

# GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP DIRECTORATE GENERAL OF TRAINING

#### **COMPETENCY BASED CURRICULUM**

# **HEALTH SANITARY INSPECTOR**

(Duration: One Year)
Revised in July 2022

# CRAFTSMEN TRAINING SCHEME (CTS) NSQF LEVEL- 3



**SECTOR – HEALTHCARE** 



# **HEALTH SANITARY INSPECTOR**

(Non-Engineering Trade)

(Revised in 2022)

Version: 2.0

# **CRAFTSMEN TRAINING SCHEME (CTS)**

**NSQF LEVEL - 3** 

**Developed By** 

Ministry of Skill Development and Entrepreneurship

**Directorate General of Training** 

#### **CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE**

EN-81, Sector-V, Salt Lake City, Kolkata – 700 091 www.cstaricalcutta.gov.in

# CONTENTS

| S No. | Topics                                       | Page No. |
|-------|--|----------|
| 1.    | Course Information                           | 1        |
| 2.    | Training System                              | 2        |
| 3.    | Job Role                                     | 6        |
| 4.    | General Information                          | 7        |
| 5.    | Learning Outcome                             | 9        |
| 6.    | Assessment Criteria                          | 11       |
| 7.    | Trade Syllabus                               | 17       |
| 8.    | Annexure I (List of Trade Tools & Equipment) | 32       |



During the one-year duration of "Health Sanitary Inspector" trade, a candidate is trained on Professional Skill, Professional Knowledge and Employability Skill related to job role. In addition to this, a candidate is entrusted to undertake project work, extracurricular activities and on-the-job training to build up confidence. The broad components covered under Professional Skill subject are as below:

After the end of the course, the trainee will be able to make a nutritional plan for all age groups under given conditions, design a balanced diet as per the requirement under given conditions and also will be able to calculate and suggest the calorie and nutritional requirements as per the specific requirements of the person. Identify disease that occurs due to various deficiencies. They will assess disease symptoms, inspect and report various food adulteration and also to suggest different food preservation techniques for different types of food. They will identify and understand water and its properties and causes of water pollution, summarize water supply system with water treatment in the city/country etc. and also able to assemble plumbing system for conservation of water, develop rainwater harvesting technique. Trainee will be able to identify and understand the water purification process and also able to handle the night soil of a city/town while keeping in mind the protection of environment and human safety. They will plan solid waste management system in an area or a small town. Identify air pollution sources and suggest the suitable remedies and also understand global warming, its effects and identify the remedial measure. Trainee will be able to suggest the measures to minimize noise pollution, trainee will able plan and suggest the ventilation requirements of a particular area. They will plan and help in construction and maintenance of sewers, traps, plumbing tools and also know the types of sewers health hazard due to liquid waste. They will suggest disposal methods for dead animals humans and also able to identify different types of soil, its importance in relation with public health and reclamation of land. They will plan and suggest sanitary prescription of medical measures in housing and fairs & festivals. Identify occupational health hazards. Follow safety rules. Prevent occupational diseases. Trainee will be able to prepare and control of biological environment and different parts of spraying equipment. The trainee will learn about how to generate awareness programs for masses on health education, illustrate importance of right behavior and personal hygiene, learn its diet impact on their personal life & society. They will perform first- aid treatment to tackle medical emergency situation, assess intensity of any disease, recognize the disease and provide first-aid treatment on time to contain the disease. They will follow the given immunization schedule and understand its importance. Identify disinfection and its importance to control diseases& carry out sterilization. Trainee will be able to understand the basics of personal hygiene and its importance on a person's health and personality and also able to recognize various factors like death rate, birth rate, morbidity, MMR, IMR etc. Analyze importance of census survey and data collection, categorize health survey. Trainee will be familiarized with vocabulary and terminology of different acts.



#### 2.1 GENERAL

The Directorate General of Training (DGT) under Ministry of Skill Development & Entrepreneurship offers a range of vocational training courses catering to the need of different sectors of economy/ Labour market. The vocational training programmes are delivered under the aegis of Directorate General of Training (DGT). Craftsman Training Scheme (CTS) with variants and Apprenticeship Training Scheme (ATS) are two pioneer schemes of DGT for strengthening vocational training.

'Health Sanitary Inspector' trade under CTS is one of the popular courses delivered nationwide through the network of ITIs. The course is of one year duration. It mainly consists of Domain area and Core area. The Domain area (Trade Theory & Practical) imparts professional skills and knowledge, while Core area (Employability Skill) imparts requisite core skill, knowledge and life skills. After passing out the training programme, the trainee is awarded the National Trade Certificate (NTC) by DGT which is recognized worldwide.

#### Candidates broadly need to demonstrate that they are able to:

- Read and interpret technical parameters/ documents, plan and organize work processes, identify necessary materials and tools.
- Perform task with due consideration to safety rules, accident prevention regulations and environmental protection stipulations.
- Apply professional skill, knowledge & employability skills while performing jobs.
- Document the technical parameters related to the task undertaken.

#### **2.2 PROGRESSION PATHWAYS**

- Can join industry as Health Sanitary Inspector and will progress further as Senior Health Sanitary Inspector, Supervisor and can rise up to the level of Manager.
- Can become Entrepreneur in the related field.
- Can join Apprenticeship programme in different types of industries leading to National Apprenticeship certificate (NAC).
- Can join Crafts Instructor Training Scheme (CITS) in the trade for becoming an instructor in ITIs.
- Can join advanced Diploma (Vocational) courses under DGT as applicable.



#### 2.3 COURSE STRUCTURE

Table below depicts the distribution of training hours across various course elements during a period of one year:

| S No. | Course Element                        | Notional Training<br>Hours |
|-------|---------------------------------------|----------------------------|
| 1     | Professional Skill (Trade Practical)  | 840                        |
| 2     | Professional Knowledge (Trade Theory) | 240                        |
| 3     | Employability Skills 120              |                            |
|       | Total                                 | 1200                       |

Every year 150 hours of mandatory OJT (On the Job Training) at nearby industry, wherever not available then group project is mandatory.

| On the Job Training (OJT) / Group Project | 150 |
|---|-----|
|---|-----|

Trainees of one-year or two-year trade can also opt for optional courses of up to 240 hours in each year for 10th/ 12th class certificate along with ITI certification, or, add on short term courses

#### 2.4 ASSESSMENT & CERTIFICATION

The trainee will be tested for his skill, knowledge and attitude during the period of course through formative assessment and at the end of the training programme through summative assessment as notified by the DGT from time to time.

- a) The **Continuous Assessment** (Internal) during the period of training will be done by **Formative Assessment Method** by testing for assessment criteria listed against learning outcomes. The training institute have to maintain individual *trainee portfolio* as detailed in assessment guideline. The marks of internal assessment will be as per the formative assessment template provided on www.bharatskills.gov.in.
- b) The final assessment will be in the form of summative assessment method. The All India Trade Test for awarding NTC will be conducted by **Controller of examinations**, **DGT** as per the guidelines. The pattern and marking structure is being notified by DGT from time to time. **The learning outcome and assessment criteria will be basis for setting question papers for final assessment. The examiner during final examination will also check individual trainee's profile as detailed in assessment guideline before giving marks for practical examination.**



#### 2.4.1 PASS REGULATION

For the purposes of determining the overall result, weightage of 100% is applied for six months and one year duration courses and 50% weightage is applied to each examination for two years courses. The minimum pass percent for Trade Practical and Formative assessment is 60% & for all other subjects is 33%. There will be no Grace marks.

#### **2.4.2 ASSESSMENT GUIDELINE**

Appropriate arrangements should be made to ensure that there will be no artificial barriers to assessment. The nature of special needs should be taken into account while undertaking assessment. Due consideration should be given while assessing for teamwork, avoidance/reduction of scrap/wastage and disposal of scrap/wastage as per procedure, behavioral attitude, sensitivity to environment and regularity in training. The sensitivity towards OSHE and self-learning attitude are to be considered while assessing competency.

Assessment will be evidence based comprising some of the following:

- Job carried out in labs/workshop
- Record book/ daily diary
- Answer sheet of assessment
- Viva-voce
- Progress chart
- Attendance and punctuality
- Assignment
- Project work
- Computer based multiple choice question examination
- Practical Examination

Evidences and records of internal (Formative) assessments are to be preserved until forthcoming examination for audit and verification by examination body. The following marking pattern to be adopted for formative assessment:

| Performance Level   | Evidence                                  |
|---|---|
| (a) Marks in the range of 60-75% to be allotted during assessment |   |
| For performance in this grade, the candidate                      | Demonstration of good skills and accuracy |
| should produce work which demonstrates                            | in the field of work/ assignments.        |



attainment of an acceptable standard of craftsmanship with occasional guidance, and due regard for safety procedures and practices.

