



# लाल बहादुर शास्त्री पैरामेडिकल काउंसिल उत्तर प्रदेश

Head Office: 2<sup>nd</sup> Floor Sunil Complex Near RG PG College Meerut



*Syllabus*  
**SANITARY**  
**INSPECTOR**  
*at the*  
**LBSPC**

**Exam: June & December**

**(To be implemented from 2023-24 session)**

# **LAL BHADUR SHASTRI PARAMEDICAL COUNCIL**

## **DIPLOMA IN SANITARY INSPECTOR**

**DURATION: 02 YEARS**

### **SYLLABUS**

#### **SYLLABUS:**

1. Anatomy and Physiology
2. General Sanitation
  - Climatology
  - Nutrition
  - Entomology
  - Disinfection and disinfestations
  - Hygiene inspection
  - Hygiene of movement
  - Personal hygiene and snake bite and its first aid
3. Minor Sanitary Engineering
  - Water supply
  - Disposal of waste products
  - Disposal of non-excremental refuse
  - Ventilation, lighting and heating
4. Preventive Medicine & Public Health Administration
  - Communicable diseases
  - Non-communicable diseases and conditions
  - Contact diseases
  - Mental health
  - Occupational health
  - Insect borne diseases and animal borne diseases
  - Immunology
  - Health education
  - Vital statistics
  - Elementary bacteriology
  - Family planning
  - Rural or village sanitation, fair & festivals

| PAPER   | DURATION OF STUDY         | SUBJECTS   | DURATION OF PAPER | MARKS      |
|---|---------------------------|--|-------------------|------------|
| PAPER I<br>Anatomy and<br>Physiology                                    | 50                        | Anatomy  | 03<br>HRS         | 25         |
|   | 25                        | Physiology   |                   | 25         |
|   | <b>TOTAL</b>              |  |                   | <b>50</b>  |
|   | <b>INTERNAL ASSESMENT</b> |  |                   | <b>50</b>  |
| PAPER II<br>General<br>Sanitation                                       | 10                        | Climatology  | 03<br>HRS         | 05         |
|   | 25                        | Nutrition  |                   | 15         |
|   | 50                        | Entomology   |                   | 25         |
|   | 25                        | Disinfection and disinfestations                   |                   | 15         |
|   | 50                        | Hygiene inspection                                 |                   | 25         |
|   | 05                        | Hygiene of movement                                |                   | 05         |
|   | 10                        | Personal hygiene and snake bite and its firstaid   |                   | 10         |
|   | <b>TOTAL</b>              |  |                   | <b>100</b> |
| <b>INTERNAL ASSESMENT</b>   |                           |  | <b>100</b>        |            |
| PAPER III<br>Minor Sanitary<br>Engineering                              | 60                        | Water supply                                       | 03<br>HRS         | 30         |
|   | 40                        | Disposal of waste products                         |                   | 30         |
|   | 40                        | Disposal of non-excremental refuse                 |                   | 20         |
|   | 35                        | Ventilation, lighting and heating                  |                   | 20         |
|   | <b>TOTAL</b>              |  |                   | <b>100</b> |
| <b>INTERNAL ASSESMENT</b>   |                           |  | <b>100</b>        |            |
| PAPER IV<br>Preventive<br>Medicine &<br>Public Health<br>Administration | 30                        | Communicable diseases                              | 03<br>HRS         | 20         |
|   | 20                        | Non-communicable diseases and conditions           |                   | 10         |
|   | 10                        | Contact diseases                                   |                   | 05         |
|   | 05                        | Mental health                                      |                   | 05         |
|   | 15                        | Occupational health                                |                   | 10         |
|   | 25                        | Insect borne diseases and animal borne diseases    |                   | 10         |
|   | 10                        | Immunology   |                   | 05         |
|   | 15                        | Health education                                   |                   | 10         |
|   | 15                        | Vital statistics                                   |                   | 10         |
|   | 10                        | Elementary bacteriology                            |                   | 05         |
|   | 10                        | Family planning                                    |                   | 05         |
|   | 10                        | Rural or village sanitation, fair & festivals      | 05                |            |
| <b>TOTAL</b>  |                           |  | <b>100</b>        |            |
| <b>INTERNAL ASSESMENT</b>   |                           |  | <b>100</b>        |            |
| PRACTICAL   | 60                        | Anatomy and Physiology                             | 03<br>HRS         | 100        |
|   | 180                       | General Sanitation                                 |                   |            |
|   | 180                       | Minor Sanitary Engineering                         |                   |            |
|   | 180                       | Preventive Medicine & Public Health Administration |                   |            |

