## Syllabus

<table>
<thead>
<tr>
<th>Paper Code</th>
<th>Paper Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS 11</td>
<td>Food &amp; Nutrition</td>
<td>4</td>
</tr>
<tr>
<td>DCS 12</td>
<td>Environmental Sanitation</td>
<td>4</td>
</tr>
<tr>
<td>DCS 13</td>
<td>Sanitary Engineering</td>
<td>4</td>
</tr>
<tr>
<td>DCS 14</td>
<td>Communicable &amp; Non-Communicable Diseases</td>
<td>4</td>
</tr>
<tr>
<td>DCS 15</td>
<td>Personal Hygiene</td>
<td>4</td>
</tr>
<tr>
<td>DCS 16</td>
<td>Health &amp; Death Statistics</td>
<td>6</td>
</tr>
<tr>
<td>DCS 17</td>
<td>Practical</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

### DCS 11 Food & Nutrition

**Section 1** Basic terms & Functions of nutrition, Nutrients macro and micronutrients, Methods of Cooking, Food Preservation, Enhancing the nutritional quality of foods

- Unit 1 Understanding relationship between food,
- Unit 2 Nutrition and health,
- Unit 3 Functions of food - Physiological, psychological and social
- Unit 4 Classification, digestion, absorption, functions, RDA and dietary sources
- Unit 5 Foodstuffs, Dry moist, frying and microwave cooking,
- Unit 6 Advantages, disadvantages and the effect of various methods of cooking on foods,
- Unit 7 Structure,
- Unit 8 Composition,
- Unit 9 Nutritive value, selection, culinary uses and the principles of preparation
- Unit 10 Causes of food spoilage,
- Unit 11 Principles of food preservation,
- Unit 12 Methods of food preservation
- Unit 13 Germination,
- Unit 14 Fermentation,
- Unit 15 Combination of foods,
- Unit 16 Fortification

### REFERENCE BOOKS
DCS 12 Environmental Sanitation

Section 1  Water, Liquid Waste Disposal, Sewage Disposal, Solid Waste Disposal, Air

Unit 1 Sources of water, various uses of water and its need. Physical, chemical and biological standard for potable water
Unit 2 Sources and nature of pollution of water. Process of purification of water in large scale and small scale.
Unit 3 Water supply and storage system at the community and domestic level.
Unit 4 Noise Refuse Disposal, Composition of air, sources of air pollution and nature of pollutants, estimation of level of pollutants. Process air purification and disinfections.
Unit 5 Green house effect, types of ventilation, thermal comfort, air temperature, humidity, radiation, evaporation and their measurements, Measurement of intensity of noise pollution,
Unit 6 Demonstration of refuse collection and transportation in an urban area, Demonstration and operation of compost pits, sanitary land filling and insanitation process
Unit 7 Classification of solid waste in the community.
Unit 8 Polluting affects of different types of solid waste, system of collection of solid waste from the houses and street, sanitary transportation of solid waste, sanitary process of disposal of solid waste such as composting, sanitary land filling, incineration
Unit 9 Classification of liquid waste, Physical, Chemical and bacteriological quality of different types of liquid waste.
Unit 10 Health hazard related to accumulation of liquid waste or in sanitary drainage system.
Unit 11 Construction and maintenance of sanitary sewerage system. Use of different types of traps, pollution of water sources from sewerage and its disinfection
Unit 12 Demonstration of sewage system, Inspection of manholes, inspection chambers and maintenance of gully trap,
Unit 13 Collection of sewage sample for chemical and bacteriological analysis and interpretation of reports,
Unit 14 Organisation of cleaning, minor engineering and oil operation of the sewage system, Detection of pollution of water from sewage.
Unit 15 Process of disinfections of water in large and small scale, provisions for sanitary wells and tube wells, plumbing system and its maintenance.
Unit 16 Inspection and maintenance of sewage treatment plants and disinfections of stabilized sewage

REFERENCE BOOKS

1. Food Hygiene and Sanitation: Roday, Sunetra
2. Municipal and Rural sanitation: Victor Ehalers & Earnest W Steel

DCS 13 Sanitary Engineering
Section 1 Soil Sanitation, Control Of Biological Environment, Identification, Sanitation Measures In Fairs, Housing