- A fairly good level of neatness and consistency to accomplish job activities.
- Occasional support in completing the task/job.

#### (b) Marks in the range of 75% - 90% to be allotted during assessment

For this grade, a candidate should produce work which demonstrates attainment of a reasonable standard of craftsmanship, with little guidance, and regard for safety procedures and practices.

- Good skill levels and accuracy in the field of work/ assignments.
- A good level of neatness and consistency to accomplish job activities.
- Little support in completing the task/job.

#### (c) Marks in the range of above 90% to be allotted during assessment

For performance in this grade, the candidate, with minimal or no support in organization and execution and with due regard for safety procedures and practices, has produced work which demonstrates attainment of a high standard of craftsmanship.

- High skill levels and accuracy in the field of work/ assignments.
- A high level of neatness and consistency to accomplish job activities.
- Minimal or no support in completing the task/job.



Sanitary Inspector; Health Assistant takes measures to maintain and improve standard of public health in the specified area. Inspects houses, shops, factories, entertainment places, bazars, drains, night soil depots, rubbish depots, latrines, burial and cremation ground, etc., and undertakes public health activities such as disinfections, anti-malarial and anti-epidemic measures. Inspects hotels, restaurants, etc. to ensure that food and edibles sold are fit for public consumption. Attends to complaints regarding sanitation. Reports outbreak of infectious diseases to authorities and takes preventive measures. Attends courts for prosecution of individuals violating sanitation and public health regulations and performs inoculation work. Controls and supervises work of Sanitary Darogas. May maintain accounts and correspondence, compile figures of births and deaths in his jurisdiction and may investigate causes of death. May be designated as Disinfecting Inspector, Food Inspector, Slaughter House Inspector, Mosquito Inspector, etc. according to nature of work performed.

#### **Reference NCO Code 2015:**

(i) 3257.0100 – Sanitary Inspector

#### Reference NOS: -

MIN/N1702, MIN/N1703, MIN/N1704, MIN/N1705, MIN/ N0459, MIN/ N0460, HCS/N9902, HCS/N9903, MIN/N9428, MIN/N9429, MIN/N9430, MIN/N9431, MIN/N9432, MIN/N9433, MIN/N9435, MIN/N9436, MIN/N9437, MIN/N9438, MIN/N9439, MIN/N9440, MIN/N9441, MIN/N9442



# 4. GENERAL INFORMATION



|                          | its variants.  |  |
|--------------------------|--|--|
| (ii) Employability Skill | MBA/ BBA / Any Graduate/ Diploma in any discipline with Two years'   |  |
|                          | experience with short term ToT Course in Employability Skills.   |  |
|                          | (Must have studied English/ Communication Skills and Basic Computer at 12th / Diploma level and above)  OR |  |
|                          | Existing Social Studies Instructors in ITIs with short term ToT Course                                     |  |
|                          | in Employability Skills.   |  |
| (iii) Minimum Age for    | 21 Years   |  |
| Instructor               |  |  |
| List of Tools and        | As per Annexure - I  |  |
| Equipment                |  |  |

#### 5. LEARNING OUTCOME

Learning outcomes are a reflection of total competencies of a trainee and assessment will be carried out as per the assessment criteria.

#### **5.1 LEARNING OUTCOMES**

- 1. Make a nutritional plan for all age groups under given conditions following safety precautions. (NOS: MIN/N9429)
- 2. Design a balanced diet as per the requirement under given conditions. (MIN/N9429)
- 3. Calculate and suggest the calorie and nutritional requirements as per the specific requirements of the person. (NOS: MIN/N9429)
- 4. Identify diseases that occur due to various deficiencies. (NOS: MIN/N9429)
- 5. Assess disease symptoms. (NOS: MIN/N9429)
- 6. Inspect and report various food adulterations. (NOS: MIN/N9429)
- 7. Suggest different food preservation techniques for various types of food. (NOS: MIN/N9429)
- 8. Identify and understand water and its properties and causes of water pollution.

  Summarize water supply system with water treatment in the city/ country etc. (NOS: MIN/N9430)
- 9. Assemble plumbing system for conservation of water. (NOS: MIN/N9430)
- 10. Develop rainwater harvesting technique. (NOS: MIN/N9430)
- 11. Identify and understand the water purification process. (NOS: MIN/N9430)
- 12. Handle the night soil of a city/ town with protection of environment and human being. (NOS: MIN/N9431)
- 13. Plan solid waste management system in an area or a small town. (NOS: MIN/N1702, MIN/N1703, MIN/N1704, MIN/N1705)
- 14. Practice Bio Medical and E- waste management system. (NOS: MIN/N9428)
- 15. Identify air pollution sources and suggest the suitable remedies. (NOS: MIN/N1702, MIN/N1703, MIN/N1704, MIN/N1705)
- 16. Interpret the effects of global warming and identify the remedial measures. (NOS: MIN/N9432)
- 17. Suggest the measures to minimise the noise pollution. (NOS: MIN/N1702, MIN/N1703, MIN/N1704, MIN/N1705)
- 18. Plan and suggest the ventilation requirements of a particular area. (NOS: MIN/ N0459, MIN/ N0460)



- 19. Illustrate concept of liquid waste and disposal. Know the types of sewers, health hazard due to liquid waste. (NOS: MIN/N9433)
- 20. Plan and help in construction and maintenance of sewers, traps, plumbing tools etc. (NOS: MIN/N9433)
- 21. Suggest disposal methods for dead animals and humans. (NOS: MIN/N9434)
- 22. Identify different types of soil, its importance in relation with public health and reclamation of land. (NOS: MIN/N9434)
- 23. Plan and suggest sanitary prescription of medical measures in housing, fairs & festivals. (NOS: MIN/N9435)
- 24. Identify occupational health hazards. Follow safety rules. Prevent occupational diseases. (NOS: MIN/N9436)
- 25. Prepare and control biological environment and different parts of spraying equipment. (NOS: MIN/N9437)
- 26. Generate awareness programmes for masses on health education. (NOS: MIN/N9438)
- 27. Illustrate importance of right behaviour and personal hygiene, learn its direct impact on their personal life & society. (NOS: MIN/N9439)
- 28. Perform first-aid treatment to tackle medical emergency situation. (NOS: MIN/N9440)
- 29. Assess intensity of any disease, recognize the disease and provide first-aid treatment on time to contain the disease. (NOS: MIN/N9441)
- 30. Follow the given immunization schedule and understand its importance. (NOS: MIN/N9441)
- 31. Identify disinfection and its importance to control diseases. Carry out sterilization. (NOS: MIN/N9441)
- 32. Perform basic personal hygiene and interpret its impact on a person's health and personality. (NOS: HCS/N9902,HCS/N9903)
- 33. Recognise various factors like death rate, birth rate, morbidity, MMR, IMR etc. analyse importance of census survey and data collection. (NOS: MIN/N9442)
- 34. Categorise health survey. (NOS: MIN/N9442)
- 35. Familiarise with vocabulary and terminology of different acts. (NOS: MIN/N9442)