| S NO   | COURSE CONTENT OF FIRST YEAR  | NO OF HOURS |           |
|--------|---|-------------|-----------|
|        |   | THEORY      | PRACTICAL |
| 1.     | <b>ANATOMY</b>  | 50          | 50        |
| (i)    | Introduction<br>- Tissues of the body   | 02          |           |
| (ii)   | Skeletal System<br>- The skull, the thorax, the vertebral column, the pelvic girdle, the upper limb, the lower limb   | 04          |           |
| (iii)  | Arthrology<br>- Types, characteristics, varieties and movements.<br>- Special joints - Sternoclavicular, acromioclavicular, shoulder, elbow, radioulnar, wrist, hip, knee, tibiofibular, ankle and joints of the hand and foot. | 04          |           |
| (iv)   | Myology<br>- Muscles of head and face, chest, abdomen, back, upper and lower extremities.<br>- Anatomical spaces.   | 04          |           |
| (v)    | Circulatory System<br>- Heart and blood vessels   | 05          |           |
| (vi)   | Lymphatic system  | 04          |           |
| (vii)  | Alimentary system<br>- Alimentary canal and accessory organs.   | 04          |           |
| (viii) | Respiratory system<br>- Respiratory passage, lungs and pleura.  | 04          |           |
| (ix)   | Endocrine glands  | 04          |           |
| (x)    | Urinary system<br>- Kidney, Ureter and Urinary bladder.   | 04          |           |
| (xi)   | Nervous system<br>- Meninges, brain, spinal cord, nerves and their plexuses.  | 04          |           |
| (xii)  | Organs of special senses<br>- Tongue, nose, eye, ear and skin.  | 04          |           |
| (xiii) | Reproductive system<br>- Male and female.   | 04          |           |

|  |   |    |    |
|--|---|----|----|
| 2.                                     | <b>PHYSIOLOGY</b>   | 25 | 25 |
| (i)                                    | Circulatory system<br>- Blood<br>- Cardiac cycle and circulation of the blood<br>- Blood pressure and pulse | 04 |    |
| (ii)                                   | Digestive system<br>- Food<br>- Digestion of food   | 03 |    |
| (iii)                                  | Physiology of respiration   | 04 |    |
| (iv)                                   | Metabolism  | 04 |    |
| (v)                                    | Function of Endocrine Glands  | 04 |    |
| (vi)                                   | Renal function  | 02 |    |
| (vii)                                  | Nervous system and cerebrospinal fluid.   | 02 |    |
| (viii)                                 | Taste, sight, smell and hearing.  | 02 |    |
| <b>PAPER – II (GENERAL SANITATION)</b> |   |    |    |
| 2.                                     | <b>CLIMATOLOGY</b>  | 10 | 10 |
| (i)                                    | Causes of environmental Diseases & effect of climate on health  | 02 |    |
| (ii)                                   | Effects of Heat & Prevention  | 02 |    |
| (iii)                                  | Effects of cold , High Altitude & Prevention  | 02 |    |
| (iv)                                   | Museum – climate section  | 02 |    |
| (v)                                    | Meteorological instruments and their uses   | 02 |    |
| 3.                                     | <b>NUTRITION</b>  | 25 | 25 |
| (i)                                    | Elementary physiology of the digestive system   | 02 |    |
| (ii)                                   | Food constituents, function and requirements  | 02 |    |
| (iii)                                  | Balanced diet   | 02 |    |
| (iv)                                   | Museum- Food section  | -  |    |
| (v)                                    | Vitamins and deficiency diseases  | 02 |    |
| (vi)                                   | Malnutrition and its prevention   | 02 |    |
| (vii)                                  | Food adulteration and food adulteration act.  | 02 |    |
| (viii)                                 | Inspection of food stuff, dry, fresh and tinned.  | 02 |    |

