



Model Curriculum

Data Analysis Associate

QP Code: NIE/ITS/Q15009

Version: 1.0

NSQF Level: 4

Training Parameters

Sector	IT-ITes
Sub-Sector	Data Science & Engineering
Occupation	Data Analytics
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/2120.0501 (Associate- Analytics)
Minimum Educational Qualification and Experience	12th grade pass Or Completed 2nd year of 3-year diploma (after 10th) and pursuing regular diploma Or 10th grade pass plus 2-year NTC Or 10th grade pass plus 1-year NTC plus 1 year NAC Or 10th grade pass and pursuing continuous schooling Or Data Analyst Assistant NOS from 1-6 will be exempted, Previous NSQF Qualification of Level 3 with 3 year relevant experience
Pre-Requisite License or Training	-
Minimum Job Entry Age	No Age Bar
Last Reviewed On	29.03.2023
Next Review Date	29.03.2026
NSQC Approval Date	29.03.2023
QP Version	1.0
Model Curriculum Creation Date	29.03.2023
Model Curriculum Valid Up to Date	29.03.2026
Model Curriculum Version	1.0
Duration of the Course	450 Hours

Program Overview

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

Training Outcomes:

1. Acquire the ability to perform basic calculations and data analysis using spreadsheet tools, applying formulas and functions effect
2. Gain proficiency in managing and organizing structured data, ensuring it is properly cleaned and prepared for analysis.
3. Develop skills in visualizing data graphically, interpreting trends, and deriving actionable insights.
4. Gain hands-on experience with Hadoop and Java to manage and process large-scale, big data.
5. Develop the ability to apply data analytics concepts to real-world use cases, leveraging both spreadsheet tools and open-source technologies.

Compulsory Modules

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

S. No	NOS/Module Name	Training Duration (Hours)		
		Theory	Practical	Total
1.	NOS 1: Perform basic calculation using spreadsheet NOS Code: NIE/ITS/N14041 NSQF Level: 4	10	20	30
2.	NOS 2: Manage structured data NOS Code: NIE/ITS/N14042 NSQF Level: 4	30	30	60
3.	NOS 3: Analyse data using spreadsheet tool NOS Code: NIE/ITS/N14043 NSQF Level: 4	30	30	60
4.	NOS4: Manage data in Open source tool NOS Code: NIE/ITS/N14044 NSQF Level: 4	10	20	30
5.	NOS 5: Visualize data graphically NOS Code: NIE/ITS/N14045 NSQF Level: 4	20	40	60
6.	NOS 6: Installation of Hadoop Framework and Java Programming NOS Code: NIE/ITS/N14047 NSQF Level: 4	30	30	60
7.	NOS7:	10	20	30

S. No	NOS/Module Name	Training Duration (Hours)		
		Theory	Practical	Total
	Manage big data using hadoop NOS Code: NIE/ITS/N14048 NSQF Level: 4			
8.	NOS 8: Implementation of use cases of Data Analytics NOS Code: NIE/ITS/N14046 NSQF Level: 4	10	20	30
9.	Employability Skills NOS Code: DGT/VSQ/N0102 NSQF Level: 4	60		60
10.	OJT NOS Code: N/A	30		30
Total				450

Module Details

Module 1/NOS 1: Perform basic calculation using spreadsheet

NOS Code: NIE/ITS/N14041

Terminal Outcomes:

After completion of the module, the students shall be able to:

- Understand the basic arithmetic operations (addition, subtraction, multiplication, division) in a spreadsheet, applying them to perform accurate calculations.
- Learn to use essential functions such as SUM, AVERAGE, and COUNT to summarize and manipulate data effectively.
- Develop the ability to use cell references (relative, absolute, and mixed) to create dynamic formulas that can be applied across multiple data sets.
- Acquire the knowledge to format and present calculated data effectively, including number formatting, rounding, and conditional formatting.
- Learn to identify and correct common errors in spreadsheet calculations, such as formula mistakes, incorrect references, or circular references.

