

Attachment: Annexure I Sanitary Health Aide Curriculum Oct 2018.pd

### Ministry of Health and Family Welfare

2017



## Short Term Training Curriculum Handbook

## SANITARY HEALTH AIDE



Standards in accordance with The National Skills Qualifications Framework (NSQF) Ministry of Skill Development and Entrepreneurship Daft No. DFA/3250099 Attachment:Annexure I\_ Sanitary Health Aide Curriculum Oct 2018.pdf

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## Short Term Training Curriculum Handbook SANITARY HEALTH AIDE

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#### Table of Contents

| INTRODUCTION TO THE SKILLS BASED TRAINING CURRICULA                        |
|--|
| Who is a Sanitary Health Aide?   |
| Scope of practice  |
| Minimum Entry requirement2   |
| Minimum Course duration2   |
| Teaching faculty and infrastructure2                                       |
| Medium of instruction:   |
| Attendance:  |
| TRAINING CURRICULA FOR SKILL CERTIFICATION                                 |
| <b>MODULE – 1: FOUNDATION MODULE- INTRODUCTION TO THE</b>                  |
|  |
| SANITARY HEALTH AIDE PROGRAM   |
| MODULE – 2: INTRODUCTION TO DEMOGRAPHY, STATISTICS AND                     |
| MODULE – 2: INTRODUCTION TO DEMOGRAPHY, STATISTICS AND<br>HEALTH EDUCATION |
| MODULE – 2: INTRODUCTION TO DEMOGRAPHY, STATISTICS AND                     |
| MODULE – 2: INTRODUCTION TO DEMOGRAPHY, STATISTICS AND<br>HEALTH EDUCATION |
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#### INTRODUCTION TO THE SKILLS BASED TRAINING CURRICULA

The Skill based training courses are the training content developed for enhancing the specific skills of existing professionals or provide for a platform for imparting skills to candidates with no formal qualification.

To undertake the skill based training programme, it is mandatory that the candidate must fulfil the entry criteria provided for the job profile. The training and assessment will certify that the candidate is able to undertake specific set of activities. These must not be equated with the formal qualifications- diploma/ degrees which are given by a University.

It is recommended that the employer must help the candidate in continuing the studies to degree level and formal qualification, if the candidate is willing to gain knowledge and wants to move up the traditional career pathway.

#### Who is a Sanitary Health Aide?

Sanitary health Aides are professionals who are focused on prevention, consultation, investigation, and education of the community regarding health risks and maintaining a safe environment.

Public health is an important matter of concern for the municipal bodies in various States. Sanitary health Aides play a crucial role in the protection of public health and environment in various ways. Their demand is increasing with the changes in the public health sector. Civic bodies in a state depend on health and Sanitary Aides for dealing with various public issues which range from safe drinking water, safety of food and general sanitary conditions.

#### Scope of practice

Trained in the management of public health and sanitation, Sanitary Health Aides implement evidence-based public health practice across a number of establishments such as hospitals, hotels and industries such as pollution control authorities, food and water safety and travel (airports, seaports and railways) in close coordination and under supervision of Sanitary Health Inspectors.

#### **Minimum Entry requirement**

Educational requirement - The candidate must have completed 10<sup>th</sup> class.

#### **Minimum Course duration**

It is recommended that any programme developed from this curriculum should have a minimum duration of **1000 hours (335 hours Theory, 445 hours practical and 220 hours of internship)** to qualify as an entry level professional in the field of Sanitary Health. This is a full time programme for student who has completed 10<sup>th</sup> class, however skills for specific subject may be tested and accordingly RPL certification can also be done.

#### Teaching faculty and infrastructure

The importance of providing an adequate learning environment for the students cannot be over emphasized. Both the physical infrastructure and the teaching staff must be adequate. Teaching areas should facilitate different teaching methods. While students may share didactic lectures with other disciplines in large lecture theatres, smaller teaching areas should also be

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provided for tutorial and problem/case-based learning approaches. In all venues that accommodate students, health and safety standards must be adhered to. It is recommended that a faculty and student ratio of 1:10 be followed.

Faculty qualification- minimum Diploma in Sanitary Inspector course from recognized Board/ State Health authorities, with minimum 2 years' experience in teaching or Community Health Nurse Faculty with experience in teaching community sanitation and hygiene.

#### Medium of instruction:

English/ regional language shall be the medium of instruction for all the subjects of study and for examination of the course.

