

Revised Application Documentation: Version 4 /22 April, 2015

## **QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY**

### **Name and address of submitting body:**

IT-ITeS Sector Skills Council NASSCOM (SSC NASSCOM)

4E, Vandhana Building (4th Floor)

11, Tolstoy Marg, Connaught Place, New Delhi - 110001

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

**Name:** Dr. Sandhya Chintala

**Position in the organisation** CEO

**Address if different from above**NA

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

1. Functional Map for the job role
2. [Occupational Analysis for Business Process Management Sub-sector](#)
3. Qualification Pack
4. Career Map for the job role / occupation: vertical and horizontal mobility
5. [Test Matrix Template](#)
6. [Talent Demand Supply Analysis Report](#)

## QUALIFICATION FILE SUMMARY

<b>Qualification Title</b>	Associate-Analytics		
<b>Body/bodies which will assess candidates</b>	IT-ITeS Sector Skills Council NASSCOM (SSC NASSCOM)		
<b>Body/bodies which will award the certificate for the qualification.</b>	SSC NASSCOM		
<b>Body which will accredit providers to offer the qualification.</b>	SSC NASSCOM Presently, Accreditation is not prescribed; affiliation is one of the models.		
<b>Occupation(s) to which the qualification gives access</b>	Analytics		
<b>Proposed level of the qualification in the NSQF.</b>	7		
<b>Notional Learning Hours</b>	400 hours approx. (customisable as per learner background)		
<b>Entry requirements / recommendations.</b>	Bachelor's Degree in Statistics/ Science/Technology/Mathematics or any other course		
<b>Progression from the qualification.</b>	As shown in the career map (attachment sl.no. 4)		
<b>Planned arrangements for RPL.</b>	<ul style="list-style-type: none"> <li>- Response to market forces for RPL</li> <li>- RPL assessments will be the same as our normal assessments.</li> <li>- MOUs / Agreement in place for institutions, Retail is work in progress</li> </ul>		
<b>Formal structure of the qualification</b>			
<b>Title of unit or other component</b> (include any identification code used)	<b>Mandatory/ Optional</b>	<b>Estimated size (learning hours)</b>	<b>Level</b>
SSC/N2101 (Carry out rule-based statistical analysis)	Mandatory	150	7
SSC/N0703 (Create documents for knowledge sharing)	Mandatory	50	
SSC/N9001 (Manage your work to meet requirements)	Mandatory	50	
SSC/N9002 (Work effectively with colleagues)	Mandatory	50	
SSC/N9003 (Maintain a healthy, safe and secure working environment)	Mandatory	25	
SSC/N9004 (Provide data/information in standard formats)	Mandatory	50	
SSC/N9005 (Develop your knowledge, skills and competence)	Mandatory	25	

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 (attachment SI no. 3)

## **SECTION 1**

### **ASSESSMENT**

#### **Name of assessment body:**

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

- SSC NASSCOM is the assessment body, which affiliates assessment providers.

#### **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.

- Yes.
- It is online, objective evaluation in a highly secure and proctored environment.
- RPL assessments will be the same as our normal assessments.
- All procedures followed will be similar to the normal assessment methodology.
- Issuance of the qualification will be through the centralise SDMS (NSDC).
- Quality assurance – By equating performance amongst the multiple affiliated assessment provider (AAP) and periodic analytical review and sensitivity analysis for the reliability and validity of all aspects of assessments. AAP only refers to agency/organisation.

**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:**

- SSC NAASCOM carries out online assessments through very robust platforms and proctoring methodology.
- AAP affiliated to SSC NASSCOM come with strong industry references and long experience and analytical ability in assessment methodologies.
- Periodic workshops are held with the vendors to bring them to a common understanding of the job role, its NSQF level, difficulty level as well as format and sample of assessment items.
- Internal moderations further ensure the validity and reliability of the assessments and consistency of difficulty levels of the test questions across AAPs.
- AAPs work with hirers on similar job roles, they use SMEs from their network to get industry relevant scenarios and assessment items aligned to the expected outcomes of the job role/QP.
- Curriculum and real time scenarios facilitate further understanding the scope of the QP with reference to process knowledge and skills.
- In addition, we conduct workshops with AAPs w.r.t. beta testing, review of the assessment analytics, performance of the test platform, moderation of NSQF levels, deployment and invigilation patterns and infrastructure requirements including malpractice avoidance.
- Inferences from benchmarking and analytics patterns are taken into consideration in the development and revision of the assessment criteria and format of assessment items.
- Reliability and validity of assessment items is standardised among AAPs.
- Difficulty level of test items with reference to NSQF levels are ensured, so that the outcomes with reference to performance criteria of the constituent NOSs are in line with the NSQF level descriptors. This is achieved through the detailed test matrix design.

