

**NSDA Code**

**2020/ITES/DGT/03706**

**CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE**

Directorate General of Training (DGT)  
Government of India, Ministry of Skill Development and Entrepreneurship,  
1st and 2nd Floor, CIRTES Building  
Next to Pusa ITI, Pusa Campus  
New Delhi – 110012.

**Name and address of submitting body:**

Directorate General of Training (DGT)  
Government of India, Ministry of Skill Development and Entrepreneurship,  
1st and 2nd Floor, CIRTES Building  
Next to Pusa ITI, Pusa Campus  
New Delhi – 110012.

**Name and contact details of individual dealing with the submission**

Name: Shri Deepankar Mallick

Position in the organisation: Deputy Director General (C & P)

Address if different from above:

Tel number(s): 011-25847035

E-mail address: deepankar.mallick60@nic.in

**List of documents submitted in support of the Qualifications File**

1. Competency-based curriculum with following details:

Model Curriculum to be added which will include the following:

- a) Indicative list of tools/equipment to conduct the training: Enclosed with curriculum
- b) Trainers qualification: Indicated in the curriculum
- c) Lesson Plan: All DGT curricula are designed indicating specific practical to be carried out during training along with details of trade theory. Based on this the concerned instructor prepares the Lesson Plan and Demonstration Plan with support of IMPs developed by NIMI,DGT.

**NSQF QUALIFICATION FILE**

**Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020**

*Computer Operator & Programming Assistant (VI)*

- d) Distribution of training duration into theory/practical Indicated in the curriculum.
2. Curriculum for Core Skill (Employability Skill).

NSQC Approved

• **SUMMARY**

1	<b>Qualification Title</b>	<b>Computer Operator &amp; Programming Assistant (Visually Impaired)</b>
2	<b>Qualification Code, if any</b>	DGT/1105
3	<b>NCO code and occupation</b>	4131.0600 - Computer Operator 3514.0300 - Programming Assistant
4	<b>Nature and purpose of the qualification (Please specify whether qualification is short term or long term)</b>	Prepare skilled Craftsmen to undertake the job roles of both <b>Computer Operator and Programming Assistant (VI)</b> and will enable the trainee to operate computer and peripheral equipments as Computer Operator to process business, scientific, engineering or other data according to operating instructions and install, maintain and update computer programs as Programming Assistant by making minor changes and adjustments to them under the guidance/close supervision of computing professionals/supervisors with some responsibility for own work within defined limit. It is long term qualification.
5	<b>Body/bodies which will award the qualification</b>	Directorate General of Training (DGT).
6	<b>Body which will accredit providers to offer courses leading to the qualification</b>	Directorate General of Training (DGT) accredits the Training providers (ITIs/ NSTIs/MSTIs/BTCs/BTPs / Industries / Establishments).
7	<b>Whether accreditation/affiliation norms are already in place or not , if applicable (if yes, attach a copy)</b>	Yes. The accreditation/ affiliation norms and any amendments made from time to time are available on DGT web portal.
8	<b>Occupation(s) to which the qualification gives access</b>	<ul style="list-style-type: none"> <li>• 4131.0600 - Computer Operator</li> <li>• 3514.0300 - Programming Assistant</li> </ul>
9	<b>Job description of the occupation</b>	Computer Operator & Programming Assistant(VI) will be able to operate computer and peripheral equipments as Computer Operator to process business, scientific, engineering or other data according to operating instructions and install, maintain and update computer

