Model Curriculum

QP Name: COVID Frontline Worker (Sample Collection Support)

QP Code: HSS/Q0502

QP Version: 1.0

NSQF Level: 4

Model Curriculum Version: 1.0

Healthcare Sector Skill Council || Healthcare Sector Skill Council,520, DLF Tower A, 5th Floor, Jasola District Centre, New Delhi – 110025

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Training Parameters

Sector	Healthcare
Sub-Sector	Allied Health & Paramedic Services
Occupation	Diagnostics
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3212.0601
Minimum Educational Qualification and Experience	12th Class (Science)
Pre-Requisite License or Training	
Minimum Job Entry Age	18 Years
Last Reviewed On	28/05/2021
Next Review Date	
NSQC Approval Date	
QP Version	1.0
Model Curriculum Creation Date	
Model Curriculum Valid Up to Date	
Model Curriculum Version	1.0
Minimum Duration of the Course	787 Hours
Maximum Duration of the Course	787 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Organize pre-procedural requirements of sample collection.
- Perform sample collection following best practices, as per COVID protocols.
- Instruct the patients for collection of other types of samples such as urine, stool, sputum, etc.
- Carry sample storage and transport as per COVID protocols.
- Plan and Prepare for site visits to obtain samples as per COVID protocols.
- Maintain professional behaviour with co-workers, patients, and their families.
- Apply the health, safety, and security protocols at the workplace.
- Follow Sanitization and Infection Control Guidelines
- Compile information related to the job role from specific covid care facilities, information portals, and other relevant resources for latest updates about COVID protocols.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
HSS/N9622: Follow Sanitization and Infection Control Guidelines NOS Version No. 1.0 NSQF level 3	**02:00**	**07:00**	**03 Months (72 Days @8 hours/Day)**	**00:00**	**787:00**
Module 1: Infection control practices	02:00	07:00		00:00	
Bridge Module:	**14:00**	**04:00**		**00:00**	
Module 2: Introduction to the Program	09:00	00:00		00:00	
Module 3: Introduction to Human Body- Structure & Function	05:00	04:00		00:00	
HSS/N0510 Perform pre-procedural activities of sample collection. NOS Version No. 1.0 NSQF level 4	**18:00**	**36:00**		**00:00**	
Module 4: Pre-					

procedural activities of sample collection	18:00	36:00		00:00	
HSS/N0511 Perform procedural activities of sample collection. NOS Version 1.0 NSQF Level 4	**18:00**	**36:00**		**00:00**	
Module 5: Procedural activities of sample collection	18:00	36:00		00:00	
HSS/N0512 Perform post-procedural activities of sample collection. NOS Version 1.0 NSQF Level 4	**18:00**	**18:00**		**00:00**	
Module 6: Post- procedural activities of sample collection	18:00	18:00		00:00	
HSS/N9619 Follow etiquette for site visits. NOS Version 1.0 NSQF Level 4	**09:00**	**31:00**			
Module 7: Etiquette to be followed during site visits for sample collection	09:00	31:00			
Total Duration	**79:00**	**132:00**	**03 Months (72 Days @8 hours/Day)**	**00:00**	**787:00**

Module Details

Module 1: Infection control practices and waste management

Mapped to: HSS/N9622, v1.0

Terminal Outcomes:

- Apply self-hygiene and social distancing practices and follow infection control guidelines.
- Demonstrate correct waste disposal methods as per guidelines and regulations.

Duration: *02:00*	**Duration**: *07:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the concept of disease outbreak, epidemics, and pandemics and their impact on society at large. • Explain the significance of following prescribed rules and guidelines during an epidemic or a pandemic. • Differentiate between self-quarantine and self-isolation and their significance. • Discuss the significance of social distancing and alternate ways of carrying out everyday tasks (use of e-payment gateways/online learning/virtual meetings, etc.) during a pandemic. • Discuss the significance of conforming to basic personal and workplace hygiene practices such as washing hands, using alcohol-based hand sanitizers, examining office supplies/deliveries and their sanitization, etc. • List various surfaces that may serve as potential fomites at workplace. • Identify PPE to be used at workplace and the process of donning, doffing, and discarding them. • Discuss the importance and process of identifying and reporting symptoms to the concerned authorities. • Discuss organizational hygiene and sanitation guidelines and ways of following them and reporting breaches/gaps if any. • Explain the importance and mechanism of proper and safe disposal, transportation, and treatment of waste. • Discuss the ways of dealing with stress and anxiety during a disease outbreak.	• Show how to sanitize and disinfect one's work area regularly. • Demonstrate the correct way of washing hands using soap and water, and alcohol-based hand rubs. • Display the correct way of donning, doffing, and discarding PPE such as face masks, hand gloves, face shields, PPE suits, etc. • Demonstrate appropriate social and behavioural etiquette (greeting and meeting people, spitting/coughing/sneezing, etc.). • Prepare a list of relevant hotline/emergency numbers. • Select different types of waste and various types of colour coded bins/containers used for disposal of waste.
Classroom Aids:	
Computer with internet, Video presentation, e content for the job roles	
Tools, Equipment and Other Requirements	
E-modules depicting sanitization, infection control and waste disposal practices	

