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

COMPETENCY BASED CURRICULUM

HEALTH SANITARY INSPECTOR

(Duration: One Year)

CRAFTSMEN TRAINING SCHEME (CTS)

NSQF LEVEL- 4

SECTOR –HEALTHCARE

HEALTH SANITARY INSPECTOR

(Non-Engineering Trade)

(Revised in 2018)

CRAFTSMEN TRAINING SCHEME (CTS)

NSQF LEVEL - 4

Developed By

Ministry of Skill Development and Entrepreneurship

Directorate General of Training

CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE

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CONTENTS

S No.	Topics	Page No.
1.	Course Information	1-2
2.	Training System	3-6
3.	Job Role	7
4.	General Information	8-9
5.	NSQF Level Compliance	10
6.	Learning/ Assessable Outcome	11-13
7.	Learning Outcome with Assessment Criteria	14-21
8.	Trade Syllabus	22-36
9.	Core Skill – Employability Skill	37-40
10.	Annexure I	
	List of Trade Tools & Equipment	41
	List of Tools & Equipment for Employability Skill	42
11.	Annexure II - Format for Internal Assessment	43

1. COURSE INFORMATION

During one year duration of "Health Sanitary Inspector" trade, a candidate is trained on Professional Skill, Professional Knowledge and Employability Skill. 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 related to the trade are categorized in two semester each of six months duration. The semester wise course coverage is categorized as below:

1st Semester – In this semester, 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 able 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 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 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 able to prepare and control of biological environment and different parts of spraying equipments.

2nd Semester –In this semester, the trainee will learn about how to generate awareness programmes 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. TRAINING SYSTEM

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 National Council of Vocational Training (NCVT). Craftsman Training Scheme (CTS) and Apprenticeship Training Scheme (ATS) are two pioneer programmes of NCVT for propagating 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 (02 semester) duration. It mainly consists of Domain area and Core area. In the Domain area, Trade Theory & Practical impart 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 NCVT 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.
- Check the job/ assembly as per drawing for functioning, identify and rectify errors in job/ assembly.
- Document the technical parameters related to the task undertaken.

2.2 CAREER PROGRESSION PATHWAYS

- 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.

2.3 COURSE STRUCTURE

Table below depicts the distribution of training hours across various course elements during a period of one year (02 semesters):

S No.	Course Element	Notional Training Hours
1	Professional Skill (Trade Practical)	1320
2	Professional Knowledge (Trade Theory)	264
3	Employability Skills	110
4	Library & Extracurricular Activities	66
5	Project Work/ Hospital Visit	160
6	Revision & Examination	160
	Total	**2080**

2.4 ASSESSMENT & CERTIFICATION

The trainee will be tested for his skill, knowledge and attitude during the period of course and at the end of the training programme as notified by Govt. of India from time to time. The Employability skills will be tested in first two semesters itself.

a) The **Internal Assessment** 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 template (Annexure – II).

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 NCVT at the end of each semester as per guideline of Govt. of India. The pattern and marking structure is being notified by the Govt. of India 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

The minimum pass percentage for Practical is 60% & minimum pass percentage for Theory subjects is 40%. For the purposes of determining the overall result, 50% weightage is applied to the result of each semester examination.

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 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 of internal assessments are to be preserved until forthcoming semester examination for audit and verification by examination body. The following marking pattern to be adopted while assessing:

Performance Level	Evidence
(a) Weightage in the range of 60-75% to be allotted during assessment	
For performance in this grade, the candidate should produce work which demonstrates attainment of an acceptable standard of craftsmanship with occasional guidance, and due regard for safety procedures and practices.	• Demonstration of good skill in the use of hand tools, machine tools and workshop equipment. • Below 70% tolerance dimension achieved while undertaking different work with those demanded by the component/job. • A fairly good level of neatness and consistency in the finish. • Occasional support in completing the project/job.
(b)Weightage 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 in the use of hand tools, machine tools and workshop equipment. • 70-80% tolerance dimension achieved while undertaking different work with those demanded by the component/job. • A good level of neatness and consistency in the finish. • Little support in completing the project/job.

(c) Weightage 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 in the use of hand tools, machine tools and workshop equipment. • Above 80% tolerance dimension achieved while undertaking different work with those demanded by the component/job. • A high level of neatness and consistency in the finish. • Minimal or no support in completing the project.