Key Learning Outcomes:

Duration: 10 hours	Duration: 20 hours
Theory	Practical
-Acquire knowledge of spreadsheet structure, including cells, rows, and columns for calculations.	-Develop the ability to format cells, round numbers, and apply conditional formatting.
-Gain an understanding of basic arithmetic operations (addition, subtraction, multiplication, division) in spreadsheets.	-Enhance skills in performing basic arithmetic calculations using spreadsheet formulas.
-Acquire knowledge of key functions like SUM, AVERAGE, and COUNT for data summarization.	-Learn to apply functions like SUM, AVERAGE, and COUNT for data summarization.
-Develop an understanding of formatting techniques for presenting calculated data clearly	-Gain knowledge in using relative, absolute, and mixed cell references for accurate formula
Classroom Aid	
Whiteboard, Marker, Pin up Board , Projector, Laptop, Internet with Wi-Fi (Min 2 Mbps Dedicated).	
Tools, Equipment and Other Requirements	
Classroom, Student Chairs, Student Tables, Desktop computers with accessories (32 GB RAM with Camera, Headphone and Windows), Desk jet printer, Server (Xeron Processor dual core processor with 128 gb ram and 4 TB Hardisk).	

Module 2/NOS 2: Manage structured data

NOS Code: NIE/ITS/N14042

Terminal Outcomes:

After completion of the module, the students shall be:

- Ability to analyze algorithms and algorithm correctness..
- Ability to summarize searching and sorting techniques
- Ability to summarize searching and sorting techniques.
- Ability to have knowledge of trees and graphs concepts.
- Learn to import, export, and update structured data from different sources while maintaining data integrity.

Key Learning Outcomes:

Duration: 30 hours	Duration: 30 hours
Theory	Practical
- Understand how to structure data in tables for efficient management using rows, columns, and fields.	- Apply skills to structure data into tables, using rows, columns, and fields for easy access and management.
- Learn sorting, filtering, and grouping techniques to identify patterns and insights.	-Use sorting, filtering, and grouping techniques on real-world datasets to identify trends and derive actionable insights.
- Gain knowledge of data cleaning methods to correct errors, remove duplicates, and resolve inconsistencies.	- Identify and correct errors, remove duplicates, and resolve inconsistencies in datasets to ensure data quality.
Classroom Aid	
Whiteboard, Marker, Pin up Board , Projector, Laptop, Internet with Wi-Fi (Min 2 Mbps Dedicated).	
Tools, Equipment, and Other Requirements	
Classroom, Student Chairs, Student Tables, Desktop computers with accessories (32 GB RAM with Camera, Headphone and Windows), Desk jet printer, Server (Xeron Processor dual core processor with 128 gb ram and 4 TB Hardisk).	

Module 3/NOS 3: Analyse data using spreadsheet tool

NOS Code: NIE/ITS/N14043

Terminal Outcomes:

After completion of the module, the students shall be:

- Acquire the ability to apply advanced spreadsheet functions (e.g., VLOOKUP, IF statements, INDEX-MATCH) for data analysis and decision-making.
- Gain proficiency in performing data aggregation and summarization using pivot tables, allowing for effective data segmentation and analysis.
- Develop the skill to perform statistical analysis (e.g., mean, median, standard deviation) using spreadsheet tools to identify trends and insights.
- Learn how to create dynamic reports and dashboards using charts, graphs, and tables to visually present analytical results.
- Gain experience in interpreting and communicating the results of data analysis, drawing actionable insights to support business decisions.

Key Learning Outcomes:

Duration: 30 hours	Duration: 30 hours
Theory	Practical
- Understand the theory of pivot tables for summarizing and segmenting data to derive insights.	- Ability to use pivot tables for data aggregation
- Learn statistical concepts (mean, median, standard deviation) using spreadsheet tools.	- Ability to apply statistical functions (mean, median, standard deviation) to analyze data distributions, trends, and variations...
- Understand data visualization by studying the theory of creating charts, graphs, and dashboards to present analysis results visually.	- Ability to design and generate charts, graphs, and dashboards to present data insights in a visually compelling and understandable manner
- Understand how to analyze data outputs and communicate insights effectively for decision-making	- Acquire the understanding of functions like VLOOKUP, HLOOKUP, IF statements, and INDEX-MATCH to perform data analysis and lookup tasks.
Classroom Aid	
Whiteboard, Marker, Pin up Board , Projector, Laptop, Internet with Wi-Fi (Min 2 Mbps Dedicated).	
Tools, Equipment, and Other Requirements	
Classroom, Student Chairs, Student Tables, Desktop computers with accessories (32 GB RAM with Camera, Headphone and Windows), Desk jet printer, Server (Xeron Processor dual core processor with 128 gb ram and 4 TB Hardisk).	