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

Give details of the document(s) here:

A detailed Test Matrix is used to design each assessment before it is launched for public view. Template for detailed test matrix is attached.

Public view of the assessment criteria is included in the qualification pack.

## ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as listed in the entry on the structure of the qualification on page 1.

**Job Role** Associate – Analytics

**Qualification Pack** SSC/Q2101

**Sector Skill Council** IT-ITeS

### Guidelines for Assessment:

1. Criteria for assessment for each Qualification Pack (QP) will be created by the Sector Skill Council (SSC). Each performance criteria (PC) will be assigned Theory and Skill/Practical marks proportional to its importance in NOS.
2. The assessment will be conducted online through assessment providers authorised by SSC.
3. Format of questions will include a variety of styles suitable to the PC being tested such as multiple choice questions, fill in the blanks, situational judgment test, simulation and programming test.
4. To pass a QP, a trainee should pass each individual NOS. Standard passing criteria for each NOS is 70%.
5. For latest details on the assessment criteria, please visit [www.sscnasscom.com](http://www.sscnasscom.com).

### Title of NOS/Unit/Component:

Assessable Outcomes	Assessment criteria for the outcome	Total Mark	Out of	Theory	Skills Practical
<b>1. SSC/N2101 (Carry out rule-based statistical analysis)</b>	PC1. establish clearly the objectives and scope of the analysis	<b>100</b>	5	5	0
	PC2. obtain guidance from appropriate people to identify suitable data sources to agree the methodological approach		5	0	5
	PC3. obtain and structure data using standard templates and tools		10	5	5
	PC4. validate data accurately and identify anomalies		10	0	10
	PC5. obtain guidance from appropriate people on how to handle anomalies in data		5	0	5
	PC6. carry out rule-based analysis of the data in line with the analysis plan		15	5	10
	PC7. validate the results of your analysis according to statistical guidelines		10	0	10
	PC8. review the results of your analysis with appropriate people		5	5	0
	PC9. undertake modifications to your analysis based on inputs from appropriate people		10	0	10
	PC10. draw justifiable inferences from your analysis		15	0	15
	PC11. present the results and inferences from your analysis using standard templates and tools		5	0	5
	PC12. comply with your organization's policies,		5	5	0

	procedures and guidelines when carrying out rule-based quantitative analysis				
			100	25	75
<b>2. SSC/N0703 (Create documents for knowledge sharing)</b>	PC1. establish with appropriate people the purpose, scope, formats and target audience for the documents	<b>100</b>	15	5	10
	PC2. access existing documents, language standards, templates and documentation tools from your organization's knowledge base		10	0	10
	PC3. liaise with appropriate people to obtain and verify the information required for the documents		5	0	5
	PC4. confirm the content and structure of the documents with appropriate people		10	10	0
	PC5. create documents using standard templates and agreed language standards		15	5	10
	PC6. review documents with appropriate people and incorporate their inputs		10	0	10
	PC7. submit documents for approval by appropriate people		5	5	0
	PC8. publish documents in agreed formats		10	0	10
	PC9. update your organization's knowledge base with the documents		10	0	10
	PC10. comply with your organization's policies, procedures and guidelines when creating documents for knowledge sharing		10	10	0
			<b>Total</b>	100	35
<b>3.SSC/N9001 (Manage your work to meet requirements)</b>	PC1. establish and agree your work requirements with appropriate people	<b>100</b>	6.25	0	6.25
	PC2. keep your immediate work area clean and tidy		12.5	6.25	6.25
	PC3. utilize your time effectively		12.5	6.25	6.25
	PC4. use resources correctly and efficiently		18.75	6.25	12.5
	PC5. treat confidential information correctly		6.25	0	6.25
	PC6. work in line with your organization's policies and procedures		12.5	0	12.5
	PC7. work within the limits of your job role		6.25	0	6.25
	PC8. obtain guidance from appropriate people, where necessary		6.25	0	6.25
	PC9. ensure your work meets the agreed requirements		18.75	6.25	12.5
			<b>Total</b>	<b>100</b>	<b>25</b>
<b>4.SSC/N9002 (Work effectively with colleagues)</b>	PC1. communicate with colleagues clearly, concisely and accurately	<b>100</b>	20	0	20
	PC2. work with colleagues to integrate your work effectively with theirs		10	0	10
	PC3. pass on essential information to colleagues in line with organizational requirements		10	10	0
	PC4. work in ways that show respect for		20	0	20

