

APPRENTICESHIP CURRICULUM (OPTIONAL TRADE)

Healthcare Sector Skill Council

Phlebotomist

Course Code: CO112200025

NAPS Non-NAPS

NSQF Level: 4



Table of Contents

Course Details.....	3
Module Details.....	6
Glossary	19
Acronyms.....	19
Annexure 1: Tools and Equipment	20
List of Tools and Equipment	20
Classroom Aids	22
Annexure 2: Assessment Strategy	23
Annexure 3: Mode of Training.....	36

Course Details

1.	Course Name	Phlebotomist														
2.	Course Code	CO112200025														
3.	Apprenticeship Training Duration: <i>(2 to 4 weeks of BT is embedded in this duration as per the requirement of the establishment)</i>	Months: 9														
	Remarks															
4.	Credit	TBD														
5.	NSQF Level <i>(Mandatory for NAPS)</i>	4	NSQC Approval Date: 29/01/2021													
6.	Related NSQF aligned qualification details	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 40%;">QP/ Qualification/ NOS Name (As applicable)</th> <th style="width: 20%;">QP/ NOS Code & Version</th> <th style="width: 30%;">NQR Code</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Phlebotomist</td> <td>HSS/Q0501, V2.0</td> <td>2021/HLT/HSSC/04107</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			S. No.	QP/ Qualification/ NOS Name (As applicable)	QP/ NOS Code & Version	NQR Code	1	Phlebotomist	HSS/Q0501, V2.0	2021/HLT/HSSC/04107				
		S. No.	QP/ Qualification/ NOS Name (As applicable)	QP/ NOS Code & Version	NQR Code											
		1	Phlebotomist	HSS/Q0501, V2.0	2021/HLT/HSSC/04107											
7.	Brief Job Role Description	A Phlebotomist draws blood samples from patients for laboratory testing and analysis and guides patients in collection of other type of samples like urine, stool, sputum, etc. This may be done at the laboratory, collection centre, or at the client site. The incumbent also ensures availability and suitability of supplies to be used in the process. The person is also responsible for other activities such as labelling, record keeping and other related documentation.														
8.	NCO-2015 Code & Occupation <i>(Access the NCO 2015 volumes from: https://labour.gov.in/organizationsofmole/directorate-general-employment-training-dget)</i>	NCO-2015/ 3212.0601, Diagnostic														
9.	Minimum Eligibility Criteria <i>(Educational and/ or Technical Qualification)</i>	Class XII with Science														
10.	Entry Age for Apprenticeship	18 Years & Above														