3. JOB ROLE

Sanitary Inspector

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: 3257.0100

4. GENERAL INFORMATION

Name of the Trade	**HEALTH SANITARY INSPECTOR**
NCO - 2015	3257.0100
NSQF Level	Level 4
Duration of Craftsmen Training	1 Year (2 Semesters)
Entry Qualification	Passed 10th class examination under 10+2 System of education
Unit Strength (No. of Students)	20 (Max. supernumeraries seats: 6)
Space Norms	40 Sq. m
Power Norms	4.0 KW
Instructors Qualification for:	
(i) Health Sanitary Inspector	Diploma in Sanitary Inspector from recognized board with two-yearpost qualification experience in the relevant field. **OR** NTC/NAC passed in the Trade of Health Sanitary Inspector with three-year post qualification experience in the relevant field. **Desirable:** Preference will be given to a candidate with CIC (Craft Instructor Certificate) **Note:** *Out of two Instructors required for the unit of 2(1+1), one must have Diploma and other must have NTC/NAC qualifications.*
(ii) Employability Skill	MBA OR BBA with two-year experience OR Graduate in Sociology/ Social Welfare/ Economics with two-year experience OR Graduate/ Diploma with two-year experience and trained in Employability Skills from DGT institutes. **AND** Must have studied English/ Communication Skills and Basic Computer at 12th/ Diploma level and above. **OR** **Existing Social Studies Instructors duly trained in Employability Skills from DGT institutes.**

Distribution of training on hourly basis: (Indicative only)				
Total hrs /week	**Trade Practical**	**Trade Theory Soft Skills**	**Employability Skills**	**Extra-curricular Activity**
40 Hours	30 Hours	6 Hours	2 Hours	2 Hours

5. NSQF LEVEL COMPLIANCE

NSQF level for **'Health Sanitary Inspector'** trade under CTS: **Level 4**

As per notification issued by the Govt. of India dated- 27.12.2013 on National Skill Qualification Framework, total 10 (Ten) Levels are defined.

Each level of the NSQF is associated with a set of descriptors made up of five outcome statements, which describe in general terms, the minimum knowledge, skills and attributes that a learner needs to acquire in order to be certified for that level.

Each level of the NSQF is described by a statement of learning outcomes in five domains, known as level descriptors. These five domains are:

a. Process
b. Professional Knowledge
c. Professional Skill
d. Core Skill and
e. Responsibility

The broad learning outcome of **'Health Sanitary Inspector'** trade under CTS mostly matches with the Level descriptor at Level- 4.

The NSQF level-4 descriptor is given below:

Level	Process Required	Professional Knowledge	Professional Skill	Core Skill	Responsibility
Level 4	Work in familiar, predictable, routine, situation of clear choice	Factual knowledge of field of knowledge or study	Recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool, using quality concepts	Language to communicate written or oral, with required clarity, skill to basic Arithmetic and algebraic principles, basic understanding of social political and natural environment	Responsibility for own work and learning

6. LEARNING/ ASSESSABLE OUTCOME

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

6.1 GENERIC LEARNING OUTCOME

1. Apply safe working practices.
2. Comply with environment regulation and housekeeping.
3. Interpret & use company and medical communication.
4. Understand and apply the concept in productivity, quality tools, and labour welfare legislation in day-to-day work to improve productivity & quality.
5. Explain energy conservation, global warming, pollution and contribute in day-to-day work by optimally using available resources.
6. Explain personal finance, entrepreneurship and manage/organize related task in day-to-day work for personal & societal growth.
7. Utilize basic computer applications and internet to take benefit of IT developments in the industry.

6.2. SPECIFIC LEARNING OUTCOME

Semester-I

8. Make a nutritional plan for all age groups under given conditions.
9. Design a balanced diet as per the requirement under given conditions.
10. Calculate and suggest the calorie and nutritional requirements as per the specific requirements of the person.
11. Identify diseases that occur due to various deficiencies.
12. Assess disease symptoms.
13. Inspect and report various food adulterations.
14. Suggest different food preservation techniques for various types of food.
15. Identify and understand water and its properties and causes of water pollution. Summarize water supply system with water treatment in the city/ country etc.
16. Assemble plumbing system for conservation of water.
17. Develop rainwater harvesting technique.
18. Identify and understand the water purification process.
19. Handle the night soil of a city/ town with protection of environment and human being.
20. Plan solid waste management system in an area or a small town.

21. Identify air pollution sources and suggest the suitable remedies.
22. Understand global warming, its effects and identify the remedial measures.
23. Suggest the measures to minimise the noise pollution.
24. Plan and suggest the ventilation requirements of a particular area.
25. Illustrate concept of liquid waste and disposal. Know the types of sewers,health hazard due to liquid waste.
26. Plan and help in construction and maintenance of sewers, traps, plumbing tools etc.
27. Suggest disposal methods for dead animals and humans.
28. Identify different types of soil, its importance in relation with public health and reclamation of land.
29. Plan and suggest sanitary prescription of medical measures in housing, fairs & festivals.
30. Identify occupational health hazards. Follow safety rules. Prevent occupational diseases.
31. Prepare and control biological environment and different parts of spraying equipments.

Semester- II

32. Generate awareness programmes for masses on health education.
33. Illustrate importance of right behaviour and personal hygiene, learn its direct impact on their personal life & society.
34. Perform first-aid treatment to tackle medical emergency situation.
35. Assess intensity of any disease, recognize the disease and provide first-aid treatment on time to contain the disease.
36. Follow the given immunization schedule and understand its importance.
37. Identify disinfection and its importance to control diseases. Carry out sterilization.
38. Understand the basics of personal hygiene and its impacts on a person's health and personality.
39. Recognise various factors like death rate, birth rate, morbidity, MMR, IMR etc. analyse importance of census survey and data collection.
40. Categorise health survey.
41. Familiarise with vocabulary and terminology of different acts.