|      | LEARNING OUTCOMES ASSESSMENT CRITERIA                |  |  |
|------|--|--|--|
|      |  |  |  |
| 1.   | Make a nutritional plan for                          | Identify different nutrients.  |  |
|      | all age groups under given                           | Identify the requirements of nutrients.  |  |
|      | conditions following safety                          | Observe the importance.  |  |
| /NI  | precautions.<br>DS: MIN/N9429)                       | Make a nutritional plan for the given age group.                                 |  |
| (140 | 55. Will (145425)                                    |  |  |
| 2.   | Design a balanced diet as per                        | Identify components of food and its nutrition factors.                           |  |
|      | the requirement under given                          | Identify calories and nutrients for different food items.                        |  |
|      | conditions.  | Calculate the calories and total nutrients of food items taken.                  |  |
| (NO  | S: MIN/N9429)  | Make a balanced diet plan using different food items as per the                  |  |
|      |  | requirement and given conditions.  |  |
|      |  |  |  |
| 3.   | Calculate and suggest the calorie and nutritional    | Identify different foods available with their calories and nutrients.            |  |
|      | requirements as per the specific requirements of the | Identify the calories and nutrients required for different works and conditions. |  |
|      | person.  | Identify the person with his health conditions and nature of the                 |  |
|      | (NOS: MIN/N9429)                                     | work being done.   |  |
|      |  | Calculate and suggest the calorie and nutrition requirements as                  |  |
|      |  | per the given person and conditions.   |  |
|      |  |  |  |
| 4.   | Identify diseases that occur                         | Identify various individuals with deficiencies.                                  |  |
|      | due to various deficiencies.                         | Identify different deficiency syndromes.   |  |
|      |  | Identify various nutrition deficiencies.   |  |
|      | (NOS: MIN/N9429)                                     | Identify different diseases due to nutrition deficiency.                         |  |
|      |  | Identify symptoms and suggest the important food nourishment                     |  |
|      |  | required.  |  |
|      |  |  |  |
|      | Assess disease symptoms.                             | Identify various individuals with diseases.                                      |  |
| (NO  | S: MIN/N9429)  | Identify common diseases due to different conditions of work                     |  |
|      |  | and living.  |  |
|      |  | Identify the disease symptoms.   |  |
|      |  | Assess the symptoms for various diseases.  |  |
|      |  |  |  |
| 6.   | Inspect and report various                           | Identify various foods that are commonly adulterated.                            |  |
|      | food adulterations. (NOS: MIN/N9429)                 | Identify the parameters to be checked for finding food adulteration.             |  |
|      |  | Note the ideal factors of food available.  |  |
|      |  | Inspect different food for adulterations.  |  |
|      |  | Report food adulteration by doing different tests.                               |  |



| 7  | Consist different food   | I double continue for do or non-tholy non-take billing            |
|----|--|---|
| 7. | Suggest different food preservation techniques for various types of food. (NOS: MIN/N9429) | Identify various foods as per their perishability.                |
|    |  | Apply common food preservation techniques by using salt and       |
|    |  | sugar.  |
|    |  | Identify different types of preservation techniques. Follow       |
|    |  | refrigeration techniques for food preservation.                   |
|    |  | Identify the preservation systems in use.                         |
|    |  | Take above factors into consideration and suggest food            |
|    |  | preservation techniques for various types of food.                |
|    |  |   |
| 8. | Identify and understand  | Identify the resources of water.                                  |
|    | water and its properties and   | Recognize the various resources of water pollution.               |
|    | causes of water pollution.   | Understand the water borne diseases, causes, effects and          |
|    | Summarize water supply   | symptoms.   |
|    | system with water treatment  | Identify different type of water quality with various parameters  |
|    | in the city/ country etc.  | of water in physical, chemical and bacteriological aspects.       |
|    | (NOS: MIN/N9430)   | Understand different water treatment techniques ranging from      |
|    | ,  | traditional to the modern.  |
|    |  | industrial to the modelli.  |
| 9. | Assemble plumbing system   | Identify water conservation technique at household and            |
|    | for conservation of water.   | commercial level.   |
|    | (NOS: MIN/N9430)   | Identify the water supply system in different areas such as rural |
|    | ,  | and urban areas.  |
|    |  |   |
|    |  | Identify and recognize the control measures for water pollution.  |
|    |  | Assemble plumbing system involving water conservation             |
|    |  | techniques.   |
| 10 | . Develop rainwater  | Understand the rain water harvesting process                      |
| 10 | •  | 51  |
|    | harvesting technique.  | Classify different rainwater harvesting technique.                |
|    | (NOS: MIN/N9430)   | Implement the rain water harvesting pits in given locality.       |
|    |  | T   |
| 11 | . Identify and understand the  | Understand the various types of water purification in rural and   |
|    | water purification process.  | urban areas. Disinfection process of water resources and          |
|    | (NOS: MIN/N9430)   | drinking water.   |
|    |  | Identify the water supply system in different areas such as rural |
|    |  | and urban areas.  |
|    |  | Identify and recognize the control measures for water pollution.  |
|    |  | Identify the water treatment plant and the process.               |
|    |  |   |
| 12 | . Handle the night soil of a   | Identify the difference between brackish water, sewage effluent   |
|    | city/ town with protection of  | and night soil.   |
|    | environment and human  | Recognize the various impact of night soil on the soil, water     |
|    | being. (NOS: MIN/N9431)  | resources, atmosphere etc.  |
|    | 3 (  | Understand the different types of faecal borne diseases due to    |
|    |  | Onderstand the different types of faced bothe diseases due to     |

|                                | unsanitary disposal of night soil.                                       |
|--------------------------------|--|
|                                | Identify the various types of latrines and their construction.           |
|                                | Identify the sewage treatment plant and understand the process           |
|                                | diagram.   |
|                                |  |
| 13. Plan solid waste           | Recognize various waste materials.                                       |
| management system in an F      | Recognise resources that increase solid waste.                           |
| area or a small town.          | Classify & collect waste.  |
| (NOS: MIN/N1702,               | Apply segregation techniques and segregate the waste.                    |
|                                | Apply suitable disposal techniques for waste disposal.                   |
|                                | Identify the working of biogas plant.                                    |
|                                | Apply principles of recycling.   |
|                                | 1  |
| 14. Practice Bio Medical Waste | Apply Techniques of segregation, packaging, storage, transport of        |
| and E- Management              | infectious waste   |
| (NOS: MIN/N9428)               | Demonstrate different treatment method for Bio Medical Waste             |
| (,,                            |  |
|                                | Exhibit process of accumulation, storage and disposal of hazardous waste |
|                                | nazardous waste  |
| 45 Identify air mallytian      | Identification of signallistics  |
| 15. Identify air pollution     | Identify sources of air pollution.                                       |
| sources and suggest the        | Identify severity of air pollution.                                      |
| suitable remedies.             | Suggest preventive measures to abort air pollution.                      |
| (NOS: MIN/N1702, MIN/N1703,    |  |
| MIN/N1704, MIN/N1705)          |  |
|                                |  |
| 16. Interpret the effects of   | Know the global warming and its effects.                                 |
| global warming and identify    | Measure the atmospheric temperature using thermometer.                   |
| the remedial measures.         | Identify need of ventilation.  |
| (NOS: MIN/N9432)               |  |
|                                |  |
|                                |  |
| 17. Suggest the measures to    | Understand impacts of noise pollution.                                   |
| minimise the noise pollution.  | Measure the noise pollution.   |
| (NOS: MIN/N1702, MIN/N1703,    | Identify the causes of noise pollution.                                  |
| MIN/N1704, MIN/N1705)          | Suggest the measures to be taken to minimise the noise                   |
|                                | pollution.   |
|                                | 1 10 2 10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2                                  |
| 18. Plan and suggest the       | Understand the concept of ventilation.                                   |
| ventilation requirements of a  | Illustrate the types of ventilation.                                     |
| particular area.               | Identify the need of ventilation.  |
| particular area.               | •  |
| (NOS: MIN/ N0459, MIN/         | Suggest ventilation requirements of a particular area.                   |
|                                |  |
| N0460)                         |  |



| 19. Illustrate concept of liquid  | Observe various sources of liquid waste.                           |
|-----------------------------------|--|
| waste and disposal. Know          | Understand human waste management system.                          |
| the types of sewers, health       | Identify health hazards due to liquid waste.                       |
| hazard due to liquid waste.       |  |
| (NOS: MIN/N9433)                  |  |
|                                   |  |
| 20. Plan and help in construction | Understand types of sewerage system and their working.             |
| and maintenance of sewers,        | Identify various types of traps.                                   |
| traps, plumbing tools etc.        | Understand uses and working of traps.                              |
| (NOS: MIN/N9433)                  |  |
|                                   |  |
| 21. Suggest disposal methods      | Observe importance for proper disposal of dead body and            |
| for dead animals and              | maintenance of record as per legal provision.                      |
| humans. (NOS: MIN/N9434)          | Illustrate methods for preservation of dead.                       |
|                                   | Identify basic requirements of a burial and cremation ground.      |
|                                   |  |
| 22. Identify different types of   | Identify types of soil and its importance.                         |
| soil, its importance in           | Identify agricultural benefits of soil.                            |
| relation with public health       | Observe moisture level in soil.                                    |
| and reclamation of land.          | Understand concept of land reclamation.                            |
| (NOS: MIN/N9434)                  |  |
|                                   |  |
| 23. Plan and suggest sanitary     | Understand concept of a healthy housing.                           |
| prescription of medical           | Identify sanitary requirement of a house.                          |
| measures in housing and           | Explain importance of housing and its good health impacts.         |
| fairs & festivals.                | Identify requirements of sanitation in a fair.                     |
| (NOS: MIN/N9435)                  | Estimate number of sanitation facility required for a particular   |
|                                   | event.   |
|                                   | Plan emergency sanitation, food, water supply for a large          |
|                                   | gathering.   |
|                                   |  |
| 24. Identify occupational health  | Identify the occupational hazards to the employees.                |
| hazards. Follow safety rules.     | Identify the various safety programs and equipment to control      |
| Prevent occupational              | the occupational hazards.  |
| diseases.                         | Implement measures for health protection of workers.               |
| (NOS: MIN/N9436)                  |  |
|                                   |  |
| 25. Prepare and control of        | Identify and use insect circles and disinfections.                 |
| biological environment and        | Distinguish technique of sterilization and disinfection of various |
| different parts of spraying       | articles.  |
| equipment. (NOS: MIN/N9437)       | Identify different parts of spraying equipment.                    |
|                                   | Identify operation and maintenance of spraying equipment.          |
|                                   | Identify larvaecidals.   |
|                                   |  |

