



SRU COLLEGE OF PARAMEDICAL TECHNOLOGY SunRise University Campus, Alwar, Rajasthan, India

SYLLABUS CERTIFICATE IN SANITARY HEALTH INSPECTOR [Sanitary Health Inspection Technology]

ONE YEAR
[Two Semester]

I SEMESTER

Paper Code	Subject	Internal	External	Total
1CSHI01	Basic Anatomy & Physiology	40	60	100
1CSHI02	Hygiene & Infection Control	40	60	100
1CSHI03	Health Sanitary Inspection Techniques & Procedures	40	60	100
1CSHI04	Basics of Microbiology	40	60	100
1CSHI05	Sanitation Procedures	40	60	100
1CSHI06	Practicals I	40	60	100

Field Visit
Project Work

II SEMESTER

Paper Code	Subject	Internal	External	Total
2CSHI01	Environmental Studies & Health	40	60	100
2CSHI02	Basics of Nursing & First Aid Procedures	40	60	100
2CSHI03	Basics of Nutrition & Applied Biochemistry	40	60	100
2CSHI04	Sanitation Studies of Public Organisations	40	60	100
2CSHI05	Community Health Studies of Hazards	40	60	100
2CSHI06	Infection & Disaster Management	40	60	100
2CSHI07	Practicals II	40	60	100

Eligibility Criteria:

12th PASSED with Physics, Chemistry, Biology 45% Score as Minimum.

Duration: One year

[Two Semester]

Professional Skill 90 Hrs:

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 be able to 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 and 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.

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.

PROGRESSION PATHWAYS

Can join industry as Craftsman and will progress further as Senior Craftsman, 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

COURSE STRUCTURE

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

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. S No. Course Element Notional Training Hours 1 Professional Skill (Trade Practical) 1200 2 Professional Knowledge (Trade Theory) 240 3 Employability Skills 160 Total 1600

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 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 Evidences and records of internal (Formative) assessments are to be preserved until forthcoming examination for audit and verification by examination body

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.

LEARNING OUTCOMES

1. Make a nutritional plan for all age groups under given conditions following safety precautions.
2. Design a balanced diet as per the requirement under given conditions.
3. Calculate and suggest the calorie and nutritional requirements as per the specific requirements of the person.

4. Identify diseases that occur due to various deficiencies.
5. Assess disease symptoms.
6. Inspect and report various food adulterations.
7. Suggest different food preservation techniques for various types of food.
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.
9. Assemble plumbing system for conservation of water.
10. Develop rainwater harvesting technique.
11. Identify and understand the water purification process.
12. Handle the night soil of a city/ town with protection of environment and human being.
13. Plan solid waste management system in an area or a small town.
14. Identify air pollution sources and suggest the suitable remedies.
15. Interpret the effects of global warming and identify the remedial measures.
16. Suggest the measures to minimise the noise pollution.
17. Plan and suggest the ventilation requirements of a particular area.
18. Illustrate concept of liquid waste and disposal. Know the types of sewers, health hazard due to liquid waste.
19. Plan and help in construction and maintenance of sewers, traps, plumbing tools etc.
20. Suggest disposal methods for dead animals and humans.
21. Identify different types of soil, its importance in relation with public health and reclamation of land.
22. Plan and suggest sanitary prescription of medical measures in housing, fairs & festivals.
23. Identify occupational health hazards. Follow safety rules. Prevent occupational diseases.
24. Prepare and control biological environment and different parts of spraying equipment.
25. Generate awareness programmes for masses on health education.
26. Illustrate importance of right behaviour and personal hygiene, learn its direct impact on their personal life & society.
27. Perform first-aid treatment to tackle medical emergency situation.
28. Assess intensity of any disease, recognize the disease and provide first-aid treatment on time to contain the disease.
29. Follow the given immunization schedule and understand its importance.
30. Identify disinfection and its importance to control diseases. Carry out sterilization.
31. Perform basic personal hygiene and interpret its impact on a person's health and personality.
32. Recognise various factors like death rate, birth rate, morbidity, MMR, IMR etc. analyse importance of census survey and data collection.
33. Categorise health survey.
34. Familiarise with vocabulary and terminology of different acts.