|        |   |    |  |
|--------|---|----|--|
| (ix)   | Storage, transportation and cooking of food.                                  | 02 |  |
| (x)    | Food poisoning- Investigation and control                                     | 02 |  |
| (xi)   | Hygiene inspection of Bakery  | 02 |  |
| (xii)  | Hygiene inspection of Butchery  | 01 |  |
| (xiii) | Milk supplies and pasteurization of milk                                      | 01 |  |
| (xiv)  | Hygiene inspection of dairy farm  | 01 |  |
| (xv)   | Visit to Dairy Farm,  | -  |  |
| (xvi)  | Taking of milk sample and analysis of milk                                    | 02 |  |
| (xvii) | Museum – Milk and food section  | -  |  |
| 4.     | <b>ENTOMOLOGY</b>   | 50 |  |
| (i)    | House fly life history ,habits and its relation to the spread of diseases     | 02 |  |
| (ii)   | Antifly measures – fly survey   | 02 |  |
| (iii)  | Museum study –fly section   | 02 |  |
| (iv)   | Ticks – Biomics , morphology ,diseases transmitted and control                | 02 |  |
| (v)    | Rat flea– Biomics , morphology ,diseases transmitted and control              | 02 |  |
| (vi)   | Louse – Biomics , morphology ,diseases transmitted and control                | 02 |  |
| (vii)  | Sand fly – Biomics , morphology ,diseases transmitted and control             | 02 |  |
| (viii) | Dimdam fly – Biomics , morphology ,diseases transmitted and control           | 02 |  |
| (ix)   | Trombicula mite ticks – Biomics , morphology ,diseases transmittedand control | 02 |  |
| (x)    | Bed bugs – Biomics , morphology ,diseases transmitted and control             | 02 |  |
| (xi)   | Leeches- life history and control   | 02 |  |
| (xii)  | Museum – Insect section   | -  |  |
| (xiii) | Field work – Sand fly survey  | -  |  |
| (xiv)  | Delousing – (Lecture/Demonstration)   | 01 |  |
| (xv)   | De-bugging  | 01 |  |
| (xvi)  | Importance of Malaria   | 02 |  |
| (xvii) | Life cycle of Anopheline and Culicine mosquitoes                              | 01 |  |



|           |  |    |
|-----------|--|----|
| (xviii)   | Differentiation of Anopheline and Culicine mosquitoes in all stages                    | 02 |
| (xix)     | Habits of mosquitoes   | 01 |
| (xx)      | Museum mosquito section  | -  |
| (xxi)     | Malaria parasites –life cycle , species and characteristics<br>(Lecture/Demonstration) | 01 |
| (xxii)    | Museum malaria parasites section   | -  |
| (xxiii)   | Dissection of adult mosquitoes   | -  |
| (xxiv)    | Field work- Adult mosquitoes collection  | -  |
| (xxv)     | Preservation of collected specimens  | 01 |
| (xxvi)    | Vectors of major importance in India   | 01 |
| (xxvii)   | Malaria survey and spot map making   | 01 |
| (xxviii)  | Field work - Malaria survey and spot map making  | -  |
| (xxix)    | Malaria control in general   | 01 |
| (xxx)     | Suppressive treatment and anti malaria drugs   | 01 |
| (xxxi)    | Personal protective measures , camp siting and malaria curfew                          | 01 |
| (xxxii)   | Anti malarial discipline and orders regarding stores and equipment                     | 01 |
| (xxxiii)  | Anti adult measures  | 01 |
| (xxxiv)   | DDT , BHC as insecticides and their formulation  | 01 |
| (xxxv)    | Preparation of DDT solution /suspension  | 01 |
| (xxxvi)   | Spraying equipments , their working and maintenance                                    | -  |
| (xxxvii)  | Preparation of DDT solution (practical)  | -  |
| (xxxviii) | Techniques of DDT spraying   | 01 |
| (xxxix)   | DDT spraying   | 01 |
| (xxxx)    | Pyrethrum formulation and use  | 01 |
| (xxxxi)   | Anti larval measures   | 01 |
| (xxxxii)  | Chemical larvicide   | 01 |
| (xxxxiii) | Oiling and DDT spraying for anti larval measures                                       | 01 |
| (xxxxiv)  | Anti malaria drainage and dry day  | 01 |