|  | Identify rodenticides.  |
|--|---|
|  |   |
| 26. Generate awareness                                       | Understand importance of health education.                    |
| programmes for masses on                                     | Identify working opportunities for a health inspector.        |
| health education.  | Plan health education awareness programme.                    |
| (NOS: MIN/N9438)   | Contribute in health education awareness.                     |
| 27. Illustrate importance of right                           | Learn importance of behaviour.                                |
| behaviour and personal                                       | Impact of behaviour on personal hygiene.                      |
| hygiene, learn its direct                                    | Identify behavioural changes as per age groups.               |
| impact on their personal life<br>& society. (NOS: MIN/N9439) | Understand concept of defence mechanism.                      |
|  |   |
| 28. Perform first-aid treatment                              | Perform CPR.  |
| to tackle medical emergency                                  | Make first-aid box.   |
| situation. (NOS: MIN/N9440)                                  | Identify types of bandages.                                   |
|  | Perform dressing when needed.                                 |
|  | Treat causalities properly.                                   |
|  | Transportation and care of victims can be done.               |
|  | Perform first-aid procedures in various conditions.           |
| 29. Assess intensity of any                                  | Identify symptoms of diseases.                                |
| disease, recognize the                                       | Identify types of disease weather it is communicable or non   |
| disease and provide first-aid                                | communicable.   |
| treatment on time to contain                                 | Guide precautions undertaken in any disease.                  |
| the disease. (NOS: MIN/N9441)                                | Implement preventive measure to contain any disease.          |
| 20.5.11  | I.,   |
| 30. Follow the given   | Identify age group for various immunisations.                 |
| immunization schedule and                                    | Understand natural immunisation schedule.                     |
| understand its importance. (NOS: MIN/N9441)                  | Understand importance of immunisation.                        |
|  |   |
| 31. Identify disinfection and its                            | Understand requirement of disinfection and sterilisation.     |
| importance to control  | Identify disinfection and sterilisation process in hospitals. |
| diseases. Carry out  | Identify various disinfection agents.                         |
| sterilization. (NOS:   | Use disinfectants effectively.                                |
| MIN/N9441)   | Carry out sterilisation procedure.                            |
| 32. Perform basic personal                                   | Understand importance of personal hygiene habits.             |
| hygiene and interpret its                                    | Do proper care of their own nails and hands cleaning etc.     |
| impact on a person's health                                  | Do care of dental care procedures.                            |
| and personality. (NOS:                                       | Develops regular hand washing habits.                         |
| HCS/N9902,HCS/N9903)   | Develops healthy food habit.                                  |
| ,,,,,,   | Develops regular exercise and improves personal hygiene habit |
|  | Develops regular exercise and improves personal hygiene habit |



|                                 | , , , , , , , , , , , , , , , , , , ,                     |
|---------------------------------|---|
|                                 | results in a better personality.                          |
|                                 |   |
| 33. Recognise various factors   | Understand demography.                                    |
| like death rate, birth          | Identify death rate, birth rate, MMR, IMR etc.            |
| rate, morbidity, MMR,           | Understand importance of census.                          |
| IMR etc. analyse                |   |
| importance of census            |   |
| survey and data                 |   |
| collection.                     |   |
| (NOS: MIN/N9442)                |   |
|                                 |   |
|                                 |   |
| 34. Categorise health survey.   | Perform survey.   |
|                                 | Fill survey forms.  |
| (NOS: MIN/N9442)                | Perform data collection.                                  |
|                                 | Classify health surveys.                                  |
|                                 |   |
| 35. Familiarise with vocabulary | Understands importance of acts.                           |
| and terminology of different    | Identify epidemic and endemic situations at a given area. |
| acts.                           | Understand air and water pollution control acts.          |
| NOS: MIN/N9442)                 | Fill birth and death registration forms.                  |
|                                 | MTP acts.   |
|                                 | Identify various acts and their importance.               |
|                                 |   |

16



# 7. TRADE SYLLABUS

| SYLLABUS FOR HEALTH SANITARY INSPECTOR TRADE  |   |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|
| DURATION: ONE YEAR  |   |  |  |  |  |  |  |
| Reference Learning Outcome  | Professional Skills<br>(Trade Practical)<br>With Indicative Hours   | Professional Knowledge<br>(Trade Theory)   |  |  |  |  |  |
| Make a nutrition plan for all age groups under given conditions following safety precautions. (NOS: MIN/N9429) Design a balanced diet as per the requirement under given conditions. (NOS: MIN/N9429) Calculate and suggest the calorie and nutrition requirements as per the specific requirements of the person. (NOS: MIN/N9429) Identify diseases that occur due to various deficiencies. (NOS: MIN/N9429) Assess disease symptoms. | <ol> <li>Draft a nutritional chart for the following:- (19 hrs) a. Infants</li> <li>Pregnant Ladies</li> <li>Lactating Mothers</li> <li>Preschool Children</li> <li>School Going Children</li> <li>For hypertensive</li> <li>Patients</li> <li>Diabetic Patients</li> <li>Nephritis Patients</li> <li>Heart Patients</li> <li>Heart Potients</li> </ol> 3. Make PPT of different type of malnutrition.(3 hrs) 4. Importance of health                       | Food (definition) & function of food & introduction of nutrition & nutrients.  Classification of food, their sources, nutrient diets proteins, fat, vitamins & minerals – sources, function, deficiency excess & daily requirement.  Balanced diet- definition & importance  — Factors to be considered on planning meals.  — Nutrient requirement of different age group  — Diet survey  - New Types of Diets  - BMI(Body Mass Index)  - Healthy eating habits:  1. Variety of healthy food  2. Avoid processed & Sugary food  3. Hydration  4. Home cooked fresh food Nutrition education  |  |  |  |  |  |
| 1005(10018 0101010 1000 25(1  | Reference Learning Outcome  Make a nutrition plan for all age groups under given conditions following safety precautions. (NOS: MIN/N9429) Design a balanced diet as per the requirement under given conditions. (NOS: MIN/N9429) Calculate and suggest the calorie and nutrition requirements as per the specific requirements of the person. (NOS: MIN/N9429)  dentify diseases that peccur due to various deficiencies. (NOS: MIN/N9429)  Assess disease | Reference Learning Outcome  Make a nutrition plan for all age groups under given conditions following safety precautions. (NOS: MIN/N9429) Design a balanced diet as per the requirement under given conditions. (NOS: MIN/N9429) Calculate and suggest the calorie and nutrition requirements as per the specific requirements of the derson. (NOS: MIN/N9429)  dentify diseases that occur due to various deficiencies. (NOS: MIN/N9429)  Assess disease symptoms. (NOS: MIN/N9429)  Assess disease symptoms. (NOS: MIN/N9429)  nspect and report  Professional Skills (Trade Practical) With Indicative Hours  1. Draft a nutritional chart for the following:- (19 hrs) a. Infants b. Pregnant Ladies c. Lactating Mothers d. Preschool Children e. School Going Children f. For hypertensive Patients g. Diabetic Patients h. Nephritis Patients i. Heart Patients  2. Audio-video aids. (04 hrs)  3. Make PPT of different type of malnutrition.(3 hrs) 4. Importance of health education to overcome the problem of |  |  |  |  |  |



