

Revised Application Documentation: Version 5 /25 May 2015

QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

Name and address of submitting body:

Healthcare Sector Skill Council

C/o Confederation of Indian Industry, 23, Institutional Area Lodi Road New Delhi – 110 003

Name and contact details of individual dealing with the submission

Name: Mr. Ashish Jain

Position in the organisation: CEO

Address if different from above

Office No. 711, 7th Floor

DLF Tower A, Jasola

New Delhi - 110025, India

Tel number(s) 011-40505850, 011 41017346

E-mail address: ashish.jain@healthcare-ssc.in

List of documents submitted in support of the Qualifications File (attached in following order)

1. Qualification Pack- Annexure1
2. Occupational Mapping Report-Annexure 2
3. Functional Analysis Report-Annexure 3
4. RFP for development of occupational standards-Annexure 4
5. Validation group and industry consultations- Annexure 5
6. The Brief Report on the whole process of the development, validation and notification of these qualification packs along with list of companies and Industry associations involved -Annexure 6
7. Human Resource & Skills Requirement in Healthcare Sector accessible on below given link:
<http://healthcare-ssc.in/images/Human%20Resource%20&%20Skills%20Requirement%20in%20Healthcare%20sector.pdf>
8. Quality Assurance Strategy of Assessment in HSSC-Annexure 7
9. Assessment criteria/framework-Annexure 8

QUALIFICATION FILE SUMMARY

Qualification Title	Cardiac Care Technician (HSS/Q0101)		
Body/bodies which will assess candidates	Healthcare Sector Skill Council Accredited Assessing Bodies		
Body/bodies which will award the certificate for the qualification.	Healthcare Sector Skill Council		
Body which will accredit providers to offer the qualification.	Healthcare Sector Skill Council		
Occupation(s) to which the qualification gives access	<p>Cardiac care technician in the health Industry is also known as a cardio graphic technician or cardiovascular technician.</p> <p>Brief Job Description: Individuals in this job role assist in performing invasive and non-invasive diagnostic examinations and therapeutic interventions of the heart and/or blood vessels at the request or direction of provider</p>		
Proposed level of the qualification in the NSQF.	Level 4		
Anticipated volume of training/learning required to complete the qualification.	1500 hrs.		
Entry requirements / recommendations.	Class XII in Science Or Level 3 ECG Technician with Experience of minimum 3 Years.		
Progression from the qualification.	<p>Progression will be possible in both academic as well as professional area as:</p> <p>Level 5- Team Leader/ Supervisor – Cath Lab Department</p> <p>or</p> <p>Level 5: Specialization in advanced cardiographic & cath lab procedures through bridge course</p>		
Planned arrangements for RPL.	HSSC has developed RPL policy to conduct pre assessment of students for gap analysis as per NOS, sharing the gap & final assessments of students and certification. It is explained in section 1 under Assessment, Point 2		
International comparability where known	While writing the NOSs the UK NOSs were also referred to and an effort was taken to maintain comparability in the technical part of the NOSs.		
Formal structure of the qualification			
Title of unit or other component (include any identification code used)	Mandatory/ Optional	Estimated size (learning hours)	Level
HSS/ N 0101: Monitor patients' heart rate and rhythm using electrocardiogram (ECG) equipment	Mandatory	Class Room and Skill Lab Training = 840 hours Clinical/Laboratory Training (OJT) = 660 hours	4
HSS/ N 0102: Perform Treadmill Test (TT) to assess cardiovascular response	Mandatory		4
HSS/ N 0103: Assist cardiologist in assessing cardiac structure and function using cardiac	Mandatory		4

ultrasound			
HSS/ N 0104: Assist with transesophageal cardiac ultrasound studies	Mandatory		4
HSS/ N 0105: Assist with pericardiocentesis procedure by echocardiography	Mandatory		4
HSS/ N 0106: Assist with implant of pacemakers by establishing lead integrity	Mandatory		4
HSS/ N 0107: Assist with insertion of temporary pacemakers	Mandatory		4
HSS/ N 0108: Demonstrate proficiency in using equipment	Mandatory		4
HSS/ N 9602: Ensure availability of medical and diagnostic supplies	Mandatory		4
HSS/ N 9603: Act within the limits of one's competence and authority	Mandatory		4
HSS/ N 9604: Work effectively with others	Mandatory		4
HSS/ N 9605: Manage work to meet requirements	Mandatory		4
HSS/ N 9606: Maintain a safe, healthy, and secure working environment	Mandatory		4
HSS/ N 9607: Practice Code of conduct while performing duties	Mandatory		4
HSS/ N 9609: Follow biomedical waste disposal protocols	Mandatory		4
HSS/ N 9610: Follow infection control policies and procedures	Mandatory		4
HSS/ N 9611: Monitor and assure quality	Mandatory		4

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack.

Give details of the document here:

Qualification pack is attached as Annexure 1

SECTION 1

ASSESSMENT

Name of assessment body:

If there will be more than one assessment body for this qualification, give details.

Manipal City & Guilds
IRIS corporate solutions pvt ltd
Aspiring Mind
CII

Will the assessment body be responsible for RPL assessment?

Give details of how RPL assessment for the qualification will be carried out and quality assured.