Module 2: Introduction to the Program

Bridge Module

Terminal Outcomes:

- Give an overview of the Healthcare Industry in India.
- Describe the different departments in a hospital.
- Identify the different tools and equipment specific to related job role.
- Discuss about covid care facilities, resources for covid related information related to the job role.

Duration: *09:00*	**Duration**: *00:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss in brief the healthcare delivery system. • Describe the various services offered to patients in a hospital setting. • Explain various departments and their functions in the hospital. • Explain the role and responsibility of a COVID Frontline Worker (Sample Collection Support). • Discuss about code of ethics. • Discuss about therapeutic communication. • Explain the standard hierarchy of healthcare professionals in a healthcare facility. • Differentiate between the In-Patient Department (IPD) and the Outpatient Department (OPD) • Explain the importance of keeping oneself updated related to the job role	
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster, AV Aids for Understanding Human Body Structure and Function, e content.	
Tools, Equipment and Other Requirements	
NA	

Module 3: Introduction to Human Body- Structure & Function

Bridge module

Terminal Outcomes:

- Demonstrate the structure and function of Human Body.

Duration: *05:00*	**Duration**: *04:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the organisation 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. • Discuss different types of body fluids, secretions, and excretions.	• Prepare human body systems using charts and models.
-Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster, e content	
Tools, Equipment and Other Requirements	
Human body skeleton, organ specimen	

Module 4: Pre-procedural activities of sample collection

Mapped to: HSS/N0510, v1.0

Terminal Outcomes:

- Organize pre-procedural requirements of sample collection such as necessary equipment and supplies etc.

Duration: *18:00*	**Duration**: *36:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Identify the different types of samples to be taken in the medical laboratory especially sample related to COVID 19 testing. • Identify different types of equipment required for sample collection. • Discuss about the importance of assembling all equipment before patient enters the room. • Explain the process of interpretation of the Test Request Forms (TRF) correctly. • Describe the correct method of assisting the patient before specimen collection. • Explain the process of sampling of sputum. • Discuss about usage of disposable tourniquets to prevent disease spread. • Explain about Laboratory safety and standard precautions.	• Demonstrate sample collection process from different sites as per COVID protocols. • Demonstrate in a role play about the patient preparation for specimen/sample collection. • Demonstrate the usage of disposable tourniquets to prevent disease spread.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster, e content	
Tools, Equipment and Other Requirements	
blood holder tray and rack, sample specimens, disposable tourniquets, specimen collection bottles/tubes, Test Request forms (sample), Sanitizer, Screen for patient privacy, nasal swab, Handwashing area with water source, QR codes, scanner, Rapid Antigen Testing Kits, Syringe, Needle, Tissue Paper, PPE Kit, Computer with internet connection	

Module 5: Procedural activities of sample collection

Mapped to: HSS/N0511, v1.0

Terminal Outcomes:

- Perform sample collection following best practices.
- Prepare the patient for Rapid Antigen Test (RAT) for COVID 19.

Duration: *18:00*	**Duration**: *36:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Enumerate common pre-analytical errors and complication of sample collection. • 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 about Rapid Antigen Test (RAT) and its importance related to COVID 19. • Explain the process of nasal swab collection.	• Identify blood collection devices and other equipment required such as syringe, evacuated tubes, different gauged needles etc. • Demonstrate the usage of tourniquet and its duration of application. • Demonstrate the correct method of preparing an appropriate site for obtaining blood samples. • Demonstrate the order of draw (for the tube types). • Demonstrate the correct method of collecting samples other than blood samples like nasal and oropharyngeal swab. • Demonstrate the correct way of conducting Rapid Antigen Test (RAT). • Demonstrate the correct method of preparing and labelling the sample for test, procedures, and identification purposes. • Demonstrate the correct method of assisting the patient during the collection of the specimen.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster, e content	
Tools, Equipment and Other Requirements	
blood holder tray and rack, sample specimens, disposable tourniquets, specimen collection bottles/tubes, Test Request forms (sample), Sanitizer, Handwashing area with water source, QR codes, scanner, Rapid Antigen Testing Kits, Syringe, Needle, Tissue Paper, PPE Kit, Computer with internet connection.	