|                 | adulterations.                          |     | malnutrition & to run   | (LBW), causes of LBW,                                 |
|-----------------|---|-----|---|---|
|                 | (NOS: MIN/N9429)                        |     | Campaign. (03 hrs)  | prevention of LBW, special                            |
|                 | Suggest different food                  | 5.  | Display videos (Audio-  | care to be given to                                   |
|                 | preservation                            |     | video) on Demographic   | malnourished children.                                |
|                 | techniques for various                  |     | malnutrition.(04 hrs)   | maniourished children.                                |
|                 | types of food. (NOS:                    |     | Deficiency diseases of vitamines &                                  | Therapeutic Diet: Introduction                        |
|                 | MIN/N9429)                              | 0.  | minerals e.g. Nightblindness,Beri-                                  | for balanced diet, weight                             |
|                 |   |     | Beri,Scurvey,Rickets,Anaemia,Goitre: causes,symptons and treatments |   |
|                 | Nodal agencies to                       |     | (3 hrs) Demonstration of  | reducing diet- low fat diet,                          |
|                 | report to food                          | 7.  |   | bland diet, cirrhosis of liver,                       |
|                 | adultration                             |     | spoilage of some food   | renal stone, Importance of                            |
|                 | (11111111111111111111111111111111111111 | 8.  | items. (03 hrs)   | regular Exercise in it. Food Preservation: definition |
|                 |   | ο.  | Application of common   |   |
|                 |   |     | salt & sugar to increase  | & methods, household & industrial method of           |
|                 |   |     | shelf life of many food   |   |
|                 |   | 9.  | items. (04 hrs)<br>Cleanliness of Kitchen                           | preservation, self-line, Pasteurization: methods,     |
|                 |   | 9.  |   |   |
|                 |   |     | equipment and cooking utensils (03 hrs).                            | types &importance.                                    |
|                 |   | 10  | Operation and usage   | Pofrigoration: Provents                               |
|                 |   | 10. | =   | Refrigeration: Prevents                               |
|                 |   |     | procedures of storage<br>Equipment like                             | spoilage.<br>(24 hrs.)                                |
|                 |   |     | Refrigerators (04 hrs).   | (241113.)   |
| Professional    | Identify and                            | 11  | Draw a chart sowing   | WHO's definition for                                  |
| Skill 50Hrs;    | understand water and                    | 11. | various environmental   | environmental sanitation.                             |
| JKIII JUI II 3, | its properties and                      |     | factors. (03 hrs)   | Safe and whole some water.                            |
| Professional    | causes of water                         | 12  | Tabulate various types  | Sources of water. Various                             |
| Knowledge       | pollution. Summarize                    | 12. | of water with their   | uses of water and its needs.                          |
| 12Hrs           | water supply system                     |     | properties. (03 hrs)  | uses of water and its fiecus.                         |
| 121113          | with water treatment                    | 13  | Classify water resources  | Water borne diseases.                                 |
|                 | in the city/ country                    | 10. | (surface water and  | Conservation sources of                               |
|                 | etc.                                    |     | ground water). (06 hrs)   | water.  |
|                 | (NOS: MIN/N9430)                        | 14. | Prepare a pie chart of  | Quality of water.                                     |
|                 | Assemble plumbing                       |     | total availability of   | Physical, chemical and                                |
|                 | system for                              |     | water on the earth  | biological standard for                               |
|                 | Conservation of                         |     | (Fresh water, saltwater,  | portable water.                                       |
|                 | water.                                  |     | potable water etc.) (02   | Public health aspect of very                          |
|                 | (NOS: MIN/N9430)                        |     | hrs)  | hard water.   |
|                 | Develop rain water                      | 15. | Tabulate the per capital  | Steps of disinfection of well.                        |
|                 | harvesting technique.                   |     | water demand for  | Sources and nature of                                 |
|                 | (NOS: MIN/N9430)                        |     | domestic purpose. (02   | pollution of water & control of                       |
|                 | Identify and                            |     | hrs)  | it.   |
|                 | understand the water                    | 16. | Prepare a chart of water  | Purification of water:                                |
|                 | purification process.                   |     | demand in different   | i) Large Scale  |
|                 | (NOS: MIN/N9430)                        |     | areas such as hospitals,  | ii) Small Scale                                       |
|                 |   |     | hotels, industries,   |   |



| Sanitary Inspector |     |                            |                                |
|--------------------|-----|----------------------------|--------------------------------|
|                    |     | schools etc. (01 hrs)      | Prepare of a sanitary well and |
|                    | 17. | Prepare a chart for        | tube well.                     |
|                    |     | impact of polluted         | Plumbing system and its        |
|                    |     | water on human health,     | maintenance.                   |
|                    |     | animals, plants etc. (03   | Water supply and storage       |
|                    |     | hrs)                       | system at the community and    |
|                    | 18. | Tabulate the different     | domestic.                      |
|                    |     | methods for                | Pot method of chlorination.    |
|                    |     | conservation of water in   | Swimming pool.                 |
|                    |     | different areas. (03 hrs)  | Water testing labs.            |
|                    | 19. | Draw and sketch a          | (12 hrs.)                      |
|                    |     | picture of rainwater       |                                |
|                    |     | harvesting. (01 hrs)       |                                |
|                    | 20. | Identify the difference    |                                |
|                    |     | between portable           |                                |
|                    |     | water, safe and whole      |                                |
|                    |     | some water. (03 hrs)       |                                |
|                    | 21. | Prepare a chart for        |                                |
|                    |     | physical, chemical and     |                                |
|                    |     | bacteriological quality    |                                |
|                    |     | of water. (02 hrs)         |                                |
|                    | 22. | Explain the disinfection   |                                |
|                    |     | with various               |                                |
|                    |     | disinfectant for well      |                                |
|                    |     | disinfection (02 hrs)      |                                |
|                    | 23. | Prepare the list of        |                                |
|                    |     | sources of water           |                                |
|                    |     | pollution with their       |                                |
|                    |     | different characteristics. |                                |
|                    |     | (02 hrs)                   |                                |
|                    | 24. | Visit to a water           |                                |
|                    |     | treatment plant. (02       |                                |
|                    |     | hrs)                       |                                |
|                    | 25. | Make a diagram of          |                                |
|                    |     | water treatment plant      |                                |
|                    |     | with different process     |                                |
|                    |     | of water purification.     |                                |
|                    |     | (03 hrs)                   |                                |
|                    | 26. | Collection and dispatch    |                                |
|                    |     | of water sample for        |                                |
|                    |     | chemical and               |                                |
|                    |     | bacteriological            |                                |
|                    |     | examination. (02 hrs)      |                                |
|                    | 27. | Prepare and construct a    |                                |
|                    |     | purification system in     |                                |

|  |  | 28. Calculate demand the graph residual water. (29. Collecte sample domest and grows resources. (30. Perform for physichemical demand grows chemical deman | the water from the ic taps, surface und water es. (02 hrs) n the practical sical and al parameters of rater sample in labs dity ine ness  |   |
|--|--|--|---|---|
|  |  | - Alkali   | nity etc. (05 hrs)  |   |
| Professional<br>Skill 40Hrs;<br>Professional<br>Knowledge<br>12Hrs | Handle the night soil of a city/ town with protection of environment and human being. (NOS: MIN/N9431) | stewage samples the test categor numero night so bodies, etc. (06 and impact  | ne difference n water and with given s in the bottles in ling labs. (02 hrs) rises the ous impact of oil on the water atmosphere, soil hrs) e numerous of food chain bact of food ination on bodies. (02 hrs) e a chart for diseases due to ary disposal of oil. (02 hrs) | Night soil disposal Sewage in liquid waste containing human excreta.  Numerous impact of night soil on the environmental factors.  Faucal borne disease due to unsanitary disposal of night soil.  Different types of latrines in use principal of construction of sanitary latrines and their uses.  i) Bore hole ii) Dug well iii)RCA iv) Septic tank latrines. (12 hrs.) |