|            |  |    |    |
|------------|--|----|----|
| (xxxxv)    | Anti Malaria drainage and dry day  | 01 |    |
| (xxxxvi)   | Field work – mosquito larval collection  | -  |    |
| (xxxxvii)  | Museum- Insecticides section   | -  |    |
| (xxxxviii) | NMEP   | 01 |    |
| 5.         | <b>DISINFECTION AND DISINFESTATION</b>   | 25 |    |
| (i)        | Object of disinfection and disinfestations   | 02 |    |
| (ii)       | Physical methods of disinfection   | 02 |    |
| (iii)      | TOT disinfector –Demo area   | 03 |    |
| (iv)       | Field portable disinfector MIL III   | 03 |    |
| (v)        | Practical work of TOT disinfector by trainees  | -  |    |
| (vi)       | Various methods of improvised disinfectors   | 03 | 25 |
| (vii)      | Chemical and gaseous disinfectants   | 03 |    |
| (viii)     | Methods of disinfecting virus infected articles  | 03 |    |
| (ix)       | Methods of carrying local and complete disinfection  | 03 |    |
| (x)        | Practice in conducting local and complete disinfection   | 03 |    |
| 6.         | <b>HYGIENE INSPECTION</b>  | 50 |    |
| (i)        | General principles of carrying out hygiene inspection and method of writing hygiene report on sanitary inspection                        | 07 |    |
| (ii)       | Hygiene inspections of living accommodation ,recreation and information room, cook houses , dining hall ,messes , ration stores ,canteen | 08 |    |
| (iii)      | Hygiene inspection of latrines , urinals ,bathrooms & barber shops   | 07 |    |
| (iv)       | Hygiene inspection of married quarters and unit institutions   | 07 | 50 |
| (v)        | Hygiene inspection of mineral water and ice factory  | 07 |    |
| (vi)       | Hygiene inspection of restaurant   | 07 |    |
| (vii)      | Hygiene inspection of school   | 07 |    |
| (viii)     | Sanitary inspection and submission of report (practical)   | -  |    |



|   |  |    |    |
|---|--|----|----|
| 7.  | <b>HYGIENE OF MOVEMENT</b>   | 05 | 05 |
| (i)   | Hygiene of movement  | 02 |    |
| (ii)  | Hygiene of the movement by Rail ,Ship & Air  | 03 |    |
| 8.  | <b>PERSONAL HYGIENE AND SNAKE BITE AND ITS FIRST AID</b>   | 10 | 10 |
| (i)   | Personal hygiene /museum / film-personal hygiene   | 05 |    |
| (ii)  | The important poisonous snakes of India and how to distinguish a poisonous from non-poisonous snakes | 03 |    |
| (iii)   | First aid of snake bite  | 02 |    |
| <b>PAPER – III (MINOR SANITARY ENGINEERING)</b> |  |    |    |
| 9.  | <b>WATER SUPPLY</b>  | 60 | 60 |
| (i)   | Sources and protection of water supply   | 04 |    |
| (ii)  | Requirement and distribution   | 04 |    |
| (iii)   | Purification of water  | 04 |    |
| (iv)  | Sedimentation of water (Lecture/Demonstration)   | 04 |    |
| (v)   | Filtration of water  | 04 |    |
| (vi)  | Horrock's test   | 04 |    |
| (vii)   | Sterilization of water by chlorine   | 04 |    |
| (viii)  | Water purification in the field (Two tank method)  | 04 |    |
| (ix)  | Sterilization of water in containers   | 04 |    |
| (x)   | Museum- Water section  | -  |    |
| (xi)  | Water Tank/ Trucks and filters   | 04 |    |
| (xii)   | Establishment of water point   | 04 |    |
| (xiii)  | Demo area- water point   | -  |    |
| (xiv)   | Estimation of Chlorine in bleaching powder   | 04 |    |
| (xv)  | Preparation of cadmium iodide and starch solution  | 04 |    |
| (xvi)   | Individual water sterilizing out fit   | 04 |    |
| (xvii)  | Sampling of water for chemical and bacteriological examination                                       | 04 |    |
| (xviii)   | Visit- Civil water works   | -  |    |