**NSQF QUALIFICATION FILE**

Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020

*Computer Operator & Programming Assistant (VI)*

		programs as Programming Assistant by making minor changes and adjustments to them under the guidance/close supervision of computing professionals/supervisors with some responsibility for own work within defined limit.		
10	<b>Licensing requirements</b>	NOT REQUIRED		
11	<b>Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided)</b>	NOT APPLICABLE		
12	<b>Level of the qualification in the NSQF</b>	Level 3		
13	<b>Anticipated volume of training/learning required to complete the qualification</b>	<b>Sl. No.</b>	<b>Course Element</b>	<b>Notional Training Hours</b>
		1	Professional Skill (Trade Practical)	1200
		2	Professional Knowledge (Trade Theory)	240
		3	Employability Skills	160
			<b>Total</b>	<b>1600</b>
14	<b>Indicative list of training tools required to deliver this qualification</b>	As per Annexure-I of curriculum.		
15	<b>Entry requirements and/or recommendations and minimum age</b>	Passed 10 <sup>th</sup> class examination. Minimum age Minimum age 14 years as on first day of academic session (Candidate should be Visually impaired).		
16	<b>Progression from the qualification (Please show Professional and academic progression)</b>	An Individual can proceed for:		
		Professional <ul style="list-style-type: none"> <li>• Craftsman</li> <li>• Senior Craftsman</li> <li>• Supervisor</li> <li>• Manager</li> <li>• Entrepreneur</li> </ul>	Technical / Academic <div style="border: 1px solid black; width: 100px; height: 100px; margin: 10px auto; position: relative;"> <div style="position: absolute; top: -10px; left: 50%; transform: translate(-50%, -50%); border-top: 1px solid black; width: 80%;"></div> <div style="position: absolute; bottom: -10px; left: 50%; transform: translate(-50%, -50%); border-bottom: 1px solid black; width: 80%;"></div> </div> ATS      Diploma/ CITS      Advance Diploma (Vocational)	
17	<b>Arrangements for the Recognition of Prior learning</b>	<ul style="list-style-type: none"> <li>• Yes (For more details refer “Guidelines for Private candidate” in DGT website)</li> </ul>		

**NSQF QUALIFICATION FILE**

Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020

*Computer Operator & Programming Assistant (VI)*

	(RPL)	MIS portal).		
18	<b>International comparability where known (research evidence to be provided)</b>	-		
19	<b>Date of planned review of the qualification.</b>	5 Yrs. from the Date of Approval		
20	<b>Formal structure of the qualification</b>			
	<b>Mandatory components</b>			
	<b>Title of component and identification code/NOSs/ Learning Outcomes</b>	<b>Estimated size (learning hours)</b>		<b>Level</b>
		<b>Skills</b>	<b>Knowledge</b>	
<b>TRADE SPECIFIC</b>				
(i)	Install and setup operating system and related software in a computer following safety precautions.	180	36	3
(ii)	Create, format and edit document using word processing application software.	60	12	3
(iii)	Create, format, edit and develop a workbook by using spreadsheet application software.	60	12	3
(iv)	Create and customize slides for presentation.	60	12	3
(v)	Create and manage database file using MS Access.	60	12	4
(vi)	Install, setup/configure, troubleshoot and secure computer network including Internet.	90	18	3
(vii)	Develop static web pages using HTML.	90	18	3
(viii)	Develop web pages using Java Script.	150	30	3
(ix)	Develop simple spread sheets by embedding VBA.	240	48	3

**NSQF QUALIFICATION FILE**Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020*Computer Operator & Programming Assistant (VI)*

(x)	Maintain accounts using accounting software.	120	24	4
(xi)	Browse, select and transact using E commerce websites.	60	12	3
(xii)	Secure information from Internet by using cyber security concept	30	6	3
<b>CORE SKILL</b>				
<b>EMPLOYABILITY SKILLS</b>				
(i)	Apply safe working practices.	-	20	4
(ii)	Comply with environment regulation and housekeeping.	-	20	3
(iii)	Interpret & use formal and technical communication.	-	20	4
(iv)	Apply the concept in productivity & quality management in day to day work to improve productivity & quality.	-	20	4
(v)	List and interpret various acts of labour welfare legislation.	-	20	3
(vi)	Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.	-	20	3
(vii)	Explain personnel finance, entrepreneurship and manage/organize related task in day to day work for personal & societal growth.	-	20	3
(viii)	Utilize basic computer applications and internet to take benefit of IT developments in the industry.	-	20	4
<b>Total</b>		<b>1600</b>		-