11.	Any Licensing Requirements <i>(wherever applicable)</i>	N/A																				
12.	Is the Job Role amenable to Persons with Disability	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, check the applicable type of Disability</p> <table border="0" style="width: 100%;"> <tr> <td><input type="checkbox"/> Locomotor Disability</td> <td><input type="checkbox"/> Leprosy Cured Person</td> <td><input type="checkbox"/> Cerebral Palsy</td> <td><input type="checkbox"/> Dwarfism</td> <td><input type="checkbox"/> Muscular Dystrophy</td> </tr> <tr> <td><input type="checkbox"/> Acid Attack Victims</td> <td><input type="checkbox"/> Blindness</td> <td><input type="checkbox"/> Low Vision</td> <td><input type="checkbox"/> Deaf</td> <td><input type="checkbox"/> Hard of Hearing</td> </tr> <tr> <td><input type="checkbox"/> Speech and Language Disability</td> <td><input type="checkbox"/> Intellectual Disability</td> <td><input type="checkbox"/> Specific Learning Disabilities</td> <td><input type="checkbox"/> Autism Spectrum Disorder</td> <td><input type="checkbox"/> Mental Illness</td> </tr> <tr> <td><input type="checkbox"/> Multiple Sclerosis</td> <td><input type="checkbox"/> Parkinson's Disease</td> <td><input type="checkbox"/> Haemophilia</td> <td><input type="checkbox"/> Thalassemia</td> <td><input type="checkbox"/> Sickle Cell Disease</td> </tr> </table> <p><input type="checkbox"/> Multiple Disabilities</p> <p>Remarks:</p>	<input type="checkbox"/> Locomotor Disability	<input type="checkbox"/> Leprosy Cured Person	<input type="checkbox"/> Cerebral Palsy	<input type="checkbox"/> Dwarfism	<input type="checkbox"/> Muscular Dystrophy	<input type="checkbox"/> Acid Attack Victims	<input type="checkbox"/> Blindness	<input type="checkbox"/> Low Vision	<input type="checkbox"/> Deaf	<input type="checkbox"/> Hard of Hearing	<input type="checkbox"/> Speech and Language Disability	<input type="checkbox"/> Intellectual Disability	<input type="checkbox"/> Specific Learning Disabilities	<input type="checkbox"/> Autism Spectrum Disorder	<input type="checkbox"/> Mental Illness	<input type="checkbox"/> Multiple Sclerosis	<input type="checkbox"/> Parkinson's Disease	<input type="checkbox"/> Haemophilia	<input type="checkbox"/> Thalassemia	<input type="checkbox"/> Sickle Cell Disease
<input type="checkbox"/> Locomotor Disability	<input type="checkbox"/> Leprosy Cured Person	<input type="checkbox"/> Cerebral Palsy	<input type="checkbox"/> Dwarfism	<input type="checkbox"/> Muscular Dystrophy																		
<input type="checkbox"/> Acid Attack Victims	<input type="checkbox"/> Blindness	<input type="checkbox"/> Low Vision	<input type="checkbox"/> Deaf	<input type="checkbox"/> Hard of Hearing																		
<input type="checkbox"/> Speech and Language Disability	<input type="checkbox"/> Intellectual Disability	<input type="checkbox"/> Specific Learning Disabilities	<input type="checkbox"/> Autism Spectrum Disorder	<input type="checkbox"/> Mental Illness																		
<input type="checkbox"/> Multiple Sclerosis	<input type="checkbox"/> Parkinson's Disease	<input type="checkbox"/> Haemophilia	<input type="checkbox"/> Thalassemia	<input type="checkbox"/> Sickle Cell Disease																		
13.	Submitting Body Details	<p>Name: Healthcare Sector Skill Council E-mail ID: hsscst@healthcare-ssc.in Contact Number: 011-41017346/40505850, Extn: 111</p>																				
14.	Certifying Body	Healthcare Sector Skill council and / or Industry																				
15.	Employment Avenues/Opportunities	Employment opportunities as per industry requirement																				
16.	Career Progression	The candidate may further enhance their skills sets mapping to competences of Specialization in Progression will be possible after additional training/diploma to higher level																				
17.	Trainer's Qualification & Experience:	MD/DNB (Pathology/Microbiology/Laboratory Medicine/Biochemistry) with total 1 years of exp (Minimum 1 years of experience working in Pathology Lab)																				

		<p>or Medical Graduate with total 4 years' experience, 3 years sector specific experience (including 2 year of experience working in Pathology Lab) Or PhD in Medical biochemistry/Medical Microbiology with total 2 years of experience, with 1 year sector specific (1 years of experience working in Pathology Lab) Or PhD Nursing with total 3 years' experience, 2 years sector specific (including 1 year of experience working in Phlebotomy Unit) and 1year teaching experience Or M.Sc. Nursing with total 4 years exp, 3 years sector specific (including 2 year of experience working in Phlebotomy Unit) and 1 year teaching experience Or B.Sc. (Nursing)/ Post Basic B.Sc. Nursing with total 5 years, 4 years sector specific (including 2 year of experience working in Phlebotomy Unit) and 1 year of teaching experience Or M.Sc./B.Sc. in Medical biochemistry/Medical Microbiology with total 6 years of exp, 5 years sector specific (including 3 year of experience working in Pathology Lab) and 1 year teaching experience Or B.Sc. MLT with total 6 years of experience, 5 years sector specific (Including 3 year of experience working in Pathology Lab) and 1 year teaching experience or DMLT with total 8 years, 7 year sector (including 5 year of experience working in Pathology Lab) and 1 year teaching experience</p>
18.	Curriculum Creation Date	29/01/2021
19.	Curriculum Valid up to Date	29/01/2026