LEARNING OUTCOMES

1. Make a nutritional plan for all age groups under given conditions following safety precautions.

ASSESSMENT CRITERIA

Identify different nutrients. Identify the requirements of nutrients. Observe the importance. Make a nutritional plan for the given age group.

2. Design a balanced diet as per the requirement under given conditions.

ASSESSMENT CRITERIA

Identify components of food and its nutrition factors. Identify calories and nutrients for different food items. Calculate the calories and total nutrients of food items taken. Make a balanced diet plan using different food items as per the requirement and given conditions

3. Calculate and suggest the calorie and nutritional requirements as per the specific requirements of the person.

ASSESSMENT CRITERIA

Identify different foods available with their calories and nutrients. Identify the calories and nutrients required for different works and conditions. Identify the person with his health conditions and nature of the work being done. Calculate and suggest the calorie and nutrition requirements as per the given person and conditions.

4. Identify diseases that occur due to various deficiencies.

ASSESSMENT CRITERIA

Identify various individuals with deficiencies. Identify different deficiency syndromes. Identify various nutrition deficiencies. Identify different diseases due to nutrition deficiency. Identify symptoms and suggest the important food nourishment required.

5. Assess disease symptoms.

ASSESSMENT CRITERIA

Identify various individuals with diseases. 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 food adulterations.

ASSESSMENT CRITERIA

Identify various foods that are commonly adulterated.

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. Suggest different food preservation techniques for various types of food.

ASSESSMENT CRITERIA

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 water and its properties and causes of water pollution. Summarize water supply system with water treatment in the city/ country etc.

ASSESSMENT CRITERIA

Identify the resources of water. Recognize the various resources of water pollution. Understand the water borne diseases, causes, effects and symptoms. Identify different type of water quality with various parameters of water in physical, chemical and bacteriological aspects. Understand different water treatment techniques ranging from traditional to the modern.

9. Assemble plumbing system for conservation of water.

ASSESSMENT CRITERIA

Identify water conservation technique at household and commercial level. 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 harvesting technique.

ASSESSMENT CRITERIA

Understand the rain water harvesting process. Classify different rainwater harvesting technique. Implement the rain water harvesting pits in given locality.

11. Identify and understand the water purification process.

ASSESSMENT CRITERIA

Understand the various types of water purification in rural and urban areas. Disinfection process of water resources and 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 city/ town with protection of environment and human being.

ASSESSMENT CRITERIA

Identify the difference between brackish water, sewage effluent and night soil. Recognize the various impact of night soil on the soil, water resources, atmosphere etc. Understand the different types of faecal borne 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 management system in an area or a small town.

Recognize various waste materials. Recognise resources that increase solid waste. Classify & collect waste. Apply segregation techniques and segregate the waste. Apply suitable disposal techniques for waste disposal. Identify the working of biogas plant. Apply principles of recycling.

14. Identify air pollution sources and suggest the suitable remedies.

ASSESSMENT CRITERIA

Identify sources of air pollution. Identify severity of air pollution. Suggest preventive measures to abort air pollution.

15. Interpret the effects of global warming and identify the remedial measures

ASSESSMENT CRITERIA

Know the global warming and its effects. Measure the atmospheric temperature using thermometer. Identify need of ventilation.

16. Suggest the measures to minimise the noise pollution.

ASSESSMENT CRITERIA

Understand impacts of noise pollution. Measure the noise pollution. Identify the causes of noise pollution. Suggest the measures to be taken to minimise the noise pollution.

17. Plan and suggest the ventilation requirements of a particular area.

Understand the concept of ventilation. Illustrate the types of ventilation. Identify the need of ventilation. Suggest ventilation requirements of a particular area.