#### Attendance:

A candidate has to secure minimum 80% attendance in overall with at least-

- 1. 75% attendance in theoretical
- 2. 90% in Skills training (practical) for qualifying to appear for the final examination.

No relaxation, whatsoever, will be permissible to this rule under any ground including indisposition etc.

#### TRAINING CURRICULA FOR SKILL CERTIFICATION

#### **Training Outcomes:**

This course trains students to manage health and sanitation aspects in a variety of organizations and in the community, thus enabling them to safeguard public health and the environment. As per the training module at the end of the training, the candidate would be certified to perform following activities–

- 1. Practice food safety and assist in applying it to establishments as well as community.
- 2. Assist in applying waste disposal (solid, liquid and sewage) appropriately and ensure minimum harm to the environment
- 3. Assist in applying the principles of natural and mechanical ventilation, as needed
- 4. Assist in implementing techniques of sterilization and disinfection
- 5. Assist in conducting survey in housing colonies to assess sanitary standards and in creating awareness on corrective measures
- 6. Assist in sanitation management at fairs and festivals
- 7. Assist in implementing measures to prevent communicable diseases with respect to sanitation and hygiene
- 8. Assist in disinfection of areas in a hospital such as wards, operation theatres, labour rooms, etc.
- 9. Assist in awareness programmes on personal hygiene and health education
- 10. Conduct visits to various establishments for assisting in assessment of cleanliness and hygienic practices and ensure the desirable standards are maintained
- 11. Assist in ensuring general & systemic cleanliness including critical care and non-critical care areas.
- 12. Maintain record register and assist in ensuring implementation of Sanitation policy of the institution/ community as per the Government norms and guidelines.

### MODULE – 1: FOUNDATION MODULE- INTRODUCTION TO THE SANITARY HEALTH AIDE PROGRAM

Learning Outcomes: At the completion of this module, the student should be able to:

- 1. Understand the healthcare scenario in India
- 2. Understand the duties and responsibilities of a Sanitary Health Aide
- 3. Develop understanding of general medical terminologies
- 4. Adhere to legislation, protocols and guidelines relevant to one's role and field of practice
- 5. Work within organizational systems and requirements as appropriate to one's role
- 6. Recognize the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority
- 7. Understand the art of effective communication with various stakeholders like community members, patients, nurses, etc.
- 8. Learn how to identify rapidly changing situations and adapt accordingly
- 9. Have a basic working knowledge of computers
- 10. Understand the important of first aid and triage
- 11. Understand his/her role in disaster preparedness and management

#### Content -

| <b>S.</b> | Topics   | Hours  |           |       |
|-----------|--|--------|-----------|-------|
| No.       |  | Theory | Practical | Total |
| 1.        | Introduction to healthcare and hospitals         | 3      | 2         | 5     |
| 2.        | Introduction to the Sanitary Health Aide program | 2      | 3         | 5     |
| 3.        | Anthropometric measurements and its importance   | 1      | 10        | 11    |
| 4.        | Professionalism and Values                       | 1      | 1         | 2     |
| 5.        | Communication                                    | 3      | 7         | 10    |
| 6.        | Interpersonal skills and working with others     | 1      | 3         | 4     |
| 7.        | Computers and information technology             | 1      | 8         | 9     |
| 8.        | Basics of emergency care and life support skills | 2      | 13        | 15    |
| 9.        | Disaster preparedness and management             | 2      | 3         | 5     |
|           | TOTAL  | 16     | 50        | 66    |

#### **Detail of Topics**

#### 1. Introduction to healthcare and hospitals

- a. Healthcare delivery system in India at primary, secondary and tertiary care
- b. Community participation in healthcare delivery system
- c. Issues in Health Care Delivery System in India
- d. Health scenario of India- past, present and future
- e. Basic medical terminology

