

# Model Curriculum

## Dialysis Technician

**SECTOR: HEALTHCARE**

**SUB-SECTOR: ALLIED HEALTH & PARAMEDICS**

**OCCUPATION: DIALYSIS TECHNICIAN**

**REF ID: HSS/Q2701, VERSION 1.0**

**NSQF LEVEL: 4**



## Certificate

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

is hereby issued by the

**HEALTHCARE SECTOR SKILL COUNCIL**

for the


**MODEL CURRICULUM**

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: 'Dialysis Technician' OP No. 'HSS/Q 2701 NSQF Level 4'

Date of Issuance: **November 30<sup>th</sup>, 2015**

Valid up to: **November 29<sup>th</sup>, 2016**

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

  
Authorised Signatory  
(Healthcare Sector Skill Council)

## TABLE OF CONTENTS

<b>1. Curriculum</b>	<b>01</b>
<b>2. Trainer Prerequisites</b>	<b>14</b>
<b>3. Annexure: Assessment Criteria</b>	<b>15</b>

# Dialysis Technician

## CURRICULUM / SYLLABUS

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

<b>Program Name</b>	< Dialysis Technician >		
<b>Qualification Pack Name &amp; Reference ID.</b>	HSS/Q2701, version 1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	15 – 12 – 2015
<b>Pre-requisites to Training</b>	Class XII		
<b>Training Outcomes</b>	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> <li>Demonstrate knowledge about Renal Failure (ARF &amp; CRF) and its management.</li> <li>Demonstrate pre dialysis patient assessment.</li> <li>Demonstrate dialyzer extracorporeal blood circuit priming and setting up the machine for dialysis procedure.</li> <li>Demonstrate aseptic cannulation of AVF/AVG and dialysis initiation.</li> <li>Demonstrate aseptic acute vascular access catheter care and dialysis initiation.</li> <li>Demonstrate alarm processing, continuous monitoring of patient and machine during procedure.</li> <li>Demonstrate aseptic decannulation and catheter care after termination of dialysis.</li> <li>Demonstrate meticulous infection control measures.</li> <li>Operate and maintain R.O Water treatment plant.</li> <li>Demonstrate machine disinfection methods.</li> <li>Demonstrate dialysis machine maintenance methods.</li> <li>Demonstrate dialyzer reprocessing, both manual and automated (Operating RENATRON, INTERFACE Module &amp; RENALOG-RM software.)</li> <li>Demonstrate polite and strategic communication skills, grooming skills, professional etiquettes and leadership qualities.</li> </ul>		

This course encompasses 19 out of 19 National Occupational Standards (NOS) of “Dialysis Technician” Qualification Pack issued by “SSC: Healthcare Sector Skill Council”.

S.No	Module	Key Learning Outcomes	Equipment Required
1	<p><b>Introduction to Healthcare Systems</b></p> <p><b>Theory Duration</b> (hh:mm) 05:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/N 2701, HSS/N2702, HSS/N2703, HSS/N2704, HSS/N 2705, HSS/N2706, HSS/N 2707</p>	<ul style="list-style-type: none"> <li>• Basic Understanding of Healthcare Service Providers (primary, secondary &amp; tertiary)</li> <li>• Basic Understanding of Hospital Functions</li> <li>• Basic Understanding of Dialysis centers</li> <li>• Understanding of Dialysis unit at different level (National / State / District)</li> </ul>	<p>Visit to healthcare facility in different regions to assess different levels of healthcare facility</p>
2	<p><b>Human Anatomy &amp; Physiology</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/N 2701, HSS/N 2703, HSS/N 2704, HSS/N 2710, HSS/N 2706</p>	<ul style="list-style-type: none"> <li>• Basic Understanding of anatomic definitions, cells and tissues of human body.</li> <li>• Basic Understanding of all the body systems and its functions.</li> <li>• Basic Understanding of different fluid compartments in human body.</li> <li>• Basic understanding of various membrane transport mechanisms in human body.</li> </ul>	<p>Mannequins, chart presentations</p>
3	<p><b>Medical Terminology</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p>	<ul style="list-style-type: none"> <li>• To develop broad understanding of commonly used medical terms.</li> <li>• To develop understanding of medical abbreviations.</li> <li>• To develop Understanding of commonly used</li> </ul>	<p>Internet usage and self learning</p>

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/N 2701, HSS/N 2702, HSS/ N 2703, HSS/N 2703, HSS/N 2705, HSS/N 2707, HSS/N 2708</p>	<p>medical equipment in dialysis unit.</p>	
4	<p><b>Pharmacology Basics</b></p> <p><b>Theory Duration</b> (hh:mm) 07:00</p> <p><b>Practical Duration</b> (hh:mm) 03:00</p> <p><b>Corresponding NOS Code</b> HSS/N 2707, HSS/N 2708, HSS/N 2709, HSS/N 2711</p>	<ul style="list-style-type: none"> <li>• Basic understanding of pharmacodynamics and pharmacokinetics.</li> <li>• Understanding classification of drugs.</li> <li>• Understanding different routes of drug administration.</li> <li>• Understanding commonly used emergency drugs.</li> <li>• Describe SALA medicines, precautions and ADR.</li> </ul>	<p>Internet usage and self learning</p>
5	<p><b>Renal Anatomy And Physiology</b></p> <p><b>Theory Duration</b> (hh:mm) 07:00</p> <p><b>Practical Duration</b> (hh:mm) 03:00</p> <p><b>Corresponding NOS Code</b> HSS/N 2701, HSS/N 2703, HSS/N 2704, HSS/N 2706</p>	<ul style="list-style-type: none"> <li>• Understand macroscopic anatomy of Kidneys.</li> <li>• Understand microscopic anatomy of kidneys.</li> <li>• Understand major physiological functions of kidneys.</li> </ul>	<p>Mannequins, chart presentations</p>
6	<p><b>Personnel Hygiene</b></p>	<ul style="list-style-type: none"> <li>• To develop understanding of the concept of Healthy Living</li> <li>• To develop understanding &amp; procedures of Hand Hygiene</li> </ul>	<p>PPE, Patient safety equipment's and tools, vaccinations, hand sanitizers</p>

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Theory Duration</b> (hh:mm) 08:00</p> <p><b>Practical Duration</b> (hh:mm) 12:00</p> <p><b>Corresponding NOS Code</b> HSS/N 9610, HSS/N 9606</p>	<ul style="list-style-type: none"> <li>To develop techniques of Grooming</li> <li>To be equipped with Techniques of Use of PPE</li> <li>To be vaccinated against common infectious diseases</li> </ul>	
7	<p><b>Safety &amp; First Aid</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 10:00</p> <p><b>Corresponding NOS Code</b> HSS/N 9606, HSS/N 9603, HSS/N 2709, HSS/N 2707, HSS/N 2705</p>	<ul style="list-style-type: none"> <li>To develop understanding and precautions to ensure Patient's Safety</li> <li>To develop basic understanding and precautions to ensure sample preservation while Transporting</li> <li>Describe common emergency conditions and what to do in medical emergencies</li> <li>Describe basics of first aid</li> <li>To develop understanding and precautions to ensure self-safety</li> </ul>	Patient safety tools such as wheel chairs, trolleys, side rails, PPE, First Aid kit, betadine, cotton, bandages, sanitizers, disinfectants etc
8	<p><b>Bio-Medical Waste Management</b></p> <p><b>Theory Duration</b> (hh:mm) 12:00</p> <p><b>Practical Duration</b> (hh:mm) 08:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 9609</p>	<ul style="list-style-type: none"> <li>To gain understanding of importance of proper and safe disposal of bio-medical waste &amp; treatment</li> <li>To gain understanding of categories of bio-medical waste</li> <li>To learn about disposal of bio-medical waste – colour coding, types of containers, transportation of waste, etc.</li> <li>To gain broad understanding of standards for bio-medical waste disposal</li> <li>To gain broad understanding of means of bio-medical waste treatment</li> </ul>	Different coded color bins, different variety of bio medical waste management, Visit to treatment plan of bio medical waste etc.
9	<p><b>Patients Right &amp; Environment</b></p>	<ul style="list-style-type: none"> <li>Describe necessary steps taken to ensure safety and comfort to the patient during the procedure</li> </ul>	internet use to learn patient rights

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/N 2703, HSS/N 2704, HSS/N 2706, HSS/N 2710, HSS/N 2711</p>	<ul style="list-style-type: none"> <li>Describe importance and methodology of cleanliness, and hygiene environment in collection space</li> <li>Understand sensitivities involved in patient's right and responsibilities</li> <li>Learn dialysis technician's role in maintaining patient's rights</li> </ul>	
10	<p><b>Soft Skills &amp; Communication</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/N 2701, HSS/N 2703, HSS/N 2706, HSS/N 2710, HSS/N 2711, HSS/N 2713, HSS/N 9604</p>	<ul style="list-style-type: none"> <li>Understand Art of Effective Communication</li> <li>Able to handle effective Communication with Patients &amp; Family</li> <li>Able to handle effective Communication with Peers/ colleagues using medical terminology in communication</li> <li>Learn basic reading and writing skills</li> <li>Learn sentence formation</li> <li>Learn grammar and composition</li> <li>Learn how to enhance vocabulary</li> <li>Learn problem solving</li> <li>Understand need for customer service and service excellence in Medical service</li> <li>Understand work ethics in hospital set up</li> <li>Learn Goal setting, team building, team work, time management, thinking and reasoning &amp; communicating with others</li> </ul>	Self learning and understanding
11	<p><b>Role of the Dialysis Technician</b></p> <p><b>Theory Duration</b> (hh:mm) 05:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p>	<ul style="list-style-type: none"> <li>To develop broad understanding of the Role of DT</li> <li>To identify Dialysis maintenance needs to be taken care by DT</li> <li>To develop Understanding of Patient Comforts and Safety</li> <li>To exhibit Ethical Behaviour</li> </ul>	Brainstorming, chart presentation, discussions, visit to healthcare facility



S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Corresponding NOS Code</b></p> <p>Introduction</p>		
12	<p><b>Renal Failure And Management</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2708, HSS/N 2710, HSS/N 2711, HSS/ N 2703, HSS/ N 2704</p>	<ul style="list-style-type: none"> <li>To understand acute renal failure.</li> <li>To understand chronic renal failure characteristics and management.</li> <li>To understand the importance of Dialysis as a therapeutic measure for CRF.</li> </ul>	Internet use to learn theory, mannequin, chart presentation
13	<p><b>History And Introduction Of Hemodialysis</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> (HSS/ N 2702, HSS/ N 2704, HSS/ N 2706, HSS/ N 2709, HSS/ N 2712)</p>	<ul style="list-style-type: none"> <li>To develop understanding about history of Hemodialysis.</li> <li>To develop understanding of evolution of dialyzer.</li> </ul>	Internet use to learn theory, mannequin, chart presentation
14	<p><b>Principles Of Hemodialysis</b></p> <p><b>Theory Duration</b> (hh:mm) 08:00</p>	<ul style="list-style-type: none"> <li>To gain broad understanding of solute, solvents and semipermeable membrane.</li> <li>To learn Diffusion and Osmosis process.</li> <li>To gain broad understanding of Ultrafiltration, Adsorption and convection.</li> <li>To gain understanding of Electrolytes.</li> </ul>	Internet use to learn theory, mannequin, chart presentation

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Practical Duration</b> (hh:mm) 07:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2702, HSS/ N 2703, HSS/ N 2704, HSS/ N 2706, HSS/ N 2707</p>		
15	<p><b>Vascular Access</b></p> <p><b>Theory Duration</b> (hh:mm) 02:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2710, 2711, 2704, 2706</p>	<ul style="list-style-type: none"> <li>To learn about arterial and venous vasculature of the upper arm.</li> <li>To learn about temporary vascular access in detail.</li> <li>To learn about permanent vascular access in detail.</li> <li>To learn about monitoring and surveillance of vascular access</li> </ul>	Internet use to learn theory, mannequin, chart presentation, vascular and venous arms
16	<p><b>Anticoagulation In Hemodialysis</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2702, HSS/ N 2712</p>	<ul style="list-style-type: none"> <li>To learn about hemostasis and steps involved in hemostasis.</li> <li>To learn about various anticoagulant drugs used during hemodialysis.</li> <li>To learn about alternative anticoagulation measures.</li> <li>To gain broad understanding of heparin free Haemodialysis</li> </ul>	Internet use to learn theory, mannequin, chart presentation, anti-coagulant (Heparin)
17	<p><b>Dialyzer &amp; Extracorporeal Circuit</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p>	<ul style="list-style-type: none"> <li>To learn about types of dialyzer, components of dialyzer and characteristics of dialyzer.</li> <li>To learn about different membrane materials.</li> <li>To learn priming of dialyzer and extra corporeal circuit.</li> <li>To learn dialyzer reprocessing techniques( Both manual and automatic).</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Practical Duration</b> (hh:mm) 11:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2712, HSS/ N 2702</p>		
18	<p><b>Dialysate Composition In Hemodialysis</b></p> <p><b>Theory Duration</b> (hh:mm) 12:00</p> <p><b>Practical Duration</b> (hh:mm) 09:00</p> <p><b>Corresponding NOS Code</b> (HSS/ N 2702, HSS/ N 2709, HSS/ N 2711, HSS/ N 2712)</p>	<ul style="list-style-type: none"> <li>To learn about dialysate.</li> <li>To learn about the chemical composition of dialysate solutions.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine
19	<p><b>Dialysis Machine</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 10:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2702, HSS/ N 2704, HSS/ N 2706, HSS/ N 2709, HSS/ N 2712</p>	<ul style="list-style-type: none"> <li>To learn about various components of Dialysis machine.</li> <li>To learn functions of dialysis machine.</li> <li>To learn about the operation and maintenance of HD machine.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine
20	<p><b>Water Treatment For Hemodialysis</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 10:00</p>	<ul style="list-style-type: none"> <li>To learn about terminologies used in the dialysis water treatment system operation.</li> <li>To learn about mechanical components of a dialysis water treatment system.</li> <li>To learn about the operation and maintenance of a water treatment plant.</li> <li>To learn about microbiological monitoring of water treatment plant.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine, water treatment plant, RO water treatment