|         |   |    |    |
|---------|---|----|----|
| 10.     | <b>DISPOSAL OF WASTE PRODUCTS</b>   | 40 | 40 |
| (i)     | Disposal of waste products, General principles and methods employed                         | 04 |    |
| (ii)    | Disposal of human faeces  | 02 |    |
| (iii)   | Water carriage system, house drainage, various sanitary appliances used.                    | 04 |    |
| (iv)    | Testing of house drains   | 02 |    |
| (v)     | Disposal of sewage (Sewage works)   | 02 |    |
| (vi)    | Visit to sewage disposal plant  | -  |    |
| (vii)   | Septic tanks, designs, construction and disposal of effluent                                | 02 |    |
| (viii)  | Aqua privy  | 02 |    |
| (ix)    | Removal system, pan type, collection and disposal by trenching composting and incineration. | 02 |    |
| (x)     | Visit trenching ground  | -  |    |
| (xi)    | Nitrogen cycle  | 02 |    |
| (xii)   | Disposal of human faeces in semi permanent camp   | 02 |    |
| (xiii)  | Deep trench latrine- construction, maintenance  | 02 |    |
| (xiv)   | Bore hole and built up deep trench latrine  | 02 |    |
| (xv)    | Disposal of human urine in semi permanent camp, funnel urinal, urinal through urinal        | 02 |    |
| (xvi)   | Disposal of human excreta in camp   | 02 |    |
| (xvii)  | Shallow trench latrine, incinerator latrine   | 02 |    |
| (xviii) | Demo area- excreta disposal section   | -  |    |
| (xix)   | Rural latrine   | 02 |    |
| (xx)    | Improvised sanitary appliances used in the field (Demo area)                                | 02 |    |
| (xxi)   | Disposal of animal excreta, tight pack  | 02 |    |
| 11.     | <b>DISPOSAL OF NON-EXCREMENTAL REFUSE</b>   | 40 | 40 |
| (i)     | Disposal of solid refuse-collection, removal and disposal                                   | 05 |    |
| (ii)    | Various incineration used in the field construction maintenance                             | 05 |    |
| (iii)   | Beehive incinerator   | 05 |    |

|  |  |    |    |
|--|--|----|----|
| (iv)   | Demo area- Incinerator section   | -  |    |
| (v)  | Disposal of liquid waste   | 05 |    |
| (vi)   | Cold water grease trap and working principle construction and maintenance  | 05 |    |
| (vii)  | Soakage pit- construction and maintenance  | 05 |    |
| (viii)   | Demo area liquid waste collection  | -  |    |
| (ix)   | Improvised grease trap   | 05 |    |
| (x)  | Museum- disposal of refuse section   | -  |    |
| (xi)   | Disposal of dead bodies and carcasses  | 05 |    |
| 12.  | <b>VENTILATION , LIGHTING AND HEATING</b>  | 35 | 35 |
| (i)  | Air composition , pollution of air and their effects on health ,temperature  | 15 |    |
| (ii)   | The principles of ventilation , type of ventilation and simple methods of warming ,lighting and ventilation                                      | 20 |    |
| <b>PAPER – IV (PREVENTIVE MEDICINE &amp; PUBLIC HEALTH ADMINISTRATION)</b> |  |    |    |
| 13.  | <b>COMMUNICABLE DISEASES</b>   | 30 | 30 |
| (i)  | Epidemiology   | 02 |    |
| (ii)   | Classification of diseases – chain of infection  | 02 |    |
| (iii)  | Definitions –patients ,missed cases ,carriers ,contacts , incubationperiod, isolation, quarantine ad surveillance, epidemics ,endemics,pandemics | 03 |    |
| (iv)   | Excremental diseases and general control measures  | 02 |    |
| (v)  | Cholera –prevention and control  | 02 |    |
| (vi)   | Dysentery and diarrhea–prevention and control  | 02 |    |
| (vii)  | Infectious hepatitis–prevention and control  | 02 |    |
| (viii)   | Poliomyelitis –prevention and control  | 02 |    |
| (ix)   | Intestinal worm diseases( Helmenthiasis ) –prevention and control  | 02 |    |
| (x)  | Air borne diseases and general control measures  | 02 |    |
| (xi)   | Tuberculosis –prevention and control   | 01 |    |

|         |  |    |    |
|---------|--|----|----|
| (xii)   | B C G  | 01 |    |
| (xiii)  | Small pox –prevention and control  | 01 |    |
| (xiv)   | Chicken pox –prevention and control  | 01 |    |
| (xv)    | Measles –prevention and control  | 01 |    |
| (xvi)   | Mumps –prevention and control  | 01 |    |
| (xvii)  | Influenza –prevention and control  | 01 |    |
| (xviii) | Whooping cough –prevention and control   | 01 |    |
| (xix)   | Diphtheria –prevention and control   | 01 |    |
| 14.     | <b>NON-COMMUNICABLE DISEASES AND CONDITIONS</b>  | 20 |    |
| (i)     | Cancer –prevention and control   | 04 |    |
| (ii)    | Cardiovascular diseases  | 04 |    |
| (iii)   | Diabetes   | 04 |    |
| (iv)    | Blindness  | 04 |    |
| (v)     | Accidents  | 04 |    |
| 15.     | <b>CONTACT DISEASES</b>  | 10 | 10 |
| (i)     | STD –prevention and control  | 03 |    |
| (ii)    | Scabies –prevention and control  | 03 |    |
| (iii)   | Other skin diseases  | 02 |    |
| (iv)    | Leprosy  | 02 |    |
| 16.     | <b>MENTAL HEALTH</b>   | 05 | 05 |
| (i)     | Warning signals of poor mental health and causes of mental health                          | 02 |    |
| (ii)    | Mental health services , alcoholism and drug dependency                                    | 03 |    |
| 17.     | <b>OCCUPATIONAL HEALTH</b>   | 15 | 15 |
| (i)     | Occupational health and diseases   | 05 |    |
| (ii)    | Measures for the general health protection of workers ,prevention of occupational diseases | 10 |    |

