

# Model Curriculum

## Septic Tank Technician

**SECTOR: GREEN JOBS**  
**SUB-SECTOR: WASTE MANAGEMENT**  
**OCCUPATION: OPERATION & MAINTENANCE**  
**REF ID: SGJ/Q6402, V 1.0**  
**NSQF LEVEL: 4**



## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**SKILL COUNCIL FOR GREEN JOBS**

for the

**MODEL CURRICULUM**

Complying to National Occupational Standards of

Job Role/ Qualification Pack: **'Septic Tank Technician'** QP No. **'SGJ/Q6402 NSQF Level 4'**

Date of Issuance: **November 30<sup>th</sup>, 2018**

Valid up to: **November 29<sup>th</sup>, 2020**

\* Valid up to the next review date of the Qualification Pack

  
Authorised Signatory  
(Skill Council for Green Jobs)

## TABLE OF CONTENTS

<b>1. Curriculum</b>	<b>01</b>
<b>2. Trainer Prerequisites</b>	<b>05</b>
<b>3. Annexure: Assessment Criteria</b>	<b>06</b>

# Septic Tank Technician

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Septic Tank Technician”, in the “Green Jobs” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Septic Tank Technician</b>		
<b>Qualification Pack Name &amp; Reference ID</b>	SGJ/Q6402, V 1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	30.11.2018
<b>Pre-requisites to Training</b>	5 <sup>th</sup> Pass with minimum experience of three years in masonry work		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• Assess the site and size of the septic tanks</li> <li>• Excavate, fabricate and install fixed septic tanks as per Central Public Health and Environmental Engineering Organization(CPHEEO) norms</li> <li>• Install prefabricated septic tanks</li> <li>• Repair and maintain septic tanks</li> <li>• Work effectively with co-workers</li> <li>• Maintain Health and safety in septic tank fabrication and installation</li> </ul>		



Sr. No.	Module	Key Learning Outcomes	Equipment Required
3	<p><b>Installation of prefabricated septic tank</b></p> <p><b>Theory Duration</b> (hh:mm) 06:00</p> <p><b>Practical Duration</b> (hh:mm) 16:00</p> <p><b>Corresponding NOS Code</b> SGJ/N6408</p>	<ul style="list-style-type: none"> <li>• Mark layout area for installation of prefabricated septic tank</li> <li>• Excavate the site based on the specifications</li> <li>• Lay intake pipe to the septic tank</li> <li>• Install ventilation pipe</li> <li>• Check proper installation and leakage of the septic tank</li> <li>• Demonstrate functioning of prefabricated septic tanks</li> <li>• Apply do's and don'ts while installing the prefabricated septic tank</li> </ul>	<p>Different types and size of key tools and equipment for installing piping fixtures and fitting the prefabricated septic tank like, Tape/Laser measure, Hammers, Trowel, Hoe, Spirit level, Plumb and Right Angle etc.</p> <p>Hand gloves, helmet/ cap, appropriate mask to cover face, reflective vest. (One for each candidate), gum boots etc.</p>
4	<p><b>Repair and maintenance of septic tank /soak pit</b></p> <p><b>Theory Duration</b> (hh:mm) 10.00</p> <p><b>Practical Duration</b> (hh:mm) 25.00</p> <p><b>Corresponding NOS Code</b> SGJ/N6409</p>	<ul style="list-style-type: none"> <li>• Identify and diagnose the issue of the septic tank</li> <li>• Estimate materials and hours/days required to complete the repair work</li> <li>• Prepare cost estimates and timeline for repair work</li> <li>• Schedule the repair activities</li> <li>• Carry out repair of plumbing work including inlet and outlet baffle, partition wall, access opening and cover, ventilation or vent pipe, outlet pipe with minimum wastage of material</li> <li>• Test the functionality of septic tanks post repair</li> <li>• Ensure the system of water flow, sewage flow, etc.</li> <li>• Apply do's and don'ts while repairing septic tank</li> </ul>	<p>Tape/Laser measure, Hammers, Trowel, Hoe, Spirit level, Plumb and Right Angle etc Hand gloves, helmet/ cap, appropriate mask to cover face, reflective vest. (One for each candidate), gum boots etc.</p>
5	<p><b>Maintain personal health &amp; safety in FSSM</b></p> <p><b>Theory Duration</b> (hh:mm) 12.00</p> <p><b>Practical Duration</b> (hh:mm) 28.00</p> <p><b>Corresponding NOS Code</b> SGJ/N6410</p>	<ul style="list-style-type: none"> <li>• Identify violation of workplace safety policies</li> <li>• Identify the location of first aid materials</li> <li>• Administer first-aid</li> <li>• Identify personal safety hazards or work site hazards</li> <li>• Identify the personal protective equipment</li> <li>• Demonstrate safety drill</li> <li>• Demonstrate safe and accepted practices for personal protection</li> <li>• Use insect repellent at unhygienic places</li> </ul>	<p>Hand sanitizer/soap, Hand gloves, helmet/ cap, appropriate mask to cover face, reflective vest. (One for each candidate), gum boots etc.</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>Identify sign boards/caution such as “Work in progress” or “Danger” to avoid accidents related to use of sharp tools and equipment</li> </ul>	
6	<p><b>Working effectively with co-workers</b></p> <p><b>Theory Duration</b> (hh:mm) 09.00</p> <p><b>Practical Duration</b> (hh:mm) 21.00</p> <p><b>Corresponding NOS Code</b> SGJ/N0120</p>	<ul style="list-style-type: none"> <li>Identify ways to assist colleagues positively to maximize effectiveness and efficiency in carrying out tasks</li> <li>Discuss importance of work culture</li> <li>Demonstrate appropriate communication etiquette and dressing at work place</li> <li>Demonstrate responsible and disciplined behaviours at the workplace</li> <li>Identify ways to put up grievances and problems to appropriate authority</li> <li>Demonstrate collaboration and group participation to achieve common goals</li> </ul>	Short-answer and fill-in-the-blank papers, rubrics and quizzes, internet connecting devices
	<p><b>Total Duration:</b> <b>220:00</b></p> <p><b>Theory Duration</b> <b>63:00</b></p> <p><b>Practical Duration</b> <b>157:00</b></p>	<p><b>Unique Equipment Required:</b> Different types and size of key tools and equipment for installing piping fixtures and fitting the prefabricated septic tank like, Tape/Laser measure, Hammers, Trowel, Hoe, Spirit level, Plumb and Right Angle, Hand sanitizer/soap, Hand gloves, helmet/ cap, appropriate mask to cover face, reflective vest. (One for each candidate), gum boots, Short-answer and fill-in-the-blank papers, rubrics and quizzes, internet connecting devices, etc.</p>	