Module Details

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
1.	Introduction to healthcare systems & Laboratory services NOS Name: Perform Pre-procedural activities of sample collection NOS Code: HSS/N0510	<ul style="list-style-type: none"> Describe the basic structure and function of healthcare facilities available at various levels, hospice care and clinics. Discuss various types of laboratories in the hospital. Describe the diagnostic centres and medical lab facilities at different levels (national, state and district). Discuss the relevant legal responsibilities of a Phlebotomist with respect to their functions in the hospital environment. 	8	10	70	70
2.	Roles and responsibilities of a phlebotomist NOS Name: Perform Pre-procedural activities of sample collection NOS Code: HSS/N0510	<ul style="list-style-type: none"> Discuss the role and responsibilities of a phlebotomist. Discuss a phlebotomist's role in the process of quality improvement. Discuss the laboratory maintenance needs that need to be taken care of by the Phlebotomist. Discuss the role of a phlebotomist in ensuring comfort and safety while drawing blood. Recall ethical behavior at the workplace. Explain the appropriate use of laboratory related medical terminology in daily activities with colleagues, patients and family. 	10	13	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> Describe the general and specific etiquettes to be observed on the duty. Explain the importance of conservation of resources in the laboratories. 				
3.	Structure and Function of Human Body NOS Name: Perform Pre-procedural activities of sample collection NOS Code: HSS/N0510	<ul style="list-style-type: none"> Explain the organization of body cells, tissues, organs, organ systems, membranes, and glands in the human body. Describe cell and various types of tissues. Describe different types of organ systems. Describe different types of body fluids, secretions, and excretions. Identify different parts of the body using charts and models. Explain the structure and functioning of human body systems using charts and models. Design various working models depicting functioning of human body systems. 	10	15	70	70
4.	Basic sensitization NOS Name: Perform Pre-procedural activities of sample collection NOS Code: HSS/N0510	<ul style="list-style-type: none"> Explain the basics of inorganic and organic chemistry. Describe the blood sample collection process in detail. Explain the basics of hematology. Explain the basics of coagulation mechanism and testing in brief. Describe the process of sampling of sputum, semen, CSF and other body fluids like pleural fluid, pericardial fluid, peritoneal fluid, synovial fluid, ascitic fluid. 	15	28	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Explain the basics of histopathology. • Explain the basics of cytology and cytopathology. • Explain the basics of microbiology (bacteria, virus, fungus and parasites). • Explain the basics of immunology and serology. • Identify instruments and standard operating procedures related to hematology laboratory. • Identify instruments and standard operating procedures related to biochemistry laboratory. • Identify instruments and standard operating procedures related to serology laboratory. • Identify instruments and standard operating procedures related to coagulation. • Identify instruments and standard operating procedures related to histopathology and cytology section. 				
5.	Pre-procedural activities of sample collection NOS Name: Perform Pre-procedural activities of sample collection NOS Code: HSS/N0510	<ul style="list-style-type: none"> • Identify the different types of samples to be taken in the medical laboratory. • Explain the correct process of sample handling. • Identify different types of useful equipment for blood sample collection. • Explain the process of interpretation of the test request forms correctly. • Describe the correct method of preparing a site for obtaining blood samples. • Describe the correct method of assisting the patient before, during and after collection of the blood specimen. 	15	30	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Explain the process of sampling of sputum. • Explain the process of guiding the patient for collection of semen sample. 				
6.	Procedural activities of sample collection NOS Name: Perform procedural activities of sample collection NOS Code: HSS/N0511	<ul style="list-style-type: none"> • Enumerate common pre-analytical errors and complication of sample collection. • Enumerate various types of blood collection devices and other equipment required such as syringe, evacuated tubes, different gauged needles etc. • Classify different types of blood collection tubes with their additives. • Describe the usage of tourniquet and its duration of application. • Distinguish different types of tubes, types and co-relate with the type of sample to be collected such as serum, plasma, etc. • Enumerate different types of needle gauges with their color codes. • Explain the cause of hemolysis and the process of preventing the same. • Explain the order of draw (for the tube types). • Explain the correct method of preparing an appropriate site for obtaining blood samples. • Explain the correct method of drawing blood specimens from patients. • Explain the correct method of preparing and labelling the blood sample for test, procedures, and identification purposes. 	20	45	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Explain the correct method of assisting the patient before, during and after collection of the blood specimen. • Explain the correct method of collecting samples other than blood samples. 				
7.	Post-procedural activities of sample collection NOS Name: Perform post- procedural activities of sample collection NOS Code: HSS/N0512	<ul style="list-style-type: none"> • Explain various standard operating procedures for sample storage and transportation with reference to temperature, humidity, leak proofing etc. • Describe the significance of critical alert values in laboratory reports. • Explain the process of managing inventory through checklists and inventory registers. • Explain the correct method of labelling and preparing the collected sample for testing and identification purposes. • Explain the correct method of assisting the patient after collection of the blood specimen. • Explain the correct method of storage of various collected samples other than blood. • Explain the correct procedure of sample transportation. • Discuss the process of organizing stocks related to phlebotomy as per organizational practices. 	19	35	70	70
8.	Basic sensitization on preanalytical laboratory errors	<ul style="list-style-type: none"> • Classify preanalytical variables. • Enumerate different physiological preanalytical variables. • Enumerate different technical preanalytical variables. 	19	45	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
	<p>NOS Name: Perform procedural activities of sample collection</p> <p>NOS Code: HSS/N0511</p>	<ul style="list-style-type: none"> Define Turn Around Time (TAT) with reference to respective laboratories. Describe the causes of preanalytical errors. List the steps to reduce preanalytical errors. Enumerate various documents necessary for recording preanalytical errors. 				
9.	<p>Basic sensitization on analytical laboratory testing process</p> <p>NOS Name: Perform procedural activities of sample collection</p> <p>NOS Code: HSS/N0511</p>	<ul style="list-style-type: none"> Explain the process of sample transportation. Explain the process of sample storage after centrifugation. Describe the correct process of specimen handling. Discuss the importance of timely maintenance of inventory of medical supplies or diagnostic kits. Describe various types of blood samples collected such as venous blood, arterial blood etc. Define different types of blood matrix. Describe the process of preparation of blood serum and plasma. Explain the types of tests being conducted from blood sample types. 	20	45	70	70
10.	<p>Basic sensitization on post-analytical laboratory testing process</p>	<ul style="list-style-type: none"> Describe archiving protocol emphasizing on storage of samples/ specimens. Describe archiving protocol emphasizing on storage data and records. Describe the retrieval of samples/ specimens Describe the retrieval of data and records. 	20	43	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