Module 4/NOS 4: Manage data in Open source tool

NOS Code: NIE/ITS/N14044

Terminal Outcomes:

After completion of the module, the students shall be:

- **Acquire** the ability to set up, configure, and maintain open-source databases (e.g., MySQL, PostgreSQL, MongoDB).
- **Learn** to import, export, and migrate data across various formats and systems (CSV, JSON, etc.).
- **Understand** how to query databases using SQL/NoSQL and generate reports or basic data visualizations.
- **Gain** knowledge of backup, restoration, and recovery procedures to protect data.
- **Develop** skills to set up user roles, permissions, and authentication to ensure data security and access control.

Key Learning Outcomes:

Duration: 10 hours	Practical: 20 hours
Theory	Practical
- Acquire an understanding of the principles and functionalities of open-source data management tools,	- Acquire hands-on experience in installing and configuring open-source data management tools like MySQL, PostgreSQL.
- Understand the importance of data integrity, consistency, and performance optimization when using open-source platforms to manage large datasets.	- Learn to create, manage, and optimize databases, including tables, indexes, and queries, through practical exercises..
- Learn theoretical concepts related to data structures, indexing, and querying within open-source database systems such as MySQL, PostgreSQL etc.	- Understand how to perform data import/export tasks, migrating data between different systems/formats while ensuring data consistency..
- Gain theoretical knowledge of data import/export techniques, data migration processes, and the challenges associated with ensuring data accuracy and security.	- Gain practical skills in performing backup and recovery operations to safeguard data in real-world scenarios..
- Develop an understanding of access control mechanisms, user roles, and permissions to maintain secure and controlled environments for data management	- Develop the ability to implement and manage user roles, permissions, and authentication to ensure secure and controlled data access.
Classroom aids	
Whiteboard, Marker, Pin up Board , Projector, Laptop, Internet with Wi-Fi (Min 2 Mbps Dedicated).	
Tools, Equipment and Other Requirements	
Classroom, Student Chairs, Student Tables, Desktop computers with accessories (32 GB RAM with Camera, Headphone and Windows), Desk jet printer, Server (Xeron Processor dual core processor with 128 gb ram and 4 TB Hardisk).	

Module 5/NOS 5: Visualize data graphically

NOS Code: NIE/ITS/N14045

Terminal Outcomes:

After completion of the module, the students shall be:

- Acquire the ability to use data visualization tools (e.g., Tableau, Power BI, etc.) to create meaningful graphical representations of data.
- Learn to design and implement different types of charts and graphs (e.g., bar, line, pie, scatter) to effectively communicate data insights.
- Understand the principles of effective data visualization, including choosing the right chart types, color schemes, and layout for clarity and impact.
- Gain practical experience in integrating data from various sources and visualizing it to support decision-making and data analysis.

Key Learning Outcomes:

Duration: 20 hours	Practical: 40 hours
Theory	Practical
- Acquire an understanding of the key principles and theories behind data visualization.	- Acquire hands-on experience with data visualization tools (e.g., Tableau, Power BI)
- Learn theoretical concepts of different types of charts, graphs, and their use cases.	- Learn to create and customize various types of charts and graphs (e.g., bar, line)
- Understand the role of data visualization in communicating complex data effectively.	- Understand how to integrate and visualize data from multiple sources for analysis.
- Gain knowledge about design principles such as color theory, layout, and accessibility	- Gain practical skills in designing interactive dashboards and dynamic visualizations.
Classroom aids	
Whiteboard, Marker, Pin up Board , Projector, Laptop, Internet with Wi-Fi (Min 2 Mbps Dedicated).	
Tools, Equipment and Other Requirements	
Classroom, Student Chairs, Student Tables, Desktop computers with accessories (32 GB RAM with Camera, Headphone and Windows), Desk jet printer, Server (Xeron Processor dual core processor with 128 gb ram and 4 TB Hardisk).	