	colleagues				
	PC5. carry out commitments you have made to colleagues		10	0	10
	PC6. let colleagues know in good time if you cannot carry out your commitments, explaining the reasons		10	10	0
	PC7. identify any problems you have working with colleagues and take the initiative to solve these problems		10	0	10
	PC8. follow the organization's policies and procedures for working with colleagues		10	0	10
	<b>Total</b>		<b>100</b>	<b>20</b>	<b>80</b>
<b>5.SSC/N9003 (Maintain a healthy, safe and secure working environment)</b>	PC1. comply with your organization's current health, safety and security policies and procedures	<b>100</b>	20	10	10
	PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person		10	0	10
	PC3. identify and correct any hazards that you can deal with safely, competently and within the limits of your authority		20	10	10
	PC4. report any hazards that you are not competent to deal with to the relevant person in line with organizational procedures and warn other people who may be affected		10	0	10
	PC5. follow your organization's emergency procedures promptly, calmly, and efficiently		20	10	10
	PC6. identify and recommend opportunities for improving health, safety, and security to the designated person		10	0	10
	PC7. complete any health and safety records legibly and accurately		10	0	10
	<b>Total</b>		<b>100</b>	<b>30</b>	<b>70</b>
<b>6.SSC/N9004 (Provide data/information in standard formats)</b>	PC1. establish and agree with appropriate people the data/information you need to provide, the formats in which you need to provide it, and when you need to provide it	<b>100</b>	12.5	12.5	0
	PC2. obtain the data/information from reliable sources		12.5	0	12.5
	PC3. check that the data/information is accurate, complete and up-to-date		12.5	6.25	6.25
	PC4. obtain advice or guidance from appropriate people where there are problems with the data/information		6.25	0	6.25
	PC5. carry out rule-based analysis of the data/information, if required		25	0	25
	PC6. insert the data/information into the agreed formats		12.5	0	12.5
	PC7. check the accuracy of your work, involving		6.25	0	6.25

	colleagues where required				
	PC8. report any unresolved anomalies in the data/information to appropriate people		6.25	6.25	0
	PC9. provide complete, accurate and up-to-date data/information to the appropriate people in the required formats on time		6.25	0	6.25
	<b>Total</b>		<b>100</b>	<b>25</b>	<b>75</b>
<b>7.SSC/N9005 (Develop your knowledge, skills and competence)</b>	PC1. obtain advice and guidance from appropriate people to develop your knowledge, skills and competence	<b>100</b>	10	0	10
	PC2. identify accurately the knowledge and skills you need for your job role		10	0	10
	PC3. identify accurately your current level of knowledge, skills and competence and any learning and development needs		20	10	10
	PC4. agree with appropriate people a plan of learning and development activities to address your learning needs		10	0	10
	PC5. undertake learning and development activities in line with your plan		20	10	10
	PC6. apply your new knowledge and skills in the workplace, under supervision		10	0	10
	PC7. obtain feedback from appropriate people on your knowledge and skills and how effectively you apply them		10	0	10
	PC8. review your knowledge, skills and competence regularly and take appropriate action		10	0	10
	<b>Total</b>		<b>100</b>	<b>20</b>	<b>80</b>

**Means of assessment 1**

Proctored online assessments (LAN and Web based), carried out using a variety of question formats applicable for linear / adaptive methodologies; performance criteria being assessed via situation judgement tests, simulations, code writing, psychometrics and multiple choice questions etc.