	<p>NOS Name: Perform procedural activities of sample collection</p> <p>NOS Code: HSS/N0511</p>	<ul style="list-style-type: none"> Describe source of error/ interference/ quality of work and initiate corrective action as applicable. Explain various quality assurance activities which ensure the accuracy of working in a laboratory. Define the process of sample recollection in case of repeat sample requests. Explain the process of sample recollection. 				
11.	<p>Sensitization on current best practices in laboratory</p> <p>NOS Name: Perform procedural activities of sample collection</p> <p>NOS Code: HSS/N0511</p>	<ul style="list-style-type: none"> Describe the good clinical laboratory practices (GCLP) recommended by World Health Organisation (WHO). Describe the key points of Clinical Lab Standards Institute (CLSI) standard on sample collection. Describe the good clinical laboratory practices (GCLP) of Indian Council of Medical Research (ICMR). Describe the laboratory safety guidelines of OSHA (Occupational Safety and Health Administration), U.S. Department of Labor. Describe the laboratory safety policies and protocols. Explain the key points of standard ISO 15189 Explain internal and external quality control documentation. Discuss the best practices to be followed while carrying out job specific procedures. 	19	45	70	70
12.	Prepare for site visit	<ul style="list-style-type: none"> State the importance of being on time. Explain phone etiquettes to be followed with 	32	73	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
	<p>NOS Name: Follow etiquette for site visits</p> <p>NOS Code: HSS/N9619</p>	<p>the patient while organizing a site visit.</p> <ul style="list-style-type: none"> • Explain the process of confirming the availability of patient and the respective tests for sampling. • State the importance of making the necessary preparations using checklist before a site visit. • Describe the process to be followed in case of delay in reaching patient site. • State the importance of establishing the patient’s needs and expectation to ensure good quality service at the site. • Discuss the importance of maintaining privacy of the patient. • Describe the importance of carrying identification documents and introducing oneself to the patient on arrival. • Describe common expectations while visiting patient’s residential facilities. • Plan the route for site visit and determine travel time for reaching the site on time. • Explain the salient points of personal grooming standards. 				
13.	<p>Follow etiquette for site visits</p> <p>NOS Name: Follow etiquette for site visits</p> <p>NOS Code: HSS/N9619</p>	<ul style="list-style-type: none"> • Describe the steps to be followed before accessing and using patient facilities, resources and areas. • State the importance of setting correct expectations of follow-up action with the patient. • List the steps to ensure that patient facilities are not soiled or littered, and its importance. 	33	72	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> Describe the procedure to follow in case there is an accident or mishap at the patient premises. Explain the importance of time and site information with the collection centre. Describe the correct waste disposal procedures. Define various best practices of site visit such as taking prior permission. Define the necessary adjustments required to be made to the space for carrying out required activities as per the standard. Describe the process and sequence of activities to be carried out to the patient. Discuss the process of handling queries. Perform billing after the procedures are carried out. Explain the process of waste disposal as per waste disposal guidelines. Discuss the process of addressing delays, accidents, or errors to ensure patient satisfaction. 				
14.	Maintain interpersonal relationship with colleagues and others NOS Name: Maintain interpersonal relationship	<ul style="list-style-type: none"> Discuss the importance of timely communication between departments. Explain the significance of maintaining confidentiality and privacy of the patient information. Describe the importance of ensuring fulfilment of commitments. Explain organization’s policies and procedures. 	13	0	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
	<p>with patients, colleagues and others</p> <p>NOS Code: HSS/N9615,</p>	<ul style="list-style-type: none"> Discuss the importance of effective communication amongst colleagues. 				
15.	<p>Maintain professional and medico-legal conduct</p> <p>NOS Name: Maintain professional & medico-legal conduct</p> <p>NOS Code: HSS/N9616,</p>	<ul style="list-style-type: none"> Describe the Standard Operating Procedures related to medico-legal conduct Discuss the best practices of code of conduct Explain the importance of carrying out one’s duties and responsibilities and effects of noncompliance. Explain the importance of maintaining professional relationships with other departments Describe Standard Operating Procedures to reduce risks associated with quality and safety measures. 	19	0	70	70
16.	<p>Maintain a safe, healthy, and secure working environment</p> <p>NOS Name: Maintain a safe, healthy and secure working environment</p> <p>NOS Code: HSS/N9617</p>	<ul style="list-style-type: none"> Explain the importance of maintaining health safety and security. Describe basic first aid in case of emergencies. Identify potential hazards in the hospital and hospital colour coding system. Identify the suspicious package or items. Explain the policies and rules of the organization pertaining to safety and combating hazards. Demonstrate the skills of infection control and use of personal protective equipment (PPE). 	10	19	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
17.	Infection control policies and procedures NOS Name: Maintain a safe, healthy, and secure working environment NOS Code: HSS/N9617	<ul style="list-style-type: none"> Describe the importance of infection control and prevention. Identify the factors which influence the outcome of an exposure to infection. List strategies for preventing transmission of pathogenic organisms. List the steps of spill management. List the process of hand washing. Enumerate various nosocomial infections Explain the importance of incident reporting. Develop techniques of self-grooming and maintenance. Explain the concept of immunization to reduce the health risks for self and patients. Explain the concept of healthy living. Describe the techniques of proper usage of PPE. Explain the importance of PPE. Explain various vaccinations against common infectious diseases. 	10	20	70	70
18.	Bio Medical Waste Management NOS Name: Follow infection control policies & procedures including biomedical waste disposal protocols	<ul style="list-style-type: none"> Explain the importance of proper and safe disposal of bio-medical waste and treatment. Explain the categories of bio-medical waste Discuss about disposal of bio-medical waste – color coding, types of containers, transportation of waste, etc. Explain standards for bio-medical waste disposal. Discuss means of bio-medical waste treatment. 	11	22	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
	NOS Code: HSS/N9618,					
19.	Basic Computer Knowledge NOS Name: Perform post- procedural activities of sample collection NOS Code: HSS/N0512	<ul style="list-style-type: none"> • Discuss the application of computers. • Differentiate between the hardware and software. • Differentiate between the input and output devices. • Discuss the foundation concept of operating systems and their functions. • Discuss the latest non- pirated version of software such as Windows 2010, its utilities and basic operations of Microsoft office 2000 – MS Word, MS Excel, PowerPoint Presentation. 	18	35	70	70
20.	Reporting and Documentation NOS Name: Perform post- procedural activities of sample collection NOS Code: HSS/N0512	<ul style="list-style-type: none"> • Define the scope of practice for Phlebotomist in reporting and documentation. • Define reporting matrix and discuss the methods. • Explain the importance of maintaining various records. • Explain various types of records to be maintained by the department. • Discuss essential components of various types of records. • Explain the method of documentation and retrieval of documents. 	19	34	70	70