**SECTION 1**  
**ASSESSMENT**

<b>21</b>	<b>Body/Bodies which will carry out assessment:</b> Controller of Examinations, DGT
<b>22</b>	<b>How will RPL assessment be managed and who will carry it out?</b> DGT will carry out the RPL assessment following the below mentioned eligibility criteria for Trainee: Applicants aspiring to appear as Private Candidates in the AITT under CTS for award of NTC, have been categorized based on their educational background and experience. Subsequently 'Private Candidates' may be admitted under one of the following categories. Category wise 'eligibility criteria' for appearing as 'Private Candidate' in AITT under CTS has been listed below: Category I: Ex-trainees (successful pass-outs) of ITI A. Ex-trainees of ITI who already possess NTC in one of the trades under CTS, are eligible for applying as Private candidate for an allied trade, provided he/ she fulfils all the conditions regarding educational qualification etc. prescribed for that allied trade. B. In addition, the applicant should possess minimum of 1 year experience (as on date of submission of application) post the date of AITT result declaration in the desired allied trade in establishments implementing Apprenticeship Training Scheme (ATS)/ establishments registered under the Apprenticeship portal or registered MSMEs or Entities registered with any government/local authorities / shops covered under Factories Act 1948 and Shops and Establishments Act applicable for the concerned State. Category II: 'Ex-trainees (successful pass-outs) and current trainees under CoE scheme A. The applicant should have the minimum prescribed entry qualification and should fulfil eligibility criteria for the desired trade under CTS, in which he/she intends to appear for AITT as Private Candidate. CoE candidates must register as 'Private Candidate' under CTS in the relevant/mapped CTS trade only. B. There should be a minimum gap of 1 year between successful completions of CoE training i.e. from the date of result declaration to the date of submission of application for 'Private Candidate' certification. C. During this gap of 1 year, the candidate must have undergone Industry training or gained experience in desired trade in establishments implementing Apprenticeship Training Scheme (ATS)/ establishments registered under the Apprenticeship portal or registered MSMEs or Entities registered with any government/local authorities / shops covered under Factories Act 1948 and Shops and Establishments Act applicable for the

	<p>concerned State.</p> <p>Category III: SCVT Candidates (admitted till August 2018 session)</p> <p>A. No special provisions have been made for SCVT Trainees to enrol as 'Private Candidate'. Going forward, SCVT trainees have been granted equivalence vide G.S.R 186(E) dated 2nd March 2017 for undergoing apprenticeship training under the Apprentices Act 1961 to obtain 'NAC'.</p> <p>B. Only for SCVT trainees admitted till August 2018 batch, provision has been made for obtaining NTC by appearing in AITT under 'Private Candidate'. Such trainees will continue to be governed by old guidelines for 'Private Candidate'.</p> <p>Category IV: Other Candidates (candidate not falling in any of the above 3 categories, including SCVT trainees enrolled from admission session 2019 onwards)</p> <p>A. The applicant should have the minimum prescribed entry qualification and should fulfil eligibility criteria for the relevant trade under CTS, in which he/she desires to appear for AITT as Private Candidate.</p> <p>B. Applicant should be minimum 21 years of age on the date of submission of application. There is no upper age limit.</p> <p>C. The applicant should possess minimum of 3 years' experience (on the date of submission of application) in the relevant trade in establishments implementing Apprenticeship Training Scheme (ATS)/ establishments registered under the Apprenticeship portal or registered MSMEs or Entities registered with any government/local authorities / shops covered under Factories Act 1948 and Shops and Establishments Act applicable for the concerned State.</p> <p>For detail and updated information please refer to DGT web portal.</p>
<p><b>23</b></p>	<p><b>Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.</b></p> <p><b>(1) Assessment process:</b></p> <p>The assessment for the qualification is carried out by conducting formative assessments, and end of year examinations (Summative). The formative assessments in respect of each Learning Outcome for practical and related theory are conducted by the concerned instructors for evaluating the knowledge and skill acquired by trainees and the behavioural transformation of the trainees. This formative assessment is primarily carried out by collecting evidence of competence gained by the trainees by evaluating them at work based on assessment criteria, asking questions and initiating formative discussions to assess understanding and by</p>



evaluating records and reports. Summative assessment is carried out by All India Trade Test on Trade Theory, Trade practical and Employability Skills. The question papers for the theory Examinations contain objective type questions.

The marking pattern and distribution of marks for the qualification are as under:

Sl. No.	Type of assessment	Subject for the trade test	Marks
1	Summative Assessment	Practical	250
2		Trade Theory	100
3		Employability Skills	50
6	Formative assessment based on Learning Outcomes		200
TOTAL:			600

**(2) Minimum pass marks:**

The minimum pass percent for Trade Practical and Formative assessment is 60% & for all other subjects is 33%. There will be no Grace marks.

**Testing and certifications for the course:**

Controller of examinations, DGT carries out the assessment and issues National Trade Certificate (NTC) following the norms and guidelines issued by the Directorate from time to time.