**Means of assessment 2**

Presently not considered.

## SECTION 2

### EVIDENCE OF NEED

#### **What evidence is there that the qualification is needed?**

Sector wise occupational analysis lends weight to the need of the qualification prescribed. The research documents pertaining to this sub-sector are attached as per sl. Nos 2 and 6 respectively (Occupational Analysis report for the sub-sector” and “Talent Demand Supply Analysis Report”).

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

Overview of the occupational demand, that includes ‘Associate-Analytics’, is available in the talent demand supply document. NASSCOM’s Strategic Review, 2015 articulates 2.30 lakh as new hires for the IT-BPM industry in FY 2014-15. In that, IT exports (includes ITS, ERD, SPD segment) covers 1.4 lakh, BPM – 40,000 and IT domestic (all inclusive) is 50,000.

In current FY 15-16, the expected net employment addition is going to be between 2 lakhs to 2.30 lakhs.

Through training providers’ the requirement is estimated as 1600 for the FY 15-16.

Further research is being undertaken to predict the qualification need for individual job roles.

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

Cleared by QRC at NSDC. It is available on public view for more than a year and has not been contested till date.

\* As the understanding and adoption models of QPs evolve in the industry and across its sub-sectors, we foresee consolidation of qualification packs as a natural progression.

#### **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?**

- Monitoring and review of the qualifications is a project executed every two years. Presently, the research project is scheduled to take off.
- While adoption by industry and academia is one good indicator for the usefulness of a qualification pack, we adopt multiple approaches for periodic review and maintenance of the qualifications.
  1. Sub-sector wise Industry council, headed by council chair is a formal part of our governing structure. The council participates and steers the qualifications creation and upkeep. This council is a body elected by over 1800 member companies of NASSCOM.
  2. Special interest groups are formed for a more focused and detailed review of the qualifications in the light of emerging knowledge and skill areas.
  3. Events and workshops are conducted periodically to validate, monitor and review the qualification.
  4. As a part of due diligence process for affiliating Training providers, we do ask them for validation from their hirers – thus covering even medium, small and micro segment of the hiring companies.
  5. Any institution / individual is welcome to send feedback, which is recorded and considered during next review cycle.

The above data is used to update the Qualification and this revision is published annually. Nonetheless, if a major feedback is received prior to the planned review period, the change is considered in consultation with the industry council.

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

Give details of the document(s) here: Occupation analysis report for Business Process Management Business Process Management Sub-sector (attachment sl no. 2)

### SECTION 3

#### SUMMARY EVIDENCE OF LEVEL

Level of qualification: 7

Summary of Direct Evidence:

Justify the NSQF level allocated to the QP by building upon the five descriptors of NSQF. Explain the reasons for allocating the level to the QP.