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Discuss the importance of reporting and recording patient information. • Discuss the importance of confidentiality in patient report information. 				
21.	Personal Hygiene NOS Name: Follow infection control policies & procedures including biomedical waste disposal protocols NOS Code: HSS/N9618,	<ul style="list-style-type: none"> • Explain the significance of maintaining personal hygiene. • Describe the principles of prevention of cross infection. • Explain the importance of personal protective equipment (PPE). • Discuss the techniques of proper usage of personal protective equipment (PPE). 	10	21	70	70
Total Marks			350	650	70	70

Glossary

Term	Description
Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.

Acronyms

Acronym	Description
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
AIDS	Acquired Immune Deficiency Syndrome
GDA	General Duty Assistant

Annexure 1: Tools and Equipment

List of Tools and Equipment

<Specify the Batch size, if required>

The tools and equipment required are:

S. No.	Tool / Equipment Name	Specification
1	Syringes & Needles All Sizes	
2	Butterfly Needle	
3	Isopropyl Alcohol (Surgical Spirit)	
4	Cotton Roll and gauze	
5	Betadine / Povidone iodine solution	
6	All types of evacuated blood collection tubes with all sorts of additives (Lavendar,Grey,Green,Light Blue,Black,Red,Golden)	
7	Multisample Needles	
8	Examination Gloves	
9	Tourniquet	
10	Hand sanitizer	
11	Test tube racks	
12	Stool & Urine Routine & Culture Containers / 24 hour urine containers	
13	Aluminum Foil	
14	Sample Request form for sample collections	
15	Glucose powder	
16	Needle Destroyer/Sharp Disposal Container (Puncture Proof Container)	
17	Spillage handling kit(bag, culture vial carrying 1% hypochlorite, paper towelette)	
18	Thrombophobe gel	
19	Swab sticks	
20	Tuberculin syringe	