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Corresponding NOS Code</b> HSS/ N 2713, 9603, 9606</p>		
21	<p><b>Complications Of Hemodialysis And Management</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 10:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2705, HSS/ N 2707, HSS/ N 2708, HSS/ N 2711</p>	<ul style="list-style-type: none"> <li>To learn about various patient complications which occur during hemodialysis</li> <li>To learn about the management of patient complications during treatment.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine
22	<p><b>Infection Control In Hemodialysis Unit</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 10:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 9610</p>	<ul style="list-style-type: none"> <li>To learn about infection, mode of transmission and standard precautions in the dialysis unit (Pre, during &amp; post procedure)</li> <li>To learn safe injection practices.</li> <li>To learn aseptic AVF/AVG cannulation and decannulation procedure.</li> <li>To learn aseptic catheter care procedure.</li> <li></li> </ul>	Hand sanitizers, PPE, Hand washing techniques, steriliser, disinfectants, policies and procedures for infection control
23	<p><b>Peritoneal Dialysis(Pd)</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 10:00</p>	<ul style="list-style-type: none"> <li>To learn principles of PD.</li> <li>To learn aseptic PD procedure.</li> <li>To learn aseptic PD catheter care.</li> <li>To learn about PD complications and management.</li> <li>To learn about PD adequacy measuring protocols .</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine

S.No	Module	Key Learning Outcomes	Equipment Required
	<p>Corresponding NOS Code</p> <p>HSS/ N 2702, HSS/ N 2704, HSS/ N 2706, HSS/ N 2708</p>		
24	<p><b>Extra Corporeal Detoxification</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 10:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2702, HSS/ N 2707, HSS/ N 2709</p>	<ul style="list-style-type: none"> <li>To learn about extra corporeal detoxification and it's complications.</li> <li>To learn about Plasmapheresis</li> <li>To learn about Plasma Exchange</li> <li>To learn about various toxins which can be removed by extra corporeal detoxification</li> <li>To learn about different modalities for extra corporeal detoxification.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine
25	<p><b>Dialysis Modalities for ARF</b></p> <p><b>Theory Duration</b> (hh:mm) 20:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2701, HSS/ N 2705, HSS/ N 2708</p>	<ul style="list-style-type: none"> <li>To learn about Acute Renal Failure (ARF)</li> <li>To learn about principles behind continuous dialytic techniques or Continuous Renal Replacement Therapy (CRRT).</li> <li>To learn about different modalities and complications of CRRT.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine
26	<p><b>Care Of Patients On Dialysis</b></p> <p><b>Theory Duration</b> (hh:mm) 03:00</p>	<ul style="list-style-type: none"> <li>To learn about pre dialysis patient assessment.</li> <li>To learn about pre dialysis vascular access care.</li> <li>To learn about intra dialysis patient care.</li> <li>To learn about post dialysis patient care.</li> <li>To learn about pre, intra, post dialysis patient care in different settings.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Practical Duration</b> (hh:mm) 04:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2708, HSS/ N 2703, HSS/ N 2704, HSS/ N 9603</p>		
27	<p><b>Renal Transplant(Rt)</b></p> <p><b>Theory Duration</b> (hh:mm) 03:00</p> <p><b>Practical Duration</b> (hh:mm) 02:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2708, HSS/ N 2701</p>	<ul style="list-style-type: none"> <li>• Basic sensitization about Renal Transplantation</li> <li>• To learn about pre- requisite of renal transplant</li> <li>• To learn about various investigations required for transplantation.</li> <li>• Introduction to graft failure, graft rejection and their management.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine
28	<p><b>Urea Kinetic Modelling</b></p> <p><b>Theory Duration</b> (hh:mm) 12:00</p> <p><b>Practical Duration</b> (hh:mm) 03:00</p> <p><b>Corresponding NOS Code</b> HSS/N2711, HSS/N 2701, HSS/ N 2707</p>	<ul style="list-style-type: none"> <li>• To learn about characteristics of urea.</li> <li>• To learn about dialysis adequacy.</li> <li>• To learn about various methods used to measure dialysis adequacy.</li> <li>• To learn about fractional clearance index of urea or Kt/V.</li> <li>• To learn about urea reduction ratio(URR).</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine
29	<p><b>Dialysis Unit Management</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 15:00</p>	<ul style="list-style-type: none"> <li>• To learn about the general lay out of a dialysis facility/ unit.</li> <li>• To learn about general conditions required for a dialysis unit.</li> <li>• To learn about personnel required for the smooth operation of dialysis unit.</li> <li>• To learn about standards of dialysis unit.</li> </ul>	Internet use to learn theory, mannequin, chart presentation, dialysis machine

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Corresponding NOS Code</b> HSS/ N 2701, HSS/ N 2702, HSS/ N 2709, HSS/ N 9604, HSS/ N 9606, HSS/ N 9610</p>		
30	<p><b>Observing And Reporting</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 15:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2701, HSS/ N 2705, HSS/ N 2707, HSS/ N 2710, HSS/ N 9604</p>	<ul style="list-style-type: none"> <li>Understand the importance and method of observing and reporting while dealing with patients during pre and post dialysis</li> <li>Understand the importance and method of Observing and reporting while assisting the nephrologist and other members of the team during the dialysis</li> <li>Understand the importance and method of observing and reporting the adverse reactions/events.</li> <li>To learn about effective communication system in order to inform the person in authority</li> </ul>	Use of internet to adopt best practises across the world for professional etiquettes
31	<p><b>Documentation &amp; Records</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 2707, HSS/ N 2701, HSS/ N 2707</p>	<ul style="list-style-type: none"> <li>Understand guidelines for documentation</li> <li>Understand Guidelines for Collecting documentation</li> <li>Learn various types of records in Dialysis set up</li> <li>Understand use and importance of record maintenance in Dialysis set up</li> <li>Understand abbreviations and symbols</li> <li>Enter, transcribe, record, store, or maintain information in written or electronic/magnetic form</li> </ul>	Sample performa
32	<p><b>Professional Behaviour In Healthcare Setting</b></p> <p><b>Theory Duration</b> (hh:mm) 05:00</p>	<ul style="list-style-type: none"> <li>How to maintain restful environment</li> <li>Learn General and Specific etiquettes to be observed on duty</li> <li>Understand need for compliance of organizational hierarchy and reporting</li> <li>Understand the legal and ethical issues</li> <li>Understand importance of conservation of resources in dialysis unit</li> </ul>	Use of internet to adopt best practises across the world for professional etiquettes

S.No	Module	Key Learning Outcomes	Equipment Required
	<p><b>Practical Duration</b> (hh:mm) 05:00</p> <p><b>Corresponding NOS Code</b> HSS/ N 9604, HSS/ N 9606, HSS/ N 9609, HSS/ N 9603</p>		
	<p><b>Total Duration</b></p> <p><b>Theory Duration (hh:mm)</b> <b>360:00</b></p> <p><b>Practical Duration (hh:mm)</b> <b>240:00</b></p> <p><b>OJT Duration (hh:mm)</b> <b>800:00</b></p>	<p><b>Unique Equipment Required:</b></p> <p>DIALYSIS MACHINE, Custom made pressurised water loop for Hemodialysis Machine, Dialysate Filter, Sodium Hypochlorite Solution 10% V/V, Formaldehyde Solution, Paracetic Acid Solution, Acetic Acid/Vinegar, Dialyzer(Low Flux), HD Blood Tubing set, Transducer protectors(TP), IV set, 20 MI syringe, Standard unfractionated Injection Heparin 25000 IU, Normal Saline 1 Ltr Vac, Double Lumen Central venous catheter, Acid concentrate solution, Bicarbonate powder packets, Sterile Surgical gloves 7.5 Inch, Nonsterile Examination Gloves, AVF back eyed needle (16 G), Customised Mannequin for cannulation demonstration., Hydrogen Peroxide, Citro sterile solution, R.O.Plant, Antiscalent solution, K+ free can (29ltrs), AVF needles</p> <p><b>Class Room equipped with following arrangements:</b></p> <ul style="list-style-type: none"> <li>• Interactive lectures &amp; Discussion • Brain Storming</li> <li>• Charts &amp; Models • Activity</li> <li>• Video presentation • Visit to Primary Health Centre, Hospital set-up and Dialysis Centre</li> </ul> <p><b>Skill lab equipped with following arrangements:</b></p> <ul style="list-style-type: none"> <li>• Unique equipment as enlisted at the last • Practical Demonstration of various functions • Case study • Role play</li> </ul> <p>Reference's and use of internet</p>	

**Grand Total Course Duration: 1400:00 Hours (600 Hours for Class Room & Skill Lab Training + 800 Hours OJT/Internship/Clinical or Laboratory Training)**

***This syllabus/ curriculum has been approved by SSC: Healthcare Sector Skill Council***



## Trainer Prerequisites for Job role: “Dialysis Technician” mapped to Qualification Pack: “HSS/Q2701, version 1.0”

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 “ <a href="#">HSS/Q2701</a> ”.
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>	B.Sc. in dialysis technician or MBBS with three year of experience in dialysis center/department or BSc. nursing/ GNM with five year of experience in dialysis center/department  Specialist teachers or Dialysis technicians with experience of 5 years will be permitted to teach special topics. Topics related to Dialysis Machines operations and managements  Level 4 certified Dialysis Technician with minimum 5 years of experience.
4a	<b>Domain Certification</b>	Certified for Job Role: “ <a href="#">Dialysis Technician</a> ” mapped to QP: “ <a href="#">HSS/Q2701</a> ”, version 1.0 with scoring of minimum 85%.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “ <a href="#">SSC/Q1402</a> ” with scoring of minimum 90%.
5	<b>Experience</b>	Experience in teaching Dialysis Technician course <a href="#">HSS/Q2701</a>  5 years of experience for Level 4 certified Dialysis Technician <a href="#">HSS/Q2701</a>

## Annexure: Assessment Criteria

Assessment Criteria for Dialysis Technician	
Job Role	Dialysis Technician
Qualification Pack Code	HSS/Q 2701, version 1.0
Sector Skill Council	Healthcare Sector Skill Council

Sr. No.	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.	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4.	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5.	To pass the Qualification Pack, every trainee should score as per assessment grid.
6.	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

<b>Skills Practical and Viva (80% weightage)</b>	
	<b>Marks Allotted</b>
Grand Total-1 (Subject Domain)	400
Grand Total-2 (Soft Skills and Communication)	100
Grand Total-(Skills Practical and Viva)	500
Passing Marks (80% of Max. Marks)	400
<b>Theory (20% weightage)</b>	
	<b>Marks Allotted</b>
Grand Total-1 (Subject Domain)	80
Grand Total-2 (Soft Skills and Communication)	20
Grand Total-(Theory)	100
Passing Marks (50% of Max. Marks)	50
Grand Total-(Skills Practical and Viva + Theory)	600
<b>Overall Result</b>	<b>Criteria is to pass in both theory and practical individually. If fail in any one of them, then candidate is fail</b>
<b>Detailed Break Up of Marks</b>	<b>Skills Practical &amp; Viva</b>
<b>Subject Domain</b>	<b>Pick any 2 NOS each of 200 marks totaling 400</b>

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
1.HSS / N 2701 : Collect and assess the patient's chart and vitals	PC1. Read and understand the patients' reports	200	40	20	20
	PC2. Take measurements of non-invasive blood pressure, body temperature, body weight, breathing rate and/or other vital parameters, as appropriate		40	20	20
	PC3. Recognise the levels of vital parameters under which dialysis can be performed safely		50	20	30
	PC4. Identify and manage potential and actual risks to the quality and safety of work		30	10	20
	PC5. Maintain competence within one's role and field of practice		20	10	10
	PC6. Evaluate and reflect on the quality of one's work and make continuing improvements		20	10	10
			<b>200</b>	<b>90</b>	<b>110</b>
HSS / N 2702 : Manage dialysis machine set up and assemble the extracorporeal circuit	PC1. Needs to know and understand the mechanics and functioning of all parts of the dialysis machine being used	200	50	20	30
	PC2. Should know how to calibrate the machine without error		50	20	30
	PC3. Should ensure that the dialysis unit has been sterilised after previous use		40	10	30
	PC4. Should ensure that all the components required are adequately present		30	10	20
	PC5. Should know how to assemble and check the extracorporeal circuit parts i.e. the patient connectors, Dialyzer connectors, Drip chamber and bubble trap, Blood pump segment, Heparin infusion line, and saline infusion line		30	10	20
			200	70	130
3.HSS / N 2703 : Prepare and position the patient for treatment	PC1. Maintain patients' privacy	200	30	10	20
	PC2. Drape the patient such that it facilitates connecting the patient to the dialysis unit		30	10	20
	PC3. Explain the need to dress and be placed in particular position for dialysis to patient		40	20	20
	PC4. Perform actions gently to avoid causing pain specially taking care to not disturb any catheters, IV lines already present		50	20	30