|  |   |   | and non-service type latrines bore hole, dug well, RCA, septic tank, sulabh souchalaya. (13 hrs) Visit to sulabh souchalaya. (07 hrs) Demonstrating the construction and maintenance of trenching ground.   |     |  |
|--|---|---|---|-----|--|
| Professional<br>Skill 46Hrs;<br>Professional<br>Knowledge<br>12Hrs | Plan solid waste management system in an area or a small town.  (NOS: MIN/N1702, MIN/N1703, MIN/N1704, MIN/N1705) | <ul><li>39.</li><li>40.</li><li>41.</li><li>42.</li><li>43.</li><li>44.</li><li>45.</li></ul> | Identify resources of increasing solid waste. (02 hrs) Tabulate the category of solid waste based on sources. (02 hrs) Classify solid waste according to their different properties such as medical, municipal, commercial, construction. (02 hrs) Demonstration of collection methods of solid waste. (02 hrs) Prepare a plan chart of solid waste management in a city. (02 hrs) Prepare pie chart composition of MSW. (02 hrs) Explain the disposal methods of solid waste in sanitary methods. (12 hrs) Illustrate the bad effects of solid waste disposal in a chart. (04 hrs) Compare the different methods of collection and transportation of | Sol | id waste disposal  Source, generation, storage, collection and disposal methods of solid waste.  Classification of solid waste in community. Polluting effects of different types of solid waste.  System of collection of solid waste from the houses & streets.  Sanitary transportation of solid waste.  Sanitary process of disposal of solid waste such as composting, sanitary land filling, incineration etc. (12 hrs.) |



|   |   | solid waste with diagrams. (02 hrs) 47. Visit disposal site. i. Sanitary landfills ii. Composting iii. Incineration iv. Biogas plant (16 hrs) |  |
|---|---|---|--|
| Professional  | Practice Bio Medical  | Bio Medical Waste   | Bio Medical Waste  |
| Professional<br>Skill 80 Hrs;<br>Professional<br>Knowledge<br>20Hrs | Practice Bio Medical and E- waste management system. (NOS: MIN/N9428) |   | Management  Definition of Bio Medical Waste Sources of Bio Medical Waste Waste Waste minimisation BMW – segregation, collection, transportation, treatment and disposal (including color coding) Liquid BMW, Radioactive waste, Metals/Chemicals/Drug waste BMW management and method of disinfection Modern technology for handling BMW Use of personal protective equipment (PPE) Monitoring and controlling of cross infection (protective devices) Identifying the risk of Bio Medical Waste E-waste: Introduction, toxicity due to hazardous substances in e-waste and their impacts, domestic e- |
|   |   |   | waste disposal, e-waste management, technologies for recovery of resource from electronic waste, guidelines for environmentally sound management of e-waste, occupational and  |



|  |  |   |  |     | environmental health<br>perspectives of recycling e-<br>waste in India.   |
|--|--|---|--|-----|---|
| Professional<br>Skill 35Hrs;<br>Professional<br>Knowledge<br>14Hrs | Identify air pollution sources and suggest the suitable remedies. (NOS: MIN/N1702, MIN/N1703, MIN/N1704, MIN/N1705) Interpret the effects of global warming and identify the remedial measures. (NOS: MIN/N9432) Suggest the measures to minimize the noise pollution. (NOS: MIN/N1702, MIN/N1703, MIN/N1704, MIN/N1705) Plan and suggest the ventilation requirements of a particular area. (NOS: MIN/ N0459, MIN/ N0460) | <ul><li>54.</li><li>55.</li><li>56.</li><li>57.</li><li>58.</li><li>59.</li></ul> | Demonstration of humidity and temperature. (04 hrs) Point out sources of air pollution. (02 hrs) Prepare charts or posters of Global warming. (03 hrs) Prepare posture on prevention techniques for Air pollution. (03 hrs) Demonstration of an AC plant for thermal comfort. (03 hrs) Point out types of ventilation. (03 hrs) Measurement of noise level. (05 hrs) Process to control noise pollution (12 hrs) |     | Introduction of air pollution. Composition of air. Sources and nature of air pollution. Effect of air pollution on health. Prevention and controlling methods for air pollution. Explain global warming and its impact. Concept of temperature, humidity, radiation, thermal comfort, evaporation etc. Green House Effect, causes & impact purification. Air disinfection. Definition of ventilation. Concept and importance of adequate ventilation. Types of ventilation ise pollution Introduction. Sources. Health Impacts. Preventive measures for controlling Noise |
| Professional   | Illustrate consent of  | C1  | Deint aut the course   | 1:0 | pollution.(06 hrs.)   |
| Skill 45Hrs; Professional Knowledge 14Hrs                          | Illustrate concept of liquid waste and disposal. Know the types of sewer Health hazards due to liquid waste. (NOS: MIN/N9433) Plan and help in   | 62.   | tank, manholes etc.<br>(05hrs)<br>Demonstration of<br>various traps 'p' trap, 's'  |     | uid waste disposal  Definition of liquid waste and its sources.  Human waste management system.  Various methods for liquid waste disposal.  Pollution of water due to  |
|  | construction and maintenance of  |   | trap, 'q' trap etc. (10<br>hrs)  | _   | sewage.<br>Health hazard associated   |



| , ,  |  |   |   | T                                   |   |
|--|--|---|---|-------------------------------------|---|
|  | sewers, traps, plumbing tools etc. (NOS: MIN/N9433)  | <ul><li>65.</li><li>66.</li><li>67.</li></ul> | various plumbing tools<br>like hacksaw, pipe<br>cutter, pipe vice, pipe<br>wrench set of spanners<br>etc. (06 hrs)  |                                     | with liquid waste. Sewers and its types. Methods of laying sewers. Construction and maintenance of sewers. Sewer appurtenances. Traps introductions. Types of traps. Definition of plumbing. Plumbing tools and operations. Tage disposal Definition and types of sewage system. Sewage farming and land treatment. Sewage disposal by biogas plant. Methods of disinfecting sewage. Sewage farming.(12 hrs.) |
| Professional<br>Skill 43Hrs;<br>Professional<br>Knowledge<br>12Hrs | Suggest disposal methods for dead animals and humans. (NOS: MIN/N9434) Identify different types of soil, its importance in relation to public health and reclamation of land. (NOS: MIN/N9434) | 70.<br>71.                                    | Visit to burial ground, proper process of disposal of dead bodies and maintenance of records as per legal provisions. (17 hrs) Identify soil sample equipments. (09 hrs) Sampling for assessment of soil pollution. (09 hrs) Treatment of soil after the PH and disinfection. (08hrs) | _<br>_<br>_<br>_<br>_<br>_<br>buris | al and Cremation Introduction Disposal of dead. Types of disposal methods. Methods of preservation of dead. Importance of Electrical o Gas Cremation Basic requirements for al and cremation grounds.  Health hazards associated with unsanitary disposal of dead bodies. sanitation Introduction and importance of soil. Classification from the view point of importance                                    |



|               |                        |       |                          |          | in public health.<br>Reason of excessive |
|---------------|------------------------|-------|--------------------------|----------|--|
|               |                        |       |                          |          | moisture in the soil.                    |
|               |                        |       |                          |          |  |
|               |                        |       |                          | _        | Reclamation of land.                     |
|               |                        |       |                          |          | Soil health.(12 hrs.)                    |
| Professional  | Plan and suggest       | 73.   | Visit of housing for     | Ho       | using                                    |
| Skill 43 Hrs; | sanitary prescription  |       | assessing sanitary       | _        | General principle of                     |
|               | of medical measures    |       | standards and            |          | healthy housing.                         |
| Professional  | in housing and fairs & |       | prescription of remedial | —        | Home sanitation.                         |
| Knowledge     | festivals. (NOS:       |       | measures. (15 hrs)       | _        | Utility services of house.               |
| 12Hrs         | MIN/N9435)             | 74.   | Classify the             | _        | Sanitary standards for                   |
|               |                        |       | overcrowding. (04 hrs)   |          | construction of house.                   |
|               |                        | 75.   | Inspection and           | _        | Food hygiene at home.                    |
|               |                        |       | preparation of fairs and | _        | Specification for healthy                |
|               |                        |       | festivals. (10 hrs)      |          | housing.                                 |
|               |                        | 76.   | Preparation of sanitary  | Sar      | nitation in fairs and                    |
|               |                        |       | arrangements             |          | <u>festivals</u>                         |
|               |                        |       | associated with natural  | _        | Sanitation management                    |
|               |                        |       | calamities. (10 hrs)     |          | at fairs and festivals.                  |
|               |                        | 77.   | <b>Role of Disaster</b>  | _        | Sanitary problems                        |
|               |                        | ′ ′ ′ | Managent committeed      |          | associated with human                    |
|               |                        |       | natural calamites (04)   |          | gatherings and temporary                 |
|               |                        |       | hrs)                     |          | settlements.                             |
|               |                        |       |                          | _        | Alternative emergency                    |
|               |                        |       |                          |          | sanitary provisions to                   |
|               |                        |       |                          |          | prevent sanitation crisis                |
|               |                        |       |                          |          | for food, housing, water                 |
|               |                        |       |                          |          | supply, lighting.                        |
|               |                        |       |                          | _        | Disposal of community                    |
|               |                        |       |                          |          | waste and prevention of                  |
|               |                        |       |                          |          | outbreak of                              |
|               |                        |       |                          |          | epidemics.(12 hrs.)                      |
| Professional  | Identify occupational  | 78.   | Visit various trade      | Occ      | cupational health                        |
| Skill 35Hrs;  | health hazards. Follow |       | premises (diary, bakery  |          | <ul><li>Introduction</li></ul>           |
| ,             | safety rules. Prevent  |       | etc.) (10 hrs)           | <u>_</u> | Occupational risk factors and its        |
| Professional  | occupational diseases. | 79.   | Visit to a factory for   |          | Preventive measures                      |
| Knowledge     | (NOS: MIN/N9436)       |       | survey of sanitation     | _        | Occupational diseases.                   |
| 12Hrs         |                        |       | problems of workplace.   | _        | State the importance of                  |
|               |                        |       | (14 hrs)                 |          | safety and health at work                |
|               |                        | 80.   | Identification of danger |          | place.                                   |
|               |                        |       | zones and adequacy of    | _        | State the role of                        |
|               |                        |       | safety arrangements.(08  |          | employer, trade union                    |
|               |                        |       | hrs)                     |          | and employees for health                 |
|               |                        |       | - /                      |          |  |
|               |                        | I     |                          |          | and safety program.                      |