21	Tuberculin vial - 1 TU/2 TU	
22	Blotting Paper	
23	Capillary tube	
24	Stop watch	
25	Height Scale	
26	Weighing Machine	
27	Plastic Measuring cylinder - 1 L	
28	Tissue paper	
29	Phlebotomy Arm - Adult with replacement skins and veins with blood concentrate	
30	Phlebotomy Arm - Infant with replacement skins and veins with blood concentrate	
31	Couch	
32	Phlebotomy Chair	
33	B.P. Monitoring Machine	
34	Stethoscope	
35	Gown - PPE	
36	Mask - Packet	
37	Shoe Cover - Packet	
38	Hair Cap - Packet	
39	Different Colour Plastic Bags With Dustbins (Red)	
40	Different Colour Plastic Bags With Dustbins (Blue)	
41	Different Colour Plastic Bags With Dustbins (Black)	
42	Different Colour Plastic Bags With Dustbins (Yellow)	
43	Gauze Piece (4X4)	
44	Micropore	
45	CPR Manikin	
46	Fire Extinguisher	
47	Screens for Privacy	
48	Sample Transportation Bag	
49	Blood Culture Bottle	
50	Labelling Sticker	

51	Bar Code Sticker	
52	Spatula Disposable	
53	Spot band Aid	
54	Band Aid	
55	Goggles	
56	Computer	
57	Lab software Lab Information System	
58	Microscopic slides	
59	Centrifuge	
60	Refrigerator	
61	Lancet and Micro collection devices	

Classroom Aids

The aids required to conduct sessions in the classroom are:

- 1 Projector
- 2 Computer/laptops
- 3 Internet connectivity
- 4 Whiteboard
- 5 Chairs
- 6 Marker
- 7 Duster
- 8 Registers
- 9 Pen
- 10 Pencil

Annexure 2: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the apprentice on the required competencies of the program.

Compulsory NOS						
Total Marks: 1000			Marks Allocation			
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Theory	Viva	OJT	Skills Practical
1. HSS/N0510, Perform pre-procedural activities of sample collection	PC1. introduce themselves to the patient in a professional manner					
	PC2. match the patient's details with the laboratory form, to ensure accurate identification					
	PC3. seek patient's information with reference to the allergies, any previous experience of fainting during previous injections or blood draws, history of bleeding disorder, medications etc.					
	PC4. reassure the person and make them comfortable before beginning the procedure for anxious patients					
	PC5. provide details of procedure to be performed to the patient and obtain verbal consent to proceed					
	PC6. ensure informed written consent of the patient as per organizational procedure					
	PC7. maintain adequate supplies of medical and diagnostic equipment					5
	PC8. follow organizational procedures for requisitioning of supplies					

	PC9. handle situations of stock-outs or unavailability of stocks without compromising health needs of patients/ individuals					7
	PC10. organize all the equipment needed for the procedure and place it within safe and easy reach on a tray or trolley					7
	PC11. ensure that the sharp disposal device is at arm's length but away from the patient avoiding any accidental injury					7
	PC12. ensure all equipment to be used is clean, sterilized and in working condition					
	PC13. label blood sample of the patient as per standard practice					5
	PC14. check the label and forms for accuracy ensuring both identifiers must match on the label and the requisition form					7
	PC15. discard the used needle or blood sampling device into a puncture resistant container					5
	PC16. discard all used items into the appropriate category of waste receptacles/bins					5
	PC17. perform hand hygiene before and after drawing blood					7
		154	58	15	26	55
2. HSS/N0511 Perform procedural activities of sample collection	PC1. extend the patient's arm and inspect the ante-cubital fossa or forearm for locating a vein					6
	PC2. ask the patient to form a fist so the veins are more prominent					5
	PC3. locate a vein suitable for venipuncture with least chance of damaging an artery or a nerve					5

	PC4. apply the tourniquet about 4–5 finger widths above the venipuncture site and re- examine the vein					5
	PC5. clean the venipuncture site with isopropyl alcohol and per institutional guidelines					6
	PC6. anchor the vein by holding the patient’s arm and placing a thumb below the venipuncture site					4
	PC7. insert the needle as per the guidelines depending upon the type of device (straight or a winged) used for sample collection					4
	PC8. enter the vein swiftly at an angle of less than/ equal to 30-degrees					6
	PC9. release the tourniquet when the blood starts flowing in the first tube or syringe					3
	PC10. follow standard processes as appropriate to various types of samples collection such as order of draw, mixing of sample etc.					3
	PC11. withdraw the needle gently and apply gentle pressure to the site with a clean gauze as per institutional guidelines					3
	PC12. ask the patient to press the venipuncture site gently with a gauze, with the arm extended and raised					3
	PC13. use appropriate equipment if required for difficult venous access					4
	PC14. perform hand hygiene (if using soap and water, dry hands with single-use towels) and follow PPE protocols					5