**Overall assessment strategy:**

Assessment of the qualification evaluates trainees to show that they can integrate knowledge, skills and values for carrying out relevant tasks as per the defined learning outcomes and assessment criteria. The trainees may

	<p>choose the preferred language for assessment. The underlying principle of assessment is fairness and transparency. While assessing the trainee, assessor is directed to assess as per the defined assessment criteria against the learning outcomes. The evidence of the competence acquired by the trainees can be obtained by conducting theory and practical examinations, observing the trainees at work, asking questions and initiating discussions to assess, understand and evaluate records and reports. The ultimate objective of the assessment is to assess the candidates as per the defined assessment criteria for the learning outcomes.</p> <p><b>Specific Arrangements for assessment:</b></p> <ul style="list-style-type: none"> <li>• Assessment is outcome-based.</li> <li>• There are formative and summative assessments in Theory and Practical.</li> <li>• Assessment is carried out in Trade theory, Trade Practical and Employability Skills.</li> <li>• While Trade Theory and Trade Practical are used for assessing Trade-related jobs and Employability skills is used to test the communication, professional language, leadership, entrepreneurship and team-work abilities of the trainee.</li> <li>• In addition to demonstration of theory and practical knowledge, trainees get a chance to present total personality.</li> </ul> <p><b>Quality assurance activities:</b></p> <p>Question papers are set by external paper setters/ software generated. Evaluation of Theory Examinations in Trade and Employability Skill is done by third-party agency.</p> <p>Trade Practical is examined by External Examiner.</p>
--	--

**24. Assessment evidences**

**Title of Component: Formative Assessment Breakup**

(On half yearly average of the learning assessment covered)

<b>Means of assessment</b>		
Assessment will be evidence based comprising the following for each Learning Outcome:		
Serial No.	Terminal Competency	Maximum Weightage (%)
1	Safety consciousness	15
2	Workplace hygiene	5

**NSQF QUALIFICATION FILE**Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020*Computer Operator & Programming Assistant (VI)*

3	Attendance/ Punctuality	10
4	Ability to follow Manuals/ Written instructions	5
5	Application of Knowledge	10
6	Skills to handle tools / equipment/ Instruments/ Devices	10
7	Economical use of materials	5
8	Working Strategy	10
9	Quality in workmanship/ Performance	15
10	VIVA	15
	Total Maximum Weightage (%)	100

**Pass/Fail**

The minimum pass percentage is 60% marks for formative assessment.

**LEARNING OUTCOME WITH ASSESSMENT CRITERIA:**

<b>LEARNING OUTCOME (TRADE SPECIFIC)</b>	
<b>LEARNING OUTCOME</b>	<b>ASSESSMENT CRITERIA</b>
1. Install and setup operating system and related software in a computer following safety precautions.	Assemble computer and configuring the CMOS setup.
	Install and configure Windows OS and application software.
	Install the printer and other peripheral devices.
	Burn CD/DVD.
	Troubleshoot the PC.
	Execute DOS and LINUX commands.
	Customize Windows and LINUX OS.
2. Create, format and edit document using word processing application software.	Identify Word tools in the Ribbon.
	Create a resume using various tools.
	Design and print Magazine covers using various tools.
	Demonstrate the use of shortcut keys, autocorrect and macros.
	Perform Mail merge in MS Word.
	Typing practice using open source typing tutor tools.
3. Create, format, edit and develop a workbook by using spreadsheet application software.	Create tables, chart and print using various functions and formulas, apply Conditional formatting.
	Create a table and Perform Sorting; filtering, Subtotal, validation and goal seek on a table.
	Prepare a pivot table and chart on any existing table.
4. Create and customize slides for presentation.	Edit images with Open Office Applications.
	Create Slides and run slideshows.
	Format objects, add Audio and Video.
	Use Open Office for creating presentations.
5. Create and manage database file by using MS Access.	Create simple application on Relational Database in MS Access using data validation, filters, sorting, forms, query, report and macro.
	Import, Export, Link, Backup and Retrieve database in MS Access.
6. Install, setup/configure, troubleshoot and secure computer network including Internet.	Identify different cables and connectors used in networking.
	Assign Computer Name and workgroup to a computer
	Prepare UTP cross cable & connect computers
	Share a printer with Network
	Share Internet using Windows Tools
	Check Network connectivity
	Configure HUB & Switch

**NSQF QUALIFICATION FILE**Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020*Computer Operator & Programming Assistant (VI)*