18. Illustrate concept of liquid waste and disposal. Know the types of sewers, health hazard due to liquid waste.

ASSESSMENT CRITERIA

Observe various sources of liquid waste. Understand human waste management system. Identify health hazards due to liquid waste.

19. Plan and help in construction and maintenance of sewers, traps, plumbing tools etc.

ASSESSMENT CRITERIA

Understand types of sewerage system and their working. Identify various types of traps. Understand uses and working of traps.

20. Suggest disposal methods for dead animals and humans.

ASSESSMENT CRITERIA

Observe importance for proper disposal of dead body and maintenance of record as per legal provision. Illustrate methods for preservation of dead. Identify basic requirements of a burial and cremation ground.

21. Identify different types of soil, its importance in relation with public health and reclamation of land.

ASSESSMENT CRITERIA

Identify types of soil and its importance. Identify agricultural benefits of soil. Observe moisture level in soil. Understand concept of land reclamation.

22. Plan and suggest sanitary prescription of medical measures in housing and fairs & festivals.

ASSESSMENT CRITERIA

Understand concept of a healthy housing. Identify sanitary requirement of a house. Explain importance of housing and its good health impacts. Identify requirements of sanitation in a fair. Estimate number of sanitation facility required for a particular event. Plan emergency sanitation, food, water supply for a large gathering.

23. Identify occupational health hazards. Follow safety rules. Prevent occupational diseases.

ASSESSMENT CRITERIA

Identify the occupational hazards to the employees. Identify the various safety programs and equipment to control the occupational hazards. Implement measures for health protection of workers.

24. Prepare and control of biological environment and different parts of spraying equipment.

ASSESSMENT CRITERIA

Identify and use insect circles and disinfections. Distinguish technique of sterilization and disinfection of various articles. Identify different parts of spraying equipment. Identify operation and maintenance of spraying equipment. Identify larvaecidals. Identify rodenticides.

25. Generate awareness programmes for masses on health education.

ASSESSMENT CRITERIA

Understand importance of health education. Identify working opportunities for a health inspector. Plan health education awareness programme. Contribute in health education awareness.

26. Illustrate importance of right behaviour and personal hygiene, learn its direct impact on their personal life & society.

ASSESSMENT CRITERIA

Learn importance of behaviour. Impact of behaviour on personal hygiene. Identify behavioural changes as per age groups. Understand concept of defence mechanism.

27. Perform first-aid treatment to tackle medical emergency situation.

ASSESSMENT CRITERIA

Perform CPR. Make first-aid box. Identify types of bandages. Perform dressing when needed. Treat casualties properly. Transportation and care of victims can be done. Perform first-aid procedures in various conditions.

28. Assess intensity of any disease, recognize the disease and provide first-aid treatment on time to contain the disease.

ASSESSMENT CRITERIA

Identify symptoms of diseases. Identify types of disease whether it is communicable or noncommunicable. Guide precautions undertaken in any disease. Implement preventive measure to contain any disease.

29. Follow the given immunization schedule and understand its importance.

ASSESSMENT CRITERIA

Identify age group for various immunisations. Understand natural immunisation schedule. Understand importance of immunisation.

30. Identify disinfection and its importance to control diseases. Carry out sterilization.

ASSESSMENT CRITERIA

Identify disinfection and sterilisation process in hospitals. Identify various disinfection agents. Use disinfectants effectively. Carry out sterilisation procedure.

31. Perform basic personal hygiene and interpret its impact on a person's health and personality.

ASSESSMENT CRITERIA

Understand importance of personal hygiene habits. Do proper care of their own nails and hands cleaning etc. Do care of dental care procedures. Develops regular hand washing habits. Develops healthy food habit. Develops regular exercise and improves personal hygiene habits results in a better personality.

32. Recognise various factors like death rate, birth rate, morbidity, MMR, IMR etc. analyse importance of census survey and data collection.

ASSESSMENT CRITERIA

Understand demography. Identify death rate, birth rate, MMR, IMR etc. Understand importance of census.

