QUALIFICATION FILE – Standalone NOS

Fundamentals of BIM Integration for MEP Systems in Mechanical Engineering using Autodesk Revit

☒ Horizontal/Generic ☐ Vertical/Specialization

☒ Upskilling ☐ Dual/Flexi Qualification ☒For ToT ☒ For ToA

☐General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☒ OEM

NCrF/NSQF Level: 4.5

Submitted By:

Additional Skill Acquisition Programme

KINFRA Film and Video park, Sainik School P.O, Kazhakkoottam

Thiruvananthapuram, Kerala, India-695585

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Section 1 : Basic Details

1.	**NOS-Qualification Name**	**Fundamentals of BIM Integration for MEP Systems in Mechanical Engineering using Autodesk Revit**	
2.	**Sector/s**	Construction	
3.	**Type of Qualification: ☒New ☐ Revised ☐ Has Electives/Options ☒ OEM**	**NQR Code & version of the existing /previous qualification:** *(change to previous, once approved)*NA	**Qualification Name of the existing/previous version:** *(previous, once approved)* NA
4.	**a. OEM Name** **b. Qualification Name** (*Wherever applicable)*	**Autodesk India Pvt. Ltd.** **Fundamentals of BIM Integration for MEP Systems in Mechanical Engineering using Autodesk Revit**	
5.	**National Qualification Register (NQR) Code & Version** *(Will be issued after NSQC approval.)*	***NG-4.5-CO-04449-2025-V1-ASAP & V1.0***	***6.*** **NCrF/NSQF Level:** 4.5
7.	**Award (Certificate/Diploma/Advance Diploma/ Any Other** *(Wherever applicable specify multiple entry/exits also & provide details in annexure)*	**Certificate**	
8.	**Brief Description of the Standalone NOS**	The Fundamentals of BIM Integration for MEP Systems in Mechanical Engineering using Autodesk Revit course provides a comprehensive introduction to Building Information Modeling (BIM) for mechanical, electrical, and plumbing (MEP) applications. This course equips learners with the skills to design, model, and integrate MEP systems using Autodesk Revit, focusing on HVAC, plumbing, and fire protection. Students will gain a solid understanding of Revit's interface, linking models, working with parameters, and developing detailed construction documentation. The curriculum follows industry standards and includes hands-on training in system design, component customization, and project coordination. Through practical exercises and a capstone project, learners will develop proficiency in MEP system modeling, duct and piping design, fire protection	

<table>
<tr><td></td><td></td><td>layouts, and cooling load calculations. The course emphasizes real-world applications, enabling students to produce accurate construction drawings, perform system analysis, and generate project schedules. By the end of the program, learners will be able to integrate MEP systems seamlessly into BIM workflows, preparing them for industry roles in building services and mechanical engineering.</td></tr>
<tr><td>9.</td><td>Eligibility Criteria for Entry for a Student/Trainee/Learner/Employee</td><td>a. Entry Qualification & Relevant Experience:
<table>
<tr><th>No.</th><th>Minimum qualification</th><th>Experience required</th></tr>
<tr><td>1</td><td>Completed 1st year of 3-year/ 4-year UG in Mechanical Engineering or Related Branches</td><td>No experience required</td></tr>
<tr><td>2</td><td>Completed 3-year diploma in Mechanical Engineering or Related Branches after 10th</td><td>No experience required</td></tr>
<tr><td>3</td><td>Completed 1st year of 2-year diploma in Mechanical Engineering or Related Branches after 12th</td><td>No experience required</td></tr>
<tr><td>4</td><td>Pursuing 1st year of 3-year/ 4-year UG in Mechanical Engineering or Related Branches</td><td>No experience required</td></tr>
<tr><td>5</td><td>Pursuing 3rd year of 3-year diploma in Mechanical Engineering or Related Branches after 10th</td><td>No experience required</td></tr>
<tr><td>6</td><td>Pursuing 2nd year of 2-year diploma in Mechanical Engineering or Related Branches after 12th</td><td>No experience required</td></tr>
</table></td></tr>
</table>