Module 6/NOS6: Installation of Hadoop Framework and Java Programming

NOS Code: NIE/ITS/N14047

Terminal Outcomes:

After completion of the module, the students shall be able to:

- Acquire the skills to install and configure the Hadoop framework, including setting up Hadoop components like HDFS and MapReduce.
- Learn the fundamentals of Java programming required to work with Hadoop, including basic syntax, object-oriented concepts, and data structures.
- Understand the architecture and components of the Hadoop ecosystem, such as HDFS, YARN, and MapReduce, and how they interact with each other.
- Gain practical experience in writing and executing Java programs that interact with the Hadoop framework for processing large-scale data.

Key Learning Outcomes:

Duration: 30 hours	Practical: 30 hours
Theory	Practical
-Acquire knowledge of the core components and architecture of the Hadoop framework.	-Acquire hands-on experience in installing and configuring the Hadoop ecosystem, including HDFS, YARN, and MapReduce.
-Learn the fundamental concepts of distributed computing and how Hadoop handles large datasets	- Learn to write Java programs that interact with Hadoop, including reading from and writing to HDFS.
-Understand the role of Java in the Hadoop ecosystem and how it integrates with Hadoop components	-Understand how to troubleshoot and resolve common issues during the installation and configuration of Hadoop.
-Gain knowledge of the basic programming constructs of Java, including object-oriented concepts and file handling.	-Gain practical experience in developing, running, and debugging Java-based applications within the Hadoop framework.
-Develop an understanding of the different Hadoop tools (e.g., Hive, Pig, HBase) and their use cases	-Develop skills in executing MapReduce jobs, configuring Hadoop clusters, and working with large-scale datasets.
Classroom aids	
Whiteboard, Marker, Projector, Laptop, Internet with Wi-Fi (Min 2 Mbps Dedicated).	
Tools, Equipment and Other Requirements	
Classroom, Student Chairs, Student Tables, Desktop computers with accessories (32 GB RAM with Camera, Headphone and Windows), Desk jet printer, Server (Xeron Processor dual core processor with 128 gb ram and 4 TB Hardisk).	

Module 7/NOS7: Manage big data using hadoop

NOS Code: NIE/ITS/N14048

Terminal Outcomes:

After completion of the module, the students shall be able to:

- Acquire the ability to set up and configure Hadoop clusters for managing large-scale datasets.
- Learn how to use HDFS for distributed storage and ensure efficient data management in a big data environment.
- Understand the principles of MapReduce programming and how it processes large datasets in parallel across a Hadoop cluster.
- Gain experience in integrating Hadoop with other big data tools (e.g., Hive, Pig, HBase) for advanced data processing and analysis.
- Develop the skills to monitor, troubleshoot, and optimize Hadoop performance for managing big data efficiently.

Key Learning Outcomes:

Duration: 10 hours	Practical: 20 hours
Theory	Practical
-Acquire knowledge of the architecture and components of Hadoop for managing big data..	-Acquire hands-on experience in hands-on experience in setting up and configuring Hadoop clusters for big data management.
-Learn the core concepts of HDFS, MapReduce, and their role in big data processing	- Learn how to implement MapReduce jobs and interact with HDFS for storing and processing large datasets.
-Understand how Hadoop integrates with other big data tools like Hive, Pig, and HBase	-Understand how to configure and use these tools in a Hadoop environment to enhance data processing capabilities.
-Gain how Hadoop integrates with other big data tools like Hive, Pig, and HBase	-Gain practical experience in managing Hadoop's performance, troubleshooting, and optimizing cluster operations..
Classroom aids	
Whiteboard, Marker, Projector, Laptop, Internet with Wi-Fi (Min 2 Mbps Dedicated).	
Tools, Equipment and Other Requirements	
Classroom, Student Chairs, Student Tables, Desktop computers with accessories (32 GB RAM with Camera, Headphone and Windows), Desk jet printer, Server (Xeron Processor dual core processor with 128 gb ram and 4 TB Hardisk).	