33. Categorise health survey.

ASSESSMENT CRITERIA

Perform survey. Fill survey forms. Perform data collection. Classify health surveys.

34. Familiarise with vocabulary and terminology of different acts.

ASSESSMENT CRITERIA

Understands importance of acts. Identify epidemic and endemic situations at a given area. Understand air and water pollution control acts. Fill birth and death registration forms. MTP acts. Identify various acts and their importance.

.....

SYLLABUS FOR HEALTH SANITARY INSPECTOR

Duration

Professional Skill 90Hrs

Professional Knowledge 18Hrs

Reference Learning Outcome

Make a nutrition plan for all age groups under given conditions following safety precautions. Design a balanced diet as per the requirement under given conditions. Calculate and suggest the calorie and nutrition requirements as per the specific requirements of the person. Identify diseases that occur due to various deficiencies. Assess disease symptoms. Inspect and report various food adulterations.

Suggest different food preservation techniques for various types of food.

Professional Skills With Indicative Hours

1. Identify the foul stuff. (05 hrs)
2. Point out the requirement of nutrition. (05 hrs)
3. Demonstrate on charts of various deficiency diseases. (05 hrs)
4. Visit various families for nutrition status. (05 hrs)
5. Nutrient requirement of infant, wearing pregnancy, location, preschool child, school going child. (06 hrs)
6. Survey of nutrition education & its importance. (05 hrs)

7. Preparation of diet menu for hypertensive, diabetic nephritis & heart patients. (05 hrs)
8. Head circumference with inch tape. (05 hrs)
9. Images of patients suffering from diseases.(05 hrs)
10. Audio-video aids. (06 hrs)
11. Tabular differentiation of types of malnutrition. (06 hrs)
12. Importance of health education to overcome the problem of malnutrition. (06 hrs)
13. Display videos (Audiovideo) on malnutrition. (05 hrs)
14. Demonstration of sources of Hb by pictorial chart. (05 hrs)
15. Demonstration of spoilage of some food items. (06 hrs)
16. Application of common salt & sugar to increase shelf life of many food items. (05 hrs)
17. Visit to milk plants to observe & understand the process of pasteurization. (03 hrs)
18. How to increase shelf life by killing microorganism. (02 hrs)
19. Draw a chart sowing various environmental factors. (05 hrs)
20. Tabulate various types of water with their properties. (04 hrs)
21. Classify water resources (surface water and ground water). (08 hrs)
22. Prepare a pie chart of total availability of water on the earth (Fresh water, saltwater, potable water etc.) (02 hrs)
23. Tabulate the per capital water demand for domestic purpose. (02 hrs)
24. Prepare a chart of water demand in different areas such as hospitals, hotels, industries, schools etc. (02 hrs)
25. Illustrate the importance of water earth and its uses in different area. (02 hrs)
26. Tabulate the coater borne diseases with different causes & symptoms (Make the diagrams of bacteria, virus, fungi, protein etc. (04 hrs)
27. Prepare a chart for impact of polluted water on human health, animals, plants etc. (04 hrs)
28. Tabulate the different methods for conservation of water in different areas. (04 hrs)
29. Draw and sketch a picture of rainwater harvesting. (02 hrs)
30. Identify the difference between portable water, safe and whole some water. (04 hrs)
31. Prepare a chart for physical, chemical and bacteriological quality of water. (04 hrs)
32. Tabulate the difference b/w soft and hard water. (03 hrs)
33. Make a chart for impact of hard water on human health and other areas such as—on plants on industrial equipments. (02 hrs)
34. Explain the disinfection with various disinfectant for well disinfection (02 hrs)
35. Construct a diagram for disinfection process of well. (02 hrs)
36. Prepare the list of sources of water pollution with their different characteristics. (02 hrs)
37. Visit to a water treatment plant. (02 hrs)
38. Make a diagram of water treatment plant with different process of water purification. (04 hrs)
39. Comparison of rapid and slow sand filters. (04 hrs)
40. Collection and dispatch of water sample for chemical and bacteriological examination. (02 hrs)
41. Prepare a design of sanitary well. (02 hrs)
42. Demonstrate the plumbing system for water and sketch the diagrams. (04 hrs)
43. Visit to a water supply system in the city and the particular society. (02 hrs)
44. Prepare and construct a purification system in the rural areas. (02 hrs)
45. Calculate the chlorine demand and prepare the graph also for residual chlorine in water. (01 hrs)
46. Visit to a swimming pool for sanitation and personal hygiene measures. (02 hrs)