<table>
<tr><td>10.</td><td>Credits Assigned to this NOS-Qualification, Subject to Assessment (as per National Credit Framework (NCrF))</td><td>2</td><td>11. Common Cost Norm Category (I/II/III) (wherever applicable): II</td></tr>
<tr><td>12.</td><td>Any Licensing Requirements for Undertaking Training on This Qualification (wherever applicable)</td><td colspan="2">NA</td></tr>
<tr><td>13.</td><td>Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</td><td colspan="2">
<table>
<tr><th>Training Delivery Mode</th><th>Theory (Hours)</th><th>Practical (Hours)</th><th>Total (Hours)</th></tr>
<tr><td>Classroom (offline)</td><td>24</td><td>36</td><td>60</td></tr>
</table>
☒ Offline Only ☒ Online Only ☐ Blended
</td></tr>
<tr><td>14.</td><td>Assessment Criteria</td><td colspan="2">
<table>
<tr><th>Theory (Marks)</th><th>Practical (Marks)</th><th>Project (Marks)</th><th>Viva (Marks)</th><th>Total (Marks)</th><th>Passing %</th></tr>
<tr><td>20</td><td>40</td><td>30</td><td>10</td><td>100</td><td>50%</td></tr>
</table>
*Offline/Online Assessment
</td></tr>
<tr><td>15.</td><td>Aligned to NCO/ISCO Code/s (if no code is available mention the same)</td><td colspan="2">2161.9900</td></tr>
<tr><td>16.</td><td>Progression Path After Attaining the Qualification, wherever applicable (Please show Professional and Academic progression)</td><td colspan="2">BIM Technician / BIM Modeler</td></tr>
<tr><td>17.</td><td>Other Indian languages in which the Qualification & Model Curriculum are being submitted</td><td colspan="2">Hindi (Please provide assurance and plan for developing the qualification in other Indian Languages as per training requirement))</td></tr>
<tr><td>18.</td><td>Is similar NOS available on NQR-if yes, justification for this qualification</td><td colspan="2">☐ Yes ☒ No URLs of similar Qualifications:</td></tr>
<tr><td>19.</td><td>Is the Job Role Amenable to Persons with Disability</td><td colspan="2">☐ Yes ☒ No
If “Yes”, specify applicable type of Disability:</td></tr>
</table>

20.	**How will participation of women be encouraged?**	ASAP Kerala offers courses in a gender-neutral manner, ensuring egalitarian mobilization of students and providing equal opportunity for all.	
21.	**Are Greening/ Environment Sustainability Aspects Covered** *(Specify the NOS/Module which covers it)*	☐ **Yes** ☒ **No**	
22.	**Is Qualification Suitable to be Offered in Schools/Colleges**	**Schools** ☐ **Yes** ☒ **No** **Colleges** ☒ **Yes** ☐ **No**	
23.	**Name and Contact Details Submitting / Awarding Body SPOC** *(In case of CS or MS, provide details of both Lead AB & Supporting ABs)*	**Name: Vishnu P** **Email: vishnup@asapkerala.gov.in, curriculum@asapkerala.gov.in** **Ph No: 9946476262 | Website: www.asapkerala.gov.in**	
24.	**Final Approval Date by NSQC:** 07/10/2025	**25. Validity Duration:** 3 years	**26. Next Review Date:** 07/10/2028

Section 2 : Module Summary

Mandatory NOS/s:

Th.-*Theory* ***Pr.***-*Practical* ***OJT***-*On the Job* ***Man.***-*Mandatory Training* ***Rec.***-*Recommended* ***Proj.***-*Project*

S. No	NOS/Module Name	NOS/Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/ NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj. + Viva	Att.	Total	Weightage (%) *(if applicable)*
1.	Fundamentals of BIM Integration for MEP Systems in Mechanical Engineering using Autodesk Revit	ASP/CON/N0903	Core	4.5	2	24:00	36:00	-	-	60	20	40	30	10	100	NA
Duration (in Hours) / Total Marks										60					100	

Assessment - Minimum Qualifying Percentage

Minimum Pass Percentage – Aggregate at qualification level: 50% *(Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)*

Section 3 : Training Related

1.	**Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Diplomaor Bachelor's Degree in Engineering* with at least 2 years of Industry experience. *Mechanical/Related Branches
2.	**Master Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Diploma or Bachelor's Degree in Engineering* with at least 3 years of Industry experience. * Mechanical/Related Branches
3.	**Tools and Equipment Required for the Training**	☒Yes ☐No *(If "Yes", details to be provided in Annexure)*
4.	**In Case of Revised NOS, details of Any Upskilling Required for Trainer**	NA

Section 4 : Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Diploma or Bachelor's Degree in Engineering* with at least 2 years of Industry experience. * Mechanical/Related Branches
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines), (wherever applicable)*	Diploma or Bachelor's Degree in Engineering* with at least 2 years of Industry experience. * Mechanical/Related Branches
3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Diploma or Bachelor's Degree in Engineering* with at least 3 years of Industry experience. * Mechanical/Related Branches
4.	**Assessment Mode** *(Specify the assessment mode)*	Offline/Online
5.	**Tools and Equipment Required for Assessment**	☒ Same as for training ☐ Yes ☐ No *(details to be provided in Annexure-if it is different for Assessment)*