|   |  | Seminars on various safety arrangements programme. (03 hrs)  | <ul> <li>Measures for health protection workers.</li> <li>Prevention of occupational diseases.</li> <li>Provision- benefit to employees.</li> <li>Occupational health in India.(12 hrs.)</li> </ul>   |
|---|--|--|---|
| Professional<br>Skill 24 Hrs;<br>Professional<br>Knowledge<br>06Hrs | Prepare and control of biological environment and different parts of spraying equipment.  (NOS: MIN/N9437) | <ul> <li>81. Identification and use of insecticides, pesticides and disinfectants. (02 hrs)</li> <li>82. Application of techniques of sterilisation and disinfection of various articles. (04 hrs)</li> <li>83. Identification of different part of spraying equipment. (04 hrs)</li> <li>84. Identify and use of larvicides. (04 hrs)</li> <li>85. Operation and maintenance of spraying equipment. (06 hrs)</li> <li>86. Identify and use of rodenticides. (04 hrs)</li> </ul> | Control of biological environment  Introduction  Study on insecticides, pesticides and disinfections.  Sterilisation and disinfection of different articles.  Various spraying equipment.  Uses of rodenticides and larvaecidals.  Principal of arthropod control. (03 hrs.)  Advantage of Natural Insecticides over chemicals(03 hrs).             |
| Professional<br>Skill 60Hrs;<br>Professional<br>Knowledge<br>16Hrs  | Generate awareness programmes for masses on health education. (NOS: MIN/N9438)                             | <ul> <li>87. Designing of posters on Malaria. (10 hrs)</li> <li>88. Designing of posters on roles and responsibilities of a health inspector. (10 hrs)</li> <li>89. Demonstration of health awareness program as a class activity. (06 hrs)</li> <li>90. Designing environmental sanitation posters. (08 hrs)</li> </ul>   | <ul> <li>Definition of health</li> <li>Content of health education.</li> <li>Principal of health education.</li> <li>Health education opportunities for health inspector in his work place.</li> <li>Use of audio-visual aids and media.</li> <li>Health education approach.</li> <li>Planning health education activities, education in</li> </ul> |

|  |   | <ul><li>91.</li><li>92.</li><li>93.</li><li>94.</li></ul> | Designing posters on<br>balanced diet.(06 hrs)<br>Designing poster on<br>basic hygiene<br>practices.(04 hrs)<br>Preparing power point<br>presentation on health<br>awareness.(10 hrs)<br>Demonstration of<br>preparation of ORS.(06<br>hrs) |    | relation to environmental sanitation. Awareness on need of sanitation amenities. Health education material. Contribution of public health centres in health education. Utilising community resources for health education. Benefits of personal  |
|--|---|---|---|----|--|
| Professional   | Illustrate importance   | 95.   | Preparing charts on   | Be | to provide health education.(18 hrs.) havioral Science   |
| Skill 51Hrs; Professional Knowledge 16Hrs                            | of right behaviour and personal hygiene, learn its direct impact on their personal life & society. (NOS: MIN/N9439) | 96. [<br>97. [  | personal hygiene habits.(22 hrs) Designing posters on Do's and Don'ts in a social behaviour.(11 hrs) Demonstration of hand washing and caring.(09 hrs) Demonstration on oral hygiene.(09 hrs)   |    | Definition of behavioural science. Importance of behavioural science. Impact of behaviour on personal hygiene. Basic hygiene practices. Habits and customs affecting personal hygiene. Caring sense organs. Oral hygiene. Factors influencing human behaviour, change of behavioural pattern in different age groups. Interpersonal relations and defence mechanism. (18 hrs.) |
| Professional<br>Skill 95 Hrs;<br>Professional<br>Knowledge<br>16 Hrs | Perform first- aid<br>treatment to tackle<br>medical emergency<br>situation.<br>(NOS: MIN/N9440)                    | 100.  | Dressing of wounds, bandages. (08 hrs) Management of bone injuries with splints, slings. (10 hrs) Transportation of injured and unconscious cases and their management. (09   |    | First-Aid Aim of first-aid. Principles and practice of first-aid. Contents of a basic first-aid box. CPR Types of dressing and bandages.   |

|  |  | hrs)  102. Diagnosis and treatment of minor ailments, cough, fever, bleeding, toothache etc. (15 hrs)  103. Poisoning case managements (08 hrs)  104. Management in case of heat attack, sun stroke, haemorrhage, burns, electrical injuries etc. (20 hrs)  105. Training on artificial respiration. (10 hrs)  106. Arranging first-aid treatment in various emergency cases. (15 hrs)  | accidents and disaster  |
|--|--|---|---|
| Professional<br>Skill 71Hrs;<br>Professional<br>Knowledge<br>20Hrs | Assess intensity of any disease, recognize the disease and provide first-aid treatment on time to contain the disease.  (NOS: MIN/N9441) Follow the given immunization schedule and understand its importance.  (NOS: MIN/N9441) Identify disinfection and its importance to control diseases. Carry out sterilization. (NOS: MIN/N9441) | <ul> <li>107. Demonstration on communicable and non-communicable diseases symptoms and their control measures. (16 hrs)</li> <li>108. Preparation of immunisation programme (15 hrs)</li> <li>109. Conducting health and general survey and report making. (20 hrs)</li> <li>110. Videos on disinfection and sterilisation techniques. (08 hrs)</li> <li>111. Various chemicals uses with safety for disinfection through videos. (08 hrs)</li> </ul> | Communicable diseases  Definition and introduction on communicable disease.  Air-borne and transmission of diseases through contact.  Symptoms of diseases.  Explain in detail various communicable diseases like Swine Flu, T.B., AIDS, Diphtheria, Polio, measles, diarrhoea etc.  General measures for prevention and control of communicable diseases.  Non-communicable diseases.  Non-communicable diseases  Introduction of non-communicable diseases  Explain in detail diseases like cancer, hypertension, cardiac disease, diabetes etc.  In detail symptoms, |



|  |   | 112EVIN(Electronic Vaccine Intelligence Network) 113NCCMIS(National Cold Chain Management Information System)  114Mission Indradhanush :- full Immunization coverage.  (4 hrs)   | prevention and control of non-communicable diseases.  Immunity and immunisation  Importance of immunity and immunisation  Types, purpose and effect of immunisation.  National immunisation schedule.  Measles, typhoid vaccines and pentavalent vaccine.  Disinfection and sterilisation.  |
|--|---|--|---|
|  |   |  | 1. Hot Air Oven 2. Autoclave etc.   |
|  |   |  | <ul> <li>Importance of disinfection and sterilisation in hospitals.</li> <li>Introduction and uses of various disinfection agents like Halogen, KMnO<sub>2</sub>solution, solid and liquid agents.</li> <li>Effective disinfectants like formaldehyde, sulphur, chlorine gases etc.</li> <li>Use of UV radiation and ozone as disinfectant.(30 hrs.)</li> </ul> |
| Professional                               | Perform basic   | 115. Making posters on   | Personal hygiene  |
| Skill 20Hrs; Professional Knowledge 10 Hrs | personal hygiene and<br>interpret its impact<br>on a person's health<br>and personality.<br>(NOS:<br>HCS/N9902,HCS/N9903) | dental care. (06 hrs)  116. Making posters on skin and hair hygiene. (04 hrs)  117. Making posters on basic hygiene habits. (03 hrs)  118. Demonstration on right method for hand washing. (03 hrs)  119. Demonstration on oral health. (04 hrs) | <ul> <li>Need and importance of personal hygiene in daily life.</li> <li>Factors influencing health and hygiene habits.</li> <li>Maintaining basic hygiene habits of skin, hair, oral, nails etc.</li> <li>Developing dental care, care of hands, washing etc.</li> <li>Importance of regular</li> </ul>  |