HSSC conducts QP-NOS based direct three-way assessment for each and every candidate applied for recognition of prior learning (vis. Certifying the un-certified but skilled workforce who acquired skills through experience of years). Here, the candidates may undergo short-term training of gaps identified. The assessment is conducted via HSSC certified assessor. The assessment pattern is as follows:

REGISTRATION

The candidates need to submit registration form online along with uploading of scanned copies of some mandatory documents. Based on screening of the form, the candidates would be registered on conforming following eligibility criteria.

PRE-ASSESSMENT: The purpose of Pre-assessment is to shortlist candidates as per prescribed limit, and also to notify gaps NOS wise to each candidate for their own self-training or opting for short-term training module before final assessment. The pre-assessment also informs about the reliability of information provided by candidates that they have experience working in the given job role. The pre-assessment is Online, Objective type, NOS based, with Each NOS compulsory each carrying 100 marks, No negative marking for incorrect answers, Test venue is kept as may be home/cyber café/institution/HSSC assessment center if the system have google chrome (Version 41.0.2272.101) and a web camera. Timed test link which expires after 90 minutes from the time of starting / writing the test is used for the same. Result is presented with no. of questions allotted and answered correctly for each NOS along with marks scored for each NOS out of 100.

PORTFOLIO SCREENING

Each registered candidate has to prepare and submit the portfolio as per formats given by HSSC. The portfolio may be verified by HSSC/nominated assessor during pre-assessment and scoring card is given for each portfolio.

FINAL ASSESSMENT: The candidates conforming to RPL guidelines based on both pre-assessment and portfolio screening are finally selected for final assessment. Final assessment is conducted through HSSC accredited Assessing body as per HSSC defined assessment criteria and NOS used for assessment of fresh entrants as described above. Final Assessment is conducted at the training site or at working place in case number of enrolled candidate from the site is more than 15. If needed, Assessment centers is arranged for assessment of candidates in cluster

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:

QA regarding accreditation of Assessing Body:

The HSSC Accreditation process is divided into two steps:

- 1) Pre-accreditation process:
 - Apply for Accreditation: Application form with desired documents in prescribed format to be sent.
 - Document Compliance Check: to be done for ensuring the compliance and adherence of applied assessing body according to criteria laid down by HSSC.
 - Presentation on Quality Assurance: to be given by Assessing body highlighting the quality assurance process laid down by AB at the process points
 - Once the assessing body clears the due diligence process, the accreditation is given along with terms and conditions.
- 2) Post-accreditation process: Post accreditation, the accredited assessing bodies needs to fulfill following minimum eligibility criteria or requisites for implementation:
 - All Empanelled Assessors would have to undergo **"Train the Assessor"** Program conducted by HSSC for each job role time to time.
 - Accredited Assessing Body would have to abide with requisite time-lines, policies and regulations declared by HSSC.
 - Accredited Assessing Body with times would have to contribute in expansion of the questionnaire.

QA Regarding Assessment Criteria & papers:

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

The assessment sets as well as assessment criteria are then reviewed by panel of experts from Industry as well as HSSC official for consistency and suitability. The assessments are designed so as to assess maximum parts during the practical hands on work. The technical limitations at the training centres are taken care in theory and viva.

All HSSC accredited Assessment Agency follow the "HSSC process of Assessment Framework" and HSSC approved assessment papers. The assessment by assessment agency will be completely based on the assessment criteria as mentioned in the Qualification Pack developed by HSSC.

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

The following tools are proposed to be used for final assessment:

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

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

2 Viva/Structured Interview: This tool will be used to assess the conceptual understanding and the behavioural aspects as regards the job role and the specific task at hand. It will also include questions on safety, quality, environment and equipment's etc.

3 Written Test: Under this test few key items which cannot be assessed practically will be assessed. The written assessment will comprise of

- i. True / False Statements
- ii Multiple Choice Questions
- iii Matching Type Questions.
- iv) Fill in the blanks

QA Regarding Assessors:

Assessors are selected as per the “eligibility criteria” laid down by HSSC for assessors for 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 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

HSSC also conduct telephonic orientation of the assessors before each assessment for the given job role to assure quality, fairness and timely conduct of assessment.

The assessment agencies are instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments.

QA before, during and after Assessments:

HSSC ensures pre-requisites of Assessment needed by training institute regarding ARTICLES like Mannequins, Mock Ward Infrastructure, Transferring Equipment, Job role related equipment; INFRASTRUCTURE like Class rooms, Skill Lab, Aids like board/marker/logistics, Furniture like display tables, chairs; STAFF like Co-ordinator from training institute, Peon, Some additional members(for simulated situations, if required); DOCUMENTS like Admit Card, Govt. validated ID proof, Record Books like attendance, log book, internal evaluation sheets, Student Enrollment details; for CO-ORDINATION one full time co-ordination point for co-ordination with assessment coordinator before, during and after assessment.

HSSC ensures the three Phases of Assessment to be assured by assessing body and assessor for fair, consistent and quality assessment. The three phases of assessment is enlisted below:

PREPARATORY PHASE: **Documents ensured to be packed, sent and received:** Seal Pack of Sets of Papers, Invigilation Sheet/Covering letter, OMR/Answer sheet; Well **Co-ordination needs to be assured between** Assessment Co-ordinator of assessing body, HSSC official, Co-ordinator from skill center and assessor.