Section 5 : Evidence of the Need for the Standalone NOS

1.	Government /Industry initiatives/ requirement (Yes/No): Yes. Evidence of Need Attached
2.	Number of Industry validation provided: NA – OEM Course
3.	Estimated number of people to be trained: 600

4.	Evidence of Concurrence/Consultation with Line/State Departments (In case of regulated sectors): *Awaiting reply* If "No", why:

Section 6 : Annexures & Supporting Documents Check List

1.	**Annexure:** NCrF/NSQF level justification based on NCrF/NSQF descriptors *(Mandatory)*	Annexure attached
2.	**Annexure:** List of tools and equipment relevant for NOS *(Mandatory, except in case of online course)*	Annexure attached
3.	**Annexure:** Performance and Assessment Criteria *(Mandatory)*	*Annexure attached*
4.	**Annexure:** Assessment Strategy *(Mandatory)*	*Annexure attached*
5.	**Annexure:** Blended Learning *(Mandatory, in case selected Mode of delivery is Blended Learning)*	*NA*
6.	**Annexure:** Acronym and Glossary *(Optional)*	*Annexure attached*
7.	**Annexure/Supporting Document:** Standalone NOS- Performance Criteria Details Annexure/Document with PC-wise detailing as per NOS format (Mandatory- Public view)	*Annexure attached*
8.	**Supporting Document:** Model Curriculum *(Mandatory – Public view)*	*Annexure attached*

Annexure 1: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	Deeper knowledge and understanding of specialized field of technology / skills/ job role and its underlying principles. Acquired specialized knowledge and a range of cognitive and practical skills to accomplish tasks like basic design, prototyping, testing so as to solve a problem by selecting appropriate information, methods, tools, and materials.	This Qualification provides specialized knowledge of integrating MEP systems within BIM workflows. It equips students with the skills to perform tasks like design, prototyping, and troubleshooting using tools such as Revit. By focusing on real-world applications, the course enhances students' ability to select appropriate methods, tools, and materials to solve engineering problems, ensuring they are prepared for current industry demands.	4.5
Professional and Technical Skills/ Expertise/ Professional Knowledge	Skill to clearly identify the relevant tools or sometimes improvise the available tools and techniques; and has advance knowledge of materials in difficult situations and different contexts. Possesses a range of professional and technical skills, displays clarity of knowledge and practice in broad range of activities/ tasks.	This qualification helps students identify and use the right tools for MEP system design, and improvise when necessary in challenging situations. It also provides advanced knowledge of materials and techniques across different contexts. By developing both professional and technical skills, the qualification ensures students can clearly apply their knowledge to a wide range of tasks in MEP design and integration.	4.5
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Possesses excellent oral and written communication and collaboration skills for clearly taking the vision of the leaders to the shop floor level workforce.	This qualification helps students develop strong communication and collaboration skills to effectively convey the vision of leaders to the workforce. It also enhances their ability to perform complex calculations, mathematical analysis, and financial assessments for	4.5

	Very good in complex calculations, and mathematical and financial analysis skills for applied solutions.	practical solutions in MEP system design and integration.	
Broad Learning Outcomes/Core Skill	Demonstrates a wide range of specialized professional and technical skill in broad range of activity involving standard and non-standard practices. Apply the acquired specialized knowledge and a range of cognitive and practical skills to accomplish tasks like basic design, prototyping, testing to solve problems by selecting appropriate information, methods, tools, and materials. Communication and collaboration skills to act as a layer between the senior management and workforce/ shop floor. Make judgement and take decision, based on the analysis and evaluation of information, for determining solutions to a variety of unpredictable problems associated with the chosen fields of learning,	This qualification develops a wide range of specialized professional and technical skills, allowing students to handle both standard and non-standard practices in MEP system design and integration. Students will apply their knowledge and skills in tasks such as design, prototyping, and testing to solve problems by selecting the appropriate methods, tools, and materials. The qualification also fosters communication and collaboration skills, enabling students to bridge the gap between senior management and the workforce. Additionally, students will gain the ability to make informed judgments and decisions by analyzing and evaluating information to address unpredictable problems in MEP-related tasks.	4.5
Responsibility	Technical supervisor or junior/ deputy manager. Manages processes and procedures within broad parameters for defined activities. Supervises the routine work of others, takes the required responsibility for the evaluation and improvement of work or study activities	This qualification prepares students for roles like Technical Supervisor or Junior/Deputy Manager by equipping them with the skills to manage processes and procedures within broad parameters for defined activities. Students will also develop the ability to supervise routine work, take responsibility for evaluating and improving work or study activities, ensuring continuous improvement in MEP system design and integration.	4.5