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC5. Keep the patient in a comfortable posture		30	10	20
	PC6. Provide the appropriate linen including covering sheet depending on the patient (male, female, child) and should know from where to obtain the same		20	0	20
			200	70	130
.HSS / N 2704 : Connect patient to the dialysis machine	PC1. Use standard protocols for inserting IV lines and making connections to prevent infection and reduce discomfort to the patient	<b>200</b>	50	20	30
	PC2. Understand how to utilise existing catheters for performing dialysis		50	20	30
	PC3. Be aware of the protocol of starting the dialysis		50	20	30
	PC4. Minimise inconvenience and pain for the patient while performing the procedure		50	20	30
			200	80	120
5.HSS / N 2705 : Monitor technical/ clinical vitals during the treatment	PC1. Understand the various indicators, alarms and sensors of the dialysis machine	<b>200</b>	50	20	30
	PC2. Know the corrective steps to be taken when a particular alarm goes off		50	20	30
	PC3. Be alert and quick in his/her responses		50	20	30
	PC4. Know whom and how to inform in case of medical emergency		50	30	20
			200	90	110
6.HSS/ N 2706: Unhook patient from the machine	PC1. Know when dialysis is completed	<b>200</b>	50	20	30
	PC2. Detach all connections between patient and unit		50	10	40
	PC3. Carefully remove IV cannulas with minimum discomfort to patient		50	10	40
	PC4. Suitably dress the canola/ catheter to keep it sterile and pain- free for future use if the doctor/nurse instructs		30	10	20
	PC5. Understand needs of the patient and help them to be comfortable		20	10	10
				200	60
HSS / N 2707	PC1. Follow the right format for documenting the	<b>200</b>	50	20	30

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation				
				Viva	Skills Practical			
: Record the treatment	dialysis on the patient's chart							
	PC2. Record the components/ constituents and their quantities used					50	20	30
	PC3. Understand the importance of documenting the procedure on the patient's chart					50	30	20
	PC4. Record the quantity and type of constituents like dialysate, acid mixture etc. used during the process					50	30	20
						200	100	100
HSS/ N 2708: Conduct pre and post dialysis evaluation	PC1. Read and understand the patients' reports	<b>200</b>						
	PC2. Take measurements of non-invasive blood pressure, body temperature, body weight, breathing rate and/or other vital parameters, as appropriate					30	10	20
	PC3. Recognise the levels of vital parameters under which dialysis can be performed safely					40	15	25
	PC4. Be alert in noticing any change or distress in the patient during or after dialysis					40	10	30
	PC5. Communicate effectively with patient, doctors and nurses to enable quick remedial action					30	10	20
	PC6. Document the changes as per protocol					30	15	15
		200	70	130				
HSS/ N 2709: Maintain and disinfect the delivery system	PC1. Clean up any spillage	<b>200</b>						
	PC2. Know when the dialysate, dialyzer or other constituents need to be replaced					50	20	30
	PC3. Follow standard sterilisation and cleaning procedure for the unit					30	10	20
	PC4. Disinfect dialysis machine according to the manufacturer's recommendations					40	20	20
	PC5. The dialysate circuit should be exposed to disinfectant					30	10	20
		200	85	115				
HSS/ N 2710: Evaluate and prepare the site for	PC1. Describe the three main types of vascular access (fistulae, grafts and catheters)	<b>200</b>						
	PC2. Identify the predialysis assessments for all types of vascular access.					10	5	5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
cannulation	PC3. Describe the methods of needle insertion for AVFs and grafts.		10	5	5
	PC4. Describe the predialysis assessment, accessing procedure, exit site care, and monitoring of catheters		10	5	5
	PC5. Describe how fistulae are created and the pros and cons of these		10	5	5
	PC6. Assess the maturity of a fistula		5	3	2
	PC7. Describe how grafts are created and the pros and cons of these		10	7	3
	PC8. Describe how catheters are placed and the various methods of catheter placement (both short and long term)		10	5	5
	PC9. Describe the pros and cons of catheters		5	3	2
	PC10. Describe the types of catheter and port/catheter devices		10	5	5
	PC11. Assess a fistula or graft prior to each treatment by inspecting (looking for infection, steal syndrome, stenosis, etc.), auscultating (listening for bruit and deep access location), and palpating (feeling for skin temperature, thrill, stenosis, vein diameter etc.) the access		10	5	5
	PC12. Assess the blood flow before inserting a needle into the fistula/ graft		5	2	3
	PC13. Assess catheters prior to dialysis treatment		5	2	3
	PC14. Describe the considerations for accessing catheters and cleansing exit sites		5	2	3
	PC15. Describe the various methods for preparing a patient's skin for cannulation		5	2	3
	PC16. Prepare a patient's skin for cannulation using anti-bacterial solutions		10	4	6
	PC17. Apply a tourniquet		5	1	4
	PC18. Select a site for cannulation and insert a needle into the patient's vein		5	1	4
	PC19. Understand the concept of Antegrade and retrograde needle direction		10	8	2
	PC20. Understand how to rotate cannulation sites for fistulae and grafts		10	3	7

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC21. Secure needles after insertion		10	4	6
	PC22. Describe common complications that occur due to: a. Fistulae, grafts and catheters b) b. Poor needle site rotation, c) c. Dialysis		10	5	5
	PC23. Monitor catheters during the treatments		10	3	7
	PC24. Describe post-dialysis care for fistulae, catheters and grafts		10	5	5
			200	95	105
HSS/ N 2711: Respond to dialysis related emergencies in patient and equipment	PC1. Clean up any spillage	<b>200</b>	30	10	20
	PC2. Know when the dialysate, dialyzer or other constituents need to be replaced		50	30	20
	PC3. Follow standard sterilisation and cleaning procedure for the unit		30	10	20
	PC4. Disinfect dialysis machine according to the manufacturer's recommendations		50	20	30
	PC5. The dialysate circuit should be exposed to disinfectant		40	10	30
			200	80	120
HSS/ N 2712: Reprocess dialyser treatment guidelines.	PC1. Clean up any spillage	<b>200</b>	30	10	20
	PC2. Know when the dialysate, dialyzer or other constituents need to be replaced		50	30	20
	PC3. Follow standard sterilisation and cleaning procedure for the unit		30	10	20
	PC4. Disinfect dialysis machine according to the manufacturer's recommendations		50	20	30
	PC5. The dialysate circuit should be exposed to disinfectant		40	10	30
			200	80	120
HSS/ N 2713: Operate and maintain water treatment plant	PC1. Check the incoming water temperature	<b>200</b>	10	2	8
	PC2. Look around the RO(reverse osmosis) system for any visible fluid leaks		20	5	15
	PC3. Check and record the pressure gauge		20	5	15
	PC4. Measure and record the pressures before and after the endotoxin filter		10	5	5



Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC5. Record all checks, including time and initials, on the Daily Dialysis Water Equipment Monitoring Log Sheet		20	5	15
	PC6. Check and record the pump, reject, and product pressures		10	5	5
	PC7. Check and record the recycle, waste, and permeate flow rates		10	5	5
	PC8. Check and record the inlet and permeate conductivities		10	5	5
	PC9. Read the RO monitor and record the conductivity and percent rejection		10	2	8
	PC10. Check and record the pump run hours		10	5	5
	PC11. Check the multi-media sediment filter		10	5	5
	PC12. Measure and record the pressures before and after the multi-media filter		10	5	5
	PC13. Check the water softener		10	2	8
	PC14. Measure and record the pressures before and after the water softener		10	5	5
	PC15. Check and record the setting for the regeneration timer. The timer should be set to activate when the facility, especially the RO, is not operating		20	5	5
	PC16. Check the brine tank		10	2	8
	<b>Total</b>		200	70	130
HSS/ N 9610 (Follow infection control policies and procedures)	PC1. Perform the standard precautions to prevent the spread of infection in accordance with organisation requirements	<b>200</b>	5	0	5
	PC2. Perform the additional precautions when standard precautions alone may not be sufficient to prevent transmission of infection		5	0	5
	PC3. Minimise contamination of materials, equipment and instruments by aerosols and splatter		5	5	0
	PC4. Identify infection risks and implement an appropriate response within own role and responsibility		20	10	10
	PC5. Document and report activities and tasks that put patients and/or other workers at risk		5	0	5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC6. Respond appropriately to situations that pose an infection risk in accordance with the policies and procedures of the organization		5	0	5
	PC7. Follow procedures for risk control and risk containment for specific risks		10	0	10
	PC8. Follow protocols for care following exposure to blood or other body fluids as required		10	0	10
	PC9. Place appropriate signs when and where appropriate		20	10	10
	PC10. Remove spills in accordance with the policies and procedures of the organization		5	0	5
	PC11. Maintain hand hygiene by washing hands before and after patient contact and/or after any activity likely to cause contamination		5	0	5
	PC12. Follow hand washing procedures		5	0	5
	PC13. Implement hand care procedures		5	0	5
	PC14. Cover cuts and abrasions with water-proof dressings and change as necessary		5	5	0
	PC15. Wear personal protective clothing and equipment that complies with Indian Standards, and is appropriate for the intended use		5	0	5
	PC16. Change protective clothing and gowns/aprons daily, more frequently if soiled and where appropriate, after each patient contact		5	0	5
	PC17. Demarcate and maintain clean and contaminated zones in all aspects of health care work				
	PC18. Confine records, materials and medicaments to a well-designated clean zone		20	10	10
	PC19. Confine contaminated instruments and equipment to a well-designated contaminated zone				
	PC20. Wear appropriate personal protective clothing and equipment in accordance with occupational health and safety policies and procedures when handling waste		5	0	5
	PC21. Separate waste at the point where it has been generated and dispose of into waste containers that are colour coded and identified		5	0	5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC22. Store clinical or related waste in an area that is accessible only to authorised persons		5	5	0
	PC23. Handle, package, label, store, transport and dispose of waste appropriately to minimise potential for contact with the waste and to reduce the risk to the environment from accidental release		5	0	5
	PC24. Dispose of waste safely in accordance with policies and procedures of the organisation and legislative requirements		5	5	0
	PC25. Wear personal protective clothing and equipment during cleaning procedures		5	0	5
	PC26. Remove all dust, dirt and physical debris from work surfaces		5	0	5
	PC27. Clean all work surfaces with a neutral detergent and warm water solution before and after each session or when visibly soiled		5	0	5
	PC28. Decontaminate equipment requiring special processing in accordance with quality management systems to ensure full compliance with cleaning, disinfection and sterilisation protocols		5	0	5
	PC29. Dry all work surfaces before and after use		5	0	5
	PC30. Replace surface covers where applicable		5	0	5
	PC31. Maintain and store cleaning equipment		5	5	0
<b>Total</b>			200	55	145
<b>Grand Total-1 (Subject Domain)</b>		<b>400</b>			
<b>Soft Skills and Communication</b>		<b>Pick one field from both parts each carrying 50 marks totaling 100</b>			

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
<b>Part 1 (Pick one field randomly carrying 50 marks)</b>					
<b>1. Attitude</b>					
HSS/ N 9603 (Act within the limits of one's competence and authority)	PC1. Adhere to legislation, protocols and guidelines relevant to one's role and field of practice	<b>50</b>	5	2	3
	PC2. Work within organisational systems and requirements as appropriate to one's role		5	2	3
	PC3. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority		10	5	5
	PC4. Maintain competence within one's role and field of practice		5	3	2
	PC5. Use relevant research based protocols and guidelines as evidence to inform one's practice		5	2	3
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		10	5	5
	PC7. Identify and manage potential and actual risks to the quality and safety of practice		5	3	2
	PC8. Evaluate and reflect on the quality of one's work and make continuing improvements		5	2	3
			50	24	26
<b>Attitude Total</b>		<b>50</b>			
<b>Part 2 (Pick one field as per NOS marked carrying 50 marks)</b>					
<b>1. Team Work</b>					
HSS/ N 9604 (Work effectively with others)	PC1. Communicate with other people clearly and effectively	<b>50</b>	3	0	3
	PC2. Integrate one's work with other people's work effectively		3	0	3
	PC3. Pass on essential information to other people on timely basis		3	0	3
	PC4. Work in a way that shows respect for other people		3	0	3
	PC5. Carry out any commitments made to other people		6	6	0

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
	PC6. Reason out the failure to fulfil commitment		6	6	0
	PC7. Identify any problems with team members and other people and take the initiative to solve these problems		16	8	8
	PC8. Follow the organisation's policies and procedures		10	4	6
			50	24	26
<b>2. Safety management</b>					
HSS/ N 9606 (Maintain a safe, healthy, and secure working environment )	PC1. Identify individual responsibilities in relation to maintaining workplace health safety and security requirements	<b>50</b>	6	2	4
	PC2. Comply with health, safety and security procedures for the workplace		4	0	4
	PC3. Report any identified breaches in health, safety, and security procedures to the designated person		4	3	1
	PC4. Identify potential hazards and breaches of safe work practices		6	4	2
	PC5. Correct any hazards that individual can deal with safely, competently and within the limits of authority		6	4	2
	PC6. Promptly and accurately report the hazards that individual is not allowed to deal with, to the relevant person and warn other people who may get affected		6	4	2
	PC7. Follow the organisation's emergency procedures promptly, calmly, and efficiently		6	2	4
	PC8. Identify and recommend opportunities for improving health, safety, and security to the designated person		6	4	2
	PC9. Complete any health and safety records legibly and accurately		6	2	4
			50	25	25
<b>Waste Management</b>					
HSS/ N 9609 (Follow biomedical	PC1. Follow the appropriate procedures, policies and protocols for the method of collection and containment level according to the waste type	<b>50</b>	6	2	4