	PC15.prepare patient for the special procedure and take consent as required					7
	PC16.inform the patient about the special procedure and confirm understanding					4
	PC17.calm down anxious patients by providing necessary information and reassurance					7
	PC18.prepare the equipment for the special procedure to be performed by the clinician					7
	PC19.provide information about the sequence of activities involved in sample collection to the patient prior to the sample collection					5
	PC20.identify the appropriate sample collection article as per the test request form					
	PC21.provide procedural information to the patient for collecting samples of urine, stool, sputum, etc. including precautions of sample collection					5
	PC22.label the sample following standard protocols after collection					7
	PC23.handle, transfer and store the sample safely following standard protocols					7
		321	98	70	42	111
3. HSS/N0512, Perform post-procedural activities of sample collection	PC1. transport the samples to the laboratory in time					5

	PC2. handle, transfer, and store samples safely to avoid leakage and spilling					7
	PC3. maintain an appropriate temperature as per standards while transporting and storing samples					5
	PC4. use one requisition form for each blood culture set indicating the site used and time of sample collection					
	PC5. use appropriate format to complete documentation for transporting and storing samples					5
	PC6. check labels of samples for clarity, accuracy, and completeness					8
	PC7. keep track of patient's data and information					8
	PC8. maintain patient's record accurately and updated as per institutional protocol					6
	PC9. determine demand of diagnostic and other medical supplies accurately					10
	PC10. ensure stocks are replenished as per anticipated need					
	PC11. ensure the stocks are stored safely, securely and as per organizational standard practices					7
		160	56	10	33	61

<p>4. HSS/N9615 Maintain interpersonal relationship with patients, colleagues and others</p>	<p>PC1. communicate effectively with all individuals regardless of age, caste, gender, community or other characteristics without using terminology unfamiliar to them</p>					
	<p>PC2. utilize all training and information at one's disposal to provide relevant information to the individual</p>					
	<p>PC3. confirm that the needs of the individual have been met</p>					
	<p>PC4. respond to queries and information needs of all individuals</p>					
	<p>PC5. adhere to guidelines provided by one's organization or regulatory body relating to confidentiality</p>					
	<p>PC6. respect the individual's need for privacy</p>					
	<p>PC7. maintain any records required at the end of the interaction</p>					
	<p>PC8. integrate one's work with another people's work effectively</p>					
	<p>PC9. utilize time effectively and pass on essential information to other people on timely basis</p>					
	<p>PC10. work in a way that shows respect for other people</p>					
	<p>PC11. carry out any commitments made to other people</p>					

	PC12. reason out the failure to fulfil commitment					
	PC13. identify any problems with team members and other people and take the initiative to solve these problems					
	PC14. establish, agree, and record the work requirements clearly					
	PC15. ensure his/her work meets the agreed requirements					
	PC16. treat confidential information correctly					
	PC17. work in line with the organization’s procedures and policies and within the limits of his/ her job role					
		13	13	0	0	0
5. HSS/N9616 Maintain professional & medico-legal conduct	PC1. respect patient’s individual values and needs					
	PC2. maintain patient’s confidentiality					
	PC3. meet timelines for each assigned task					
	PC4. respect patient’s dignity and use polite language to communicate					
	PC5. maintain professional environment					
	PC6. work within organizational systems and requirements as appropriate to one’s role					
	PC7. adhere to legislation, protocols and guidelines relevant to one’s role and field of practice					
	PC8. maintain competence within one’s role and field of practice					

	PC9. evaluate and reflect on the quality of one's work and make continuing improvements					
	PC10. use relevant research-based protocols and guidelines as evidence to inform one's practice					
	PC11. recognize the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority					
	PC12. promote and demonstrate good practice as an individual and as a team member at all times					
	PC13. identify and manage potential and actual risks to the quality and safety of practice					
	PC14. maintain personal hygiene and contribute actively to the healthcare ecosystem					
	PC15. maintain a practice environment that is conducive to the provision of medico-legal healthcare					
		19	19	0	0	0
6. HSS/N9617 Maintain a safe, healthy and secure working environment	PC1. identify individual responsibilities in relation to maintaining workplace health safety and security requirements					
	PC2. comply with health, safety and security procedures for the workplace					
	PC3. comply with health, safety and security procedures and protocols for environmental safety					
	PC4. identify potential hazards and breaches of safe work practices					