7. LEARNING OUTCOME WITH ASSESSMENT CRITERIA

GENERIC LEARNING/ ASSESSABLE OUTCOME	
LEARNING/ ASSESSABLE OUTCOME	**ASSESSMENT CRITERIA**
1. Apply safe working practices.	1.1 Follow and maintain procedures to achieve a safe working environment in line with occupational health and safety regulations, requirements and according to policy.
	1.2 Recognize and report all unsafe situations according to the policy.
	1.3 Identify and take necessary precautions on fire and safety hazards and report accordingly to work on policy and procedures.
	1.4 Identify, handle and store/ dispose of dangerous goods and substances according to policy and procedures following safety regulations and requirements.
	1.5 Identify and observe policies and procedures with regard to illness or accident.
	1.6 Identify safety alarms accurately.
	1.7 Report to supervisor/ Competent of authority in the event of accident or sickness of any staff and record accident details correctly according to accident/injury procedures.
	1.8 Identify and observe evacuation procedures according to site policy.
	1.9 Identify Personal Productive Equipment (PPE) and use the same as per related working environment.
	1.10 Identify basic first-aid and use them under different circumstances.
	1.11 Identify different fire extinguishers and use the same as per requirement.
2. Comply with environment regulation and housekeeping	2.1 Identify environmental pollution & contribute to the avoidance of instances of environmental pollution.
	2.2 Deploy environmental protection legislation & regulations.
	2.3 Take opportunities to use energy and materials in an environmental friendly manner.
	2.4 Avoid waste and dispose waste as per procedure.
	2.5 Recognize different components of 5S and apply the same in the working environment.
3. Interpret & use company and medical	3.1 Obtain sources of information and recognize information.
	3.2 Use and execute medical documents.

	communication.	3.3 Use documents and medical regulations and occupationally related provisions.
		3.4 Conduct appropriate and target oriented discussions with higher authority and within the team.
		3.5 Present facts and circumstances, possible solutions &use English special terminology.
		3.6 Resolve disputes within the team
		3.7 Conduct written communication.
4.	Understand and apply the concept in productivity, quality tools and labour welfare legislation in day-to-day work to improve productivity & quality.	4.1 Semester examination to test the concept in productivity, quality tools and labour welfare legislation.
		4.2 Applications will be assessed during execution of assessable outcome.
5.	Explain energy conservation, global warming, pollution and contribute in day-to-day work by optimally using available resources.	5.1 Semester examination to test knowledge on energy conservation, global warming and pollution.
		5.2 Their applications will be assessed during execution of assessable outcome.
6.	Explain personnel finance, entrepreneurship and manage/organize related task in day-to-day work for personal & societal growth.	6.1 Semester examination to test knowledge on personnel finance, entrepreneurship.
		6.2 Their applications will be assessed during execution of assessable outcome.
7.	Utilize basic computer applications and internet to take benefit of IT developments in the industry.	7.1 Semester examination to test knowledge on basic computer working, basic operating system and uses internet services.
		7.2 Their applications will be assessed during execution of assessable outcome.

SPECIFIC LEARNING/ ASSESSABLE OUTCOME	
LEARNING/ ASSESSABLE OUTCOME	**ASSESSMENT CRITERIA**
SEMESTER-I	
8. Make a nutritional plan for all age groups under given conditions.	8.1 Identify different nutrients.
	8.2 Identify the requirements of nutrients.
	8.3 Observe the importance.
	8.4 Make a nutritional plan for the given age group.
9. Design a balanced diet as per the requirement under given conditions.	9.1 Identify components of food and its nutrition factors.
	9.2 Identify calories and nutrients for different food items.
	9.3 Calculate the calories and total nutrients of food items taken.
	9.4 Make a balanced diet plan using different food items as per the requirement and given conditions.
10. Calculate and suggest the calorie and nutritional requirements as per the specific requirements of the person.	10.1 Identify different foods available with their calories and nutrients.
	10.2 Identify the calories and nutrients required for different works and conditions.
	10.3 Identify the person with his health conditions and nature of the work being done.
	10.4 Calculate and suggest the calorie and nutrition requirements as per the given person and conditions.
11. Identify diseases that occur due to various deficiencies.	11.1 Identify various individuals with deficiencies.
	11.2 Identify different deficiency syndromes.
	11.3 Identify various nutrition deficiencies.
	11.4 Identify different diseases due to nutrition deficiency.
	11.5 Identify symptoms and suggest the important food nourishment required.
12. Assess disease symptoms.	12.1 Identify various individuals with diseases.
	12.2 Identify common diseases due to different conditions of work and living.
	12.3 Identify the disease symptoms.
	12.4 Assess the symptoms for various diseases.
13. Inspect and report various food adulterations.	13.1 Identify various foods that are commonly adulterated.
	13.2 Identify the parameters to be checked for finding food