	Configure DHCP and firewall
	Setup Video conferencing
	Secure Network with various tools
	Practice Web Browsing and create E Mail ID and sending receiving mails
	Perform text chat and video chat using social network sites
	Configure Outlook Express
	Use Skype and Google+ or any other video conferencing site.
7. Develop static web pages using HTML.	Create simple static Web Pages using HTML tags.
	Create simple static Webpages using internal styles (CSS) and external style.
	Design static web pages using Kompozer.
8. Develop web pages using Java Script.	Design a dynamic Web Page in JavaScript using various operators.
	Design a dynamic Web Page in JavaScript using various control statements and looping structures.
	Design a dynamic Web Page in JavaScript using strings and functions.
	Design a dynamic Web Page in JavaScript using Arrays and objects.
	Design a dynamic Web Page in JavaScript using Web Forms and images.
9. Develop simple spread sheets by embedding VBA.	Create various types of macros in MS Excel.
	Develop and execute a program in VBA using various operators and data types.
	Develop and execute a program in VBA using control statements and looping structures.
	Develop and execute a program in VBA using strings and functions.
	Develop and execute a program in VBA using Arrays.
	Design a VBA User Form and develop program using various control buttons and boxes.
10. Maintain accounts using accounting software.	Create a company in Tally.
	Create opening ledgers using an existing Balance Sheet.
	Post voucher in tally in different modes.
	Performing Cost Centre & Cost category.
	Manufacture and transfer materials in Tally.
	Show P/L A/c, Balance Sheet and other reports.
	Apply Budget.

## NSQF QUALIFICATION FILE

Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020

*Computer Operator & Programming Assistant (VI)*

	Post VAT & Service Tax related entry in Tally
11. Browse, select and transact using E-commerce websites.	Place order for products from E commerce websites for purchase.
	Upload a product in E Commerce site for sale.
	Identify security issues in E- commerce and payment operations.
12. Secure information from Internet by using cyber security concept.	Provide firewall security for Internet connection and Network System.
	Make backup copies of important file, data and information.
	Secure your Wi-Fi networks using wireless security features.

LEARNING OUTCOME (CORE SKILL)	
LEARNING OUTCOME	ASSESSMENT CRITERIA
<b>EMPLOYABILITY SKILLS</b>	
1. Apply safe working practices.	Follow and maintain procedures to achieve a safe working environment in line with occupational health and safety regulations and requirements and according to site policy.
	Recognize and report all unsafe situations according to site policy.
	Identify and take necessary precautions on fire and safety hazards and report according to site policy and procedures.
	Identify, handle and store / dispose off dangerous goods and substances according to site policy and procedures following safety regulations and requirements.
	Identify and observe site policies and procedures in regard to illness or accident.
	Identify safety alarms accurately.
	Report supervisor/ Competent of authority in the event of accident or sickness of any staff and record accident details correctly according to site accident/injury procedures.
	Identify and observe site evacuation procedures according to site policy.
	Identify Personal Protective Equipment (PPE) and use the same as per related working environment.
	Identify basic first aid and use them under different circumstances.
	Identify different fire extinguisher and use the same as per

## NSQF QUALIFICATION FILE

Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020

*Computer Operator & Programming Assistant (VI)*

		requirement.
2. Comply with environment regulation and housekeeping.	with and	<p>Identify environmental pollution &amp; contribute to the avoidance of instances of environmental pollution.</p> <p>Deploy environmental protection legislation &amp; regulations</p> <p>Take opportunities to use energy and materials in an environmentally friendly manner.</p> <p>Avoid waste and dispose waste as per procedure</p> <p>Recognize different components of 5S and apply the same in the working environment.</p>
3. Interpret & use formal and technical communication.		<p>Obtain sources of information and recognize information.</p> <p>Use and draw up technical drawings and documents.</p> <p>Use documents and technical regulations and occupationally related provisions.</p> <p>Conduct appropriate and target oriented discussions with higher authority and within the team.</p> <p>Present facts and circumstances, possible solutions &amp; use English special terminology.</p> <p>Resolve disputes within the team.</p> <p>Conduct written communication.</p>
4. Apply the concept in productivity & quality management in day to day work to improve productivity & quality.		<p>Explain the concept of productivity and apply during execution of job.</p> <p>Explain the concept of quality tools and apply during execution of job.</p>
5. List and interpret various acts of labour welfare legislation.		<p>Explain basic concept of labour welfare legislation, adhere to responsibilities and remain sensitive towards such laws.</p> <p>Knows benefits guaranteed under various acts.</p>
6. Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.		<p>Explain the concept of energy conservation, global warming, pollution and utilize the available resources optimally &amp; remain sensitive to avoid environment pollution.</p> <p>Explain standard procedure for disposal of waste.</p>
7. Explain personnel finance,		<p>Explain personnel finance and entrepreneurship.</p> <p>Explain role of various schemes and institutes for self-</p>