#### 2. Introduction to the Sanitary Health Aide program

- a. Duties and responsibilities of a Sanitary Aide
- b. Importance of Sanitation, Health & Hygiene.
- c. Sanitary scope in Municipal Corporation, trade fairs, public health sanitation, water bodies, slums, vulnerable pockets, restaurants, hotels etc.
- d. Do's and Don'ts

e. Requirements to become a Certified Sanitary Health Aide

#### 3. Anthropometric measurements and its importance

- a. Points for consideration before measuring weight, height and other parameters
  - i. Check the equipment before taking it to the patient
    - 1. process of checking each equipment
    - 2. reporting error to the concerned official
  - ii. Process of taking permission from the patient
  - iii. Recording measurements
  - iv. Any other measure dos and don'ts
- b. Weight
  - i. Process of measuring weight
  - ii. Importance of weight measurement weight for age and weight for height
  - iii. Do's and don'ts while measuring weight
- c. Length (for under 2 years of age)
- d. Height steps for measuring height using- height measuring scale and inch tape
- e. Circumference measurements
  - i. process of measuring circumference arm and waist
  - ii. Do's and don'ts while measuring circumference
- f. Format for reporting the measurements

#### 4. Basics of emergency care and life support skills

- a. Vital signs
- b. Basic emergency care first aid and triage
- c. Identifying signs and taking measures for
  - i. Choking and Heimlich Maneuver
  - ii. Bleeding including nosebleeds
  - iii. Minor burns
  - iv. Hypothermia
  - v. Asthma attack
  - vi. Bites and stings
  - vii. Fainting
  - viii. Sprain
- d. Ventilations including use of bag-valve-masks (BVMs)
- e. One- and Two-rescuer CPR
- f. Using an AED (Automated external defibrillator).
- g. Managing an emergency including moving a patient log transfer

#### 5. Professionalism and Values

- a. Code of conduct, professional accountability and responsibility, misconduct
- b. Ethics in healthcare Privacy, confidentiality, consent, medico legal aspects
- c. Understanding scope of work and avoiding scope creep
- d. Handling objections
- e. Gather information from observation, experience and reasoning
- f. Identification of rapidly changing situations and adapt accordingly

g. Planning and organization of work

#### 6. Communication

- a. Writing skills
  - i. Basic reading and writing skills, sentence formation, grammar and composition, how to enhance vocabulary
  - ii. Business communication like letters, e-mails
- b. Special characteristics of health communication
- c. Barriers of communication & how to overcome them
- a. How to be a good communicator
  - i. Addressing the patient
  - ii. Body language, posture and gestures
- d. Listening and Speaking skills
  - i. How to be a good listener
  - ii. Structure brief and logical messages
  - iii. Speak clearly and slowly in a gentle tone
  - iv. Use the correct combination of verbal and non-verbal communication
  - v. Use language familiar to the listener
  - vi. Give facts and avoid opinions unless asked for
  - vii. Communicating with patient with impaired hearing/ vision/ speech/ memory
- e. Recognizing changes in the patient- behavior/ abnormal signs and reporting to the Medical Officer
- f. Dealing with anger or depression of the patient

#### 7. Interpersonal skills and working with others

- a. Goal setting, team building, team work, time management,
- b. Thinking and reasoning, problem solving
- c. Need for customer service and service excellence in medical care
- d. Communication with various stakeholders
  - i. Handling effective communication with patients & family
  - ii. Handling effective communication with peers/colleagues using medical terminology in communication
  - iii. Telephone and email etiquettes
- e. Manage work to meet requirements
  - i. Time management
  - ii. Work management and prioritization

#### 8. Computers and information technology

- a. Use of computers, its input and output devices
- b. Use of basic software such as MS Office, operating systems (Windows) and internet
- c. Use of data
  - i. Entry, saving and retrieving
  - ii. Scanning and copying medical records/documents
  - iii. Efficient file naming and uploading
  - iv. Printing, as needed

d. Application of Computers in clinical settings

#### 9. Disaster preparedness and management

- a. Fundamentals of emergency management
- b. Preparedness and risk reduction
- c. Incident command and institutional mechanisms
- d. Resource management

#### Equipment required-

- 1. Charts and demonstration dummies
- 2. Videos and presentations
- 3. First Aid kit
- 4. Inch tape
- 5. Height measuring scale
- 6. Weighing machine