Module 8/NOS8: Implementation of use cases of Data Analytics

NOS Code:

Terminal Outcomes:

After completion of the module, the students shall be able to:

- Acquire the ability to identify and implement various data analytics use cases across different industries, such as healthcare, finance, and retail.
- Learn to analyze and interpret real-world data sets, transforming them into actionable insights to support business decision-making.
- Understand the importance of selecting the right analytical methods and tools (e.g., machine learning, statistical analysis) for specific use cases.
- Gain practical experience in applying data analytics techniques to solve business problems and optimize processes.
- Develop the skills to communicate data-driven insights effectively through reports, dashboards, or presentations tailored to different stakeholders.

Duration: 10 hours	Practical: 20 hours
Theory	Practical
- Acquire knowledge of various data analytics use cases across industries such as finance, healthcare, and marketing.	- Acquire hands-on experience in implementing data analytics solutions to solve real-world business problems.
- Learn the theoretical foundations of data analytics methods, including statistical analysis, machine learning, and predictive modeling.	Learn to apply data analytics tools and techniques (e.g., Python, R, SQL) to analyze and process real datasets.
- Understand the role of data analytics in decision-making and business strategy.	-Understand how to design and implement data-driven strategies to optimize business operations.
-Gain an understanding of how to choose the appropriate analytics techniques for specific business use cases	- Gain practical experience in building and deploying analytics models and presenting insights to stakeholders.
Classroom aids	
Whiteboard, Marker, Projector, Laptop, Internet with Wi-Fi (Min 2 Mbps Dedicated).	
Tools, Equipment and Other Requirements	
Classroom, Student Chairs, Student Tables, Desktop computers with accessories (32 GB RAM with Camera, Headphone and Windows), Desk jet printer, Server (Xeron Processor dual core processor with 128 gb ram and 4 TB Hardisk).	

Module 9/NOS9: Employability Skills

NOS Code: DGT/VSQ/N0102

Terminal Outcomes:

After completing this program, participants will be able to:

- Outline the importance of Employability Skills for the current job market and future of work.
- List different learning and employability-related GOI and private portals and their usage.
- Research and prepare a note on different industries, trends, required skills, and the available opportunities.

Key Learning Outcomes:

Duration: 60 Hrs.
Key Learning Outcomes
<p>Constitutional Values – Citizenship</p> <ul style="list-style-type: none">• Explain constitutional values, including civic rights and duties, citizenship, responsibility towards society, and personal values and ethics such as honesty, integrity, caring, and respecting others that are required to become a responsible citizen.• Demonstrate how to practice different environmentally sustainable practices.
<p>Becoming a Professional in the 21st Century</p> <ul style="list-style-type: none">• Discuss relevant 21st-century skills required for employment.• Highlight the importance of practicing 21st-century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn, etc., in personal or professional life.• Create a pathway for adopting a continuous learning mindset for personal and professional development.
<p>Basic English Skills</p> <ul style="list-style-type: none">• Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone.• Read and understand text written in basic English.• Write a short note/paragraph/letter/e-mail using correct basic English.
<p>Career Development & Goal Setting</p> <ul style="list-style-type: none">• Create a career development plan.• Identify well-defined short- and long-term goals.
<p>Communication Skills</p> <ul style="list-style-type: none">• Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.• Write a brief note/paragraph on a familiar topic.• Explain the importance of communication etiquette, including active listening for effective communication.• Role-play a situation on how to work collaboratively with others in a team.
<p>Diversity and Inclusion</p> <ul style="list-style-type: none">• Demonstrate how to behave, communicate, and conduct appropriately with all genders and PwD.

- Discuss the significance of escalating sexual harassment issues as per the POSH act.

Financial and Legal Literacy

- Discuss various financial institutions, products, and services.
- Demonstrate how to conduct offline and online financial transactions safely and securely and check passbook/statement.
- Explain the common components of salary such as Basic, PF, Allowances (HRA, TA, DA, etc.), and tax deductions.
- Calculate income and expenditure for budgeting.
- Discuss legal rights, laws, and aids.

Essential Digital Skills

- Describe the role of digital technology in day-to-day life and the workplace.
- Demonstrate how to operate digital devices and use the associated applications and features safely and securely.
- Demonstrate how to connect devices securely to the internet using different means.
 - Follow the dos and don'ts of cyber security to protect against cybercrimes.
 - Discuss the significance of displaying responsible online behavior while using various social media platforms.
 - Create an email id and follow email etiquette to exchange emails.
 - Show how to create documents, spreadsheets, and presentations using appropriate applications.
 - Utilize virtual collaboration tools to work effectively.