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
waste disposal protocols)	PC2. Apply appropriate health and safety measures and standard precautions for infection prevention and control and personal protective equipment relevant to the type and category of waste		8	4	4
	PC3. Segregate the waste material from work areas in line with current legislation and organisational requirements		4	0	4
	PC4. Segregation should happen at source with proper containment, by using different colour coded bins for different categories of waste		8	4	4
	PC5. Check the accuracy of the labelling that identifies the type and content of waste		4	2	2
	PC6. Confirm suitability of containers for any required course of action appropriate to the type of waste disposal		4	4	0
	PC7. Check the waste has undergone the required processes to make it safe for transport and disposal		4	4	0
	PC8. Transport the waste to the disposal site, taking into consideration its associated risks		4	4	0
	PC9. Report and deal with spillages and contamination in accordance with current legislation and procedures		4	4	0
	PC10. Maintain full, accurate and legible records of information and store in correct location in line with current legislation, guidelines, local policies and protocols		4	4	0
			50	32	18
<b>4. Quality Assurance</b>					
HSS/ N 9611: Monitor and assure quality	PC1. Conduct appropriate research and analysis	50	6	2	4
	PC2. Evaluate potential solutions thoroughly		8	4	4
	PC3. Participate in education programs which include current techniques, technology and trends pertaining to the dental industry		4	0	4
	PC4. Read Dental hygiene, dental and medical publications related to quality consistently and thoroughly		8	4	4
	PC5. Report any identified breaches in health, safety, and security procedures to the designated		4	2	2

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
	person				
	PC6. Identify and correct any hazards that he/she can deal with safely, competently and within the limits of his/her authority		4	4	0
	PC7. Promptly and accurately report any hazards that he/she is not allowed to deal with to the relevant person and warn other people who may be affected		4	4	0
	PC8. Follow the organisation's emergency procedures promptly, calmly, and efficiently		4	4	0
	PC9. Identify and recommend opportunities for improving health, safety, and security to the designated person		4	4	0
	PC10. Complete any health and safety records legibly and accurately		4	4	0
	<b>Total</b>		50	32	18
<b>Grand Total-2 (Soft Skills and Communication)</b>			<b>100</b>		
<b>Detailed Break Up of Marks</b>			<b>Theory</b>		
<b>Subject Domain</b>			<b>Pick all NOS totaling 80</b>		

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
1.HSS / N 2701 : Collect and assess the patient's chart and vitals	PC1. Read and understand the patients' reports	5	1
	PC2. Take measurements of non-invasive blood pressure, body temperature, body weight, breathing rate and/or other vital parameters, as appropriate		1
	PC3. Recognise the levels of vital parameters under which dialysis can be performed safely		1
	PC4. Identify and manage potential and actual risks to the quality and safety of work		1
	PC5. Maintain competence within one's role and field of practice		1
	PC6. Evaluate and reflect on the quality of one's work and make continuing improvements		0
	5		
2. HSS / N 2702 : Manage dialysis machine set up and assemble the extracorporeal circuit	PC1. Needs to know and understand the mechanics and functioning of all parts of the dialysis machine being used	5	1
	PC2. Should know how to calibrate the machine without error		1
	PC3. Should ensure that the dialysis unit has been sterilised after previous use		1
	PC4. Should ensure that all the components required are adequately present		1
	PC5. Should know how to assemble and check the extracorporeal circuit parts i.e. the patient connectors, Dialyzer connectors, Drip chamber and bubble trap, Blood pump segment, Heparin infusion line, and saline infusion line		1
			5
3.HSS / N 2703 : Prepare and position the patient for treatment	PC1. Maintain patients' privacy	10	4
	PC2. Drape the patient such that it facilitates connecting the patient to the dialysis unit		2
	PC3. Explain the need to dress and be placed in particular position for dialysis to patient		5
	PC4. Perform actions gently to avoid causing pain specially taking care to not disturb any catheters, IV lines already present		5



Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
	PC5. Keep the patient in a comfortable posture		2
	PC6. Provide the appropriate linen including covering sheet depending on the patient (male, female, child) and should know from where to obtain the same		2
	10		
4.HSS / N 2704 : Connect patient to the dialysis machine	PC1. Use standard protocols for inserting IV lines and making connections to prevent infection and reduce discomfort to the patient	<b>10</b>	3
	PC2. Understand how to utilise existing catheters for performing dialysis		2
	PC3. Be aware of the protocol of starting the dialysis		2
	PC4. Minimise inconvenience and pain for the patient while performing the procedure		3
	10		
5.HSS / N 2705 : Monitor technical/ clinical vitals during the treatment	PC1. Understand the various indicators, alarms and sensors of the dialysis machine	<b>5</b>	1
	PC2. Know the corrective steps to be taken when a particular alarm goes off		2
	PC3. Be alert and quick in his/her responses		1
	PC4. Know whom and how to inform in case of medical emergency		1
	<b>5</b>		
6.HSS/ N 2706: Unhook patient from the machine	PC1. Know when dialysis is completed	<b>5</b>	1
	PC2. Detach all connections between patient and unit		1
	PC3. Carefully remove IV cannulas with minimum discomfort to patient		1
	PC4. Suitably dress the canola/ catheter to keep it sterile and pain- free for future use if the doctor/nurse instructs		1
	PC5. Understand needs of the patient and help them to be comfortable		1
	<b>5</b>		
7.HSS / N 2707 : Record the	PC1. Follow the right format for documenting the dialysis on the patient's chart	<b>5</b>	1

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
treatment	PC2. Record the components/ constituents and their quantities used	5	1
	PC3. Understand the importance of documenting the procedure on the patient's chart		2
	PC4. Record the quantity and type of constituents like dialysate, acid mixture etc. used during the process		1
	<b>5</b>		
8.HSS/ N 2708: Conduct pre and post dialysis evaluation	PC1. Read and understand the patients' reports	5	1
	PC2. Take measurements of non-invasive blood pressure, body temperature, body weight, breathing rate and/or other vital parameters, as appropriate		1
	PC3. Recognise the levels of vital parameters under which dialysis can be performed safely		1
	PC4. Be alert in noticing any change or distress in the patient during or after dialysis		1
	PC5. Communicate effectively with patient, doctors and nurses to enable quick remedial action		0
	PC6. Document the changes as per protocol		1
<b>5</b>			
9. HSS/ N 2709: Maintain and disinfect the delivery system	PC1. Clean up any spillage	5	1
	PC2. Know when the dialysate, dialyzer or other constituents need to be replaced		1
	PC3. Follow standard sterilisation and cleaning procedure for the unit		1
	PC4. Disinfect dialysis machine according to the manufacturer's recommendations		1
	PC5. The dialysate circuit should be exposed to disinfectant		1
<b>5</b>			
10. HSS/ N 2710: Evaluate and prepare the site for cannulation	PC1. Describe the three main types of vascular access (fistulae, grafts and catheters)	5	0.5
	PC2. Identify the predialysis assessments for all types of vascular access.		0
	PC3. Describe the methods of needle insertion for AVFs and grafts.		0

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
	PC4. Describe the predialysis assessment, accessing procedure, exit site care, and monitoring of catheters		0
	PC5. Describe how fistulae are created and the pros and cons of these		0.5
	PC6. Assess the maturity of a fistula		0
	PC7. Describe how grafts are created and the pros and cons of these		0.5
	PC8. Describe how catheters are placed and the various methods of catheter placement (both short and long term)		0.5
	PC9. Describe the pros and cons of catheters		0.5
	PC10. Describe the types of catheter and port/catheter devices		0.5
	PC11. Assess a fistula or graft prior to each treatment by inspecting (looking for infection, steal syndrome, stenosis, etc.), auscultating (listening for bruit and deep access location), and palpating (feeling for skin temperature, thrill, stenosis, vein diameter etc.) the access		0
	PC12. Assess the blood flow before inserting a needle into the fistula/ graft		0
	PC13. Assess catheters prior to dialysis treatment		0
	PC14. Describe the considerations for accessing catheters and cleansing exit sites		0.5
	PC15. Describe the various methods for preparing a patient's skin for cannulation		0.5
	PC16. Prepare a patient's skin for cannulation using anti-bacterial solutions		0
	PC17. Apply a tourniquet		0
	PC18. Select a site for cannulation and insert a needle into the patient's vein		0
	PC19. Understand the concept of Antegrade and retrograde needle direction		0.5
	PC20. Understand how to rotate cannulation sites for fistulae and grafts		0.5
	PC21. Secure needles after insertion		0
	PC22. Describe common complications that occur due to: a. Fistulae, grafts and catheters b) b. Poor needle site rotation,		0

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
	c) c. Dialysis		
	PC23. Monitor catheters during the treatments		0
	PC24. Describe post-dialysis care for fistulae, catheters and grafts		0
	<b>5</b>		
11. HSS/ N 2711: Respond to dialysis related emergencies in patient and equipment	PC1. Clean up any spillage	<b>5</b>	1
	PC2. Know when the dialysate, dialyzer or other constituents need to be replaced		1
	PC3. Follow standard sterilisation and cleaning procedure for the unit		1
	PC4. Disinfect dialysis machine according to the manufacturer's recommendations		1
	PC5. The dialysate circuit should be exposed to disinfectant		1
	<b>5</b>		
12. HSS/ N 2712: Reprocess dialyser treatment guidelines.	PC1. Clean up any spillage	<b>5</b>	1
	PC2. Know when the dialysate, dialyzer or other constituents need to be replaced		1
	PC3. Follow standard sterilisation and cleaning procedure for the unit		1
	PC4. Disinfect dialysis machine according to the manufacturer's recommendations		1
	PC5. The dialysate circuit should be exposed to disinfectant		1
	<b>5</b>		
13. HSS/ N 2713: Operate and maintain water treatment plant	PC1. Check the incoming water temperature	<b>5</b>	0
	PC2. Look around the RO(reverse osmosis) system for any visible fluid leaks		0
	PC3. Check and record the pressure gauge		0
	PC4. Measure and record the pressures before and after the endotoxin filter		0
	PC5. Record all checks, including time and initials, on the Daily Dialysis Water Equipment Monitoring Log Sheet		0.5
	PC6. Check and record the pump, reject, and product		0
	<b>5</b>		

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
	pressures		
	PC7. Check and record the recycle, waste, and permeate flow rates		0
	PC8. Check and record the inlet and permeate conductivities		0
	PC9. Read the RO monitor and record the conductivity and percent rejection		0
	PC10. Check and record the pump run hours		0.5
	PC11. Check the multi-media sediment filter		0
	PC12. Measure and record the pressures before and after the multi-media filter		1
	PC13. Check the water softener		0
	PC14. Measure and record the pressures before and after the water softener		1
	PC15. Check and record the setting for the regeneration timer. The timer should be set to activate when the facility, especially the RO, is not operating		1
	PC16. Check the brine tank		1
	<b>5</b>		
14. HSS/ N 9610 (Follow infection control policies and procedures)	PC1. Perform the standard precautions to prevent the spread of infection in accordance with organisation requirements	<b>5</b>	0.5
	PC2. Perform the additional precautions when standard precautions alone may not be sufficient to prevent transmission of infection		0.5
	PC3. Minimise contamination of materials, equipment and instruments by aerosols and splatter		0
	PC4. Identify infection risks and implement an appropriate response within own role and responsibility		0.5
	PC5. Document and report activities and tasks that put patients and/or other workers at risk		0
	PC6. Respond appropriately to situations that pose an infection risk in accordance with the policies and procedures of the organization		0
	PC7. Follow procedures for risk control and risk containment for specific risks		0.5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
	PC8. Follow protocols for care following exposure to blood or other body fluids as required		0.5
	PC9. Place appropriate signs when and where appropriate		0.5
	PC10. Remove spills in accordance with the policies and procedures of the organization		0
	PC11. Maintain hand hygiene by washing hands before and after patient contact and/or after any activity likely to cause contamination		0
	PC12. Follow hand washing procedures		0
	PC13. Implement hand care procedures		0
	PC14. Cover cuts and abrasions with water-proof dressings and change as necessary		0
	PC15. Wear personal protective clothing and equipment that complies with Indian Standards, and is appropriate for the intended use		0.5
	PC16. Change protective clothing and gowns/aprons daily, more frequently if soiled and where appropriate, after each patient contact		0
	PC17. Demarcate and maintain clean and contaminated zones in all aspects of health care work		0
	PC18. Confine records, materials and medicaments to a well-designated clean zone		0
	PC19. Confine contaminated instruments and equipment to a well-designated contaminated zone		0
	PC20. Wear appropriate personal protective clothing and equipment in accordance with occupational health and safety policies and procedures when handling waste		0
	PC21. Separate waste at the point where it has been generated and dispose of into waste containers that are colour coded and identified		0.5
	PC22. Store clinical or related waste in an area that is accessible only to authorised persons		0
	PC23. Handle, package, label, store, transport and dispose of waste appropriately to minimise potential for contact with the waste and to reduce the risk to the environment from accidental release		0
	PC24. Dispose of waste safely in accordance with policies and		0