#### Assessment -

| S.  |  | Marks A | Allocation | Total      |  |
|-----|--|---------|------------|------------|--|
|     | Assessment Criteria for the Assessable Outcomes            | Viva/   | Skills     | Marks      |  |
| No. |  | Theory  | Practical  | Allocation |  |
| 1.  | Explain the role of a Sanitary Health Aide in a hospital/  | 10      | 0          | 10         |  |
| 1.  | community setting  |         |            |            |  |
| 2.  | What are the indicators for 'Don'ts for a Sanitary Health  | 15      | 0          | 15         |  |
| ۷.  | Aide'  |         |            |            |  |
| 3.  | Describe and demonstrate how to communicate with           | 5       | 25         | 30         |  |
| 5.  | patient with impaired hearing/ vision/ speech/ memory      |         |            |            |  |
| 4.  | Enumerate the changes in the patient with abnormal         | 5       | 5          | 10         |  |
| т.  | behavior   |         |            |            |  |
| 5.  | Identify the various contents of First Aid Kit             | 0       | 20         | 20         |  |
| 6.  | Demonstrate Heimlich Maneuver                              | 0       | 10         | 10         |  |
|     | Demonstrate the immediate action to be taken for a         | 0       | 30         | 30         |  |
| 7.  | patient with nosebleed/ minor burns/ asthma                |         |            |            |  |
| 1.  | attack/fainting/ sprain/ hypothermia/ bites - bee sting or |         |            |            |  |
|     | snake bite   |         |            |            |  |
| 8.  | Demonstrate how to do CPR                                  | 0       | 25         | 25         |  |
| 9.  | Identify the various equipment for anthropometric          | 0       | 5          | 5          |  |
| ).  | measurement  |         |            |            |  |
| 10. | Demonstrate the steps for measuring weight and record      | 0       | 5          | 5          |  |
| 10. | on the recording/ reporting sheet                          |         |            |            |  |
|     | Demonstrate the steps for measuring height of a child/     | 0       | 10         | 10         |  |
| 11. | length of an infant and record on the recording/ reporting |         |            |            |  |
|     | sheet  |         |            |            |  |
| 12. | Demonstrate the steps for measuring arm circumference      | 0       | 10         | 10         |  |
| 12. | and record on the recording/ reporting sheet               |         |            |            |  |
| 13. | Describe precautions in the event of a disaster            | 5       | 5          | 10         |  |

#### Draft No. DFA/3250099 Attachment: Annexure I\_ Sanitary Health Aide Curriculum Oct 2018.pdf

| S.   |  |        | Marks Allocation |            |  |
|------|--|--------|------------------|------------|--|
| No.  | Assessment Criteria for the Assessable Outcomes    | Viva/  | Skills           | Marks      |  |
| INO. |  | Theory | Practical        | Allocation |  |
| 14   | Demonstrate the basic use of computers and aspects | 0      | 10               | 10         |  |
| 14.  | related to data handling                           |        |                  |            |  |
|      | Total  | 40     | 160              | 200        |  |

Short term training Curriculum Handbook: Sanitary Health Aide

### MODULE – 2: INTRODUCTION TO DEMOGRAPHY, STATISTICS AND HEALTH EDUCATION.

Learning Outcomes: At the completion of this module, the student should be able to-:

- 1. Understand the process of registration, reporting and documentation process for implementation of different acts within the community
- 2. Understand the basics of demography and vital statistics.
- 3. Understand various Public Health Acts.
- 4. Understand the relationship between health education and effective communication.

#### Content -

| S. No. | Topics   | Hours  |           |       |
|--------|--|--------|-----------|-------|
|        |  | Theory | Practical | Total |
| 1.     | Demography, epidemiology and public health acts. | 3      | 15        | 18    |
| 2.     | Basics of health statistics                      | 2      | 20        | 22    |
| 3.     | Health education and communication               | 5      | 15        | 20    |
|        | TOTAL  | 10     | 50        | 60    |

#### Detail of Topics

#### 1. Demography, Epidemiology and Public health acts.

- a. Demography its concept
- b. Vital events of life & its impact on demography
- c. Significance and recording of vital statistics
- d. Demography and Health Survey
  - i. Sections and components of survey
  - ii. How to take a survey
  - iii. Registration of birth, death and mortality
  - iv. Immunization process
- e. Various public health acts and their importance in Sanitary Health Aide's role; such as
  - i. Indian Epidemic Diseases Act
  - ii. Purification of Air and Water Pollution Acts
  - iii. Prevention of Food adulteration Act
  - iv. Birth and Death Registration Act
  - v. N.T.P ACT
  - vi. Suppression of immoral Traffic Act (SITA)
  - vii. Municipal and local body Acts related to housing, sanitation etc.
  - viii. Factory Act and Employer's State Insurance Act

#### 2. Basics of health statistics :

- a. Data recording and importance of statistics
- b. Mortality and Morbidity statistics