47. Collect the water sample from the domestic taps, surface and ground water resources. (02 hrs)
48. Perform the practical for physical and chemical parameters of given water sample in testing labs - pH - Turbidity - Chlorine - Hardness - TDS - Acidity - Alkalinity etc. (05 hrs)
49. Show the difference between water and sewage with given samples in the bottles in the testing labs. (02 hrs)
50. Categorises the numerous impact of night soil on the water bodies, atmosphere, soil etc. (08 hrs)
51. Tabulate numerous impact of food chain and impact of food contamination on human bodies. (04 hrs)
52. Prepare a chart for various diseases due to unsanitary disposal of night soil. (04 hrs)
53. Describe the construction and maintenance of service and non-service type latrines bore hole, dug well, RCA, septic tank, sulabh souchalaya. (18 hrs)
54. Visit to sulabh souchalaya. (12 hrs)
55. Demonstrating the construction and maintenance of trenching ground. (12 hrs)
56. Identify resources of increasing solid waste. (02 hrs)
57. Tabulate the category of solid waste based on sources. (02 hrs)
58. Classify solid waste according to their different properties such as medical, municipal, commercial, construction. (02 hrs)
59. Demonstration of collection methods of solid waste. (04 hrs)
60. Prepare a plan chart of solid waste management in a city. (02 hrs)
61. Prepare pie chart composition of MSW. (02 hrs)
62. Explain the disposal methods of solid waste in sanitary methods. (18 hrs)
63. Illustrate the bad effects of solid waste disposal in a chart. (06 hrs)
64. Compare the different methods of collection and transportation of solid waste with diagrams. (02 hrs)
65. Visit disposal site.
 - i. Sanitary landfills
 - ii. Composting
 - iii. Incineration
 - iv. Biogas plant (20 hrs)
66. Demonstration of humidity and temperature. (05 hrs)
67. Point out sources of air pollution.(04 hrs)
68. Prepare charts or posters of Global warming (04 hrs)
69. Prepare posture on prevention techniques for Air pollution. (04 hrs)
70. Demonstration of an AC plant for thermal comfort.(03 hrs)
71. Point out types of ventilation. (04 hrs)
72. Measurement of noise level. (06 hrs)
73. Point out the sewage treatment plant. (05 hrs)
74. Inspection of flushing tank, manholes etc. (05hrs)
75. Demonstration of various traps 'p' trap, 's' trap, 'q' trap etc. (15 hrs)
76. Demonstration of manholes by video calls. (15 hrs)
77. Demonstration of various plumbing tools like hacksaw, pipe cutter, pipe vice, pipe wrench set of spanners etc. (08 hrs)
78. Inspection and maintenance of sewage treatment plant. (08 hrs)
79. Identify various equipment of sewage disposal. (02hrs)