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
	procedures of the organisation and legislative requirements		
	PC25. Wear personal protective clothing and equipment during cleaning procedures		0
	PC26. Remove all dust, dirt and physical debris from work surfaces		0
	PC27. Clean all work surfaces with a neutral detergent and warm water solution before and after each session or when visibly soiled		0
	PC28. Decontaminate equipment requiring special processing in accordance with quality management systems to ensure full compliance with cleaning, disinfection and sterilisation protocols		0.5
	PC29. Dry all work surfaces before and after use		0
	PC30. Replace surface covers where applicable		0
	PC31. Maintain and store cleaning equipment		0.5
	<b>5</b>		
	<b>Total</b>		<b>80</b>
	<b>Grand Total-1 (Subject Domain)</b>		
	<b>Soft Skills and Communication</b>		<b>Pick all NOS totaling 20</b>

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (20)	Marks Allocation
			Theory
<b>Part 1 (Pick one field randomly carrying 50 marks)</b>			
<b>1. Attitude</b>			
HSS/ N 9603 (Act within the limits of one's competence and authority)	PC1. Adhere to legislation, protocols and guidelines relevant to one's role and field of practice	<b>5</b>	0
	PC2. Work within organisational systems and requirements as appropriate to one's role		1
	PC3. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority		1
	PC4. Maintain competence within one's role and field of practice		0
	PC5. Use relevant research based protocols and guidelines as evidence to inform one's practice		0
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		1
	PC7. Identify and manage potential and actual risks to the quality and safety of practice		1
	PC8. Evaluate and reflect on the quality of one's work and make continuing improvements		1
<b>Attitude Total</b>			
<b>Part 2 (Pick one field as per NOS marked carrying 50 marks)</b>			
<b>1. Team Work</b>			
HSS/ N 9604 (Work effectively with others)	PC1. Communicate with other people clearly and effectively	<b>5</b>	1
	PC2. Integrate one's work with other people's work effectively		0
	PC3. Pass on essential information to other people on timely basis		0
	PC4. Work in a way that shows respect for other people		1
	PC5. Carry out any commitments made to other people		0
	PC6. Reason out the failure to fulfil commitment		1
	PC7. Identify any problems with team members and other people and take the initiative to solve these problems		1



Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (20)	Marks Allocation
			Theory
	PC8. Follow the organisation’s policies and procedures		1
<b>2. Safety management</b>			
HSS/ N 9606 (Maintain a safe, healthy, and secure working environment)	PC1. Identify individual responsibilities in relation to maintaining workplace health safety and security requirements	<b>5</b>	1
	PC2. Comply with health, safety and security procedures for the workplace		0
	PC3. Report any identified breaches in health, safety, and security procedures to the designated person		1
	PC4. Identify potential hazards and breaches of safe work practices		1
	PC5. Correct any hazards that individual can deal with safely, competently and within the limits of authority		1
	PC6. Promptly and accurately report the hazards that individual is not allowed to deal with, to the relevant person and warn other people who may get affected		0
	PC7. Follow the organisation’s emergency procedures promptly, calmly, and efficiently		0
	PC8. Identify and recommend opportunities for improving health, safety, and security to the designated person		0
	PC9. Complete any health and safety records legibly and accurately		0
<b>Waste Management</b>			
HSS/ N 9609 (Follow biomedical waste disposal protocols)	PC1. Follow the appropriate procedures, policies and protocols for the method of collection and containment level according to the waste type	<b>2.5</b>	0
	PC2. Apply appropriate health and safety measures and standard precautions for infection prevention and control and personal protective equipment relevant to the type and category of waste		0
	PC3. Segregate the waste material from work areas in line with current legislation and organisational requirements		0.5
	PC4. Segregation should happen at source with proper containment, by using different colour coded bins for		0.5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (20)	Marks Allocation
			Theory
	different categories of waste		
	PC5. Check the accuracy of the labelling that identifies the type and content of waste		0.5
	PC6. Confirm suitability of containers for any required course of action appropriate to the type of waste disposal		0
	PC7. Check the waste has undergone the required processes to make it safe for transport and disposal		0.5
	PC8. Transport the waste to the disposal site, taking into consideration its associated risks		0.5
	PC9. Report and deal with spillages and contamination in accordance with current legislation and procedures		0
	PC10. Maintain full, accurate and legible records of information and store in correct location in line with current legislation, guidelines, local policies and protocols		0
	<b>5</b>		2.5
<b>4. Quality Assurance</b>			
HSS/ N 9611: Monitor and assure quality	PC1. Conduct appropriate research and analysis	<b>2.5</b>	0
	PC2. Evaluate potential solutions thoroughly		0
	PC3. Participate in education programs which include current techniques, technology and trends pertaining to the dental industry		0.5
	PC4. Read Dental hygiene, dental and medical publications related to quality consistently and thoroughly		0.5
	PC5. Report any identified breaches in health, safety, and security procedures to the designated person		0
	PC6. Identify and correct any hazards that he/she can deal with safely, competently and within the limits of his/her authority		0
	PC7. Promptly and accurately report any hazards that he/she is not allowed to deal with to the relevant person and warn other people who may be affected		0.5
	PC8. Follow the organisation's emergency procedures promptly, calmly, and efficiently		0.5
	PC9. Identify and recommend opportunities for improving health, safety, and security to the designated person		0
	PC10. Complete any health and safety records legibly and		0.5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (20)	Marks Allocation
			Theory
	accurately		
	<b>Total</b>	<b>5</b>	<b>2.5</b>
<b>Grand Total-2 (Soft Skills and Communication)</b>		<b>20</b>	
<b>Skills Practical and Viva (80% weightage)</b>			
		<b>Marks Allotted</b>	
<b>Grand Total-1 (Subject Domain)</b>		<b>400</b>	
<b>Grand Total-2 (Compulsory NOS)</b>		<b>10</b>	
<b>Grand Total-3 (Soft Skills and Communication)</b>		<b>90</b>	
<b>Grand Total-(Skills Practical and Viva)</b>		<b>500</b>	
<b>Passing Marks (80% of Max. Marks)</b>		<b>400</b>	
<b>Theory (20% weightage)</b>			
		<b>Marks Allotted</b>	
<b>Grand Total-1 (Subject Domain)</b>		<b>80</b>	
<b>Grand Total-2 (Soft Skills and Communication)</b>		<b>20</b>	
<b>Grand Total-(Theory)</b>		<b>100</b>	
<b>Passing Marks (50% of Max. Marks)</b>		<b>50</b>	
<b>Grand Total-(Skills Practical and Viva + Theory)</b>		<b>600</b>	
<b>Overall Result</b>	<b>Criteria is to pass in both theory and practical individually. If fail in any one of them, then candidate is fail</b>		
<b>Detailed Break Up of Marks</b>	<b>Skills Practical &amp; Viva</b>		
<b>Subject Domain</b>	<b>Pick any 2 NOS each of 200 marks totalling 400</b>		

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
1. HSS/ N 2301 (Respond to Emergency Calls)	PC1. Understand the emergency codes used in the hospital for emergency situations	200	10	10	0
	PC2. Reflect professionalism through use of appropriate language while speaking to the dispatch team		4	0	4
	PC3. Use communication equipment such as mobile phones, radio communication equipment, megaphones and other equipment as required by the EMS provider		10	2	8
	PC4. Evaluate the situation of the patient(s) on the basis of the call with the dispatch centre		10	2	8
	PC5. Demonstrate teamwork while preparing for an emergency situation with a fellow EMT and/or a nurse		4	0	4
	PC6. Recognise the boundary of one's role and responsibility and seek supervision from the medical officer on duty when situations are beyond one's competence and authority		4	0	4
	PC7. Prepare for the emergency by practicing Body Substance Isolation (BSI). This includes putting on:				
	a. Hospital Gowns		10	0	10
	b. Medical Gloves		10	0	10
	c. Shoe Covers		10	0	10
	d. Surgical Masks		10	0	10
	e. Safety Glasses		10	0	10
	f. Helmets		10	0	10
	g. Reflective Clothing		10	0	10
PC8. Prepare the ambulance with the required medical equipment and supplies as per the medical emergency. A large selection of equipment and supplies specialised for Emergency Medical Services include diagnostic kits, disposables, and patient care products. The EMT should ensure all materials, supplies, medications and other items required for Basic Life Support (BLS) have been stocked in the Ambulance	40	4	36		

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC9. Demonstrate active listening in interactions with the dispatch team, colleagues and the medical officer		10	0	10
	PC10. Establish trust and rapport with colleagues		4	0	4
	PC11. Maintain competence within one's role and field of practice		4	0	4
	PC12. Promote and demonstrate good practice as an individual and as a team member at all times		4	0	4
	PC13. Identify and manage potential and actual risks to the quality and safety of practice		10	6	4
	PC14. Evaluate and reflect on the quality of one's work and make continuing improvements		4	0	4
	PC15. Understand basic medico-legal principles		8	8	0
	PC16. Function within the scope of care as defined by state, regional and local regulatory agencies		4	4	0
	<b>Total</b>		200	36	164
2. HSS/ N 2304 (Assess Patient at the site)	PC1. Explain clearly:	<b>200</b>			
	o An EMT's role and scope, responsibilities and accountability in relation to the assessment of health status and needs		4	4	0
	o What information need to be obtained and stored in records		4	4	0
	o With whom the information might be shared		4	4	0
	o What is involved in the assessment		4	4	0
	PC2. Obtain informed consent of the patient for the assessment process, unless impossible as a consequence of their condition		4	2	2
	PC3. Conduct all observations and measurements systematically and thoroughly in order of priority (including Airway, Breathing, Circulation)		25	5	20
	PC4. Respect the patient's privacy, dignity, wishes and beliefs		2	0	2
	PC5. Minimise any unnecessary discomfort and encourage the patient to participate as fully as possible in the process		2	0	2

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC6. Communicate with the patient clearly and in a manner and pace that is appropriate to:				
	o Their level of understanding		2	0	2
	o Their culture and background				
	o Their need for reassurance and support				
	PC7. Recognise promptly any life-threatening or high risk conditions		5	1	4
	PC8. Make full and effective use of any protocols, guidelines and other sources of guidance and advice to inform decision making		4	2	2
	PC9. Assess the condition of the patient by:				
	o Observing patient position		10	2	8
	o Observing the colour of the skin as well as ease of breathing and paying attention to any signs of laboured breathing or coughing		10	2	8
	o Checking if there is any bleeding from the nose or ears		10	2	8
	Looking at the pupil dilation/difference in pupil sizes, as it may be suggestive of concussion		10	2	8
	Checking if the patient is under the effect of alcohol or any other drug		10	2	8
	Checking the patient's mouth to ensure the airway is clear		10	2	8
	Gently checking the neck, starting from the back		10	2	8
	Checking for any swelling or bruises		10	2	8
	Checking the chest to ascertain if any object is stuck		10	2	8
	Checking the ribcage for bruising or swelling and the abdomen for any kind of swelling or lumps		10	2	8
	Checking for any damage to the pelvis		10	2	8
	Asking the victim if they are able to feel their legs		10	2	8
	Observing the colour of toes to check for any circulation problems		10	2	8
	PC10. Use appropriate equipment if required		10	2	8

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	<b>Total</b>		200	54	146
3. HSS/ N 2305 (Patient Triage based on the defined clinical criteria of severity of illness)	PC1. Have the expertise to quickly assess whether the patient requires immediate life-saving intervention or whether they could wait	<b>200</b>	40	10	30
	PC2. Know how to check all the vital signs		40	10	30
	PC3. Identify a high-risk case		40	20	20
	PC4. Assess the kind of resources the person will require. For e.g. The EMT should know the standard resources required for a person who comes to the emergency department for a similar ailment		20	5	15
	PC5. Communicate clearly and assertively		3	0	3
	PC6. Collaboratively be able to supervise/work collaboratively with other departments		4	0	4
	PC7. Multitask without compromising on quality and accuracy of care provided		3	0	3
	PC8. Use SALT method in day-to-day handling and START in mass casualty handling and disasters		50	10	40
	<b>Total</b>			200	55
4. HSS/ N 2306 (Manage Cardiovascular Emergency)	PC1. Describe the structure and function of the cardiovascular system	<b>200</b>	4	4	0
	PC2. Provide emergency medical care to a patient experiencing chest pain/discomfort		12	2	10
	PC3. Identify the symptoms of hypertensive emergency		6	2	4
	PC4. Identify the indications and contraindications for automated external defibrillation (AED)		8	2	6
	PC5. Explain the impact of age and weight on defibrillation		8	2	6
	PC6. Discuss the position of comfort for patients with various cardiac emergencies		4	4	0
	PC7. Establish the relationship between airway management and the patient with cardiovascular compromise		10	2	8
	PC8. Predict the relationship between the patient experiencing cardiovascular compromise and basic life support		8	2	6