PHASE OF CONDUCT:

1) **Written Examination:**

- o Assessor should reach the VTP 30 minutes before the assessment and ensure that all the arrangements are as per the HSSC rules and regulation
- o He should make seating arrangement to students leaving minimum 3 feet space between candidates.
- o He should make the students sit in the order of seating arrangements.
- o The enrolment numbers are to be written on the desks before the arrival of students.
- o The details to be filled like assessor name , date and Qualification name should be written on the board
- o Learners should keep all their belongings outside the classroom. All mobiles should be switched off and kept on the desk in front of the invigilator

- o The seal of the assessment materials is opened in front of the students.
- o OMR sheets to be distributed to all learners
- o Assessors should instruct the learners on the rules and regulation of the assessment
 - No. of questions
 - Duration of paper
 - Disciplinary rules
 - Administrative rules

2) Attendance:

- o The assessor/assessment co-ordinator needs to get signature of all candidates while theory as well as practical examination on invigilation sheet. The sheets are signed and stamped by the In-charge /Head of the Training Centre.
- o The assessor/assessment co-ordinator needs to verify the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same needs to be mentioned in the attendance sheet. In case of suspicion, the assessor should authenticate and cross verify trainee's credentials in the enrolment form.
- o The assessor/assessment co-ordinator needs to punch the trainee's roll number on all the test pieces.
- o The assessor/assessment co-ordinator needs to take a photograph of all the students along with the assessor standing in the middle and with the centre name/banner at the back as evidence.
- o The assessor/assessment co-ordinator needs to carry a camera to click photograph of the trainees working on the job and giving theory exam as evidence.
- o The assessor/assessment co-ordinator also needs to carry a photo ID card.
- o The assessor/assessment co-ordinator also needs to take the photographs as evidence from appropriate angles/sides of the final work piece/job submitted by the trainee. This evidence is signed by the trainee at the time of submission of the job piece.
- o The assessor/assessment co-ordinator needs to measure the dimensions and finish of the submitted job piece as per the tolerance or standards mentioned in the assessment guide.

3) Segregate learners into batches:

- o Assign combination of one critical and one elementary NOS along with the soft skill NOS
- o Allocate time to learner
- o Ask learners to be present 5 minutes earlier than the time allotted at the lab

4) Conduct Practical Assessments:

- o Assign practical task to the learners
- o Ask the learner to collect articles and be ready for assessments
- o Observe learner conducting the assigned task
- o Evaluate and Record observations and marks and in the recording sheets
- o You may ask learners question on the task being done

5) Conduct Viva:

- o Ask questions from the learners on the assigned task
- o Ask questions prescribed in the assessment guide on non-prescribed tasks to ensure that the learners have complete knowledge on the assessment

6) Collate Results:

- o Check written answer scripts
- o Sum up the practical NOS marks
- o Sum up the viva marks
- o Remember to sign off on all sheets where scores are mentioned
- o Submit the collated result to assessment body representative/project manager

7) Surprise Visits/Surveillance check is kept to ensure the quality and fair assessments.

POST-ASSESSMENT PHASE

1) Verify Result

- o Check for accuracy of names and date of birth
- o Check for accuracy of marks against each learner
- o Ensure that the pass percentage is correctly applied to the result
- o Ensure that the learner has cleared all sections of the assessments in line with the HSSC assessment strategy
- o Check if the excel sheet for each learner is accurately filled and is available for cross referencing with the covering result sheet
- o Each and every result has to get cross-verified by HSSC official

2) Upload/Sharing of Results

- o Once the results are ready it is uploaded on the SDMS website/portal and verified on the same
- o Or the results are shared to Training institute only by HSSC.
- o In case of any query or issue raised for assessment, the assessments are subjected to re-evaluation as per protocol laid down by HSSC.

3) Documentation

- o Question papers are kept in secure cupboard with limited and controlled access.
- o Used OMR sheets are to be stored for the next ten years
- o QP should be always current version

Assessment process and guidelines are attached as Annexure 7

Please attach any documents giving further information about assessment and/or RPL.

Give details of the document(s) here:

1. **Quality Assurance Strategy of Assessment in HSSC attached as Annexure 7**
2. **Assessment Criteria attached as Annexure 8**

ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as per the assessment criteria. Insert the required number of rows.

<u>Job Role</u>	Cardiac Care Technician
<u>Qualification Pack Code</u>	HSS/Q0101
<u>Sector Skill Council</u>	Healthcare Sector Skill Council

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

Skills Practical and Viva (80% weightage)					
				Marks Alloted	
Grand Total-1 (Subject Domain)				400	
Grand Total-2 (Soft Skills and Comunication)				100	
Grand Total-(Skills Practical and Viva)				500	
Passing Marks (80% of Max. Marks)				400	
Theory (20% weightage)					
				Marks Alloted	
Grand Total-1 (Subject Domain)				80	
Grand Total-2 (Soft Skills and Comunication)				20	
Grand Total-(Theory)				100	
Passing Marks (50% of Max. Marks)				50	
Grand Total-(Skills Practical and Viva + Theory)				600	
Overall Result				Criteria is to pass in both theory and practical individually. If fail in any one of them, then candidate is fail	
Detailed Break Up of Marks				Skills Practical & Viva	
Subject Domain				Pick any 2 NOS each of 200 marks totaling 400	
Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (400)	Out Of	Marks Allocation	
				Viva	Skills Practical
1. HSS/ N 0101 Monitor patients' heart rate and rhythm using electrocardiogram (ECG) equipment	PC1. Set the room for taking the ECG readings	200	20	5	15
	PC2. Attach, connect, and operate electrodes from specified body areas to leads from electrocardiograph machine		60	20	40
	PC3. Review patient's record and instructs patients prior to procedures		40	10	30
	PC4. Set the ECG machines and explain the ECG procedures clearly to the patient		40	10	30

	PC5. Monitor patient during procedures and report any abnormal findings		20	10	10
	PC6. Edit and forward results to attending physician for analysis and interpretation		10	5	5
	PC7. Maintains ECG equipment and supplies		10	5	5
	Total		200	65	135
2.HSS/ N 0102: Perform treadmill test (TT) to assess cardiovascular response	PC1. Take consent from patient base on ECG results	200	20	5	15
	PC2. Prepare patient for test		20	5	15
	PC3. Ensure patient identification and review indication for procedure		20	5	15
	PC4. Take pertinent patient history including cardiac risk factors and medications		30	10	20
	PC5. Explain purpose and procedure to the patient and clarify requirements of them for the test		20	10	10
	PC6. Continually observe the patient's condition and reactions, monitor ECG and take required measurements and recordings, at intervals appropriate to patient's symptoms and/or test protocol		60	20	40
	PC7. Assist in evaluating test results		30	10	20
	Total		200	65	135
3.HSS/ N 0103: Assist cardiologist in assessing cardiac structure and function using cardiac ultrasound	PC1. Ensure patient identification and explain procedure to the patient	200	20	10	10
	PC2. Record patient's demographic data and vitals		50	20	30
	PC3. Activate machine, calibrate if required		50	20	30
	PC4. Know about heart function and anatomy		30	30	0
	PC5. Prepare patients for ultrasound		50	10	40
	Total		200	90	110
4.HSS/ N 0104: Assist with transesophageal cardiac ultrasound studies	PC1. Ensure patient identification	200	20	10	10
	PC2. Obtain patient's informed consent if required as per the protocols		20	10	10
	PC3. Review indication and explain the procedure and requirements to patient		40	20	20

	PC4. Arrange the set up for transesophageal ultrasound		60	20	40
	PC5. Assemble tray for procedure, including intravenous setup, and draw up medication as required		60	20	40
	Total		200	80	120
5.HSS/ N 0105: Assist with pericardiocentesis procedure by echocardiography	PC1. Ensure patient identification and obtain patient's informed consent	200	40	20	20
	PC2. Explain the indication for the test and the procedure to the patient		60	20	40
	PC3. Set up pericardiocentesis tray		100	20	80
	Total		200	60	140
6.HSS/ N 0106: Assist with implant of pacemakers by establishing lead integrity	PC1. Confirm identity of patient	200	20	10	10
	PC2. Explain procedure and have patient sign informed consent		40	10	30
	PC3. Prepare table and assist in patient transfer		80	20	60
	PC4. Follow the instructions to determine the type of the lead to be used		60	20	40
	Total		200	60	140
7.HSS/ N 0107: Assist with insertion of temporary pacemakers	PC1. Ensure patient identification	200	20	10	10
	PC2. Explain procedure and take informed consent		30	10	20
	PC3. Prepare table and assist in patient transfer		70	30	40
	PC4. Ensure that a defibrillator and other resuscitation equipment are immediately accessible		40	10	30
	PC5. Ensure that strict aseptic technique is used like using a mask, gown and gloves		40	10	30
	Total		200	70	130
8. HSS/ N 0108: Demonstrate proficiency in using equipment	PC1. Prepare the cardiovascular equipment and hemodynamic monitoring system in preparing for various diagnostic procedure treatment	200	20	10	10
	PC2. Prepare the physiologic and analytical equipment during diagnostic and therapeutic procedures performed by the physician		20	10	10
	PC3. Assists in the performance of diagnostic cardiac equipment		16	6	10

PC4. Interpret pressure waveforms and operates all physiological recording equipment	18	6	12
PC5. Perform procedures on equipment such as:			
· Calipers	2	0	2
· Computers/keyboards/databases	2	0	2
· Single-channel and three channel electrocardiographs	2	0	2
· Ambulatory ECG recorder/monitor	2	0	2
· Ambulatory ECG analysis systems	2	0	2
· Oscilloscopes	2	0	2
· Treadmills and stress system recording devices	2	0	2
· Ergometer and bicycle	2	0	2
· Digital, mercury, aneroid	2	0	2
· Sphygmomanometers	2	0	2
· Oxygen saturation devices	2	0	2
· External pacemakers	2	0	2
· External defibrillators	2	0	2
· External pacing systems	2	0	2
· ECG management systems	2	0	2
· ECG/BP computer systems	2	0	2
· Simulators	2	0	2
· Intravenous pumps	2	0	2
· Tilt table	2	0	2
· Stethoscope	2	0	2
· Resuscitation cart	2	0	2
· Transtelephonic recorders	2	0	2
· Oxygen regulators	2	0	2
· Suction devices	2	0	2
· Ambulatory blood pressure recorders/monitors	2	0	2
· Pacing leads	2	0	2
· Esophageal pacing leads	2	0	2
· Temporary pacemakers	2	0	2
· Pacemaker minclinic	2	0	2
· Pacemaker magnet	2	0	2
· All types of electrodes	2	0	2
· Pacemaker system analysers	2	0	2
PC6. Identify new equipment and accessories that are needed	20	10	10
PC7. Review technical specifications of equipment	20	10	10

	required				
	PC8. Compare cost/benefits of equipment to assist in purchasing recommendations		22	20	2
	Total		200	72	128
9. 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	200	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
	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 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
	Total		200	55	145
Grand Total-1 (Subject Domain)		400			
Soft Skills and Communication		Pick one field from both parts each carrying 50 marks totaling 100			
Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (100)	Out Of	Marks Allocation	
				Viva	Observation/ Role Play
Part 1 (Pick one field randomly carrying 50 marks)					
1. Attitude					
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	30	2	0	2
	PC2. Work within organisational systems and requirements as appropriate to one's role		2	0	2
	PC3. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority		8	4	4
	PC4. Maintain competence within one's role and field of practice		2	0	2
	PC5. Use relevant research based protocols and guidelines as		4	2	2

	evidence to inform one's practice				
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		4	2	2
	PC7. Identify and manage potential and actual risks to the quality and safety of practice		4	2	2
	PC8. Evaluate and reflect on the quality of one's work and make continuing improvements		4	2	2
			30	12	18
HSS/ N 9607 (Practice Code of conduct while performing duties)	PC1. Adhere to protocols and guidelines relevant to the role and field of practice	20	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 authority		3	1	2
	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
				20	7
Attitude Total		50	50	19	31
2. Work Management					
HSS/ N 9602 (Ensure availability of medical and diagnostic supplies)	PC1. Maintain adequate supplies of medical and diagnostic supplies	25	5	5	0
	PC2. Arrive at actual demand as accurately as possible		5	3	2
	PC3. Anticipate future demand based on internal, external and other contributing factors as		10	5	5

	accurately as possible				
	PC4. Handle situations of stock-outs or unavailability of stocks without compromising health needs of patients/ individuals		5	5	0
			25	18	7
HSS/ N 9605 (Manage work to meet requirements)	PC1. Clearly establish, agree, and record the work requirements	25	10	5	5
	PC2. Utilise time effectively		3	0	3
	PC3. Ensure his/her work meets the agreed requirements		3	0	3
	PC4. Treat confidential information correctly		3	3	0
	PC5. Work in line with the organisation's procedures and policies and within the limits of his/her job role		6	3	3
			25	11	14
Work Management Total		50	50	29	21

Part 2 (Pick one field as per NOS marked carrying 50 marks)

1. Team Work

HSS/ N 9604 (Work effectively with others)	PC1. Communicate with other people clearly and effectively	50	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
	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

2. Safety management

HSS/ N 9606 (Maintain a safe, healthy, and secure working	PC1. Identify individual responsibilities in relation to maintaining workplace health safety and security requirements	50	6	2	4
--	--	----	---	---	---

environment)	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

3. Waste Management

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	50	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		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		8	4	4

	categories of waste				
	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

4. Quality Assurance

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 person		4	2	2
	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
			50	32	18
Grand Total-2 (Soft Skills and Communication)		100			
Detailed Break Up of Marks			Theory		
Subject Domain			Pick all NOS totalling 80 marks		
National Occupational Standards (NOS)	Assessment Criteria for the Assessable Outcomes	Weightage	Marks Allocation		
			Theory		
1. HSS/ N 0101 Monitor patients' heart rate and rhythm using electrocardiogram (ECG) equipment	PC1. Set the room for taking the ECG readings	9	9	9	
	PC2. Attach, connect, and operate electrodes from specified body areas to leads from electrocardiograph machine				
	PC3. Review patient's record and instructs patients prior to procedures				
	PC4. Set the ECG machines and explain the ECG procedures clearly to the patient				
	PC5. Monitor patient during procedures and report any abnormal findings				
	PC6. Edit and forward results to attending physician for analysis and interpretation				
	PC7. Maintains ECG equipment and supplies				
Total			9		
2.HSS/ N 0102: Perform treadmill test (TT) to assess cardiovascular response	PC1. Take consent from patient base on ECG results	9	9	9	
	PC2. Prepare patient for test				
	PC3. Ensure patient identification and review indication for procedure				
	PC4. Take pertinent patient history including cardiac risk factors and medications				

	PC5. Explain purpose and procedure to the patient and clarify requirements of them for the test		
	PC6. Continually observe the patient's condition and reactions, monitor ECG and take required measurements and recordings, at intervals appropriate to patient's symptoms and/or test protocol		
	PC7. Assist in evaluating test results		
	Total		9
3.HSS/ N 0103: Assist cardiologist in assessing cardiac structure and function using cardiac ultrasound	PC1. Ensure patient identification and explain procedure to the patient	9	9
	PC2. Record patient's demographic data and vitals		
	PC3. Activate machine, calibrate if required		
	PC4. Know about heart function and anatomy		
	PC5. Prepare patients for ultrasound		
	Total		9
4.HSS/ N 0104: Assist with transesophageal cardiac ultrasound studies	PC1. Ensure patient identification	9	9
	PC2. Obtain patient's informed consent if required as per the protocols		
	PC3. Review indication and explain the procedure and requirements to patient		
	PC4. Arrange the set up for transesophageal ultrasound		
	PC5. Assemble tray for procedure, including intravenous setup, and draw up medication as required		
	Total		9
5.HSS/ N 0105: Assist with pericardiocentesis procedure by echocardiography	PC1. Ensure patient identification and obtain patient's informed consent	9	9
	PC2. Explain the indication for the test and the procedure to the patient		
	PC3. Set up pericardiocentesis tray		
	Total		9
6.HSS/ N 0106: Assist with implant of pacemakers by establishing lead integrity	PC1. Confirm identity of patient	9	9
	PC2. Explain procedure and have patient sign informed consent		
	PC3. Prepare table and assist in patient transfer		
	PC4. Follow the instructions to determine the type of the lead to be used		
	Total		9
7.HSS/ N 0107: Assist with insertion of	PC1. Ensure patient identification	9	9
	PC2. Explain procedure and take informed consent		

temporary pacemakers	PC3. Prepare table and assist in patient transfer		
	PC4. Ensure that a defibrillator and other resuscitation equipment are immediately accessible		
	PC5. Ensure that strict aseptic technique is used like using a mask, gown and gloves		
	Total		9
8. HSS/ N 0108: Demonstrate proficiency in using equipment	PC1. Prepare the cardiovascular equipment and hemodynamic monitoring system in preparing for various diagnostic procedure treatment		
	PC2. Prepare the physiologic and analytical equipment during diagnostic and therapeutic procedures performed by the physician		
	PC3. Assists in the performance of diagnostic cardiac equipment		
	PC4. Interpret pressure waveforms and operates all physiological recording equipment		
	PC5. Perform procedures on equipment such as:		
	· Calipers		
	· Computers/keyboards/databases		
	· Single-channel and three channel electrocardiographs		
	· Ambulatory ECG recorder/monitor		
	· Ambulatory ECG analysis systems		
	· Oscilloscopes		
	· Treadmills and stress system recording devices		
	· Ergometer and bicycle		
	· Digital, mercury, aneroid		
	· Sphygmomanometers		
	· Oxygen saturation devices		
	· External pacemakers		
	· External defibrillators		
	· External pacing systems		
	· ECG management systems		
	· ECG/BP computer systems		
	· Simulators		
· Intravenous pumps			
· Tilt table			
· Stethoscope			
· Resuscitation cart			
· Transtelephonic recorders			
· Oxygen regulators			
· Suction devices			
	9	9	

	<ul style="list-style-type: none"> · Ambulatory blood pressure recorders/monitors · Pacing leads · Esophageal pacing leads · Temporary pacemakers · Pacemaker minclinic · Pacemaker magnet · All types of electrodes · Pacemaker system analysers 		
	PC6. Identify new equipment and accessories that are needed		
	PC7. Review technical specifications of equipment required		
	PC8. Compare cost/benefits of equipment to assist in purchasing recommendations		
	Total		9
9. 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		
	PC2. Perform the additional precautions when standard precautions alone may not be sufficient to prevent transmission of infection		
	PC3. Minimise contamination of materials, equipment and instruments by aerosols and splatter		
	PC4. Identify infection risks and implement an appropriate response within own role and responsibility		
	PC5. Document and report activities and tasks that put patients and/or other workers at risk		
	PC6. Respond appropriately to situations that pose an infection risk in accordance with the policies and procedures of the organization	8	8
	PC7. Follow procedures for risk control and risk containment for specific risks		
	PC8. Follow protocols for care following exposure to blood or other body fluids as required		
	PC9. Place appropriate signs when and where appropriate		
	PC10. Remove spills in accordance with the policies and procedures of the organization		
	PC11. Maintain hand hygiene by washing hands before and after patient contact and/or after any activity likely to cause contamination		

PC12. Follow hand washing procedures	
PC13. Implement hand care procedures	
PC14. Cover cuts and abrasions with water-proof dressings and change as necessary	
PC15. Wear personal protective clothing and equipment that complies with Indian Standards, and is appropriate for the intended use	
PC16. Change protective clothing and gowns/aprons daily, more frequently if soiled and where appropriate, after each patient contact	
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	
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	
PC21. Separate waste at the point where it has been generated and dispose of into waste containers that are colour coded and identified	
PC22. Store clinical or related waste in an area that is accessible only to authorised persons	
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	
PC24. Dispose of waste safely in accordance with policies and procedures of the organisation and legislative requirements	
PC25. Wear personal protective clothing and equipment during cleaning procedures	
PC26. Remove all dust, dirt and physical debris from work surfaces	
PC27. Clean all work surfaces with a neutral 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		
	PC29. Dry all work surfaces before and after use		
	PC30. Replace surface covers where applicable		
	PC31. Maintain and store cleaning equipment		
	Total		8
Grand Total-1 (Subject Domain)		80	80

Soft Skills and Communication	Select each part each carrying 10 marks totalling 20
--------------------------------------	---

National Occupational Standards (NOS)	Assessment Criteria for the Assessable Outcomes	Weightage	Marks Allocation
			Theory

Part 1 (Pick one field randomly carrying 50 marks)

1. Attitude

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	2	2
	PC2. Work within organisational systems and requirements as appropriate to one's role		
	PC3. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority		
	PC4. Maintain competence within one's role and field of practice		
	PC5. Use relevant research based protocols and guidelines as evidence to inform one's practice		
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		
	PC7. Identify and manage potential and actual risks to the quality and safety of practice		
	PC8. Evaluate and reflect on the quality of one's work and make continuing improvements		
	Total		2

HSS/ N 9607 (Practice Code of conduct while performing duties)	PC1. Adhere to protocols and guidelines relevant to the role and field of practice	2	2
	PC2. Work within organisational systems and requirements as appropriate to the role		
	PC3. Recognise the boundary of the role and responsibility and seek supervision when situations are beyond the competence and authority		
	PC4. Maintain competence within the role and field of practice		
	PC5. Use protocols and guidelines relevant to the field of practice		
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		
	PC7. Identify and manage potential and actual risks to the quality and patient safety		
	PC8. Maintain personal hygiene and contribute actively to the healthcare ecosystem		
Total			2
Attitude Total		4	4
2. Work Management			
HSS/ N 9602 (Ensure availability of medical and diagnostic supplies)	PC1. Maintain adequate supplies of medical and diagnostic supplies	4	4
	PC2. Arrive at actual demand as accurately as possible		
	PC3. Anticipate future demand based on internal, external and other contributing factors as accurately as possible		
	PC4. Handle situations of stock-outs or unavailability of stocks without compromising health needs of patients/ individuals		
Total			4
HSS/ N 9605 (Manage work to meet requirements)	PC1. Clearly establish, agree, and record the work requirements	2	2
	PC2. Utilise time effectively		
	PC3. Ensure his/her work meets the agreed requirements		
	PC4. Treat confidential information correctly		
	PC5. Work in line with the organisation's procedures and policies and within the limits of his/her job role		
Total			2
Work Management Total		4	6
Part 1 Total		10	10
Part 2 (Pick one field as per NOS marked carrying 50 marks)			

1. Team Work			
HSS/ N 9604 (Work effectively with others)	PC1. Communicate with other people clearly and effectively	2	2
	PC2. Integrate one's work with other people's work effectively		
	PC3. Pass on essential information to other people on timely basis		
	PC4. Work in a way that shows respect for other people		
	PC5. Carry out any commitments made to other people		
	PC6. Reason out the failure to fulfil commitment		
	PC7. Identify any problems with team members and other people and take the initiative to solve these problems		
	PC8. Follow the organisation's policies and procedures		
Total			2
2. Safety management			
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	2	2
	PC2. Comply with health, safety and security procedures for the workplace		
	PC3. Report any identified breaches in health, safety, and security procedures to the designated person		
	PC4. Identify potential hazards and breaches of safe work practices		
	PC5. Correct any hazards that individual can deal with safely, competently and within the limits of authority		
	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		
	PC7. Follow the organisation's emergency procedures promptly, calmly, and efficiently		
	PC8. Identify and recommend opportunities for improving health, safety, and security to the designated person		
	PC9. Complete any health and safety records legibly and accurately		
Total			2
3. Waste Management			

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	4	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		
	PC3. Segregate the waste material from work areas in line with current legislation and organisational requirements		
	PC4. Segregation should happen at source with proper containment, by using different colour coded bins for different categories of waste		
	PC5. Check the accuracy of the labelling that identifies the type and content of waste		
	PC6. Confirm suitability of containers for any required course of action appropriate to the type of waste disposal		
	PC7. Check the waste has undergone the required processes to make it safe for transport and disposal		
	PC8. Transport the waste to the disposal site, taking into consideration its associated risks		
	PC9. Report and deal with spillages and contamination in accordance with current legislation and procedures		
	PC10. Maintain full, accurate and legible records of information and store in correct location in line with current legislation, guidelines, local policies and protocols		
Total			4
4. Quality Assurance			
HSS/ N 9611: Monitor and assure quality	PC1. Conduct appropriate research and analysis	2	2
	PC2. Evaluate potential solutions thoroughly		
	PC3. Participate in education programs which include current techniques, technology and trends pertaining to the dental industry		
	PC4. Read Dental hygiene, dental and medical publications related to quality consistently and thoroughly		
	PC5. Report any identified breaches in health, safety, and security procedures to the designated person		
	PC6. Identify and correct any hazards that he/she can deal with safely, competently		

	and within the limits of his/her authority		
	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		
	PC8. Follow the organisation'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		
	Total		2
	Part 2 Total	10	10
	Grand Total-2 (Soft Skills and Communication)		20

SECTION 2

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

While collecting data from the companies for the occupational map & functional analysis, we also took feedback from industry, which was collected with respect to roles for which qualification packs development, was to be prioritized. This was largely based on volume of people required, quantitative and qualitative shortfall which the Industry feels they face. Governing council of HSSC gave final approval and endorsement for the same.