|         |  |    |    |
|---------|--|----|----|
| 18.     | <b>INSECT BORNE DISEASES AND ANIMAL BORNE DISEASES</b>                 | 25 | 25 |
| (i)     | Filariasis –prevention and control                                     | 02 |    |
| (ii)    | Dengue –prevention and control   | 02 |    |
| (iii)   | Yellow fever –prevention and control                                   | 02 |    |
| (iv)    | Other viral diseases –prevention and control                           | 02 |    |
| (v)     | Relapsing fever –prevention and control                                | 02 |    |
| (vi)    | Sand fly fever –prevention and control                                 | 02 |    |
| (vii)   | Plague –prevention and control   | 02 |    |
| (viii)  | Scrub typhus –prevention and control                                   | 02 |    |
| (ix)    | Louse borne diseases   | 01 |    |
| (x)     | Murine typhus  | 01 |    |
| (xi)    | DBP application drill(demo/pract)                                      | -  |    |
| (xii)   | Rabies –prevention and control   | 01 |    |
| (xiii)  | Tetanus –prevention and control  | 01 |    |
| (xiv)   | Anthrax –prevention and control  | 01 |    |
| (xv)    | Undulant fever –prevention and control                                 | 01 |    |
| (xvi)   | Leishmaniasis –prevention and control                                  | 01 |    |
| (xvii)  | Rat bite fever –prevention and control                                 | 01 |    |
| (xviii) | Rodent control   | 01 |    |
| (xix)   | Laboratory work  | -  |    |
| (xx)    | Museum/ film- Scrub typhus   | -  |    |
| 19.     | <b>IMMUNOLOGY</b>  | 10 | 10 |
| (i)     | Elementary immunology  | 02 |    |
| (ii)    | Innoculation and vaccination   | 04 |    |
| (ii)    | Techniques of vaccination  | 04 |    |
| 20.     | <b>HEALTH EDUCATION</b>  | 15 | 15 |
| (i)     | Importance of health education in relation to environmental sanitation | 03 |    |

|       |   |    |    |
|-------|---|----|----|
| (ii)  | Tools and techniques in health education  | 04 |    |
| (iii) | Preparing charts, demonstration of audiovisual aids, posters and filmetc  | 04 |    |
| (iv)  | Organization meetings and how to deliver on health  | 04 |    |
| 21.   | <b>VITAL STATISTICS</b>   | 15 |    |
| (i)   | Importance and use of vital statistics collection, complication and presentation  | 03 | 15 |
| (ii)  | Calculation of rates  | 03 |    |
| (iii) | Other statistic related to health   | 03 |    |
| (iv)  | Population statistics   | 03 |    |
| (v)   | Charts and diagrams   | 03 |    |
| 22.   | <b>ELEMENTARY BACTERIOLOGY</b>  | 10 |    |
| (i)   | Micro-Organisms, their structure  | 03 | 10 |
| (ii)  | Disease producing organisms, Pathogenicity, Virulence and growth inculture media  | 07 |    |
| 23.   | <b>FAMILY PLANNING</b>  | 10 |    |
| (i)   | Family planning and necessity   | 03 | 10 |
| (ii)  | General out lines of the methods:-<br>Non surgical methods-use of contraception and safe period etc<br>Surgical methods and MTP | 07 |    |
| 24.   | <b>RURAL OR VILLAGE SANITATION, FAIR &amp; PESTIBLES</b>  | 10 |    |
| (i)   | Rural or village sanitation   | 05 | 10 |
| (ii)  | Fair and Festivals  | 05 |    |