80. Identify pollution of water from sewage. (02 hrs)
81. Visit to burial ground, proper process of disposal of dead bodies and maintenance of records as per legal provisions. (25 hrs)
82. Identify soil sample equipments. (12 hrs)
83. Sampling for assessment of soil pollution. (12 hrs)
84. Treatment of soil after the PH and disinfection. (11hrs)
85. Visit of housing for assessing sanitary standards and prescription of remedial measures. (25 hrs)
86. Classify the overcrowding. (05 hrs)
87. Inspection and preparation of fairs and festivals. (18 hrs)
88. Preparation of sanitary arrangements associated with natural calamities. (12 hrs)
89. Visit various trade premises (diary, bakery etc.) (12 hrs)
90. Visit to a factory for survey of sanitation problems of workplace. (18 hrs)
91. Identification of danger zones and adequacy of safety arrangements.(12 hrs)
92. Health and sanitation survey of the vicinity of the industrial establishment for identification of health problems emerging from industrial pollution. (18 hrs)
93. Identification and use of insecticides, pesticides and disinfectants. (02 hrs)
94. Application of techniques of sterilisation and disinfection of various articles. (04 hrs)
95. Identification of different part of spraying equipment. (06 hrs)
96. Identify and use of larvicides. (06 hrs)
97. Operation and maintenance of spraying equipment. (06 hrs)
98. Identify and use of rodenticides. (06 hrs)
99. Designing of posters on Malaria. (15 hrs)
100. Designing of posters on roles and responsibilities of a health inspector. (15 hrs)
101. Demonstration of health awareness program as a class activity. (08 hrs)
102. Designing environmental sanitation posters. (10 hrs)
103. Designing posters on balanced diet.(10 hrs)
104. Designing poster on basic hygiene practices.(07 hrs)
105. Preparing power point presentation on health awareness.(15 hrs)
106. Demonstration of preparation of ORS.(10 hrs)
107. Preparing charts on personal hygiene habits.(35 hrs)
108. Designing posters on Do's and Don'ts in a social behaviour.(20 hrs)
109. Demonstration of hand washing and caring.(20 hrs)
110. Demonstration on oral hygiene.(15 hrs)
111. Dressing of wounds, bandages. (20 hrs)
112. Management of bone injuries with splints, slings.(20 hrs)
113. Transportation of injured and unconscious cases and their management.(20 hrs)
114. Diagnosis and treatment of minor ailments, cough, fever, bleeding, toothache etc. (35 hrs)
115. Poisoning case managements (10 hrs)
116. Management in case of heat attack, sun stroke, haemorrhage, burns, electrical injuries etc.(35 hrs)
117. Training on artificial respiration.(20 hrs)
118. Arranging first-aid treatment in various emergency cases. (20 hrs)
119. Demonstration on communicable and noncommunicable diseases symptoms and their control measures. (40 hrs)
120. Preparation of immunisation programme (20 hrs)
121. Conducting health and general survey and report making. (30 hrs)

122. Videos on disinfection and sterilisation techniques. (30 hrs)
123. Various chemicals uses with safety for disinfection through videos. (30 hrs)
124. Making posters on dental care. (10 hrs)
125. Making posters on skin and hair hygiene. (05 hrs)
126. Making posters on basic hygiene habits. (05 hrs)
127. Demonstration on right method for hand washing. (05 hrs)
128. Demonstration on oral health. (05 hrs)
129. Data collection from hospitals for Malaria cases. (05 hrs)
130. Data collection from hospitals for Dengue cases.(05 hrs)
131. Health survey of people of a locality.(05 hrs)
132. Vaccination survey in a locality. (05 hrs)
133. Design and prepare population control measures on chart.(05 hrs)
134. Collection and dispatch of food samples for analysis preparation of papers for legal proceeding.(06 hrs)
135. Performance of simple household tests to identify adulteration in milk, ghee, oil, sugar, tea etc.(07 hrs)
136. Acquaintance with registration of acts.(06 hrs)
137. Prepare reporting of different acts.(06 hrs)
138. Documentation process for implementation of different acts.(05 hrs)
139. Prepare a chart of pollution levels of toxins of different industries in an area.(05 hrs)

Professional Knowledge:

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 Family assessment – clinical examination of all members – height & weight BMI [Body mass index], Head circumference, -Blood test for Hb. Nutrition education malnutrition- causes prevention, low birth weight (LBW), causes of LBW, prevention of LBW, special care to be given to malnourished children. Therapeutic Diet: Introduction for balanced diet, weight reducing diet- low fat diet, bland diet, cirrhosis of liver, renal stone Food Preservation: definition & methods, household & industrial method of preservation, self-line, Pasteurization: methods, types & importance. Refrigeration: Prevents spoilage. (18 hrs.)