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC9. Explain that not all chest pain patients result in cardiac arrest and do not need to be attached to an automated external defibrillator		4	2	2
	PC10. Explain the importance of pre-hospital Advanced Life Support (ALS) intervention if it is available		4	4	0
	PC11. Explain the importance of urgent transport to a facility with Advanced Life Support if it is not available in the pre-hospital setting		4	4	0
	PC12. Explain the usage of aspirin and clopidogrel		6	2	4
	PC13. Differentiate between the fully automated and the semi-automated defibrillator		4	4	0
	PC14. Discuss the procedures that must be taken into consideration for standard operations of the various types of automated external defibrillators		8	2	6
	PC15. Assure that the patient is pulseless and apnoeic when using the automated external defibrillator		6	2	4
	PC16. Identify circumstances which may result in inappropriate shocks		6	2	4
	PC17. Explain the considerations for interruption of CPR, when using the automated external defibrillator		10	2	8
	PC18. Summarise the speed of operation of automated external defibrillation		6	2	4
	PC19. Discuss the use of remote defibrillation through adhesive pads		6	2	4
	PC20. Operate the automated external defibrillator		10	2	8
	PC21. Discuss the standard of care that should be used to provide care to a patient with recurrent ventricular fibrillation and no available ACLS		4	4	0
	PC22. Differentiate between the single rescuer and multi-rescuer care with an automated external defibrillator		4	4	0
	PC23. Explain the reason for pulses not being checked between shocks with an automated external defibrillator		4	4	0



Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC24. Identify the components and discuss the importance of post-resuscitation care		4	4	0
	PC25. Explain the importance of frequent practice with the automated external defibrillator		4	4	0
	PC26. Discuss the need to complete the Automated Defibrillator: Operator's Shift checklist		4	4	0
	PC27. Explain the role medical direction plays in the use of automated external defibrillation		4	4	0
	PC28. State the reasons why a case review should be completed following the use of the automated external defibrillator		4	4	0
	PC29. Discuss the components that should be included in a case review		4	4	0
	PC30. Discuss the goal of quality improvement in automated external defibrillation		4	4	0
	PC31. Recognise the need for medical direction of protocols to assist in the emergency medical care of the patient with chest pain		10	2	8
	PC32. List the indications for the use of nitro-glycerine		6	2	4
	PC33. State the contraindications and side effects for the use of nitro-glycerine		6	2	4
	PC34. Perform maintenance checks of the automated external defibrillator		4	4	0
	<b>Total</b>		200	100	100
5.HSS/ N 2307 (Manage Cerebrovascular Emergency)	PC1. Describe the basic types, causes, and symptoms of stroke	<b>200</b>	8	4	4
	PC2. Provide emergency medical care to a patient experiencing symptoms of a stroke		30	5	25
	PC3. Manage airway, breathing, and circulation		16	2	14
	PC4. Assess the patient's level of consciousness and document any signs of stroke		10	2	8
	PC5. Assess vital signs: Blood pressure, heart rate, and respiratory rate		30	5	25
	PC6. Perform a standardised pre-hospital stroke scale assessment such as the Cincinnati pre-		20	5	15

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	hospital stroke scale				
	PC7. Check serum blood sugar		6	2	4
	PC8. Collect critical background information on the victim and the onset of the stroke symptoms such as the medical history (especially any past strokes), the estimate of the time since any potential stroke symptoms first appeared, current medical conditions of the patient and current medications		20	5	15
	PC9. Determine the time of onset of symptoms		6	2	4
	PC10. Explain how patients, family, or bystanders should respond to a potential stroke		2	2	0
	PC11. Discuss the actions recommended for emergency responders to potential stroke victims		2	2	0
	PC12. Explain the importance of transporting stroke patients immediately to an emergency department that has the personnel and equipment to provide comprehensive acute stroke treatment		2	2	0
	PC13. Carry out first triage of potential stroke victims		10	5	5
	PC14. Expedite transport of the patient to the nearest hospital equipped to handle strokes		4	2	2
	PC15. Explain the importance of immediately notifying the Emergency Department of the hospital of the arrival of a potential stroke victim		4	2	2
	PC16. Administer an IV line and oxygen and monitor the functioning of the heart on-route to the hospital		20	5	15
	PC17. Forward a written report to the emergency department with details on medical history and onset of the stroke symptoms		10	5	5
	<b>Total</b>		200	57	143
6.HSS/ N 2308 (Manage Allergic Reaction)	PC1. Recognise the patient experiencing an allergic reaction	<b>200</b>	50	10	40
	PC2. Perform the emergency medical care of the patient with an allergic reaction		50	10	40
	PC3. Establish the relationship between the patient with an allergic reaction and airway management		30	5	25

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC4. Recognise the mechanisms of allergic response and the implications for airway management		10	5	5
	PC5. State the generic and trade names, medication forms, dose, administration, action, and contraindications for the epinephrine auto-injector		20	5	15
	PC6. Administer treatment appropriately in case of not having access to epinephrine auto-injectors		20	5	15
	PC7. Evaluate the need for medical emergency medical care for the patient with an allergic reaction		10	2	8
	PC8. Differentiate between the general category of those patients having an allergic reaction and those patients having a severe allergic reaction, requiring immediate medical care including immediate use of epinephrine auto-injector		10	3	7
	<b>Total</b>		200	45	155
7.HSS/ N 2309 (Manage Poisoning or Overdose)	PC1. Recognise various ways that poisons enter the body	<b>200</b>	10	10	0
	PC2. Recognise signs/symptoms associated with various poisoning		20	10	10
	PC3. Perform the emergency medical care for the patient with possible overdose		40	10	30
	PC4. Perform the steps in the emergency medical care for the patient with suspected poisoning		40	10	30
	PC5. Establish the relationship between the patient suffering from poisoning or overdose and airway management		30	10	20
	PC6. State the generic and trade names, indications, contraindications, medication form, dose, administration, actions, side effects and re-assessment strategies for activated charcoal		30	10	20
	PC7. Recognise the need for medical direction in caring for the patient with poisoning or overdose		30	10	20
	<b>Total</b>		200	70	130
8.HSS/ N 2310	PC1. Recognise the various ways by which body loses heat	<b>200</b>	10	10	0

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
(Manage Environmental Emergency)	PC2. List the signs and symptoms of exposure to cold		10	10	0
	PC3. Perform the steps in providing emergency medical care to a patient exposed to cold		40	10	30
	PC4. List the signs and symptoms of exposure to heat		10	10	0
	PC5. Perform the steps in providing emergency care to a patient exposed to heat		40	10	30
	PC6. Recognise the signs and symptoms of water-related emergencies		10	10	0
	PC7. Identify the complications of near-drowning		10	10	0
	PC8. Perform emergency medical care for bites and stings		40	10	30
	PC9. Explain various relevant National Disaster Management Agency (NDMA) guidelines		30	20	10
	<b>Total</b>			200	100
9.HSS/ N 2311 (Manage Behavioural Emergency)	PC1. Recognise the general factors that may cause an alteration in a patient's behaviour	<b>200</b>	40	20	20
	PC2. Recognise the various reasons for psychological crises		40	20	20
	PC3. Identify the characteristics of an individual's behaviour which suggest that the patient is at risk for suicide		20	20	0
	PC4. Identify special medical/legal considerations for managing behavioural emergencies		20	20	0
	PC5. Recognise the special considerations for assessing a patient with behavioural problems		20	20	0
	PC6. Identify the general principles of an individual's behaviour, which suggest the risk for violence		20	0	20
	PC7. Identify methods to calm behavioural emergency patients		40	0	40
	<b>Total</b>			200	100
10.HSS/ N 2312	PC 1.	<b>200</b>	4	4	0
	PC2. Identify and explain the use of the contents of		10	2	8

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
(Manage Obstetrics/Gynaecology emergencies)	an obstetrics kit				
	PC3. Identify pre-delivery emergencies		4	4	0
	PC4. State indications of an imminent delivery		4	4	0
	PC5. Differentiate the emergency medical care provided to a patient with pre-delivery emergencies from a normal delivery		4	4	0
	PC6. Perform the steps in pre-delivery preparation of the mother		20	2	18
	PC7. Establish the relationship between body substance isolation and childbirth		4	4	0
	PC8. Perform the steps to assist in the delivery		20	2	18
	PC9. State the steps required for care of the baby as the head appears		4	4	0
	PC10. Explain how and when to cut the umbilical cord		10	2	8
	PC11. Perform the steps in the delivery of the placenta		20	2	18
	PC12. Perform the steps in the emergency medical care of the mother post-delivery		20	2	18
	PC13. Summarise neonatal resuscitation procedures		10	2	8
	PC14. Identify the procedures for the following abnormal deliveries: Breech birth, multiple births, prolapsed cord, limb presentation		10	8	2
	PC15. Differentiate the special considerations for multiple births		4	4	0
	PC16. Recognise special considerations of meconium		4	4	0
	PC17. Identify special considerations of a premature baby		4	4	0
	PC18. Perform the emergency medical care of a patient with a gynaecological emergency		20	2	18
	PC19. Perform steps required for emergency medical care of a mother with excessive bleeding		20	2	18
	PC20. Complete a Pre-Hospital Care report for		4	4	0

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	patients with obstetrical/gynaecological emergencies				
	<b>Total</b>		200	66	134
11.HSS/ N 2313 (Manage Bleeding and Shock)	PC1. Recognise the structure and function of the circulatory system	<b>200</b>	5	5	0
	PC2. Differentiate between arterial, venous and capillary bleeding		5	5	0
	PC3. State methods of emergency medical care of external bleeding		30	5	25
	PC4. Establish the relationship between body substance isolation and bleeding		20	2	18
	PC5. Establish the relationship between airway management and the trauma patient		20	2	18
	PC6. Establish the relationship between mechanism of injury and internal bleeding		20	2	18
	PC7. Recognise the signs of internal bleeding		10	5	5
	PC8. Perform the steps in the emergency medical care of the patient with signs and symptoms of internal bleeding		30	5	25
	PC9. Recognise the signs and symptoms of shock (hypo perfusion)		10	5	5
	PC10. Perform the steps in the emergency medical care of the patient with signs and symptoms of shock (hypo perfusion)		30	5	25
	PC11. Recognize different types of shock and initiate appropriate medical management		20	10	10
			<b>Total</b>		200
12. HSS/ N 2314 (Manage Soft Tissue Injury and Burns)	PC1. Recognise the major functions of the skin	<b>200</b>	1	1	0
	PC2. Recognise the layers of the skin		1	1	0
	PC3. Establish the relationship between body substance isolation (BSI) and soft tissue injuries		10	2	8
	PC4. Recognise the types of closed soft tissue injuries		3	3	0
	PC5. Perform the emergency medical care of the patient with a closed soft tissue injury		10	2	8

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC6. State the types of open soft tissue injuries		3	3	0
	PC7. Recognise the emergency medical care of the patient with an open soft tissue injury		3	3	0
	PC8. Recognise the emergency medical care considerations for a patient with a penetrating chest injury		3	3	0
	PC9. Perform the emergency medical care considerations for a patient with an open wound to the abdomen		10	2	8
	PC10. Differentiate the care of an open wound to the chest from an open wound to the abdomen		2	2	0
	PC11. Classify burns		10	10	0
	PC12. Recognise superficial burn		3	3	0
	PC13. Recognise the characteristics of a superficial burn		3	3	0
	PC14. Recognise partial thickness burn		3	3	0
	PC15. Recognise the characteristics of a partial thickness burn		3	3	0
	PC16. Recognise full thickness burn		3	3	0
	PC17. Recognise the characteristics of a full thickness burn		3	3	0
	PC18. Perform the emergency medical care of the patient with a superficial burn		10	2	8
	PC19. Perform the emergency medical care of the patient with a partial thickness burn		10	2	8
	PC20. Perform the emergency medical care of the patient with a full thickness burn		10	2	8
	PC21. Recognise the functions of dressing and bandaging		10	2	8
	PC22. Describe the purpose of a bandage		10	2	8
	PC23. Perform the steps in applying a pressure dressing		10	2	8
	PC24. Establish the relationship between airway management and the patient with chest injury, burns, blunt and penetrating injuries		6	2	4

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC25. Know the ramification of improperly applied dressings, splints and tourniquets		10	2	8
	PC26. Perform the emergency medical care of a patient with an impaled object		10	2	8
	PC27. Perform the emergency medical care of a patient with an amputation		10	2	8
	PC28. Perform the emergency care for a chemical burn		10	2	8
	PC29. Perform the emergency care for an electrical burn		10	2	8
	PC30. Recognise inhalation injury and perform emergency care		10	2	8
	<b>Total</b>			200	76
13.HSS/ N 2315 (Manage Musculoskeletal injuries)	PC1. Recognise the function of the muscular system	<b>200</b>	4	4	0
	PC2. Recognise the function of the skeletal system		4	4	0
	PC3. Recognise the major bones or bone groupings of the spinal column; the thorax; the upper extremities; the lower extremities		6	6	0
	PC4. Differentiate between an open and a closed painful, swollen, deformed extremity		6	6	0
	PC5. Manage musculoskeletal injuries including thoracic and abdominal injuries		20	10	10
	PC6. State the reasons for splinting		20	10	10
	PC7. List the general rules of splinting		40	10	30
	PC8. Ramification & complications of splinting		20	2	18
	PC9. Perform the emergency medical care for a patient with a painful, swollen, deformed extremity		40	10	30
	PC10. How to apply pelvic binder techniques for fracture of pelvis		40	10	30
	<b>Total</b>			200	72
14.HSS/ N 2316 (Manage	PC1. State the components of the nervous system	<b>200</b>	1	1	0
	PC2. List the functions of the central nervous system		1	1	0



Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
Injuries to head and spine Description)	PC3. Recognise the structure of the skeletal system as it relates to the nervous system		3	3	0
	PC4. Relate mechanism of injury to potential injuries of the head and spine		5	5	0
	PC5. Recognise the implications of not properly caring for potential spine injuries		5	5	0
	PC6. State the signs and symptoms of a potential spine injury		5	5	0
	PC7. Recognise the method of determining if a responsive patient may have a spine injury		5	5	0
	PC8. Relate the airway emergency medical care techniques to the patient with a suspected spine injury		10	2	8
	PC9. Identify how to stabilise the cervical spine		10	2	8
	PC10. Indications for sizing and using a cervical spine immobilisation device		10	2	8
	PC11. Establish the relationship between airway management and the patient with head and spine injuries		10	2	8
	PC12. Recognise a method for sizing a cervical spine immobilisation device		10	2	8
	PC13. Log roll a patient with a suspected spine injury		10	2	8
	PC14. Secure a patient to a long spine board		10	2	8
	PC15. List instances when a short spine board should be used		5	5	0
	PC16. Immobilise a patient using a short spine board		10	2	8
	PC17. Recognise the indications for the use of rapid extrication		5	5	0
	PC18. Understand the steps in performing rapid extrication		10	2	8
	PC19. Identify the circumstances when a helmet should be left on the patient		10	2	8
	PC20. Identify the circumstances when a helmet should be removed		10	2	8

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC21. Identify alternative methods for removal of a helmet		10	2	8
	PC22. Stabilise patient's head to remove the helmet		10	2	8
	PC23. Differentiate how the head is stabilised with a helmet compared to without a helmet		5	5	0
	PC24. Immobilise paediatric and geriatric victims		10	2	8
	PC25. Manage scalp bleeding		10	2	8
	PC26. Manage eye injury		10	2	8
	<b>Total</b>		200	72	128
15.HSS/ N 2317 (Manage Infants, Neonates and Children)	PC1. Identify the developmental considerations for the age groups of infants, toddlers, pre-school, school age and adolescent	<b>200</b>	6	4	2
	PC2. Identify differences in anatomy and physiology of the infant, child and adult patient		6	2	4
	PC3. Differentiate the response of the ill or injured infant or child (age specific) from that of an adult		4	4	0
	PC4. Understand various causes of respiratory emergencies		4	4	0
	PC5. Differentiate between respiratory distress and respiratory failure		4	4	0
	PC6. Perform the steps in the management of foreign body airway obstruction		20	2	18
	PC7. Implement emergency medical care strategies for respiratory distress and respiratory failure		20	2	18
	PC8. Identify the signs and symptoms of shock (hypoperfusion) in the infant and child patient		20	2	18
	PC9. Recognise the methods of determining end organ perfusion in the infant and child patient		20	2	18
	PC10. Identify the usual cause of cardiac arrest in infants and children versus adults		20	2	18
	PC11. Recognise the common causes of seizures in the infant and child patient		4	4	0
	PC12. Perform the management of seizures in the infant and child patient		20	2	18

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC13. Differentiate between the injury patterns in adults, infants, and children		4	4	0
	PC14. Perform the field management of the infant and child trauma patient		20	2	18
	PC15. Summarise the indicators of possible child abuse and neglect		4	4	0
	PC16. Recognise the medical legal responsibilities in suspected child abuse		4	4	0
	PC17. Recognise need for EMT debriefing following a difficult infant or child transport		20	2	18
	<b>Total</b>		200	50	150
16.HSS/ N 2318 (Manage respiratory emergency)	PC1. Recognise the anatomical components of the upper airway including:	<b>200</b>			
	a. Nasopharynx		1	1	0
	b. Nasal air passage		1	1	0
	c. Pharynx		1	1	0
	d. Mouth		1	1	0
	e. Oropharynx		1	1	0
	f. Epiglottis		1	1	0
	PC2. Recognise the anatomical components of the lower airway including:				
	a. Larynx		1	1	0
	b. Trachea		1	1	0
	c. Alveoli		1	1	0
	d. Bronchi		1	1	0
	e. Carina		1	1	0
	f. Diaphragm		1	1	0
	PC3. Recognise the characteristics of normal breathing		4	2	2
	PC4. Recognise the signs of abnormal breathing including:				

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	a. Dyspnoea				
	b. Upper airway obstruction				
	c. Acute pulmonary oedema				
	d. Chronic obstructive pulmonary disease				
	e. Bronchitis				
	f. Emphysema				
	g. Pneumothorax		48	24	24
	h. Asthma				
	i. Pneumonia				
	j. Pleural effusion				
	k. Pulmonary embolism				
	l. Hyperventilation				
	PC5. Recognise the characteristics of abnormal breath sounds		10	2	8
	PC6. Recognise the characteristics of irregular breathing patterns		10	2	8
	PC7. Complete a focused history and physical exam of the patient		24	4	20
	PC8. Establish airway in patient with respiratory difficulties		20	2	18
	PC9. Contact Dispatch and Medical Control for choosing nebulizer therapy		20	2	18
	PC10. Understand the various types of Metered Dose Inhalers including:				
	a. Preventil		6	2	4
	b. Ventoin		6	2	4
	c. Alupent		6	2	4
	d. Metaprel		6	2	4
	e. Brethine		6	2	4
	f. Albuterol		6	2	4

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	g. Metaproterenol		6	2	4
	h. Terbutaline		6	2	4
	PC11. Understand the contraindications and side effects for various types of Metered Dose Inhalers		4	4	0
	<b>Total</b>		200	70	130
17.HSS/ N 2319 (Manage severe abdominal pain)	PC1. Recognise the anatomical components of the abdomen and their functions including:	<b>200</b>			
	<b>a. Left Upper Quadrant</b>				
	o Most of the stomach				
	o Spleen				
	o Pancreas		1	1	0
	o Large intestine				
	o Small intestine				
	o Left kidney (upper portion)				
	<b>b. Right Upper Quadrant</b>				
	o Liver				
	o Gallbladder				
	o Part of the large intestine		1	1	0
	o Right kidney (upper portion)				
	o Small intestine				
	<b>c. Right Lower Quadrant</b>				
	o Appendix				
	o Large intestine				
o Female reproductive organs	1	1	0		
o Small intestine					
o Right kidney (lower portion)					
o Right ureter					

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	o Right ovary & fallopian tube				
	<b>d. Left Lower Quadrant</b>				
	o Large intestine				
	o Small intestine				
	o Left kidney (lower portion)		1	1	0
	o Left ureter				
	o Left ovary				
	o Left fallopian tube				
	<b>e. Midline structures</b>				
	o Small intestine				
	o Urinary bladder		1	1	0
	o Uterus				
	PC2. Recognise the symptoms and cause of visceral pain		6	4	2
	PC3. Recognise the symptoms and causes of parietal pain		6	4	2
	PC4. Recognise the symptoms and possible causes of referred pain including:				
	a. Right shoulder (or neck, jaw, scapula) – possible irritation of the diaphragm (usually on the right); gallstone; subphrenic abscess; free abdominal blood		6	4	2
	b. Left shoulder (or neck, jaw, scapula) – possible irritation of the diaphragm (usually on the left); ruptured spleen; pancreatic disease or cancer; subphrenic abscess; abdominal blood		6	4	2
	c. Midline, back pain – aortic aneurysm or dissection; pancreatitis, pancreatic cancer, kidney stone		6	4	2
	d. Mid-abdominal pain – small bowel irritation, gastroenteritis, early appendicitis		6	4	2
	e. Lower abdominal pain – diverticular disease (herniations of the mucosa and submucosa of the		6	4	2

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	intestines), Crohn's disease (a type of inflammatory bowel disease), ulcerative colitis				
	f. Sacrum pain – perirectal abscess, rectal disease		6	4	2
	g. Epigastrium pain – peptic, duodenal ulcer; gallstone, hepatitis, pancreatitis, angina pectoris		6	4	2
	h. Testicular pain – renal colic; appendicitis		6	4	2
	PC5. Complete a focused history and physical exam of the patient including:				
	a. Visual inspection		20	2	18
	b. Auscultating the abdomen		20	2	18
	c. Palpating the abdomen		20	2	18
	PC6. Establish airway in patient		10	2	8
	PC7. Place patient in position of comfort		10	2	8
	PC8. Calm and reassure the patient		10	2	8
	PC9. Look for signs of hypoperfusion		10	2	8
	PC10. Recognise possible diagnoses for abdominal pain		10	2	8
	PC11. State the treatment for managing various causes of abdominal pain		10	2	8
	PC12. Recognise potential diagnoses which imply the condition of the patient may deteriorate and highlight the need for frequent reassessment and advanced life support interventions		10	2	8
	PC13. Alert the Emergency Centre/ Healthcare provider in advance of a priority case (when required)		5	3	2
	<b>Total</b>		200	68	132
18.HSS/ N 2320 (Manage Mass Casualty Incident)	PC1. Establish an Incident Management Structure on arrival at the scene including:	<b>200</b>			
	a. Designating an Incident Commander to manage the incident		4	4	0
	b. As Incident Commander, designating Triage Team(s), Treatment Team(s), and a Transport Officer		4	4	0

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC2. Set up separate areas for treatment, triage and transport		10	2	8
	PC3. Conduct an initial triage of patients by using the START triage model for adult patients, JumpSTART Triage for paediatric patients and the SMART triage tagging system		24	6	18
	PC4. Use appropriate personal protective equipment while conducting initial triage		20	2	18
	PC5. Tag severity/ criticality of patient using colour coded tags		20	2	18
	PC6. Direct non-injured and/or slightly injured victims to the triage area set up for those with minor injuries		10	10	0
	PC7. Monitor patients with minor injuries for changes in their condition		20	2	18
	PC8. Maintain an open airway and stop uncontrolled bleeding		20	2	18
	PC9. Extract patients from the casualty area based on initial triage to designated triage and treatment areas		20	2	18
	PC10. Use equipment like cots and litters for extraction where required		20	2	18
	PC11. Re-triage patients extracted to the triage and treatment areas		10	2	8
	PC12. Provide treatment and deliver patients to transport area		6	4	2
	PC13. Transport patients to healthcare facility		6	4	2
	PC14. Alert healthcare facilities in advance of possible arrival of multiple patients		6	4	2
	<b>Total</b>		200	52	148
19.HSS/ N 2324 (Manage diabetes emergency)	PC1. Identify the patient taking diabetic medications and the implications of a diabetes history	<b>200</b>	30	20	10
	PC2. Perform the steps in the emergency medical care of the patient taking diabetic medicine with a history of diabetes		50	10	40
	PC3. Establish the relationship between airway		40	10	30



Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	management and the patient with altered mental status				
	PC4. Recognize the generic and trade names, medication forms, dose, administration, action, and contraindications for oral glucose		50	20	30
	PC5. Evaluate the need for medical direction in the emergency medical care of the diabetic patient		30	10	20
	<b>Total</b>		200	70	130
20. HSS/ N 9610 (Follow infection control policies and procedures)	PC1. Perform the standard precautions to prevent the spread of infection in accordance with organisation requirements	<b>200</b>	5	0	5
	PC2. Perform the additional precautions when standard precautions alone may not be sufficient to prevent transmission of infection		5	0	5
	PC3. Minimise contamination of materials, equipment and instruments by aerosols and splatter		5	5	0
	PC4. Identify infection risks and implement an appropriate response within own role and responsibility		20	10	10
	PC5. Document and report activities and tasks that put patients and/or other workers at risk		5	0	5
	PC6. Respond appropriately to situations that pose an infection risk in accordance with the policies and procedures of the organization		5	0	5
	PC7. Follow procedures for risk control and risk containment for specific risks		10	0	10
	PC8. Follow protocols for care following exposure to blood or other body fluids as required		10	0	10
	PC9. Place appropriate signs when and where appropriate		20	10	10
	PC10. Remove spills in accordance with the policies and procedures of the organization		5	0	5
	PC11. Maintain hand hygiene by washing hands before and after patient contact and/or after any activity likely to cause contamination		5	0	5
	PC12. Follow hand washing procedures		5	0	5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	PC13. Implement hand care procedures		5	0	5
	PC14. Cover cuts and abrasions with water-proof dressings and change as necessary		5	5	0
	PC15. Wear personal protective clothing and equipment that complies with Indian Standards, and is appropriate for the intended use		5	0	5
	PC16. Change protective clothing and gowns/aprons daily, more frequently if soiled and where appropriate, after each patient contact		5	0	5
	PC17. Demarcate and maintain clean and contaminated zones in all aspects of health care work				
	PC18. Confine records, materials and medicaments to a well-designated clean zone		20	10	10
	PC19. Confine contaminated instruments and equipment to a well-designated contaminated zone				
	PC20. Wear appropriate personal protective clothing and equipment in accordance with occupational health and safety policies and procedures when handling waste		5	0	5
	PC21. Separate waste at the point where it has been generated and dispose of into waste containers that are colour coded and identified		5	0	5
	PC22. Store clinical or related waste in an area that is accessible only to authorised persons		5	5	0
	PC23. Handle, package, label, store, transport and dispose of waste appropriately to minimise potential for contact with the waste and to reduce the risk to the environment from accidental release		5	0	5
	PC24. Dispose of waste safely in accordance with policies and procedures of the organisation and legislative requirements		5	5	0
	PC25. Wear personal protective clothing and equipment during cleaning procedures		5	0	5
	PC26. Remove all dust, dirt and physical debris from work surfaces		5	0	5
	PC27. Clean all work surfaces with a neutral		5	0	5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
	detergent and warm water solution before and after each session or when visibly soiled				
	PC28. Decontaminate equipment requiring special processing in accordance with quality management systems to ensure full compliance with cleaning, disinfection and sterilisation protocols		5	0	5
	PC29. Dry all work surfaces before and after use		5	0	5
	PC30. Replace surface covers where applicable		5	0	5
	PC31. Maintain and store cleaning equipment		5	5	0
	<b>Total</b>		200	55	145
<b>Grand Total-1 (Subject Domain)</b>			<b>400</b>		
<b>Compulsory NOS with Clinical NOS</b>		<b>Perform this NOS compulsarily with the clinical NOS of subject domain carrying 10 marks totalling 10</b>			