	adulteration.
	13.3 Note the ideal factors of food available.
	13.4 Inspect different food for adulterations.
	13.5 Report food adulteration by doing different tests.
14. Suggest different food preservation techniques for various types of food.	14.1 Identify various foods as per their perishability.
	14.2 Apply common food preservation techniques by using salt and sugar.
	14.3 Identify different types of preservation techniques. Follow refrigeration techniques for food preservation.
	14.4 Identify the preservation systems in use.
	14.5 Take above factors into consideration and suggest food preservation techniques for various types of food.
15. Identify and understand water and its properties and causes of water pollution. Summarize water supply system with water treatment in the city/ country etc.	15.1 Identify the resources of water.
	15.2 Recognize the various resources of water pollution.
	15.3 Understand the water borne diseases, causes, effects and symptoms.
	15.4 Identify different type of water quality with various parameters of water in physical, chemical and bacteriological aspects.
	15.5 Understand different water treatment techniques ranging from traditional to the modern.
16. Assemble plumbing system for conservation of water.	16.1 Identify water conservation technique at household and commercial level.
	16.2 Identify the water supply system in different areas such as rural and urban areas.
	16.3 Identify and recognize the control measures for water pollution.
	16.4 Assemble plumbing system involving water conservation techniques.
17. Develop rainwater harvesting technique.	17.1 Understand the rain water harvesting process.
	17.2 Classify different rainwater harvesting technique.
	17.3 Implement the rain water harvesting pits in given locality.
18. Identify and understand the water purification process.	18.1 Understand the various types of water purification in rural and urban areas. Disinfection process of water resources and drinking water.
	18.2 Identify the water supply system in different areas such as rural and urban areas.
	18.3 Identify and recognize the control measures for water

	pollution.
	18.4 Identify the water treatment plant and the process.
19. Handle the night soil of a city/ town with protection of environment and human being.	19.1 Identify the difference between brackish water, sewage effluent and night soil.
	19.2 Recognize the various impact of night soil on the soil, water resources, atmosphere etc.
	19.3 Understand the different types of faecal borne diseases due to unsanitary disposal of night soil.
	19.4 Identify the various types of latrines and their construction.
	19.5 Identify the sewage treatment plant and understand the process diagram.
20. Plan solid waste management system in an area or a small town.	20.1 Recognize various waste materials.
	20.2 Recognise resources that increase solid waste.
	20.3 Classify & collect waste.
	20.4 Apply segregation techniques and segregate the waste.
	20.5 Apply suitable disposal techniques for waste disposal.
	20.6 Identify the working of biogas plant.
	20.7 Apply principles of recycling.
21. Identify air pollution sources and suggest the suitable remedies.	21.1 Identify sources of air pollution.
	21.2 Identify severity of air pollution.
	21.3 Suggest preventive measures to abort air pollution.
22. Understand global warming, its effects and identify the remedial measures.	22.1 Know the global warming and its effects.
	22.2 Measure the atmospheric temperature using thermometer.
	22.3 Identify need of ventilation.
23. Suggest the measures to minimise the noise pollution.	23.1 Understand impacts of noise pollution.
	23.2 Measure the noise pollution.
	23.3 Identify the causes of noise pollution.
	23.4 Suggest the measures to be taken to minimise the noise pollution.
24. Plan and suggest the ventilation requirements of a particular area.	24.1 Understand the concept of ventilation.
	24.2 Illustrate the types of ventilation.
	24.3 Identify the need of ventilation.
	24.4 Suggest ventilation requirements of a particular area.

25. Illustrate concept of liquid waste and disposal. Know the types of sewers, health hazard due to liquid waste.	25.1 Observe various sources of liquid waste.
	25.2 Understand human waste management system.
	25.3 Identify health hazards due to liquid waste.
26. Plan and help in construction and maintenance of sewers, traps, plumbing tools etc.	26.1 Understand types of sewerage system and their working.
	26.2 Identify various types of traps.
	26.3 Understand uses and working of traps.
27. Suggest disposal methods for dead animals and humans.	27.1 Observe importance for proper disposal of dead body and maintenance of record as per legal provision.
	27.2 Illustrate methods for preservation of dead.
	27.3 Identify basic requirements of a burial and cremation ground.
28. Identify different types of soil, its importance in relation with public health and reclamation of land.	28.1 Identify types of soil and its importance.
	28.2 Identify agricultural benefits of soil.
	28.3 Observe moisture level in soil.
	28.4 Understand concept of land reclamation.
29. Plan and suggest sanitary prescription of medical measures in housing and fairs & festivals.	29.1 Understand concept of a healthy housing.
	29.2 Identify sanitary requirement of a house.
	29.3 Explain importance of housing and its good health impacts.
	29.4 Identify requirements of sanitation in a fair.
	29.5 Estimate number of sanitation facility required for a particular event.
	29.6 Plan emergency sanitation, food, water supply for a large gathering.
30. Identify occupational health hazards. Follow safety rules. Prevent occupational diseases.	30.1 Identify the occupational hazards to the employees.
	30.2 Identify the various safety programs and equipment to control the occupational hazards.
	30.3 Implement measures for health protection of workers.
31. Prepare and control of biological environment and different parts of spraying equipments.	31.1 Identify and use insect circles and disinfections.
	31.2 Distinguish technique of sterilization and disinfection of various articles.
	31.3 Identify different parts of spraying equipments.
	31.4 Identify operation and maintenance of spraying equipments.
	31.5 Identify larvaecidals.
	31.6 Identify rodenticides.