Module 6: Post Procedural activities of sample collection

Mapped to: HSS/N0512, v1.0

Terminal Outcomes:

- Carry out sample transfer and storage.
- Understand the significance of critical alert values in laboratory reports.
- Explain about Laboratory Information System.

Duration: *18:00*	**Duration**: *18:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain various standard operating procedures for sample storage and transportation as per sample type. • Describe the significance of critical alert values in laboratory reports. • Explain the correct procedure of sample transportation as per sample type. • Discuss the process of organizing stocks related to phlebotomy as per organizational practices. • Discuss the importance of Laboratory Information System. • Explain about the process of managing inventory through checklists and inventory registers. • Demonstrate the correct method of assisting the patient after collection of the specimen. • Discuss the importance of maintaining records and documentation required for COVID patient. • Explain the importance of sanitizing phlebotomy chair after each use and decontamination of a phlebotomy room. • Discuss the importance of disinfecting the blood holder tray and rack after each use. • Explain the importance of avoiding splash, agitation, or leakage of samples. • Discuss the process to handle lab waste from suspected/confirmed COVID 19 patient specimens.	• Demonstrate sample storage and transportation Process as per COVID protocols. • Demonstrate the sanitization, decontamination, disinfecting process of phlebotomy chair, phlebotomy room, blood holder tray and rack in a skill lab • Demonstrate working on Laboratory Information System. • Create, format, and edit document application software such as MS Word, MS Excel, PowerPoint. • Perform data entry (Typing) in English or Hindi/Regional language with a reasonable speed and accuracy. • Perform data sharing/transfer from/to computer through cables/ wireless modes using different mobile apps/ remote access software. • Demonstrate the correct waste disposal as per COVID guidelines.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster, e content	
Tools, Equipment and Other Requirements	
blood holder tray and rack, sample specimens, specimen collection bottles/tubes, Test Request forms (sample), Sanitizer, Handwashing area with water source, QR codes, scanner, PPE Kit, Computer with internet connection, Refrigerator, cold chain system	

Module 7: Etiquette to be followed during site visits for sample collection.

Mapped to: HSS/N9619, v1.0

Terminal Outcomes:

- Prepare for site visits while following visit etiquettes.
- Maintain professional behaviour with co-workers, patients, and their families.

Duration: *09:00*	**Duration**: *31:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• State the importance of being on time. • Explain about phone etiquettes to be followed while organizing a site visit. • State the importance of arranging the necessary equipment/consumables as per checklist before a site visit. • 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 introducing oneself to the patient on arrival. • Explain about billing procedures. • Discuss the process of addressing delays, accidents, or errors to ensure patient satisfaction.	• Demonstrate phone etiquettes in a roleplay. • Prepare a sample checklist for a site visit. • Demonstrate in a role play about the process to maintain patient privacy in a home set up. • Demonstrate the billing process in a skill lab using digital mode of payment, swipe machine etc. • Demonstrate in a role play about performing the waste disposal procedures at a client site.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster, e content	
Tools, Equipment and Other Requirements	
blood holder tray and rack, sample specimens, disposable tourniquets, specimen collection bottles/tubes, Test Request forms (sample), Sanitizer, Swipe machine, QR codes, scanner, Rapid Antigen Testing Kits, Syringe, Needle, Tissue Paper, PPE Kit, Bill Book.	

Mandatory Duration: *576:00*	Recommended Duration: *00:00*
Module Name: On-the-Job Training **Location: On Site**	
Terminal Outcomes • Follow covid appropriate behaviour like frequent handwashing, sanitization, social distancing. • Understand about COVID specific care facilities, portals, and resources for latest updates about COVID protocols as per requirement of the job role. • Perform Pre procedural requirements of sample collections including COVID sample • Perform Procedural requirements of sample collections, including Rapid Antigen Test (RAT), nasal swab etc. • Perform Post Procedural requirements of sample collection. • Perform sample collection procedure at patient site/home care set up. • Perform billing procedure as per organizational policies and procedures. • Demonstrate documentation and reporting procedure. • Perform data entry as required in a job role. • Demonstrate handling of biomedical waste from its segregation in different coloured dustbin as per the protocol. • Demonstrate spillage management as per COVID protocols. • Demonstrate donning and doffing off Personal Protective Equipment (PPE).	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
MD/DNB	Pathology/Microbiology/Laboratory Medicine/Biochemistry	1		0		1 year of working experience in Pathology Lab is mandatory
Medical Graduate	MBBS	3		0		2 year of working experience in Pathology Lab is mandatory
Ph.D.	Medical biochemistry/ Medical Microbiology/ Nursing	2		0		1 year of working experience in Pathology lab or Phlebotomy unit is mandatory
M.Sc.	Nursing	3		0		2 year of working experience in Phlebotomy Unit is mandatory
B.Sc. or Post Basic B.Sc.	Nursing	5		0		5 year of working experience in Pathology lab or Phlebotomy Unit is mandatory
Diploma	GNM (General Nursing Midwifery	7		0		5 year of working experience in Phlebotomy Unit or Pathology lab is mandatory
Graduate	M.Sc./B.Sc in Medical biochemistry/ Medical Microbiology	5		0		5 year of working experience in Pathology lab or Phlebotomy Unit is mandatory
B.Sc.	MLT	6		0		5 year of working experience in Pathology lab or Phlebotomy Unit is mandatory
Diploma	MLT	7		0		5 year of working experience in Pathology lab or Phlebotomy Unit is mandatory

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "COVID Frontline Worker (Sample Collection Support)" mapped to QP: "HSS/Q0502 v1.0" with minimum score of 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q2601" with minimum score of 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
MD/DNB	Pathology/Microbiology /Laboratory Medicine/Biochemistry	2		0		
Medical Graduate	MBBS	4		0		
Ph.D.	Medical biochemistry/Medical Microbiology/ Nursing	3		0		
M.Sc.	Nursing	4		0		
B.Sc. or Post Basic B.Sc.	Nursing	5		0		
Diploma	GNM (General Nursing Midwifery	5		0		
Graduate	M.Sc./B.Sc in Medical biochemistry/Medical Microbiology	6		0		
B.Sc.	MLT	6		0		
Diploma	MLT	8		0		

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "COVID Frontline Worker (Sample Collection Support)" mapped to QP: "HSS/Q0502 v1.0" with minimum score of 80%.	Recommended that the Assessor is certified for the Job Role: "Assessor", mapped to the Qualification Pack: "MEP/Q2701" with minimum score of 80%.

Assessment Strategy

The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria. Accordingly, assessment criteria for each job role is set and made available in qualification pack.

The assessment papers for both theory and practical would be developed by Subject Matter Experts (SME) hired by Healthcare Sector Skill Council or with the HSSC accredited Assessment Agency as per the assessment criteria mentioned in the Qualification Pack. The assessments papers would also be checked for the various outcome-based parameters such as quality, time taken, precision, tools & equipment requirement etc.

Each NOS in the Qualification Pack (QP) is assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Element/Performance Criteria in the NOS is assigned marks on relative importance, criticality of function and training infrastructure.

The On the Job (OJT) training component, which is a mandatory part of the training, done by the candidate at a healthcare organization has to be appropriately captured as per OJT logbook framework. This shall be assessed and would carry the weightage during final assessment done by HSSC as per assessment strategy defined for COVID Frontline Worker (Sample Collection Support).

The following tools would be used for final assessment:

1. Practical Assessment: This comprises of a creation of mock environment in the skill lab which is equipped with all equipment required for the qualification pack.

Candidate's soft skills, communication, aptitude, safety consciousness, quality consciousness etc. is ascertained by observation and marked in observation checklist. The outcome is measured against the specified dimensions and standards to gauge the level of their skill achievements.

2. Viva/Structured Interview: This tool is used to assess the conceptual understanding and the behavioral aspects about the job role and the specific task at hand. It also includes questions on safety, quality, environment, and equipment etc.

3. Written Test: Question paper consisting of 100 MCQs (Hard:40, Medium:30 and Easy: 30) with questions from each element of each NOS. The written assessment paper is comprised of following types of questions:

i. True / False Statements
ii. Multiple Choice Questions
iii. Matching Type Questions.
iv. Fill in the blanks.
v. Scenario based Questions.
vi. Identification Questions

QA Regarding Assessors:

Assessors are selected as per the "eligibility criteria" laid down by HSSC for assessing each job role. The assessors selected by Assessment Agencies are scrutinized and made to undergo training and

introduction to HSSC Assessment Framework, competency-based assessments, assessors guide etc. HSSC conducts "Training of Assessors" program from time to time for each job role and sensitize assessors regarding assessment process and strategy which is outlined on following mandatory parameters:

1) Guidance regarding NSQF.
2) Qualification Pack Structure
3) Guidance for the assessor to conduct theory, practical and viva assessments.
4) Guidance for trainees to be given by assessor before the start of the assessments.
5) Guidance on assessments process, practical brief with steps of operations practical observation checklist and mark sheet
6) Viva guidance for uniformity and consistency across the batch.
7) Mock assessments
8) Sample question paper and practical demonstration

References

Glossary

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.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.

Acronyms and Abbreviations

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
CPR	Cardiopulmonary Resuscitation
RAT	Rapid Antigen Test
AEFI	Adverse Event Following Immunization
PPE	Personal Protective Equipment
BMW	Bio Medical Waste Management
TRF	Test Requisition Form