**NSQF QUALIFICATION FILE****Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020***Computer Operator & Programming Assistant (VI)*

entrepreneurship and manage/organize related task in day to day work for personal & societal growth.	employment i.e. DIC, SIDA, SISI, NSIC, SIDO, Idea for financing/ non-financing support agencies to familiarize with the policies/ programmes, procedure & the available scheme.
	Prepare a report to become an entrepreneur for submission to financial institutions.
8. Utilize basic computer applications and internet to take benefit of IT developments in the industry.	Explain the basic hardware of personal computer.
	Use common application software viz., word, excel, power point etc., in day to day work.
	Awareness about useful internet websites, search relevant information pertaining to the assigned tasks.



**SECTION 2**

**25. EVIDENCE OF LEVEL**

**OPTION A**

<b>Title/Name of qualification/component: COMPUTER OPERATOR &amp; PROGRAMMING ASSISTANT(VI) Level: 3</b>			
<b>NSQF Domain</b>	<b>Outcomes of the Qualification/Component</b>	<b>How the outcomes relates to the NSQF level descriptors</b>	<b>NSQF Level</b>
Process	<p><b>Require limited range of activities routine and predictable</b></p> <ul style="list-style-type: none"> <li>• Install and setup operating system and related software in a computer following safety precautions.</li> <li>• Create, format and edit document using word processing application software.</li> <li>• Create and manage database file using MS Access.</li> <li>• Install, setup/configure, troubleshoot and secure computer network including Internet.</li> <li>• Develop web pages using Java Script.</li> <li>• Secure information from Internet by using cyber security concept.</li> <li>• Develop static web pages using HTML.</li> </ul>	<p>The learner is expected to install &amp; configure operating system, computer network and related software including internet. S/He performs basic activities like creating, formatting &amp; editing of document using word processing application software, creates &amp; customizes slides for presentation, database maintenance using MS Access etc. and these tasks are performed by the learner in routine &amp; predictable manner with limited range of activities.</p> <p>Therefore, the NSQF level as per this descriptor will be 3.</p>	3

<b>Title/Name of qualification/component: COMPUTER OPERATOR &amp; PROGRAMMING ASSISTANT(VI) Level: 3</b>			
<b>NSQF Domain</b>	<b>Outcomes of the Qualification/Component</b>	<b>How the outcomes relates to the NSQF level descriptors</b>	<b>NSQF Level</b>
Professional knowledge	<p><b>Basic facts, process and principle applied in trade of employment</b></p> <ul style="list-style-type: none"> <li>• Communication skills, Daily living activities, Keyboard Familiarity</li> <li>• Database Management Systems</li> <li>• Internet Concepts</li> <li>• Concepts of sorting, filtering and validating data.</li> <li>• Cyber Security</li> <li>• Web Design Concepts</li> <li>• JavaScript Basics</li> <li>• Networking Concepts</li> <li>• Cyber Security</li> </ul>	<p>The learner is expected to know the basics of computer which involves identification of computer parts, clear concepts of Hardware &amp; Software. Awareness of word processing software- various application in MS Office, works with objects, macro, mail merge, templates and other tools in Word, knows about popular databases like RDBMS, OODB and NOSQL, rules for designing good tables, relationships in table, possess knowledge about various types of Queries and their uses. Hence the learner demonstrates the basic facts, process &amp; principles applied in this trade.</p> <p>So, the NSQF level 3 is justified.</p>	3
Professional skill	<ul style="list-style-type: none"> <li>• Install and setup operating system and related software in a computer following safety precautions.</li> <li>• Develop static web pages using HTML.</li> <li>• Develop web pages using Java Script.</li> <li>• Develop simple spread sheets by</li> </ul>	<p>The individual installs and sets up operating system and related software in a computer following safety precautions, applies basic HTML elements (e.g. head, title, body), tag and attributes, designs simple web page with text, paragraph and line break using HTML tags, formats text, change background colour and</p>	3