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation / Role Play
20. HSS/ N 2302 (Size up the scene at the site)	PC1. Ensure that all safety precautions are taken at the scene of the emergency	<b>10</b>	1	0	1
	PC2. Introduce themselves to patient(s) and ask for their consent to any treatment		0.5	0	0.5
	PC3. Understand the implications of nuclear, radioactive, biological, chemical and explosive incidents and take appropriate action		1	0.5	0.5
	PC4. Collaborate effectively with other emergency response agencies and explain the situation clearly to them. This includes bomb disposal squads, fire departments, chemical, biological and nuclear agencies				
	PC5. Reassure patient(s) and bystanders by working in a confident, efficient manner		0.5	0	0.5
	PC6. Work expeditiously while avoiding mishandling of patient(s) and undue haste		0.5	0	0.5
	PC7. Recognise and react appropriately to persons exhibiting emotional reactions		0.5	0	0.5
	PC8. Interact effectively with the patient(s), relatives and bystanders who are in stressful situations		0.5	0	0.5
	PC9. Obtain information regarding the incident through accurate and complete scene assessment and document it accordingly		0.5	0	0.5
	PC10. Evaluate the scene and call for backup if required		0.5	0	0.5
	PC11. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority		0.5	0	0.5
	PC12. Maintain competence within one's role and field of practice		0.5	0	0.5
	PC13. Collaborate with the law agencies at a crime scene		1	0.5	0.5
	PC14. Promote and demonstrate good practice as an individual and as a team member at all times		0.5	0	0.5
	PC15. Identify and manage potential and actual risks to the quality and safety of work done		0.5	0	0.5

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation / Role Play
	PC16. Evaluate and reflect on the quality of one's work and make continuing improvements		0.5	0	0.5
	PC17. Understand relevant medico-legal principles		0.5	0	0.5
	PC18. Function within the scope of care defined by state, regional and local regulatory		0.5	0	0.5
	<b>Total</b>		10	1	9
<b>Grand Total-2 (Compulsory NOS)</b>		<b>10</b>			
<b>Soft Skills and Communication</b>		<b>Pick either part 1 carrying 90 marks or one field from both part 2 and part 3 (i.e. total 3 NOS) randomly each carrying 45 marks totaling 90</b>			

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
<b>Part 1 (Pick one field randomly carrying 90 marks)</b>					
<b>1. Decision making and leadership quality</b>					
HSS/ N 2321 (Select the proper provider institute for transfer)	PC1. Explain to the patient about his role and the reason for selecting a particular health provider	<b>36</b>	4	4	0
	PC2. Consolidate complete medical history of the patient with the severity of the damage and impending risk in terms of time and the kind of treatment required		8	4	4
	PC3. Allocate patient to the nearest provider institute		4	4	0
	PC4. Base the allocation on the kind of care required namely primary, secondary or tertiary care centres		4	4	0
	PC5. Make sure that the selection of the institute is in adherence with the legal regulation		4	4	0
	PC6. Obtain guidance from medical officer for selection of proper provider institute		4	4	0
	PC7. Provide pre-arrival information to the receiving hospital		4	4	0
	PC8. Obtain guidance of medical officer when ambulance needed to be stopped en-route (e.g. during emergency child birth)		4	4	0
	<b>Total</b>			36	32
HSS/ N 2322 (Transport patient to the provider institute)	PC1. Adhere fully to the rules and regulations related to the usage of ground and air transport	<b>32</b>	4	4	0
	PC2. Adhere fully to the steps involved in treating and transporting the patient		8	4	4
	PC3. Positively manage situations where transport is a problem		4	4	0
	PC4. Allocate the means of transport keeping in mind the emergency, weather conditions and availability of transport		4	4	0
	PC5. Adhere fully to procedures once the patient reaches the hospital		4	4	0
	PC6. Use correct medication and equipment for treatment of immediate threats to life		8	4	4
	<b>Total</b>			32	24

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
HSS/ N 2323 (Manage Patient Handover to the provider institute)	PC1. Provide a verbal report to the medical staff on the condition of the patient and initial findings	<b>22</b>	8	4	4
	PC2. Complete the Patient Care Report (PCR) and hand it over to the medical staff		8	4	4
	PC3. Hand over the consent form signed by the patient or a relative		6	2	4
	<b>Total</b>		22	10	12
<b>Decision making and leadership quality Total</b>		<b>90</b>	<b>90</b>	<b>66</b>	<b>24</b>
<b>Part 2 (Pick one field randomly carrying 45 marks)</b>					
<b>1. Attitude</b>					
HSS/ N 9603 (Act within the limits of one's competence and authority)	PC1. Adhere to legislation, protocols and guidelines relevant to one's role and field of practice	<b>25</b>	2	2	0
	PC2. Work within organisational systems and requirements as appropriate to one's role		5	0	5
	PC3. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority		5	0	5
	PC4. Maintain competence within one's role and field of practice		5	5	0
	PC5. Use relevant research based protocols and guidelines as evidence to inform one's practice		2	2	0
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		2	2	0
	PC7. Identify and manage potential and actual risks to the quality and safety of practice		2	2	0
	PC8. Evaluate and reflect on the quality of one's work and make continuing improvements		2	2	0
	<b>Total</b>		25	15	10
HSS/ N 9607 (Practice Code of conduct while performing duties)	PC 1.	<b>20</b>	3	1	2
	PC2. Work within organisational systems and requirements as appropriate to the role		3	1	2
	PC3. Recognise the boundary of the role and responsibility and seek supervision when situations are beyond the competence and		3	1	2

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
	authority				
	PC4. Maintain competence within the role and field of practice		1	0	1
	PC5. Use protocols and guidelines relevant to the field of practice		4	2	2
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		1	0	1
	PC7. Identify and manage potential and actual risks to the quality and patient safety		1	0	1
	PC8. Maintain personal hygiene and contribute actively to the healthcare ecosystem		4	2	2
	<b>Total</b>		20	7	13
<b>Attitude Total</b>		<b>45</b>	45	22	23
<b>2. Attiquete</b>					
HSS/ N 9605 (Manage work to meet requirements)	PC1. Clearly establish, agree, and record the work requirements	<b>20</b>	10	5	5
	PC2. Utilise time effectively		2	0	2
	PC3. Ensure his/her work meets the agreed requirements		2	0	2
	PC4. Treat confidential information correctly		2	2	0
	PC5. Work in line with the organisation's procedures and policies and within the limits of his/her job role		4	2	2
	<b>Total</b>		20	9	11
HSS/ N 9601 (Collate and Communicate Health Information)	PC1. Respond to queries and information needs of all individuals	<b>25</b>	2	2	0
	PC2. Communicate effectively with all individuals regardless of age, caste, gender, community or other characteristics		5	0	5
	PC3. Communicate with individuals at a pace and level fitting their understanding, without using terminology unfamiliar to them		5	0	5
	PC4. Utilise all training and information at one's disposal to provide relevant information to the individual		5	5	0



Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
	PC5. Confirm that the needs of the individual have been met		2	2	0
	PC6. Adhere to guidelines provided by one's organisation or regulatory body relating to confidentiality		2	2	0
	PC7. Respect the individual's need for privacy		2	2	0
	PC8. Maintain any records required at the end of the interaction		2	2	0
	<b>Total</b>		25	15	10
<b>Attitude Total</b>		<b>45</b>	<b>45</b>	<b>24</b>	<b>21</b>
<b>Part 3 (Pick one field randomly carrying 45 marks)</b>					
<b>1. Safety management</b>					
HSS/ N 9606 (Maintain a safe, healthy, and secure working environment)	PC1. Identify individual responsibilities in relation to maintaining workplace health safety and security requirements	<b>45</b>	6	2	4
	PC2. Comply with health, safety and security procedures for the workplace		2	0	2
	PC3. Report any identified breaches in health, safety, and security procedures to the designated person		2	1	1
	PC4. Identify potential hazards and breaches of safe work practices		6	4	2
	PC5. Correct any hazards that individual can deal with safely, competently and within the limits of authority		6	4	2
	PC6. Promptly and accurately report the hazards that individual is not allowed to deal with, to the relevant person and warn other people who may get affected		6	4	2
	PC7. Follow the organisation's emergency procedures promptly, calmly, and efficiently		6	2	4
	PC8. Identify and recommend opportunities for improving health, safety, and security to the designated person		5	3	2
	PC9. Complete any health and safety records legibly and accurately		6	2	4

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
	<b>Total</b>		45	22	23
<b>2. Waste Management</b>					
HSS/ N 9609 (Follow biomedical waste disposal protocols)	PC1. Follow the appropriate procedures, policies and protocols for the method of collection and containment level according to the waste type	<b>45</b>	6	2	4
	PC2. Apply appropriate health and safety measures and standard precautions for infection prevention and control and personal protective equipment relevant to the type and category of waste		6	3	3
	PC3. Segregate the waste material from work areas in line with current legislation and organisational requirements		4	0	4
	PC4. Segregation should happen at source with proper containment, by using different colour coded bins for different categories of waste		6	3	3
	PC5. Check the accuracy of the labelling that identifies the type and content of waste		4	2	2
	PC6. Confirm suitability of containers for any required course of action appropriate to the type of waste disposal		4	4	0
	PC7. Check the waste has undergone the required processes to make it safe for transport and disposal		4	4	0
	PC8. Transport the waste to the disposal site, taking into consideration its associated risks		4	4	0
	PC9. Report and deal with spillages and contamination in accordance with current legislation and procedures		4	4	0
	PC10. Maintain full, accurate and legible records of information and store in correct location in line with current legislation, guidelines, local policies and protocols		3	3	0
	<b>Total</b>		45	29	16
<b>3. Team Work</b>					
HSS/ N 9604 (Work effectively)	PC1. Communicate with other people clearly and effectively	<b>45</b>	2	0	2
	PC2. Integrate one's work with other people's		2	0	2

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
with others)	work effectively				
	PC3. Pass on essential information to other people on timely basis		2	0	2
	PC4. Work in a way that shows respect for other people		2	0	2
	PC5. Carry out any commitments made to other people		6	6	0
	PC6. Reason out the failure to fulfil commitment		6	6	0
	PC7. Identify any problems with team members and other people and take the initiative to solve these problems		15	10	5
	PC8. Follow the organisation's policies and procedures		10	4	6
	<b>Total</b>			<b>45</b>	<b>26</b>
<b>4. Ethics</b>					
HSS/ N 2303 (Follow evidence based Protocol while managing patients)	PC1. Understand the appropriate and permissible medical service procedures which may be rendered by an EMT to a patient not in a hospital. For example, steps to be followed for cardiovascular emergencies or emergency of an environmental nature like burns, hypothermia	<b>45</b>	9	4	5
	PC2. Understand the communication protocols for medical situations that require direct voice communication between the EMT and the Medical officer prior to the EMT rendering medical services to the patients outside the hospital		9	4	5
	PC3. Adhere to laws, regulations and procedures relating to the work of an EMT		9	4	5
	PC4. Demonstrate professional judgement in determining treatment modalities within the parameters of relevant protocols		9	4	5
	PC5. Understand the universal approach to critical patient care and package-up-patient-algorithm(transport protocol)		9	4	5
	<b>Total</b>			<b>45</b>	<b>20</b>
<b>5. Quality</b>					
HSS/ N 9611:	PC1. Conduct appropriate research and analysis	<b>45</b>	5	5	0

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
Monitor and assure quality	PC2. Evaluate potential solutions thoroughly		5	0	5
	PC3. Participate in education programs which include current techniques, technology and trends pertaining to the dental industry		3	3	0
	PC4. Read Dental hygiene, dental and medical publications related to quality consistently and thoroughly		5	5	0
	PC5. Report any identified breaches in health, safety, and security procedures to the designated person		3	0	3
	PC6. Identify and correct any hazards that he/she can deal with safely, competently and within the limits of his/her authority		3	0	3
	PC7. Promptly and accurately report any hazards that he/she is not allowed to deal with to the relevant person and warn other people who may be affected		3	0	3
	PC8. Follow the organisation's emergency procedures promptly, calmly, and efficiently		3	0	3
	PC9. Identify and recommend opportunities for improving health, safety, and security to the designated person		5	2	3
	PC10. Complete any health and safety records legibly and accurately		10	5	5
	<b>Total</b>			45	20
<b>Grand Total-3 (Soft Skills and Communication)</b>			<b>90</b>		



## Healthcare Sector Skill Council

Office No.: 711, DLF Tower A, 7th Floor, Jasola, New Delhi - 110025