	PC5. identify and interpret various hospital codes for emergency situations					
	PC6. correct any hazards that individual can deal with safely, competently and within the limits of authority					
	PC7. provide basic life support (BLS) and first aid in emergency situations, whenever applicable					
	PC8. follow the organization’s emergency procedures promptly, calmly, and efficiently					
	PC9. identify and recommend opportunities for improving health, safety, and security to the designated person					
	PC10. complete any health and safety records legibly and accurately					
	PC11. report any identified breaches in health, safety, and security procedures to the designated person					
	PC12. report the hazards that individual is not allowed to deal with to the relevant person and warn other people who may get affected promptly and accurately					
		59	20	30	9	0
7. HSS/N9618 Follow infection control policies & procedures including biomedical waste disposal protocols	PC1. handle, package, label, store, transport and dispose of waste appropriately to minimize potential for contact with the waste and to reduce the risk to the environment from accidental release from accidental release					

	PC2. store clinical or related waste in an area that is accessible only to authorized persons					
	PC3. minimize contamination of materials, equipment and instruments by aerosols and splatter					
	PC4. apply appropriate health and safety measures following appropriate personal clothing & protective equipment for infection prevention and control					
	PC5. identify infection risks and implement an appropriate response within own role and responsibility in accordance with the policies and procedures of the organization					
	PC6. follow procedures for risk control and risk containment for specific risks. Use signs when and where appropriate					
	PC7. follow protocols for care following exposure to blood or other body fluids as required					
	PC8. remove spills in accordance with the policies and procedures of the organization					
	PC9. clean and dry all work surfaces with a neutral detergent and warm water solution before and after each session or when visibly soiled					
	PC10. demarcate and maintain clean and contaminated zones in all aspects of health care work					

	PC11. confine records, materials and medicaments to a well-designated clean zone					
	PC12. confine contaminated instruments and equipment to a well-designated contaminated zone					
	PC13. decontaminate equipment requiring special processing in accordance with quality management systems to ensure full compliance with cleaning, disinfection and sterilization protocols					
	PC14. replace surface covers where applicable					
	PC15. maintain and store cleaning equipment					
	PC16. report and deal with spillages and contamination in accordance with current legislation and procedures					
	PC17. maintain hand hygiene following hand washing procedures before and after patient contact and/or after any activity likely to cause contamination					
	PC18. cover cuts and abrasions with water-proof dressings and change as necessary					
	PC19. change protective clothing and gowns/aprons daily, more frequently if soiled and where appropriate, after each patient contact					
	PC20. perform additional precautions when standard precautions alone may not be sufficient to prevent transmission of infection					
		64	21	30	13	0

<p>8. HSS/N9619 Follow etiquette for site visits</p>	<p>PC1. follow telephone etiquette while talking to client/patient</p>					
	<p>PC2. confirm purpose, time and site information for making the site visit</p>					
	<p>PC3. ensure that adequate required material and equipment are carried as per organizational procedures for required on-site activities</p>				<p>5</p>	
	<p>PC4. plan route for site visit and determine travel time for arriving on time at the site</p>				<p>11</p>	
	<p>PC5. carry requisite identification documents for introduction to the client on-site</p>				<p>9</p>	
	<p>PC6. introduce oneself and purpose for arrival to the client</p>				<p>11</p>	
	<p>PC7. ensure not to soil or litter the facility at any time</p>				<p>4</p>	
	<p>PC8. seek prior permission while accessing the premises</p>					
	<p>PC9. request the client to make necessary adjustments to the space for carrying out required activities as per standard</p>				<p>5</p>	
	<p>PC10. inform the client about the procedure and sequence of activities to be carried out</p>				<p>4</p>	
	<p>PC11. provide information on next steps and respond to related queries</p>				<p>4</p>	

Apprenticeship Curriculum: NAPS

	PC12. complete billing procedures and other documentation as required					4
	PC13. dispose any waste as per waste disposal guidelines					4
	PC14. address any delays, accidents or errors to ensure client/patient satisfaction					2
	PC15. obtain feedback from the client as per organizational procedures					5
	PC16. ensure all the belongings are being collected before leaving the site					5
		210	65	45	27	73

Annexure 3: Mode of Training

The following Modules/NOS may also be delivered online for which the resources are provided in the given table.

S. No.	Module Name/NOS Name (As Per Curriculum)	Name of Mapped Online Component	URL of Mapped Online Component

Infra requirement:

- Projector
- White board
- Lights
- PPT
- laptops