#### 3. Health education and communication

- a. Health Education opportunities and approaches for Health Aide in his work place
- b. Content and Principles of Health Education

- c. Planning Health Education activities
- d. Education in relation to environmental sanitation programme
- e. Use of audio visual aids and media
- f. Various tests at community level- adulteration etc.
- g. Health Education material on environmental sanitation
- h. Utilizing Community Resources for Health Education
- i. Education through Primary Health Centre
- j. Health Education through personal contact, group meetings and indirect approaches
- k. Perception of various diseases and ailments such as HIV AIDS, Leprosy etc. and ways to reduce/deal with the stigma

#### Equipment required-

- 1. Charts and demonstration dummies
- 2. Audio and video aides

#### Assessment:

| S.        |  | Marks A | Allocation | Total      |
|-----------|--|---------|------------|------------|
| S.<br>No. | Assessment Criteria for the Assessable Outcomes          | Viva/   | Skills     | Marks      |
| 110.      |  | Theory  | Practical  | Allocation |
|           | Define various sections of a survey and make a short     |         |            |            |
| 1.        | survey form for registration of births and deaths in a   | 5       | 25         | 30         |
|           | community and document it.                               |         |            |            |
| 2.        | Demonstrate recording of Vital statistics                | 0       | 20         | 30         |
| 3.        | Perform a simple household test to identify adulteration | 10      | 20         | 30         |
| 5.        | in Milk/ ghee/ oil/ sugar/ tea.                          | 10      |            |            |
| 4.        | Explain brief about birth & death Act                    | 10      | 10         | 20         |
|           | Prepare a chart for educating community regarding        |         | 20         | 30         |
| 5.        | HIV/AIDS/spread of malaria/dengue/save                   | 10      |            |            |
|           | water/maintain hygiene and sanitation etc.               |         |            |            |
| 6.        | How will you identify a contact person with leadership   | 10      | 20         | 30         |
| 0.        | for gaining access in a community                        | 10      |            |            |
|           | Total  | 60      | 140        | 200        |

#### **MODULE – 3: DISPOSAL OF WASTE**

Learning Outcomes: At the completion of this module, the student should be able to-

- 1. Follow the appropriate procedures, policies and protocols for the method of collection and containment level according to the waste type.
- 2. Apply appropriate health and safety measures and standard precautions for infection prevention and control and personal protective equipment relevant to the type and category of waste.
- 3. Segregate the waste material from work areas in line with current legislation and organizational requirements, at source with proper containment, by using different color coded bins for different categories of waste.
- 4. Check the accuracy of the labelling that identifies the type and content of waste.
- 5. Confirm suitability of containers for any required course of action appropriate to the type of waste disposal.
- 6. Check the waste has undergone the required processes to make it safe for transport and disposal.
- 7. Transport the waste to the disposal site, taking into consideration its associated risks.
- 8. Report and deal with spillages and contamination in accordance with current legislation and procedures.
- 9. Maintain full, accurate and legible records of information and store in correct location in line with current legislation, guidelines, local policies and protocols.

#### Content -

| S. No. | Topics   | Hours  |           |       |  |
|--------|--|--------|-----------|-------|--|
|        |  | Theory | Practical | Total |  |
| 1.     | Introduction to Bio medical waste management and |        |           |       |  |
|        | environment safety                               | 10     | 10        | 20    |  |
| 2.     | Solid Waste Disposal                             | 30     | 20        | 50    |  |
| 3.     | Liquid waste/Sewage disposal                     | 30     | 20        | 50    |  |
| 4.     | Night Soil Disposal                              | 30     | 20        | 50    |  |
| 5.     | Other treatment and disposal methods of          |        |           |       |  |
|        | biomedical waste                                 | 10     | 10        | 20    |  |
| 6.     | Burial, Cremation Ground and Mass Casualty       |        |           |       |  |
|        | Disposal   | 10     | 20        | 30    |  |
|        | TOTAL  | 120    | 100       | 220   |  |

#### **Detail of Topics**

#### 1. Bio medical waste management and environment safety

- a. Definition of Biomedical Waste
- b. Sources of Biomedical waste
- c. Waste minimization
- d. BMW Segregation, collection, transportation, treatment and disposal (including color coding)
- e. Liquid BMW, Radioactive waste, Metals / Chemicals / Drug waste
- f. BMW Management & methods of disinfection
- g. Modern technology for handling BMW
- h. Use of Personal protective equipment (PPE)