<b>Title/Name of qualification/component: COMPUTER OPERATOR &amp; PROGRAMMING ASSISTANT(VI) Level: 3</b>			
<b>NSQF Domain</b>	<b>Outcomes of the Qualification/Component</b>	<b>How the outcomes relates to the NSQF level descriptors</b>	<b>NSQF Level</b>
	embedding VBA. <ul style="list-style-type: none"> <li>• Maintain accounts using accounting software.</li> <li>• Browse, select and transact using E commerce websites.</li> <li>• Secure information from Internet by using cyber security concept.</li> </ul>	inserts pictures in web page, uses hyperlinks and mail to link in designing web pages etc.  Therefore, it justifies NSQF Level 3 for this descriptor as the learner shows practical skills which are repetitive & routine in narrow range of application.	
Core skill	<p><b>Communication written and oral, with minimum required clarity</b></p> <ul style="list-style-type: none"> <li>• Interpret &amp; use formal and technical communication.</li> </ul> <p><b>Basic understanding of social and natural environment</b></p> <ul style="list-style-type: none"> <li>• Comply with environment regulation and housekeeping.</li> <li>• Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.</li> </ul>	The learner is able to communicate orally & in written using simple English language, has strong listening skills, works as a team player and able to explain technical terms with minimum required clarity. The learner performs the job complying environment regulation and housekeeping by applying safe working practices, maintains energy conservation, prevents global warming & pollution by optimally using available resources in day to day work.  Hence, NSQF Level 3 is justified for this descriptor.	3
Responsibility	<ul style="list-style-type: none"> <li>• Install and setup operating system and related software in a computer following</li> </ul>	The Computer Operator and Programming Assistant(VI)is able to operate computer and	3

**NSQF QUALIFICATION FILE**Approved in 24<sup>th</sup> NSQC, dated: 27<sup>th</sup> Feb, 2020*Computer Operator & Programming Assistant (VI)*

Title/Name of qualification/component: <b>COMPUTER OPERATOR &amp; PROGRAMMING ASSISTANT(VI) Level: 3</b>			
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relates to the NSQF level descriptors	NSQF Level
	<p>safety precautions.</p> <ul style="list-style-type: none"> <li>• Create, format, edit and develop a workbook by using spreadsheet application software.</li> <li>• Create and customize slides for presentation.</li> <li>• Create and manage database file using MS Access.</li> <li>• Install, setup/configure, troubleshoot and secure computer network including Internet</li> <li>• Develop web pages using Java Script.</li> <li>• Develop simple spread sheets by embedding VBA</li> <li>• Maintain accounts using accounting software.</li> <li>• Secure information from Internet by using cyber security concept.</li> </ul>	<p>peripheral equipments to process various types of data according to operating instructions, install, maintain and update computer programs as Programming Assistant by making minor changes and adjustments to them, work on accounting software, ensure security of information from internet by using cyber security concepts etc. However, the learner performs her/his job under the guidance/close supervision of computing professionals/supervisors with some responsibility for own work within defined limit.</p> <p>Hence, NSQF Level 3 is justified for this descriptor.</p>	