Entrepreneurship

- Explain the types of entrepreneurship and enterprises.
- Discuss how to identify opportunities for potential business, sources of funding, and associated financial and legal risks with its mitigation plan.
 - Describe the 4Ps of Marketing-Product, Price, Place, and Promotion and apply them as per requirement.
 - Create a sample business plan for the selected business opportunity.

Customer Service

- Classify different types of customers.
- Demonstrate how to identify customer needs and respond to them in a professional manner.
 - Discuss various tools used to collect customer feedback.
 - Discuss the significance of maintaining hygiene and dressing appropriately.

Getting ready for Apprenticeship & Jobs

- Draft a professional Curriculum Vitae (CV).
- Use various offline and online job search sources to find and apply for jobs.
- Discuss the significance of maintaining hygiene and dressing appropriately for an interview.
 - Role-play a mock interview.
 - List the steps for searching and registering for apprenticeship opportunities.

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/ Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
BCA/A-Level/Diploma in CS/IT/ allied area.	Computer Science/Information Technology	-	-	1	Relevant field	-

Trainer Certification	
Domain Certification	Platform Certification
Certified for ToT for Job Role: NIE/ITS/Q15009: "Data Analysis Associate" or equivalent as per NCrf. Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: "Trainer (VET and skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0" or equivalent as per NCrf. Minimum accepted score is 80%

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/ Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
MCA/B-Level/B. Tech in CS/IT/EC/EE/ allied areas	CS/IT/EC/EE/allied areas	2	Relevant field	-	-	-

Assessor Certification	
Domain Certification	Platform Certification
Certified for ToA for Job Role: NIE/ITS/Q15009: "Data Analysis Associate" or equivalent as per NCrf. Minimum accepted score is 80%	Recommended that the assessor is certified for the Job Role: "Trainer (VET and skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0" or equivalent as per NCrf. Minimum accepted score is 80%

Assessment Strategy

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

The underlying principle of assessment is fairness and transparency. The evidence of the outcomes and assessment criteria. Competence acquired by the candidate can be obtained by conducting Theory (Online), Practical assessment, internal assessment, Project/Presentation/Assignment, Major Project. The emphasis is on the practical demonstration of skills & knowledge gained by the candidate through the training. Each OUTCOME is assessed & marked separately. A candidate is required to pass all OUTCOMES individually based on the passing criteria.

About Examination Pattern:

1. The question papers for the theory and practical exams are set by the Examination wing (assessor) of NIELIT HQS.
2. The assessor assigns roll number.
3. The assessor carries out theory online assessments through remote proctoring methodology. Theory examination would be conducted online and the paper comprise of MCQ. Conduct of assessment are through trained proctors. Once the test begins, remote proctors have full access to candidate's video feeds and computer screens. Proctors authenticate the candidate based on registration details, pre-test image captured and I- card in possession of the candidate. Proctors can chat with candidates or give warnings to candidates. Proctors can also take screenshots, terminate a specific user's test session, or re-authenticate candidates based on video feeds.
4. An External Examiner/ Observer may be deployed including NIELIT officials for evaluation of Practical examination/ internal assessment / Project/ Presentation/. Major Project (if applicable) would be evaluated preferably by external/ subject expert including NIELIT officials.
5. Pass percentage would be 50% marks in each component.
6. Candidates may apply for re-examination within the validity of registration (only in the assessment component in which the candidate failed).
7. For re-examination prescribed examination fee is required to be paid by the candidate only for the assessment component in which the candidate wants to reappear.
8. There would be no exemption for any paper/module for candidates having similar qualifications or skills.
9. The examination will be conducted in English language only.

Quality assurance activities: A pool of questions is created by a subject matter expert and moderated by other SME. Test rules are set beforehand. Random set of questions which are according to syllabus appears which may differ from candidate to candidate. Confidentiality and impartiality are maintained during all the examination and evaluation processes.

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and Skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying Cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand And be able to do upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards