressure wave forms with derived values of systolic, diastolic and mean pressure is available.

Central nursing satins (2 Nos.) with combined multi – bed ECG (6) channels and multi – parameter monitoring in ICU / CCU. Queuing facility enable 3 simultaneous alarms to be recorded. Wave from bed No., heart rate fault and status indications are displayed on screen.

Defibrillator monitor recorders, one in each OPD and one to Cardiac Centre Defibrillator changing in less than 100 seconds. Energy restricted to 50 Jules when internal or For LIFE TO LIFE SANSTHAN



neonatal paddles are connected. On – screen display of heart rate and prescribed limit in monitor made is available. Alarm given if no systole is detected for 3 seconds.

Cardiac pacemaker in major OT

Stress Test System with tread mill in cardiac center.

### **OPHTHALOMOLOGY**

Othalmscope

Lensometer for Power measurement

Operating microscope

Cataract extractor

Trial Case

Radioscopy

Monometer screen

Ophthalometer

Slit lamp

Ophthalmic instruments

### **PHYSIOTHERAPY**

Nerve and muscle stimulator with galvanic faradic and surged faradic currents.

Short —wave diathermy for therapy of body tissues through deep heating without excessive temperature elevation of the skin surface and subcutaneous fatty tissues. High frequency physiotherapy unit for treatment of sprains of muscle and other physical ailments. The ultra sound energy reaches the muscle at a depth and massaging effect is obtained without pain to the tender part of the muscle. Intermittent / Constant lumpier cum cervical traction unit. Transaction nerve stimulator Static cycle exercisers (adult and junior). Quadriceps exercise table Miscellaneous (including infrared lamps, ultraviolet lamps, weights and pulley system etc.)

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#### **ORTHOPEDICS**

Colposcope for rapid examination of pathological changes directly visible to the eye such as carcinoma of the cervix. It can be easily moved for rapid bedside examinations and photographing. Doppler fetus detector with digital display of fur to be located in the pod. The fur Laparoscope's

### RADIOLOGY

Ultrasound scanner for abdominal ob'gynae and cardiac investigations. This will be located at ultra sound room in the OPD. The scanner can be upgraded subsequently with Medium dhasoless QT lights for minor OT, which are designed to give concentrated light on the read of surgery with minimum dissipation of heat.

Mobile shadows less to lights (3 sets) one for minor and 2 (two) for delivery rooms.

Ventilators (adult and pediatric) in ICU/CCU for intensive care, anesthesia and patient transportation. Adult ventilators two for major OTS,

Anesthesia machines two for major OTS:

Tespirometers two for major or and one for ICU/ CCU.

#### ENT

Audiometer for testing hearing ability with automatic recording. Automatic operation at test frequencies from 0.25-8-kHz or by random generator with rest sound level.

Miscellaneous instrument including auroscope tracheotomy sets etc.

#### TRAUMA CENTRE SERVICE

Trauma services will be provided for the peoples got some injuries on highways, treated & taken to this center.

This Trauma Centre Services would have 5 big ambulances consisting of all modern equipments needed for first aid for these type of cases.

#### MORTUARY

Mortuary chambers for storage of up to 3 bodies. Temperature of (-) 2 degrees to 4 degrees centure de is maintained.

Chairman / Secretary



#### HOSPITAL FURNITURE

- Hospital Cots
- Attendant's Cots
- Cardiac cots 2 in CCU
- Maternity cots 3 in the wards
- Gymea examination table one in OPD and one in the ward
- Labor table 3 in delivery rooms
- · Cardiac tables 2 one in OPD and one in CCU
- Steel cupboards 35,13 in consulting rooms, 3 in nursing section, 10 in main store, 2 in major OTS, 2 in ICU/CCU and 1 in OT
- Storage racks 20 in main stores
- Sofa sets for doctors duty room 3
- Cot with mattress for duty room
- Orgioaedu/ia tables one in consulting room and one in ward
- Examination tables
- Stretcher on trolley
- Pediatric beds in nursery
- · Operation tables for major OT's
- Surgical table one for minor OT's
- ICU/CCU beds
- Air curtain for transparent insulation/barrier.

#### WARDS

Repairable air pump this can provide a source of breathable air for the adult ventilator and can also be used in the intensive care unit as a standby in the event of main pump failure or as an alternative of expensive cylinder supply.

Additional software of carrying out blood flow studies and can be upgraded to conventional Doppler with an additional investment.

- Semi-automatic video imager to be located at ultrasound room.
- Mobile X-Ray machine 500 ma to be located in the nursing home.
- X-Ray machine 500 ma to be located at OPD, the system can be upgraded to carry out fluoroscopic studies with image intensifier

TB subsequently. The additional investment would be made and when required.

### CENTRAL STERILE SUPPLY DEPOT

Portable autoclave for sterilization of instruments and dressings etc. this will be located at major OT.

Horizontal high-pressure cylindrical steam sterilizer for bulk sterilization of dressings linen surgical instruments glass wares utensils etc. this is based on the principle of microbiological action of saturated steam. This has in-built safety features to control the pressure and temperature. The capacity is 500-1200 mm.



Horizontal high-pressure high-speed cylindrical sterilization for built sterilization with size of 400 mm x 600 mm deep. It is fitted with 18KW electric heater to furnish the sterilization within 6 minutes and is primarily intended for emergency sterilization of unwrapped surgical instruments etc.

Disinfector for decontamination of operations theaters & wards etc. it converts the liquid formal into aerosol particles which ensures 100% sterile germ free and zero bacterial environment and culminates the cumbersome conventional method of fumigation. It can sterilize about 9800 cu. Ft in just 30-60 minutes.

### **OPERATION THEATER (OT)**

Electro-surgical unit for surgical applications two for major OTS it has two independent high frequency generators for monopolar and bipolar applications. Lamp indication and audible tones are available on cutting coagulation and patient's plate discontinuity. Blood gas monitor the range is 0=80 mm hg for PO<sub>2</sub> and 1-200 hg PCO<sub>2</sub> with alarm adjustable for low and high limits for PO<sub>2</sub> and PCO<sub>2</sub>. Twin bottle electric suction apparatus designed for continuous work. Each glass receptacle has a capacity of 2.3 liters. Major OT light one set for each major OT designed for maximum light output with minimum heat dissipation.

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### LIFE TO LIFE SUPER MULTI SPECIALITY HOSPITAL

	ESTIMATED PROJECT COST	OF HOSPITAL	(FOR 100	O BEDS)
S.No.	Particulars	Quantity	Rate	Amount(in crores
	Land & Building			
	Land Cost			
1	Land Purchase Cost (sft)	70000000	600	4200
	Land Development	a to the last		
	( Levelling etc.)	7000000	400	280
3	Fencing/Boundary wall Cost	7000000	400	280
	Building Cost			
1	Hospital Building		Charles .	
(C)	App. Cons. Area	4500000	1500	675
2	Hostel Building		No.	
	App. Cons. Area	200000	1000	20
3	Res. Area staff			
	App. Cons. Area	1000000	1000	100
4	Nursing College	7, 1		
	App. Cons Area ···	500000	3000	15
	Utilities			
			-	The state of the s
	Development of Park			400
		The state of the s		
	Sewerage Treatment Plant			160
	Electricity			500
iocoec		****		300
	Water			12
	Fire Station	4		2
	THE SECTION			3
	Helipad Cost			1
	Air Ambulance			200
,	Air Ambulance Maint & Hanger			20
101				6866

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Chairman / Secretary

519-A, Defence Colony, Kamla Nehru Nagar, Jodhpur - 342005 Contact No. 0291-2751512