SEMESTER- II	
32. Generate awareness programmes for masses on health education.	32.1 Understand importance of health education.
	32.2 Identify working opportunities for a health inspector.
	32.3 Plan health education awareness programme.
	32.4 Contribute in health education awareness.
33. Illustrate importance of right behaviour and personal hygiene, learn its direct impact on their personal life & society.	33.1 Learn importance of behaviour.
	33.2 Impact of behaviour on personal hygiene.
	33.3 Identify behavioural changes as per age groups.
	33.4 Understand concept of defence mechanism.
34. Perform first-aid treatment to tackle medical emergency situation.	34.1 Perform CPR.
	34.2 Make first-aid box.
	34.3 Identify types of bandages.
	34.4 Perform dressing when needed.
	34.5 Treat causalities properly.
	34.6 Transportation and care of victims can be done.
	34.7 Perform first-aid procedures in various conditions.
35. Assess intensity of any disease, recognize the disease and provide first-aid treatment on time to contain the disease.	35.1 Identify symptoms of diseases.
	35.2 Identify types of disease weather it is communicable or non-communicable.
	35.3 Guide precautions undertaken in any disease.
	35.4 Implement preventive measure to contain any disease.
36. Follow the given immunization schedule and understand its importance.	36.1 Identify age group for various immunisations.
	36.2 Understand natural immunisation schedule.
	36.3 Understand importance of immunisation.
37. Identify disinfection and its importance to control diseases. Carry out sterilization.	37.1 Understand requirement of disinfection and sterilisation.
	37.2 Identify disinfection and sterilisation process in hospitals.
	37.3 Identify various disinfection agents.
	37.4 Use disinfectants effectively.
	37.5 Carry out sterilisation procedure.
38. Understand the basics of personal hygiene and its impacts on a person's health and personality.	38.1 Understand importance of personal hygiene habits.
	38.2 Do proper care of their own nails and hands cleaning etc.
	38.3 Do care of dental care procedures.
	38.4 Develops regular hand washing habits.
	38.5 Develops healthy food habit.
	38.6 Develops regular exercise and improves personal hygiene

	habits results in a better personality.
39. Recognise various factors like death rate, birth rate, morbidity, MMR, IMR etc. analyse importance of census survey and data collection.	39.1 Understand demography.
	39.2 Identifies death rate, birth rate, MMR, IMR etc.
	39.3 Understand importance of census.
40. Categorise health survey.	40.1 Perform survey.
	40.2 Fill survey forms.
	40.3 Perform data collection.
	40.4 Classifies health surveys.
41. Familiarise with vocabulary and terminology of different acts.	41.1 Understands importance of acts.
	41.2 Identify epidemic and endemic situations at a given area.
	41.3 Understand air and water pollution control acts.
	41.4 Fill birth and death registration forms.
	41.5 MTP acts.
	41.6 Identify various acts and their importance.

SYLLABUS–HEALTH SANITARY INSPECTOR			
FIRST SEMESTER – 06 Months			
Week No.	**Learning Outcome**	**Professional Skills (Trade Practical) With Indicative Hours**	**Professional Knowledge (Trade Theory)**
1-3	• Make a nutrition plan for all age groups under given conditions. • 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.	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)	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

	• Inspect and report various food adulterations. • Suggest different food preservation techniques for various types of food.	13. Display videos (Audio-video) 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 micro-organism. (02 hrs)	diet, cirrhosis of liver, renal stone Food Preservation: definition & methods, household & industrial method of preservation, self-line, Pasteurization: methods, types &importance. Refrigeration: Prevents spoilage.
4-7	• 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	19. Draw a chart sowing various environmental factors. (05 hrs) 20. Tabulate various types of water with their properties. (05 hrs) 21. Classify water resources (surface water and ground water). (12 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	WHO's definition for environmental sanitation. Safe and whole some 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

	water purification process.	water earth and its uses in different area. (04 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. (04 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. (03 hrs) 34. Explain the disinfection with various disinfectant for well disinfection (03 hrs) 35. Construct a diagram for disinfection process of well. (04 hrs)	at the community and domestic. Pot method of chlorination. Swimming pool. Water testing labs.

		36. Prepare the list of sources of water pollution with their different characteristics. (4 hrs) 37. Visit to a water treatment plant.(04 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.(03 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. (04 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.(04 hrs) 46. Visit to a swimming pool for sanitation and personal hygiene measures. (03 hrs) 47. Collect the water sample from the domestic taps, surface and ground water resources. (03 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. (10 hrs)	
8-9	• Handle the night soil of a city/ town with protection of environment and human being.	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)	**<u>Night soil disposal</u>** 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.