**Grand Total Course Duration: 220 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Skill Council for Green Jobs](#))

## Trainer Prerequisites for Job role: “Septic Tank Technician” mapped to Qualification Pack: “SGJ/Q6402”

Sr. No.	Area	Details
1	<b>Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “SGJ/Q6402, Version 1.0”.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	<b>Minimum Educational Qualifications</b>	10th Pass
4a	<b>Domain Certification</b>	Certified for Job Role: “Septic Tank Technician” mapped to QP: “SGJ/Q6402, Version 1.0”. Minimum accepted score as per SCGJ guidelines is 80%.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q0102” or equivalent. Minimum accepted score as per SSC guidelines is 80%.
5	<b>Experience</b>	Minimum 2 years of experience in supervising masons and installation of septic tanks.



## CRITERIA FOR ASSESSMENT OF TRAINEES

**Job Role** Septic Tank Technician

**Qualification Pack** SGJ/Q 6402

**Sector Skill Council** Green Jobs

### Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7. In case of *unsuccessful completion*, the trainee may seek reassessment on the Qualification Pack

Compulsory NOS		Marks Allocation			
Total Marks: 270					
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out Of	Theory	Skills Practical
SGJ/N6406: Assessment of site and size of septic tank / soak pit	PC1. assess user requirement to position septic tank/soak pit	<b>56</b>	5	2	3
	PC2. Estimate the load as per the number of users in the family or the estimated usage at the commercial/institutional site		5	2	3
	PC3. assess the located site of septic tank / soak pit considering ground conditions, water table, water pipeline, underground water tank, etc.		7	3	4
	PC4. choose appropriate size and design of the septic tank /soak pit as per CPHEEO norms)		6	2	4
	PC5. prepare cost estimates for fabrication and installation work		5	2	3
	PC6. identify tools, equipment, material and procedures required for masonry and installation of septic tank /soak pit		5	2	3
	PC7. stack and store materials and equipment appropriately at the site		3	1	2
<b>TOTAL</b>			<b>36</b>	<b>14</b>	<b>22</b>