Unit 1 Types of soil,
Unit 2 Water retention properties of different types of soil,
Unit 3 Natural drainage of soil, sources of pollution of soil,
Unit 4 Health hazards associated with soil, pollution, prevention of soil pollution and treatment of soil
Unit 5 Study on insecticides, pesticides and disinfections
Unit 6 Sterilisation & disinfections of different articles
Unit 7 Various spraying equipments. Uses of rodenticides & larvaecidals.
Unit 8 Identification and use of insecticides, pesticides and disinfections,
Unit 9 Application of techniques of sterilization and disinfections of various articles
Unit 10 Identification of different parts of spraying equipment,
Unit 11 Operation and maintenance of spraying equipment,
Unit 12 Use of larvaecidals, Use of rodenticides
Unit 13 Unit Festivals And Natural calamities – Mass Casualty Disposal
Unit 14 Sanitary problems associated with human gatherings and temporary settlements, Sanitary problems associated with natural calamities,
Unit 15 Common health problems in unsanitary state of fairs, festivals, human gatherings, planning and anticipatory extra sanitary measures in fairs, festivals and temporary settlements and natural calamities
Unit 16 Requisites of satisfactory and safe housing, sanitary standards for construction of houses and provision of utility services, assessment of overcrowding

REFERENCE BOOKS

2. Elements of public health engineering: K. N. Duggal
3. Environmental pollution control engineering: C. S. Rao
4. Sewerage and sewage treatment: S. R. Kshirasagar

DCS 14 Communicable & Non-Communicable Diseases

Section 1 Communicable Diseases, Immunity & Immunisation, Diseases, Disinfection & Sterilisation, Diseases of skin

Unit 1 Introduction, Terminology Unit
Unit 2 Modes of disease transmission,
Unit 3 General measures for prevention & control of communicable diseases
Unit 4 Role of Health Worker
Unit 5 Purpose, types & effects
Unit 6 National Immunisation schedule for prevention of major communicable diseases – BCG, DTP, Polio, Measles & Typhoid Vaccines
Unit 7 Effective disinfection by liquid chemical agents like Halogen, Potassium per magnate solution etc
Unit 8 Solid chemical agent – Bleaching powder,
Unit 9 Non-Communicable Diseases,
Unit 10 Diagnosis & prevention,
Unit 11 Insect infestation,
Unit 12 Fungal infection,
Unit 13 Viral diseases,
Unit 14 Scabies,
Unit 15 Immunological problems, malaria, cholera, small pox, chicken pox, V. D.,
Unit 16 Principles of communicable diseases control -planning, control measures and immunization, HIV/AIDS, Plague, Tuberculosis

REFERENCE BOOKS

1. Communicable Disease Epidemiology and Control: A Global Perspective Roger Webber
2. Communicable Disease Control Handbook Jeremy Hawker, Norman Begg
3. Communicable and infectious diseases: Diagnosis, prevention, treatment Franklin Henry Top

DCS 15 Personal Hygiene

Section 1 Introduction, Maintenance, Environmental Health, HIV/AIDS, Food sanitation

Unit 1 Factors influencing health & hygiene
Unit 2 Health habits & practice,
Unit 3 Maintenance of normal circulation,
Unit 4 Respiration,
Unit 5 Digestion etc,
Unit 6 Dental care
Unit 7 Care of hands,
Unit 8 Hand washing
Unit 9 Water supply -sources, impurities and pollution,
Unit 10 Water borne disease, water purification,
Unit 11 Protected, water supply, Disposal of refuse, Housing, Disposal of human excreta, Ventilation, lighting, noise control
Unit 12 HIV/AIDS introduction
Unit 13 Transmission and control
Unit 14 Food sanitation,
Unit 15 Diseases transmitted through food, milk as a transmitter of disease, milk sanitation
Unit 16 Balanced diet

REFERENCE BOOKS

1. GERM S (ROOKIE READERS): Judy Oetting
2. KEEPING CLEAN (HEALTHY CHOICES): Cath Senker
3. BRUSHING WELL (DENTAL HEALTH): Helen Frost

Page 5 of 6
DCS 16 Health & Death Statistics

Section 1  Health Statistics, Health Survey, Public Health Acts, Health Education, Group Meetings

Unit 1  Basic knowledge of statistics, mean, medium, mode, standard deviations. Unit
2  Sampling procedure Tabulation of Data Histogram, Ogive, Pie Chart, Bar chart Unit
3  Demography And Health Survey, Registration of birth, death and mortality Unit 4
  Immunization process
Unit 5  Indian Epidemic Diseases Act.
Unit 6  Purification of Air and Water Pollution Acts.
Unit 7  Prevention of Food Adulteration act.
Unit 9  Suppression of Immoral Traffic Act(SITA)
Unit 10  Municipal and local body Acts related to housing, sanitation etc.
Unit 11  Factory Act and Employer’s State Insurance Act.
Unit 12  Elements of communication system and process.
Unit 13  Use of audio visual aids and media, teaching and Learning process
Unit 14  Planning Health Education activities.
Unit 15  Health Education through personal contract, group meetings and indirect approaches
Unit 16  AIDS prevention

REFERENCE BOOKS

1.  ESOTERIC KEYS OF ALCHEMY by Paul, Foster Case
2.  KEEPING CLEAN (HEALTHY CHOICES)by Cath Senker