10-11	• Plan solid waste management system in an area or a small town.	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)	**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	• Identify air pollution sources and suggest the	66. Demonstration of humidity and temperature. (05 hrs) 67. Point out sources of air	**Air pollution** – Introduction of air pollution. – Composition of air.

	suitable remedies. • Understand global warming, its effects and identify the remedial measures. • Suggest the measures to minimise the noise pollution. • Plan and suggest the ventilation requirements of a particular area.	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)	– 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.
13-15	• 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.	73. Point out the sewage treatment plant. (06 hrs) 74. Inspection of flushing tank, manholes etc. (06 hrs) 75. Demonstration of various traps 'p' trap, 's' trap, 'q' trap etc. (20 hrs) 76. Demonstration of manholes by video calls. (20 hrs) 77. Demonstration of various plumbing tools like hacksaw, pipe cutter, pipe vice, pipe wrench set of spanners etc. (15 hrs) 78. Inspection and maintenance	**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

		of sewage treatment plant.(13 hrs) 79. Identify various equipments of sewage disposal. (05 hrs) 80. Identify pollution of water from sewage. (05 hrs)	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.
16-17	• Suggest disposal methods for dead animals and humans. • Identify different types of soil, its importance in relation to public health and reclamation of land.	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)	**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.
18-19	• Plan and suggest sanitary prescription of medical measures in housing and fairs & festivals.	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)	**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.
20-21	• Identify occupational health hazards. Follow safety rules. Prevent occupational diseases.	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	**Occupational health** – Introduction – Occupational environment measures. – Occupational diseases. – State the importance of safety and health at work place. – State the role of employer,

		of the vicinity of the industrial establishment for identification of health problems emerging from industrial pollution. (18 hrs)	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.
22	• Prepare and control of biological environment and different parts of spraying equipments.	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 equipments. (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)	**Control of biological environment** – Introduction – Study on insecticides, pesticides and disinfections. – Sterilisation and disinfection of different articles. – Various spraying equipments. – Uses of rodenticides and larvaecidals. – Principal of arthropod control.
23-24	Project work/ Hospital Visit Broad Areas: a) Identify soil sample equipments. b) Inspection and maintenance of sewage treatment plant. c) Measurement of noise level. d) Prepare charts or posters of global warming. e) Perform the practical for physical and chemical parameters of given water sample in testing labs. – PH – Turbidity – Chlorine – Hardness – TDS		

	– Acidity – Alkalinity etc. f) Make a chart for impact of hard water on human health and other areas such as- on plants, on industrial equipments.
25	**Revision**
26	**Examination**

SYLLABUS –HEALTH SANITARY INSPECTOR			
SECOND SEMESTER – 06 Month			
Week No.	**Learning Outcome Reference**	**Professional Skills (Trade Practical) With Indicative Hours**	**Professional Knowledge (Trade Theory)**
27-30	• Generate awareness programmes for masses on health education.	99. Designing of posters on Malaria.(20 hrs) 100. Designing of posters on roles and responsibilities of a health inspector.(20 hrs) 101. Demonstration of health awareness program as a class activity.(08 hrs) 102. Designing environmental sanitation posters.(15 hrs) 103. Designing posters on balanced diet.(10 hrs) 104. Designing poster on basic hygiene practices.(07 hrs) 105. Preparing power point preservation on health awareness.(25 hrs) 106. Demonstration of preparation of ORS.(15 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.
31-33	• Illustrate importance of right behaviour and personal hygiene, learn its direct impact on their personal life & society.	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	**Behavioral Science** – Definition of behavioural science. – Importance of behavioural science. – Impact of behaviour on personal hygiene. – Basic hygiene practices. – Habits and customs affecting

		hygiene.(15 hrs)	personal hygiene. – Caring sense organs. – Oral hygiene. – Factors influencing human behaviour, change of behavioural pattern in different age groups. – Interpersonal relations and defence mechanism.
34-39	• Perform first-aid treatment to tackle medical emergency situation.	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)	**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.
40-44	• Assess intensity of any disease, recognize the disease and provide first-aid treatment on	119. Demonstration on communicable and non-communicable diseases symptoms and their control measures. (40 hrs) 120. Preparation of	**Communicable diseases** – Definition and introduction on communicable disease. – Air-borne and transmission of diseases through contact.

	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.	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)	– 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 non-communicable 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, $KMnO_2$solution, solid and liquid agents. – Effective disinfectants like formaldehyde, sulphur,

			chlorine gases etc. – Use of UV radiation and ozone as disinfectant.
45-46	• Understand the basics of personal hygiene and its impact on a person's health and personality.	124. Making posters on dental care. (12 hrs) 125. Making posters on skin and hair hygiene. (12 hrs) 126. Making posters on basic hygiene habits. (12 hrs) 127. Demonstration on right method for hand washing. (12 hrs) 128. Demonstration on oral health. (12 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.
47-48	• Recognise 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.	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	**Demography and health survey** – Definition and introduction of demography. – Factors of demography. – Various stage of demo. 1. High stationary 2. Early expending 3. Late expending 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.