|              |   |   | exercise and nutritious                       |
|--------------|---|---|---|
|              |   |   | food. (06 hrs.)                               |
| Professional | Recognize various                                       | 120. Data collection from                     | Demography and health                         |
| Skill 52Hrs; | factors like death                                      | hospitals for Malaria                         | survey  |
|              | rate, birth rate,                                       | cases. (05 hrs)                               | <ul><li>Definition and</li></ul>              |
| Professional | morbidity, MMR, IMR                                     | 121. Data collection from                     | introduction of                               |
| Knowledge    | etc., analyse   | hospitals for Dengue                          | demography.                                   |
| 12Hrs        | importance of census                                    | cases.(05 hrs)                                | <ul> <li>Factors of demography.</li> </ul>    |
|              | survey and data   | 122. Health survey of                         | <ul> <li>Various stage of demo.</li> </ul>    |
|              | collection.   | people of a locality.(05                      |   |
|              | (NOS: MIN/N9442)  | hrs)  | <ol><li>Early expending</li></ol>             |
|              |   | 123. Vaccination survey in a                  |   |
|              | Categorise health                                       | locality. (05 hrs)                            | 4. Low stationary                             |
|              | survey.   | 124. Design and prepare                       | <ul> <li>Health survey includes</li> </ul>    |
|              | (NOS: MIN/N9442) Familiarise with                       | population control                            | birth rate, death rate,                       |
|              | vocabulary and  | measures on chart.(05                         | morbialey) mini, mini eter                    |
|              | terminology of  | hrs)  | <ul> <li>Population control</li> </ul>        |
|              | different acts. (NOS:                                   | 125. Collection and dispatch                  |   |
|              | MIN/N9442)  | of food samples for                           | Public Health Act                             |
|              | Keypoints of recent modification in Public Health Acts. | analysis preparation of                       | Deminion, incroduction                        |
|              |   | papers for legal                              | and importance of acts.                       |
|              |   | proceeding.(04 hrs)                           | <ul> <li>Indian Epidemic Disease</li> </ul>   |
|              |   | 126. Performance of simple household tests to | Act.  |
|              |   |   | Explain endemic,                              |
|              |   | identify adulteration in                      | pandemic with examples.                       |
|              |   | milk, ghee, oil, sugar,<br>tea etc.(05 hrs)   | <ul> <li>Define epidemiology.</li> </ul>      |
|              |   | 127. Acquaintance with                        | <ul> <li>Air and Water Pollution</li> </ul>   |
|              |   | registration of acts.(06                      | Control Act.                                  |
|              |   | hrs)  | <ul> <li>Prevention of Food</li> </ul>        |
|              |   | 128. Prepare reporting of                     | Adulteration Act.                             |
|              |   | different acts.(04 hrs)                       | <ul> <li>Birth and Death</li> </ul>           |
|              |   | 129. Documentation                            | Registration Act.                             |
|              |   | process for                                   | – M.T.P. Act.                                 |
|              |   | implementation of                             | <ul> <li>Suppression of Immoral</li> </ul>    |
|              |   | different acts.(04 hrs)                       | Traffic Act (SITA).                           |
|              |   | 130. Prepare a chart of                       | <ul> <li>Municipal and Local Body</li> </ul>  |
|              |   | pollution levels of                           | Acts related to Housing                       |
|              |   | toxins of different                           | Sanitation Act.                               |
|              |   | industries in an                              | <ul> <li>Factory Act and ESI Acts.</li> </ul> |
|              |   | area.(04 hrs)                                 | (12 hrs.)                                     |
| Droiget work | Hospital visit  | 1 2.22.(3.11.3)                               |   |

# Project work/ Hospital visit

## **Broad Areas:**

- a) Arranging first-aid treatment in various emergency cases.
- b) Design and prepare population control measures on chart.



- c) Various chemical uses with safety for disinfection through video.
- d) Preparing charts on personal hygiene habits.
- e) Data collection from hospitals for malaria cases.
- f) Prepare a chart of pollution levels of toxins of different industries in an area.

#### **SYLLABUS FOR CORE SKILLS**

1. Employability Skills(Common for all CTS trades) (120 Hrs)

Learning outcomes, assessment criteria, syllabus and Tool List of Core Skills subjects which is common for a group of trades, provided separately in <a href="www.bharatskills.gov.in">www.bharatskills.gov.in</a> / dgt.gov.in



| List of Tools & Equipment  HEALTH SANITARY INSPECTOR (For batch of 24 Candidates) |                                       |   |                    |  |  |
|---|---------------------------------------|---|--------------------|--|--|
|   |                                       |   |                    |  |  |
| A. TRA  | AINEES TOOL KIT                       |   |                    |  |  |
| 1.  | Gloves                                |   | As required        |  |  |
| 2.  | Apron                                 |   | 24 nos.            |  |  |
| 3.  | Disposable Mask                       |   | As required        |  |  |
| B. SHO  | OP TOOLS, INSTRUMENTS                 |   |                    |  |  |
| Lists o   | of Tools:                             |   |                    |  |  |
| 4.  | Ventilation System                    |   | 1 no.              |  |  |
| 5.  | Sewage System and                     |   | 1 no.              |  |  |
|   | Treatment plant                       |   |                    |  |  |
| 6.  | Water Purification Plant              |   | 1 no.              |  |  |
| 7.  | Sanitary Plant                        |   | 1 no.              |  |  |
| 8.  | Waste Disposal Plant                  |   | 1no.               |  |  |
| C. LIST   | T OF EQUIPMENTS                       |   |                    |  |  |
| 9.  | LCD Projector/Interactive Smart Board |   | 1 no.              |  |  |
| 10.   | Desktop computer                      | CPU: 32/64 Bit i3/i5/i7 or latest processor, Speed: 3 GHz or Higher. RAM:-4 GB DDR-III or Higher, Wi-Fi Enabled. Network Card: Integrated Gigabit Ethernet, with USB Mouse, USB Keyboard and Monitor (Min. 17 Inch. Licensed Operating System and Antivirus compatible with trade related software. | 1 no.              |  |  |
| 11.   | Refrigerator                          | 165 Ltr   | 1no.               |  |  |
| 12.   | Autoclave                             |   | 1 no.              |  |  |
| 13.   | Sterilizer                            |   | 1 no.              |  |  |
| 14.   | TDS Meter                             |   | 2nos.              |  |  |
| 15.   | Thermometer                           |   | 4 nos.             |  |  |
| 16.   | BP Instrument                         |   | 1 no.              |  |  |
| 17.   | Stethoscope                           |   | 4 nos.             |  |  |
| 18.   | Haemoglobin meter                     |   | 2 nos.             |  |  |
| 19.   | Laboratory Microscope                 |   | 1 no.              |  |  |
| 20.   | First-Aid Kit                         |   | 2 nos.             |  |  |
| 21.   | Needles and Syringes                  |   | As per requirement |  |  |

# **ABBREVIATIONS**

| CTS  | Craftsmen Training Scheme                          |
|------|--|
| ATS  | Apprenticeship Training Scheme                     |
| CITS | Craft Instructor Training Scheme                   |
| DGT  | Directorate General of Training                    |
| MSDE | Ministry of Skill Development and Entrepreneurship |
| NTC  | National Trade Certificate                         |
| NAC  | National Apprenticeship Certificate                |
| NCIC | National Craft Instructor Certificate              |
| LD   | Locomotor Disability                               |
| СР   | Cerebral Palsy                                     |
| MD   | Multiple Disabilities                              |
| LV   | Low Vision   |
| НН   | Hard of Hearing                                    |
| ID   | Intellectual Disabilities                          |
| LC   | Leprosy Cured                                      |
| SLD  | Specific Learning Disabilities                     |
| DW   | Dwarfism   |
| MI   | Mental Illness                                     |
| AA   | Acid Attack  |
| PwD  | Person with disabilities                           |