### LIFE TO LIFE SUPER MULTI SPECIALITY HOSPITAL

	ESTIMATED PROJECT COST OF HOSPITAL (FO	OR 1000 BEDS)	
S.No.	Particulars	Amount(in crores)	
1	Histopathology	170	
2	Hematology & Serology	110	
3	Micro - Biology	30	
4	Bio- Chemistry	150	
5	Pediatrics & Neonatology	63.2	
6	Nephrology	120	
7	OPD	20	
8 .	Gastro- Entomology	110	
9	Casualty/ Emergency	51.4	
10	Monitoring	300	
11	Opthalmology	50	Bass
12	Physiotherapy	40	
1.3	Orthopedic		
14	Gynecology	70	
15	Diagnostic Imaging	194	
16	Central Sterile Suplty Depo	.30	(S)(X)
17	OT(IČ€U)	300	
18	ENT	20	
19	Mortuary	30	
20	Wards	34	
21	Hospital Furniture	1200	nantonio
22	Ambulance for Hospital	100	<b>V.</b> 3
52.72.76	Ambulance for Trauma		1988
23	Centre Services	100	0000000
24	Mobile Medical Van	40	
25	Other Misc. Assets	800	
		4152.6	

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### LIFE TO LIFE SUPER MULTI SPECIALITY HOSPITAL

FSTIMATED PROJECT	COST OF HOSPITAL ( FOR 1000 BEDS)	1
INPUT COST	COST OF HOSPITAL ( FOR 1000 BEDS)	
Particulars	Amount(in crores	)
Médical		
Operation Theator	120	
Delivery Charges	160	
Diagnostic	320	
Others	47	
Non- Medical	132	
Utility Cost	150	
Manpower Requirement App.	700	HAIN!
Adm.OH	170	
Maintenance	59	
Miscellaneous	800	
	2858	

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ASHOK KUMAR JAIN CHARTERED ACCOUNTANT BCom (Hons.) F.C.A., I.C.W.A.

HOUSE No.9

JAIN COLONY, I/S BANK COLONY
RAIKABAG. JODHPUR-342006

11<sup>th</sup> May,2018

### **CRERTIFICATE**

It is hereby certified that this LIFE TO LIFE MULTI SPECIALITY HOSPITAL project report has been prepared today on 11<sup>th</sup> May,2018. This Project Report contains total 28 (Twenty - Eight) pages bearing seal with initial and signature. First 27 (Twenty seven) pages contain round seal with initial and last page contain full signature with seal.

This project report has been prepared on the basis of information provided and explanations given to us. These figures are subject to change at the time of actual working depending on exact Drawing and Estimate of Architect and because of time gap between preparation of the project report and implementation of the Project, Change in Brand/Specification etc. of equipment because of technological development and up gradation and obsolescence of old Equipment and old technology.

For ASHOK KUMAR JAIN Chartered Accountant

> Ashok Kumar Jain Prop. M. No.71226



### LIFE TO LIFE SUPER MULTI SPECIALITY HOSPITAL

ESTIMATED PROJECT COST OF HOSPITAL  Preliminary and Preoperative E	
Particulars	Amount(in crores)
Preop. Exp	20
Preliminary Exp	800
Working Capital	800
Total	1620
Land Building	6866
Total Project Cost	A Commence of the Commence of
Particulars	Amount(in crores)
Land Building	0000
	/1153
Equipment	4153
Equipment Input Cost	2858
Input Cost	2858 1620
Input Cost Prel. & Preop.Exp	2858 1620
Input Cost Prel. & Preop. Exp R & D BUDGET	2858 1620 10000
Input Cost Prel. & Preop.Exp R & D BUDGET Robotic Surgery Equipment	2858 1620 10000 10000
Input Cost Prel. & Preop.Exp R & D BUDGET Robotic Surgery Equipment Corpus Fund	2858 1620 10000 10000 55000
Input Cost Prel. & Preop.Exp R & D BUDGET Robotic Surgery Equipment	2858

For LIFE TO LIFE SANSTHAN

Chairman / Secretary

For ASHOK KUMAR JAIN
Chartered Account 12018
Ashok Kumar Jain
Prop. M. No.71226