		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)	– 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.
49-50	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.		
51	**Revision**		
52	**Examination**		

Note: -

1. *Some of the sample project works (indicative only) are given against each semester.*
2. *Instructor may design their own project and also inputs from local industry may be taken for designing such new project.*
3. *The project should broadly cover maximum skills in the particular trade and must involve some problem solving skill. Emphasis should be on Teamwork: Knowing the power of synergy/ collaboration, work to be assigned in a group (Group of at least 4 trainees). The group should demonstrate Planning, Execution, Contribution and Application of Learning. They need to submit Project report.*
4. *If the instructor feels that for execution of specific project more time is required than he may plan accordingly to produce components/ sub-assemblies in appropriate time i.e., may be in the previous semester or during execution of normal trade practical.*

9. SYLLABUS - CORE SKILLS

CORE SKILL – EMPLOYABILITY SKILL		
First Semester		
1. English Literacy		**Duration : 20 hrs** **Marks : 09**
Pronunciation	Accentuation (mode of pronunciation) on simple words, Diction (use of word and speech)	
Functional Grammar	Transformation of sentences, voice change, change of tense, Spellings	
Reading	Reading and understanding simple sentences about self, work and environment.	
Writing	Construction of simple sentences Writing simple English	
Speaking/ Spoken English	Speaking with preparation on self, on family, on friends/ classmates, on known people, picture reading, gain confidence through role-playing and discussions on current happenings, job description, asking about someone's job, habitual actions. Cardinal (fundamental) numbers ordinal numbers. Taking messages, passing on messages and filling message forms, Greeting and introductions, Office hospitality, Resumes or Curriculum vitae's essential parts, Letters of application reference to previous communication.	
2. IT Literacy		**Duration : 20 hrs** **Marks : 09**
Basics of Computer	Introduction, Computer and its applications, Hardware and peripherals, Switching on-Starting and shutting down computer.	
Computer Operating System	Basics of Operating System, WINDOWS, The user interface of Windows OS, Create, Copy, Move and delete Files and Folders, Use of External memory like pen drive, CD, DVD etc., Use of Common applications.	
Word Processing and Worksheet	Basic operating of Word Processing, creating, Opening and closing documents, Use of shortcuts, Creating and editing of Text, Formatting the text, Insertion & creation of Tables. Printing document. Basics of Excel worksheet, understanding basic commands, creating simple worksheets, understanding sample worksheets, use of simple	

	formulas and functions, Printing of simple excel sheets.
Computer Networking and Internet	Basic of computer Networks (using real life examples), Definitions of Local Area Network (LAN), Wide Area Network (WAN), Internet, Concept of Internet (Network of Networks), Meaning of World Wide Web (WWW), Web Browser, Web Site, Webpage and Search Engines. Accessing the Internet using Web Browser, Downloading and Printing Web Pages, Opening an email account and use of email. Social media sites and its implication. Information Security and antivirus tools, Do's and Don'ts in Information Security, Awareness of IT - ACT, types of cyber crimes.
3. Communication Skills	**Duration : 15 hrs** **Marks : 07**
Introduction to Communication Skills	Communication and its importance Principles of effective communication Types of communication - verbal, non-verbal, written, email, talking on phone. Non-verbal communication -characteristics, components-Para-language Body language Barriers to communication and dealing with barriers. Handling nervousness/ discomfort.
Listening Skills	Listening-hearing and listening, effective listening, barriers to effective listening,guidelines for effective listening. Triple- A Listening - Attitude, Attention & Adjustment. Active listening skills.
Motivational Training	Characteristics essential to achieving success. The power of positive attitude. Self awareness Importance of commitment Ethics and values Ways to motivate oneself Personal goal setting and employability planning.
Facing Interviews	Manners, etiquettes, dress code for an interview. Do's & Don'ts for an interview.
Behavioral Skills	Problem solving Confidence building Attitude
Second Semester	