- i. Monitoring & controlling of cross infection (Protective devices)
- j. Identifying the risk of Bio-medical waste

#### 2. Solid Waste Disposal

- a. Source of generation, storage and collection
- b. Sanitary method of disposal of solid waste
- c. Classification of solid waste in the community
- d. Polluting effect 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

#### 3. Liquid waste/Sewage disposal

- a. Hygienic method of disposal of liquid waste.
- b. Health hazard related to accumulation of liquid waste or in sanitary drainage system.
- c. Construction and maintenance of sanitary sewerage system
- d. Use of different types of traps, pollution of water sources from sewerage and its disinfection

#### 4. Night Soil Disposal

- a. Sewage is liquid waste containing human excreta.
  - i. Fly nuisance
  - ii. Soil pollution
  - iii. Water pollution
  - iv. Food contamination
  - v. Faucal borne disease due to unsanitary disposal. Different types of latrines in use principal of construction of sanitary latrines and their use, especially berg hole, dug well, RCA and septic tank latrine.
  - vi. Sewage system or water carriage system.
- b. What is sewage?
  - i. Why sewage purification is required?
  - ii. Sewer appurtenances, house drain
  - iii. Street sewers or municipal sewers
  - iv. Sewage forming land treatment
  - v. Sewage disposal by Biogas plant or gobar gas plant
  - vi. Methods of disinfection of sewage
  - vii. Sanitary practices of sewage farming

#### 5. Other treatment and disposal methods of biomedical waste

- a. Incineration
- b. Autoclaving
- c. Shredding
- d. Disposal option

#### 6. Burial, Cremation Ground and Mass Casualty Disposal

a. Disposal of dead- Human

- b. Burning or cremation
- c. Requirement for a burning ground
- d. Disposal of dead bodies and maintenance of their records

#### Assessment:

| S.        |  | Marks A | Allocation | Total      |
|-----------|--|---------|------------|------------|
| S.<br>No. | Assessment Criteria for the Assessable Outcomes              | Viva/   | Skills     | Marks      |
| 10.       |  | Theory  | Practical  | Allocation |
|           | Demonstrate and describe appropriate procedures,             |         |            |            |
| 1.        | policies and protocols for the method of collection and      | 20      | 30         | 50         |
|           | containment level according to the waste type                |         |            |            |
| 2.        | Identify and demonstrate methods of segregating the          | 10      | 30         | 40         |
| Δ.        | waste material in colored bins                               | 10      |            |            |
| 3.        | What are the methods of waste disposal                       | 5       | 20         | 40         |
| 4.        | Demonstrate and describe how to maintain appropriate         | 0       | 10         | 10         |
| 4.        | health and safety measures                                   |         |            |            |
|           | Explain how will you check the waste has undergone the       | 5       | 0          | 5          |
| 5.        | required processes to make it safe for transport and         |         |            |            |
|           | disposal   |         |            |            |
|           | Demonstrate how will you report and deal with spillages      | 0       | 10         | 10         |
| 6.        | and contamination in accordance with current legislation     |         |            |            |
|           | and procedures   |         |            |            |
|           | Visit for an inspection of flushing tank, soil plant, traps, |         |            |            |
| 7.        | man holes, inspection chambers and maintenance of gully      | 10      | 20         | 40         |
|           | trap.  |         |            |            |
|           | Visit to burial or funeral ground for sanitation, proper     |         |            |            |
| 8.        | process of disposal of dead body and maintenance of          | 10      | 20         | 40         |
|           | records as per the legal provision.                          |         |            |            |
|           | Total  | 60      | 140        | 200        |

#### **MODULE - 4: NUTRITION & SANITATION**

#### Content -

| S. No. | Topics  | Hours  |           |       |
|--------|---|--------|-----------|-------|
|        |   | Theory | Practical | Total |
| 1.     | Food & Nutrition                                    | 5      | 20        | 25    |
| 2.     | Air   | 6      | 20        | 26    |
| 3.     | Soil Sanitation                                     | 6      | 20        | 26    |
| 4.     | Control of Biological Environment                   | 7      | 20        | 27    |
| 5.     | Housing, infrastructure and water supply            | 8      | 25        | 33    |
| 6.     | Sanitation Measures in Fairs, Festivals and Natural |        |           |       |
|        | calamities  | 5      | 20        | 25    |
| 7.     | Occupational Health                                 | 2      | 20        | 22    |
|        | TOTAL   | 39     | 145       | 184   |

#### **Detail of Topics**

#### 1. Food & Nutrition

- a. Science of food
  - i. Introduction to Nutrition
  - ii. Classification and of food-stuff
  - iii. Nutrient and their sources (food example)
- b. Nutrient: Carbohydrates, Proteins, Vitamins, & Minerals, function, Source and diet requirement of each.
- c. Nutrition Education:
  - i. Malnutrition- Prevention of malnutrition
  - ii. Low birth Weight (LBW)- causes and prevention
  - iii. Protein energy
  - iv. Instruction for balanced diet
- d. Inspection of food handling establishments
- e. Inspection of mid- day meal programme

#### 2. Air

- a. Concepts and importance of adequate ventilation
- b. Types of ventilation
  - i. Natural ventilation
  - ii. Mechanical ventilation
- c. Indicators of air pollution
- d. Process air purification and disinfection
- e. Green house effect, types of ventilation, thermal comfort, air temperature humidity, radiation, evaporation and their measurements

#### 3. Soil Sanitation

- a. Classification of soil.
- b. Classification from the view point of importance in Public Health.
- c. Reason for the excessive moisture in the soil.
- d. Reclamation of land.

- e. Soil, bacteria and parasites.
- f. Soil and Health.
- g. Study on insecticides, pesticides and disinfections.
- h. Sterilization & disinfection of different Articles.
- i. Various spraying equipment

#### 4. Control of Biological Environment

- a. Study on insecticides, pesticides and disinfections.
- b. Sterilization & disinfections of different articles
- c. Various spraying equipments
- d. Uses of rodenticides & larvaecidals
- e. Vector control

#### 5. Housing, infrastructure and water supply

- a. General principle of healthy housing
- b. Home Sanitation
- c. Food hygiene at home
- d. Specification for healthy housing
- e. Construction of latrines and recommended financial assistance as per the Government norms
- f. Maintenance of public and community water supply and ensure proper disinfection
- g. Water sampling for regular bacteriological and chemical analysis
- h. Inspection of public and private well and/ or other water sources
- i. Inspection of sanitation in hospital and health facilities

#### 6. Sanitation Measures in Fairs, Festivals and Natural calamities

- a. Sanitation Management at fairs and festival. Sanitary problems associated with human gatherings and temporary settlements.
- b. Alternate emergency sanitary provisions to prevent sanitation crisis for food, housing, water supply, lighting, disposal of community waste and prevention of outbreak of epidemics.

#### 7. Occupational Health:

- a. Industrial hygiene- workers health protection
- b. Occupational risk factors and safety measures
- c. Control of dust and other hazardous substance
- d. Safety measure for occupational risk factor

#### Assessment:

| S.        |  |                 | Marks Allocation    |                     |
|-----------|--|-----------------|---------------------|---------------------|
| S.<br>No. | Assessment Criteria for the Assessable Outcomes              | Viva/<br>Theory | Skills<br>Practical | Marks<br>Allocation |
| 1.        | Classification of public health and importance of foodstuffs | 10              | 10                  | 20                  |
| 2.        | Demonstrate assessment of daily requirement of nutrition.    | 10              | 10                  | 20                  |

| S.        |  | Marks A | Allocation | Total      |
|-----------|--|---------|------------|------------|
| S.<br>No. | Assessment Criteria for the Assessable Outcomes  | Viva/   | Skills     | Marks      |
| 190.      |  | Theory  | Practical  | Allocation |
| 3.        | Demonstrate assessment of nutritional requirement for special group.   | 10      | 10         | 20         |
| 4.        | Demonstrate assessment of nutritional status of family   | 10      | 10         | 20         |
| 5.        | How to measure and reduce intensity of air pollution.  | 0       | 10         | 10         |
| 6.        | How will you conduct sampling for assessment of soil pollution   | 0       | 10         | 10         |
| 7.        | Indicate use of insecticides, pesticides and disinfection.   | 0       | 10         | 10         |
| 8.        | Demonstrate use of spraying equipment's and its maintenance.   | 0       | 10         | 10         |
| 9.        | Survey a house for assessing sanitary standards and prescribe relevant measures                                | 0       | 20         | 20         |
| 10.       | Inspect and prepare plan for fair and festival/<br>industry and trade and indicate the measures to be<br>taken | 0       | 20         | 20         |
| 11.       | Visit to a hospital for survey of sanitation issues and challenges faced by the workforce.                     | 0       | 20         | 20         |
| 12.       | Identify the danger zones and adequacy of safety arrangements in the hospital.                                 | 10      | 10         | 20         |
|           | Total  | 50      | 150        | 200        |