SGJ/N6407: Excavation, fabrication and installation of septic tank / soak pit	PC1. mark the specifications of the septic tank /soak pit layout on the ground	<b>76</b>	5	2	3
	PC2. carry out ground leveling, surfacing and sloping related tasks prior to fabrication of septic tank / soak pit		7	2	5
	PC3. carry out excavation for foundation keeping in view adjacent buildings, ground water table and soil conditions		3	1	2
	PC4. carry out the excavation to the desired depth and required slope using appropriate tools and equipment such as spade, wheel barrows, pans etc.		5	2	3
	PC5. provide necessary support to vertical side of excavated area to avoid soil collapse as per applicability		6	2	4
	PC6. ensure appropriate disposal of the material from the excavated pit		3	1	2
	PC7. check for loose material, soil lumps, pebbles on achieving the desired earth level		5	2	3
	PC8. ensure surface dressing work is carried out by disposing loose material, gravels, plant roots, sludge, muck or debris as per requirement to the appropriate locations		5	2	3
	PC9. ensure compaction of base by ramming		3	1	2
	PC10. determine work requirement and sequence of masonry work		5	2	3
	PC11. mix cement using hoes, cement mixing equipment or hand tools		5	2	3
	PC12. break bricks and concrete using hammers, drill and hand tools		5	2	3
	PC13. lay bricks/mortar/concrete in septic tank /soak pit		5	2	3
	PC14. Install proper ventilation pipe		6	2	4
	PC15. check and ensure re-filling and compaction of excavated trenches, pits surrounding the structures or at necessary location as per soil site conditions		5	2	3
	PC16. ensure proper finishing of work		3	1	2
	<b>TOTAL</b>	<b>76</b>	<b>28</b>	<b>48</b>	

SGJ/N6408: Installation of prefabricated septic tank	PC1. outline the layout area required for installation of prefabricated septic tank	<b>33</b>	6	2	4
	PC2. excavate the site based on the specifications		5	2	3
	PC3. undertake laying out intake pipe to prefabricated septic tank		5	2	3
	PC4. ensure proper fixation of septic tank		4	2	2
	PC5. install ventilation pipe		6	2	4
	PC6. check the proper installation and leakage from prefabricated septic tank		3	1	2
	PC7. demonstrate the functioning of prefabricated septic tank		4	1	3
	<b>TOTAL</b>	<b>33</b>	<b>12</b>	<b>21</b>	
SGJ/N6409: Repair and maintenance of septic tank /soak pit	PC1. identify and diagnose the problems and /or failures in the septic tank / soak pit	<b>50</b>	5	2	3
	PC2. empty septic tank /soak pit before repair work of the septic tank / soak pit (post repair work)		5	2	3
	PC3. estimate the materials required and number of hours/days required to complete the repair work		5	2	3
	PC4. prepare cost estimates and timeline for repair work		5	2	3
	PC5. schedule the repair activities and deliver the task within stipulated time		4	2	2
	PC6. carry out repair of plumbing work including inlet and outlet baffle, partition wall, access opening and cover, ventilation or vent pipe, outlet pipe		4	1	3
	PC7. respond to emergency situations for resolving immediate safety concerns		4	2	2
	PC8. ensure minimum wastage of materials and damage to the septic tank /soak pit during repair and maintenance		3	1	2
	PC9. clear the work area and ensure proper waste disposal after completion of repair work		5	2	3
	PC10. ensure the system of water flow, sewage flow, etc		5	2	3
	PC11. test the functionality		5	2	3
	<b>TOTAL</b>	<b>50</b>	<b>20</b>	<b>30</b>	

SGJ/N6410: Maintain personal health & safety in FSSM	PC1. display sign boards/caution such as “Work in progress” or “Danger” to avoid accidents related to use of sharp tools and equipment	<b>40</b>	6	2	4
	PC2. identify contact person when workplace safety policies are violated		5	2	3
	PC3. provide information about incident/violation		4	2	2
	PC4. identify the location of first aid materials and administer first-aid		3	1	2
	PC5. identify personal safety hazards or work site hazards		3	1	2
	PC6. identify the personal protection equipment required for specific work activity and location		4	1	3
	PC7. attend safety drills organised by the company or any other authority		3	1	2
	PC8. demonstrate safe and accepted practices for personal protection		5	2	3
	PC9. learn first-aid procedure		3	1	2
	PC10. use insect repellents and safe drinking water		4	2	2
	<b>TOTAL</b>	<b>40</b>	<b>15</b>	<b>25</b>	
SGJ/N0120: Work effectively with co-worker	PC1. assist other colleagues in performing tasks in a positive manner where required and possible	<b>35</b>	5	2	3
	PC2. consult and assist others to maximize effectiveness and efficiency in carrying out tasks		5	2	3
	PC3. demonstrate appropriate communication etiquette while working		5	2	3
	PC4. demonstrate active listening skills while interacting with others at work		5	2	3
	PC5. demonstrate responsible and disciplined behaviours at the workplace		5	2	3
	PC6. escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict		5	2	3
	PC7. ensure collaboration and group participation to achieve common goals		5	2	3
	<b>TOTAL</b>	<b>35</b>	<b>14</b>	<b>21</b>	