Professional Skill 90Hrs

Professional Knowledge 18Hrs

Identify and understand water and its properties and causes of water pollution. Summarize water supply system with water treatment in the city/ country etc.

Assemble plumbing system for Conservation of water. Develop rain water harvesting technique.

Identify and understand the water purification process.

Professional Skill 60Hrs

Handle the night soil of a city/ town with protection of environment and human being.

Professional Knowledge 12Hrs

Professional Skill 60Hrs; Professional Knowledge 12Hrs

Plan solid waste management system in an area or a small town.

Professional Skill 30Hrs; Professional Knowledge 06Hrs

Identify air pollution sources and suggest the suitable remedies.

Interpret the effects of global warming and identify the remedial measures. Suggest the measures to minimize the noise pollution. Plan and suggest the ventilation requirements of a particular area.

Professional Skill 60Hrs; Professional Knowledge 12Hrs

Illustrate concept of liquid waste and disposal. Know the types of sewer

Health hazards due to liquid waste. Plan and help in construction and maintenance of sewers, traps, plumbing tools etc.

Professional Skill 60Hrs; Professional Knowledge 12Hrs

Suggest disposal methods for dead animals and humans. Identify different types of soil, its importance in relation to public health and reclamation of land.

Professional Skill 60Hrs; Professional Knowledge 12Hrs

Plan and suggest sanitary prescription of medical measures in housing and fairs & festivals.

Professional Skill 60Hrs; Professional Knowledge 12Hrs

Identify occupational health hazards. Follow safety rules. Prevent occupational diseases.

Professional Skill 30Hrs; Professional Knowledge 06Hrs

Prepare and control of biological environment and different parts of spraying equipment.

Professional Skill 90Hrs; Professional Knowledge 18Hrs

Generate awareness programmes for masses on health education.

Professional Skill 90Hrs; Professional Knowledge 18Hrs

Illustrate importance of right behaviour and personal hygiene, learn its direct impact on their personal life & society.

Professional Skill 180Hrs; Professional Knowledge 36Hrs

Perform first-aid treatment to tackle medical emergency situation.

Professional Skill 150Hrs; Professional Knowledge 30Hrs

Assess intensity of any disease, recognize the disease and provide first-aid treatment on time to contain the disease. Follow the given immunization schedule and understand its importance.

Identify disinfection and its importance to control diseases. Carry out sterilization.

Professional Skill 30Hrs; Professional Knowledge 06Hrs

Perform basic personal hygiene and interpret its impact on a person's health and personality.

Professional Skill 60Hrs; Professional Knowledge 12Hrs

Recognize various factors like death rate, birth rate, morbidity, MMR, IMR etc., analyse importance of census survey and data collection. Categorise health survey.

Familiarise with vocabulary and terminology of different acts

Project work

- 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.

Professional Knowledge:

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 Family assessment – clinical examination of all members – height & weight BMI [Body mass index], Head circumference, -Blood test for Hb. Nutrition education malnutrition- causes prevention, low birth weight (LBW), causes of LBW, prevention of LBW, special care to be

given to malnourished children. Therapeutic Diet: Introduction for balanced diet, weight reducing diet- low fat diet, bland diet, cirrhosis of liver, renal stone Food Preservation: definition & methods, household & industrial method of preservation, self-line, Pasteurization: methods, types & importance. Refrigeration: Prevents spoilage. (18 hrs.)

WHO's definition for environmental sanitation. Safe and wholesome water. Sources of water. Various uses of water and its needs. Water borne diseases. Conservation sources of water. Quality of water. Physical, chemical and biological standard for portable water

Public health aspect of very hard water. Steps of disinfection of well. Sources and nature of pollution of water. Purification of water: i) Large Scale ii) Small Scale Prepare of a sanitary well and tube well. Plumbing system and its maintenance. Water supply and storage system at the community and domestic. Pot method of chlorination. Swimming pool. Water testing labs. (18 hrs.)