#### **MODULE - 5: INFECTION CONTROL.**

Learning Outcomes: At the completion of this module, the student should be able to-

- 1. Understand all procedures required for infection control
- 2. Follow high level of personal hygiene
- 3. Follow all standard precautions and infection control procedures
- 4. Identify deviation from normal health
- 5. Understand hospital borne infections and practices to curb them
- 6. Understand different types of spillages and their management

#### Content -

| S. No. | Topics                           | Hours  |           |       |
|--------|----------------------------------|--------|-----------|-------|
|        |                                  | Theory | Practical | Total |
| 1.     | Infection prevention and control | 10     | 10        | 20    |
| 2.     | Personal Hygiene                 | 20     | 10        | 30    |
| 3.     | Communicable Diseases            | 30     | 20        | 50    |
| 4.     | Non –Communicable Diseases       | 30     | 20        | 50    |
| 5.     | Universal/ Standard Precautions  | 15     | 10        | 25    |
| 6.     | Disinfection & Sterilization     | 30     | 20        | 50    |
| 7.     | Contact Precautions              | 15     | 10        | 25    |
|        | TOTAL                            | 150    | 100       | 250   |

#### **Detail of Topics**

#### 1. Infection prevention and control

- a. Evidence-based infection control principles and practices [such as sterilization, disinfection, effective hand hygiene and use of Personal protective equipment (PPE)]
- b. Prevention & control of common healthcare associated infections
- c. Components of an effective infection control program
- d. Guidelines (NABH and JCI) for Hospital Infection Control

#### 2. Personal Hygiene

- a. Factors influencing health & hygiene
- b. Health habits & practice, customs affecting personal hygiene
- c. Skin care cleanliness
- d. Oral hygiene and dental care
- e. Care of hands, washing, importance of exercises and food values
- f. Care of the body-habits clothing
- g. Care of special sensory organs
- h. Factors influencing human behavior
- i. Change of behavioral pattern in different age groups
- j. Interpersonal relations and defense mechanism

#### 3. Communicable Diseases

- a. Introduction
- b. Transmission of disease

- i. By air
- ii. By contact
- iii. By insects and other diseases
- c. General measures for prevention & control of communicable diseases
- d. Role of Health Worker

#### 4. Non-Communicable Diseases

- a. Introduction
- b. Incidence and prevalence
- c. Preventive actions community based

#### 5. Disinfection & Sterilization

- a. Effective disinfection by liquid Chemical agents like Halogen, Potassium per magnate solution etc.
- b. Solid chemical agent
- c. Bleaching Bleaching powder, Lime etc.

#### 6. Universal/ Standard Precautions

- a. Hand hygiene
- b. Use of personal protective equipment (e.g., gloves, gowns, masks)
- c. Safe injection practices
- d. Safe handling of potentially contaminated equipment or surfaces in the patient environment
- e. Respiratory hygiene/cough etiquette

#### 7. Contact precautions

#### Assessment:

| S.<br>No. | Assessment Criteria for the Assessable Outcomes   | Marks Allocation |                     | Total               |
|-----------|---|------------------|---------------------|---------------------|
|           |   | Viva/<br>Theory  | Skills<br>Practical | Marks<br>Allocation |
| 1.        | Demonstrate the use of Personal Protective Equipment<br>(PPE)                           | 10               | 20                  | 30                  |
| 2.        | How will you prevention & control of common healthcare associated infections            | 20               | 20                  | 40                  |
| 3.        | Conduct a programmer on personal hygiene in different area and document it.             | 10               | 30                  | 40                  |
| 4.        | Prepare a report on general survey of health care in different area.                    | 10               | 20                  | 30                  |
| 5.        | Report on participation in various programmes   | 0                | 20                  | 20                  |
| 6.        | How will you ensure disinfection of hospital wards,<br>operation Theatres, Labour rooms | 10               | 30                  | 40                  |
| Total     |   | 60               | 140                 | 200                 |

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