4. Entrepreneurship Skills		**Duration : 15 hrs** **Marks : 06**
Concept of Entrepreneurship	Entrepreneur - Entrepreneurship - Enterprises: Conceptual issue Entrepreneurship vs. management, Entrepreneurial motivation. Performance &record, Role &function of entrepreneurs in relation to the enterprise & relation to the economy, Source of business ideas, Entrepreneurial opportunities, The process of setting up a business.	
Project Preparation & Marketing Analysis	Qualities of a good Entrepreneur, SWOT and Risk Analysis. Concept & application of PLC, Sales & distribution Management. Difference between small scale &large scale business, Market survey, Method of marketing, Publicity and advertisement, Marketing Mix.	
Institution's Support	Preparation of Project. Role of various schemes and Institutes for self-employment i.e. DIC, SIDA, SISI, NSIC, SIDO, Idea for financing/ non-financing support agencies to familiarizes with the policies/Programmes& procedure & the available scheme.	
Investment Procurement	Project formation, Feasibility, Legal formalities i.e., Shop Act, Estimation & Costing, Investment procedure - Loan procurement - Banking Processes.	
5. Productivity		**Duration : 10 hrs** **Marks : 05**
Benefits	Personal/ Workman - Incentive, Production linked bonus, Improvement in living standard.	
Affecting Factors	Skills, Working Aids, Automation, Environment, Motivation - How it improves or slows down productivity.	
Comparison with Developed Countries	Comparative productivity in developed countries (viz. Germany, Japan and Australia) in selected industries e.g. Manufacturing, Steel, Mining, Construction etc. Living standards of those countries, wages.	
Personal Finance Management	Banking processes, Handling ATM, KYC registration, safe cash handling, Personal risk and Insurance.	
6. Occupational Safety, Health and Environment Education		**Duration : 15 hrs** **Marks : 06**
Safety & Health	Introduction to occupational safety and health, importance of safety and health at workplace.	
Occupational Hazards	Basic hazards, Chemical hazards, Vibroacoustic hazards, Mechanical hazards, Electrical hazards, Thermal hazards. Occupational health, Occupational hygiene, Occupational diseases/ Disorders & its prevention.	

Accident &Safety	Basic principles for protective equipment. Accident prevention techniques - control of accidents and safety measures.
First-Aid	Care of injured &sick at the workplaces, First-Aid &transportation of sick person.
Basic Provisions	Idea of basic provision legislation of India. Safety, health, welfare under legislative of India.
Ecosystem	Introduction to environment. Relationship between society and environment, Ecosystem and Factors causing imbalance.
Pollution	Pollution and pollutants including liquid, gaseous, solid and hazardous waste.
Energy Conservation	Conservation of energy, re-use and recycle.
Global Warming	Global warming, climate change and Ozone layer depletion.
Ground Water	Hydrological cycle, ground and surface water, Conservation and harvesting of water.
Environment	Right attitude towards environment, Maintenance of in-house environment.
7. Labour Welfare Legislation	**Duration : 05 hrs** **Marks : 03**
Welfare Acts	Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's Compensation Act.
8. Quality Tools	**Duration : 10 hrs** **Marks : 05**
Quality Consciousness	Meaning of quality, Quality characteristic.
Quality Circles	Definition, Advantage of small group activity, objectives of quality Circle, Roles and function of Quality Circles in Organization, Operation of Quality circle. Approaches to starting Quality Circles, Steps for continuation Quality Circles.
Quality Management System	Idea of ISO 9000 and BIS systems and its importance in maintaining qualities.
House Keeping	Purpose of House-keeping, Practice of good Housekeeping.
Quality Tools	Basic quality tools with a few examples.

ANNEXURE-I

LIST OF TOOLS & EQUIPMENTS			
HEALTH SANITARY INSPECTOR			
S No.	**Name of the Tools and Equipments**	**Specification**	**Quantity**
A. TRAINEES TOOL KIT			
1.	Gloves		As required
2.	Apron		20 nos.
3.	Disposable Mask		As required
B. SHOP TOOLS, INSTRUMENTS – For 2 (1+1) units no additional items are required			
Lists of Tools:			
4.	Ventilation System		1 no.
5.	Sewage System and Treatment plant		1 no.
6.	Water Purification Plant		1 no.
7.	Sanitary Plant		1 no.
8.	Waste Disposal Plant		1no.
C. LIST OF EQUIPMENTS			
9.	LCD Projector		1 no.
10.	Personnel Computer	With multimedia facilities	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

TOOLS & EQUIPMENTS FOR EMPLOYABILITY SKILLS		
S No.	**Name of the Equipment**	**Quantity**
1.	Computer (PC) with latest configurations and Internet connection with standard operating system and standard word processor and worksheet software	10 nos.
2.	UPS - 500VA	10 nos.
3.	Scanner cum Printer	1 no.
4.	Computer Tables	10 nos.
5.	Computer Chairs	20 nos.
6.	LCD Projector	1 no.
7.	White Board 1200 mm x 900 mm	1 no.
Note: *Above Tools & Equipments not required, if Computer LAB is available in the institute.*		

ANNEXURE-II

FORMAT FOR INTERNAL ASSESSMENT

Name & Address of the Assessor:		**Year of Enrollment:**
Name & Address of ITI (Govt./Pvt.):		**Date of Assessment:**
Name & Address of the Industry:		**Assessment location: Industry / ITI**
Trade Name:	**Semester:**	**Duration of the Trade/Course:**
Learning Outcome:		

S No.	**Candidate Name**	**Father's/Mother's Name**	Safety Consciousness	Workplace Hygiene	Attendance/ Punctuality	Ability to Follow Manuals/ Written Instructions	Application of Knowledge	Skills to handle Tools &Equipment	Economical Use of Materials	Speed in Doing Work	Quality in Workmanship	VIVA	**Total Internal Assessment Marks**	**Result (Y/N)**
Maximum Marks (Total 100 Marks)			**15**	**5**	**10**	**5**	**10**	**10**	**5**	**10**	**15**	**15**		
1														
2														