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

Associate-Analytics - SSC/Q2101					
Process required	Professional knowledge	Professional skill	Core skill	Responsibility	Level
<p>Individuals in this job are responsible for tracking business metrics and generating dashboards for the consumption of business managers.</p> <p>They <b>require a command of wide ranging specialized theoretical and practical skills</b>, to develop research protocols, analytical frameworks and crack tough business problems across verticals.</p>	<p>Individual at this job should have a <b>wide ranging, factual and theoretical knowledge within the field of work or study</b>, to develop research protocols, analytical frameworks and crack tough business problems across verticals.</p> <p>He/she should know &amp; understand:</p> <ul style="list-style-type: none"> <li>• different methodological approaches to statistical analysis</li> <li>• how to structure and classify statistical data</li> <li>• the range of anomalies that may be present in statistical analysis and how to identify and correct these</li> <li>• techniques for interrogating and validating statistical data</li> <li>• different statistical analysis databases, software and tools and how to use these, including SQL and scripting tools</li> <li>• how to apply rule-based statistical analysis approaches</li> </ul>	<p>Individual at this job should have a <b>wide range of cognitive and practical skills required</b> for tracking business metrics and generating dashboards for the consumption of business managers.</p> <p>Various process involves to develop research protocols, analytical frameworks and crack tough business problems across verticals.</p> <p>He/she should know &amp; understand:</p> <ul style="list-style-type: none"> <li>• the purpose and aims of the statistical analysis being undertaken</li> <li>• organization's policies, procedures and guidelines which relate to rule-based statistical analysis</li> </ul>	<p>Individual at this job require <b>good logical and mathematical skills</b>, to develop research protocols, analytical frameworks and crack tough business problems across verticals.</p> <p>Individuals also need to explore data to find new patterns and relationships by applying quantitative techniques, and build statistical models.</p> <p>This job requires the individual to work collaboratively in teams and at the same time be comfortable in making</p>	<p>Individuals at this job are responsible for tracking business metrics and generating dashboards for the consumption of business managers.</p> <p>Individuals need to develop research protocols, analytical frameworks and crack tough business problems across verticals.</p> <p>Individuals also need to explore data to find new patterns and relationships by applying quantitative techniques, and build statistical models.</p> <p>This job requires the individual to work independently and handle</p>	<p><b>7</b></p>

<p>Individuals also need to explore data to find new patterns and relationships by applying quantitative techniques, and build statistical models.</p>	<ul style="list-style-type: none"> <li>• how to create documents for gathering feedback and reviewing data</li> <li>• how to obtain, analyze and use feedback to improve the data</li> <li>• how to make inferences from statistical analysis</li> <li>• types of predictions/conclusions that can be made based on statistical data</li> <li>• different graphical formats for presenting data and how to create these</li> <li>• different ways of presenting information</li> <li>• the importance of providing rationale for inferences</li> <li>• different styles used in documents, including organization's house style, types and styles of documents &amp; templates</li> <li>• different ways of structuring documents and how to select the best structure for the agreed content</li> <li>• how to check and make corrections to documents for common editorial problems and errors, including deviations, factual accuracies, linguistic mistakes, discrepancies, errors, ambiguities in content &amp; formatting</li> <li>• change management procedures, including version control and approvals</li> </ul>	<ul style="list-style-type: none"> <li>• different data sources and how to access documents and information from data sources</li> <li>• who to involve when undertaking statistical data analysis</li> <li>• the range of standard templates and tools available and how to use them</li> <li>• the purpose and scope of the work to be carried out and the importance of keeping within these boundaries</li> <li>• intended audiences for documents</li> <li>• the importance of reviewing documents with others</li> <li>• methods and techniques used when working with others</li> <li>• how to convert the work element into meaningful documents by proper abstraction and categories suited to standard templates</li> </ul>	<p>decisions pertaining to his/her area of work. The individual should possess excellent communication analytical and negotiation skills.</p> <p>The core &amp; generic job skills to <b>collecting and organising information, communication</b> that an individual should have, will help him/her <b>understand</b> &amp; manage assigned works in the context of <b>the social environment</b> of the customer.</p>	<p>large amounts of data.</p> <p>He/she is also required to display strong quantitative abilities to sort through different types of data and transform meaningless data into useful information.</p> <p>These tasks will require the individual to take <b>responsibility of his/her own work and learning and full responsibility other's work &amp; learning.</b></p> <p>Individual at this job does not work under supervision, as needed at Level 3 &amp; is responsible for his/her own learning. He/she is fully responsible for other's work &amp; learning (unlike not/partially as in level 4/5). He/she is also sometimes fully responsible for the output of the group. Therefore, this QP is justified to be pegged at Level 7.</p>	
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Summary of other evidence (if used):

- Validated by Industry council through various workshops and through training provider stake holders

## **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?**

This qualification has been through workshops and consultations.  
Adequate NOSs / performance criteria have been added to ensure progression to related path ways identified as per the occupational career map.

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

Give details of the document(s) here:

NA

## **SECTION 5**

### **EVIDENCE OF INTERNATIONAL COMPARABILITY**

**List any comparisons which have been established.**

Our standards follow the IT-ITeS industry requirements which caters to global markets.