What is the estimated uptake of this qualification and what is the basis of this estimate?

The workforce in allied healthcare sector need expected to around 74 lac by 2022 double the workforce employed in 2013 as envisaged in Skills Gap analysis Reports for industry demand and secondary research data, though these do not lend to accurate demand projection. The link to NSDC Human Resource & Skills Requirement in Healthcare Sector is <http://healthcare-ssc.in/images/Human%20Resource%20&%20Skills%20Requirement%20in%20Healthcare%20sector.pdf>

- Feedback from industry for demand though again sample size may not lend to accurate figures
- Training duration, and current and potential training capacity envisaged
- An LMIS development initiative is being put in place to be more precise regarding the demand and supply

What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?

- NSDC list of Approved and Under-Development QPs was checked prior to commissioning the work
- NSDC QRC team also confirmed the same

What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?

- Agencies/personnel would be appointed by the HSSC to interact with training providers, employers, assessors to gather feedback in implementation.
- Monitoring of results of assessments, training delivery
- Employer feedback will be sought post-placement
- A formal review is scheduled in two year time

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

1. **Occupational Mapping Report-Annexure 2**
2. **Functional Analysis Report-Annexure 3**
3. **RFP for development of occupational standards-Annexure 4**
4. **Validation group and industry consultations- Annexure 5**
5. **The Brief Report on the whole process of the development, validation and notification of these qualification packs along with list of companies and Industry associations involved -Annexure 6**
6. **Human Resource & Skills Requirement in Healthcare Sector accessible on below given link:**

<http://healthcare-ssc.in/images/Human%20Resource%20&%20Skills%20Requirement%20in%20Healthcare%20sector.pdf>

SECTION 3

SUMMARY OF DIRECT EVIDENCE OF LEVEL

Justify the NSQF level allocated to the QP. Relate information about the job role and build upon the five descriptors for the level to justify.

Generic NOS is/are linked to the overall authority attached to the job role.

Qualification Title and Classification Code Cardiac Care Technician HSS/Q0101					
Process required	Professional knowledge	Professional skill	Core skill	Responsibility	Level
The Cardiac Care Technician is a health care specialist who supports Cardiologist in diagnosing and treatment of ailments of the human heart. The Cardiac Care Technician assist in performing invasive and non-invasive diagnostic	The Cardiac Care Technician work as a part of a multidisciplinary team and should demonstrate motivation and an innovative approach. The individual should have good organisational and time management skills and should have understanding of the anatomy and physiology human	Cardiac Care Technician is expected to monitor patients' heart rate and rhythm using electrocardiogram (ECG) equipment, Perform Treadmill Test (TT) to assess cardiovascular response , Assist cardiologist in assessing cardiac structure and function using	Essential attributes of Cardiac Care Technician is to assist in performing invasive and non-invasive diagnostic examinations and therapeutic interventions of the heart and/or blood vessels at the request or direction of provider. Interact with patients to make them	The Cardiac Care Technician supports cardiologist in diagnosing and treatment of ailments of the human heart. Cardiac care technician in the health Industry is also known as a cardio graphic technician or cardiovascular technician. This is critical as it indicates that the	4

<p>examinations and therapeutic interventions of the heart and/or blood vessels at the request or direction of provider. They work in familiar, predictable, routine, situation of clear choice.</p>	<p>body, particularly related to cardio vascular system. The individual should also be able to demonstrate clinical skills, Communication skills and ethical behaviour. This indicates that a Cardiac Care Technician must have factual knowledge of field or study in order to perform activities correctly.</p>	<p>cardiac ultrasound, Assist with transesophageal cardiac ultrasound studies , Assist with pericardiocentesis procedure by echocardiography , Assist with implant of pacemakers by establishing lead integrity , Assist with insertion of temporary pacemakers, Demonstrate proficiency in using equipment , Ensure availability of medical and diagnostic supplies All these are activities that require him/her to demonstrate his practical skill, as per the scope of the job role, using appropriate tool, quality concepts, responsible for carrying out range of activities, requiring either laid down approach or may adopt alternative approaches as per the best evidenced practices.</p>	<p>comfortable and to collect information. Instruct medication and other post-procedure care to patient. Comfort patient suffering discomfort during a procedure. This requires communication skills (written or oral) with required clarity and indicates that he/she should have the basic understanding of social, political and natural environment.</p>	<p>person is responsible for his own work and learning. This is further reconfirmed by the fact that The Cardiac Care Technician is expected to learn and improve his/her practice while on the job and is referred as “skilled workers</p>	
Level: 4	Level: 4	Level: 4	Level: 4	Level:4	4

OTHER EVIDENCE OF LEVEL [This need only be filled in where evidence other than primary outcomes was used to allocate a level] **(Optional)**

- Validated by Industry through various training provider & stake holders

Summary of other evidence (if used): NA

SECTION 4

EVIDENCE OF RECOGNITION OR PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

Horizontal and vertical mobility options have been articulated.

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

1. **Occupational Mapping Report-Annexure 2**
2. **Functional Analysis Report-Annexure 3**
3. **Validation group and industry consultations- Annexure 5**
4. **The Brief Report on the whole process of the development, validation and notification of these qualification packs along with list of companies and Industry associations involved -Annexure 6**