**SECTION 3**

**EVIDENCE OF NEED**

<p><b>26</b></p>	<p><b>What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?</b></p> <table border="1" data-bbox="339 600 1393 1742"> <thead> <tr> <th data-bbox="339 600 627 741"> <p><b>Basis</b></p> </th> <th data-bbox="627 600 1393 741"> <p><b>In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</b></p> </th> </tr> </thead> <tbody> <tr> <td data-bbox="339 741 627 1122"> <p>Need of the qualification</p> </td> <td data-bbox="627 741 1393 1122"> <p>IT &amp; ITES Sector has a significant presence of organized as well as unorganized skilled manpower requirement. This sector is poised to grow exponentially in the years to come and is highly labour intensive and there are many emerging trends in this sector. Hence the qualification has been designed keeping in view to cater to the ever-increasing demand of skilled manpower in consultation with stakeholders.</p> </td> </tr> <tr> <td data-bbox="339 1122 627 1547"> <p>Industry Relevance</p> </td> <td data-bbox="627 1122 1393 1547"> <p>The job role defined for the qualification is as per the National Classification of Occupations 2015 which is developed by Employment Directorate under the ministry of Labour and Employment in collaboration with different industry partners and as per ILO guidelines. Moreover, the training is imparted in ITIs/NSTIs/MSTIs/BTC/ BTPs/ Industries / Establishments etc. where such requirement is available. This justifies the qualification is very much relevant for industry.</p> </td> </tr> <tr> <td data-bbox="339 1547 627 1675"> <p>Usage of the qualification</p> </td> <td data-bbox="627 1547 1393 1675"> <p>The Proposed qualification will create skilled Craftsmen for various establishments in different Sectors.</p> </td> </tr> <tr> <td data-bbox="339 1675 627 1742"> <p>Estimated uptake</p> </td> <td data-bbox="627 1675 1393 1742"> <p>The present seating capacity is 195.</p> </td> </tr> </tbody> </table>	<p><b>Basis</b></p>	<p><b>In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</b></p>	<p>Need of the qualification</p>	<p>IT &amp; ITES Sector has a significant presence of organized as well as unorganized skilled manpower requirement. This sector is poised to grow exponentially in the years to come and is highly labour intensive and there are many emerging trends in this sector. Hence the qualification has been designed keeping in view to cater to the ever-increasing demand of skilled manpower in consultation with stakeholders.</p>	<p>Industry Relevance</p>	<p>The job role defined for the qualification is as per the National Classification of Occupations 2015 which is developed by Employment Directorate under the ministry of Labour and Employment in collaboration with different industry partners and as per ILO guidelines. Moreover, the training is imparted in ITIs/NSTIs/MSTIs/BTC/ BTPs/ Industries / Establishments etc. where such requirement is available. This justifies the qualification is very much relevant for industry.</p>	<p>Usage of the qualification</p>	<p>The Proposed qualification will create skilled Craftsmen for various establishments in different Sectors.</p>	<p>Estimated uptake</p>	<p>The present seating capacity is 195.</p>
<p><b>Basis</b></p>	<p><b>In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</b></p>										
<p>Need of the qualification</p>	<p>IT &amp; ITES Sector has a significant presence of organized as well as unorganized skilled manpower requirement. This sector is poised to grow exponentially in the years to come and is highly labour intensive and there are many emerging trends in this sector. Hence the qualification has been designed keeping in view to cater to the ever-increasing demand of skilled manpower in consultation with stakeholders.</p>										
<p>Industry Relevance</p>	<p>The job role defined for the qualification is as per the National Classification of Occupations 2015 which is developed by Employment Directorate under the ministry of Labour and Employment in collaboration with different industry partners and as per ILO guidelines. Moreover, the training is imparted in ITIs/NSTIs/MSTIs/BTC/ BTPs/ Industries / Establishments etc. where such requirement is available. This justifies the qualification is very much relevant for industry.</p>										
<p>Usage of the qualification</p>	<p>The Proposed qualification will create skilled Craftsmen for various establishments in different Sectors.</p>										
<p>Estimated uptake</p>	<p>The present seating capacity is 195.</p>										
<p><b>27</b></p>	<p><b>Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences.</b></p> <p>The qualification, originally designed for Craftsman Training Scheme is in existence for many years and approved by DGT (Regulatory Body) under</p>										

	Ministry of Skill Development and Entrepreneurship, Govt. of India.
28	<p><b>What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification</b></p> <p>The qualification is originally designed and approved by DGT for the Craftsman Training Scheme and is in existence for many years. No such duplicate qualification of same duration and competencies exists.</p>
29	<p><b>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? Specify the review process here</b></p> <ul style="list-style-type: none"> <li>• The research wing of CSTARI &amp; DGT reviews and updates the qualification, in consultation with industries and other stakeholders, on a regular basis by conducting trade committee meetings.</li> <li>• DGT will monitor any duplicity by comparing existing qualifications with upcoming ones in the National Qualifications Register (NQR) and relevant sectors.</li> </ul>

**SECTION 4**

**EVIDENCE OF PROGRESSION**

30	<p><b>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? Show the career map here to reflect the clear progression</b></p> <p>On completion of the training the trainee will have an opportunity to move in vertical/horizontal pathways to promote to higher designations. The learner can further undergo other specialised courses to excel in the relevant field.</p> <pre> graph LR     A[Craftsman] --&gt; B[Senior Craftsman]     B --&gt; C[Supervisor]     C --&gt; D[Manager]     A --&gt; E[Entrepreneur]     B --&gt; E     C --&gt; E     D --&gt; E             </pre>
----	---