Night soil disposal Sewage in liquid waste:

containing human excreta. Numerous impact of night soil on the environmental factors. Faecal 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.)

Solid 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.)

Air pollution – 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. – Methods of air purification. – Air disinfection. – Definition of ventilation. – Concept and importance of adequate ventilation. – Types of ventilation Noise pollution – Introduction. – Sources. – Health Impacts. – Preventive measures for controlling Noise pollution. (06 hrs.)

Liquid waste disposal – Definition of liquid waste and its sources. – Human waste management system. – Various methods for liquid waste disposal. – Pollution of water due to sewage. – Health hazard associated 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. Sewage 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.)

Burial and Cremation – Introduction – Disposal of dead. – Types of disposal methods. – Methods of preservation of dead. – Commonly and less commonly used methods for disposal of dead. – Basic requirements for burial and cremation grounds. – Health hazards associated with unsanitary disposal of dead bodies. Soil sanitation – Introduction and importance of soil. – Classification of soil. – Classification from the view point of importance in public health. – Reason of excessive moisture in the soil. – Reclamation of land. – Soil health. (12 hrs.)

Housing – General principle of healthy housing. – Home sanitation. – Utility services of house. – Sanitary standards for construction of house. – Food hygiene at home. – Specification for healthy housing. Sanitation in fairs and festivals – Sanitation management at fairs and festivals. – Sanitary problems associated with human gatherings and temporary 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.)

Occupational health – Introduction – Occupational environment measures. – Occupational diseases. – State the importance of safety and health at work place. – State the role of employer, trade union and employees for health and safety program. – Measures for health protection workers. – Prevention of occupational diseases. – Provision- benefit to employees. – Occupational health in India.(12 hrs.)

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. (06 hrs.)

Definition of health – Content of health education. – Principal of health education.

Health education opportunities for health inspector in his work place. – Use of audio-visual aids and media. – Health education approach. – Planning health education activities, education in 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 contract group meetings to provide health education.(18 hrs.)

Behavioral Science – 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.)

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. – Types of wounds. – Miscellaneous conditions. – Approach to a casualty. – Psychological first-aid. – Handling multiple casualties. – Types of injuries like road accidents, factories accidents and disaster injuries. – Transportation of victims and proper care provided.(36 hrs.)

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 – Introduction of noncommunicable disease. – Explain in detail diseases like cancer, hypertension, cardiac disease, diabetes etc. – In detail symptoms, 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 – Need of disinfection and sterilisation. – Importance of disinfection and sterilisation in hospitals. – Introduction and uses of various disinfection agents like Halogen, KMnO₂ solution, solid and liquid agents. – Effective disinfectants like formaldehyde, sulphur, chlorine gases etc. – Use of UV radiation and ozone as disinfectant.(30 hrs.)

Personal hygiene – Need and importance of personal hygiene in daily life. – Factors influencing health and hygiene habits. – Maintaining basic hygiene habits of skin, hair, oral, nails etc. – Developing dental care, care of hands, washing etc. – Importance of regular exercise and nutritious food. (06 hrs.)

Demography and health survey – Definition and introduction of demography. – Factors of demography. – Various stage of demo. 1. High stationary 2. Early expanding 3. Late expanding 4. Low stationary – Health survey includes birth rate, death rate, morbidity, IMR, MMR etc

Population control measures. Public Health Act – Definition, introduction and importance of acts. – Indian Epidemic Disease Act. – Explain endemic, pandemic with examples. – Define epidemiology. – Air and Water Pollution Control Act. – Prevention of Food Adulteration Act. – Birth and Death Registration Act. – M.T.P. Act. – Suppression of Immoral Traffic Act (SITA). – Municipal and Local Body Acts related to Housing Sanitation Act. – Factory Act and ESI Acts. (12 hrs.)