Annexure 2: Tools and Equipment (lab set-up)

Batch size: 30

Sl. No.	Tools/ Equipment Name	Specification	Quantity for specified Batch size
1	Computer/Laptop	Autodesk Revit Installed	30

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Projector
3. Computer/Laptop with Autodesk Fusion 360 software installed
4. Chairs
5. Tables
6. Whiteboard marker

Annexure 3: Training Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2025-26	200+	200+	50+	50+	0	0
2026-27	200+	200+	50+	50+	0	0
2027-28	200+	200+	50+	50+	0	0

Data to be provided year-wise for next 3 years

Annexure 4: Standalone NOS - Performance Criteria details

1. Description:

Performance criteria for this course encompass both theoretical understanding and practical application of concepts related to Building Information Modeling (BIM) integration for Mechanical, Electrical, and Plumbing (MEP) systems in civil engineering projects. The course will assess students' proficiency in BIM workflows, MEP system design, and the integration of these systems within the broader context of civil engineering projects. Performance criteria aim to evaluate students' competencies in theoretical knowledge, practical skills, problem-solving, creativity, collaboration, professionalism, and commitment to continuous improvement in BIM applications for MEP systems.

2. Scope:

The scope of the performance criteria for this course includes various aspects of BIM integration, specifically related to MEP systems in civil engineering. These criteria are designed to assess students' competencies in the following areas:

- Theoretical Understanding
- Practical Application
- Problem-Solving and Creativity
- Professionalism and Collaboration
- Continuous Improvement

3. Elements and Performance Criteria:

Theoretical Knowledge Assessment Criteria:

- Understanding the fundamental concepts of BIM and its relevance to MEP system integration in civil engineering.
- Ability to explain the role and impact of MEP systems within BIM workflows for building design, construction, and operation.
- Knowledge of industry standards, guidelines, and tools for BIM integration specific to MEP systems.
- Familiarity with the process of coordinating MEP designs within multidisciplinary BIM models.

Practical Skills Assessment Criteria:

- Proficiency in using BIM software (e.g., Autodesk Revit, Navisworks) for designing and integrating MEP systems.
- Skill in modeling mechanical, electrical, and plumbing components within a BIM environment.
- Competence in resolving clashes and issues between MEP systems and other building components using BIM tools.
- Ability to create accurate, coordinated BIM models for MEP systems that align with civil engineering requirements.
- Application of BIM for MEP systems to perform simulations, energy analysis, and system performance evaluation.

Overall Performance Evaluation Criteria:

- Mastery of both theoretical knowledge and practical skills in BIM integration for MEP systems in civil engineering projects.
- Ability to apply learned concepts and tools to effectively integrate MEP systems into a BIM environment, ensuring accuracy and coordination across disciplines.
- Effective communication of BIM model outputs, analyses, and recommendations for MEP system design and performance.
- Demonstration of creativity and innovation in addressing MEP system design challenges within a BIM framework.
- Adherence to professional standards and industry best practices in MEP BIM integration.

4. Knowledge and Understanding (KU):

Upon completion of this course, the individual on the job will have acquired the following knowledge and understanding:

a. BIM Fundamentals: Basic principles and practices of BIM, including its role in building design, construction, and operation.

b. MEP Systems Design: The role and design principles for Mechanical, Electrical, and Plumbing systems in buildings.

c. BIM Software Tools: Proficiency in BIM software like Autodesk Revit for modeling MEP components and Autodesk Navisworks for clash detection and coordination.

d. BIM for Coordination: Techniques for coordinating MEP systems with architectural and structural components within a multidisciplinary BIM model.

e. Energy and Performance Analysis: Methods for using BIM to perform energy analysis, load calculations, and performance simulations for MEP systems.

f. Industry Standards: Familiarity with industry standards and guidelines for BIM processes in MEP system design and integration.

5. Generic Skills (GS):

After completing this course, the learner will have developed the following generic skills:

- Problem-Solving: Ability to identify and resolve coordination issues and system performance challenges in MEP design using BIM.
- Critical Thinking: Capacity to assess design alternatives, evaluate system performance, and make informed decisions in the context of BIM workflows.
- Communication: Proficiency in communicating MEP design concepts, issues, and solutions through BIM models, visual presentations, and written reports.
- Teamwork: Capability to work effectively with multidisciplinary teams, including architects, structural engineers, and MEP specialists, in a collaborative BIM environment.
- Attention to Detail: Precision in modeling and integrating MEP systems to ensure system functionality, accuracy, and compliance with design specifications.
- Adaptability: Flexibility in adapting to new BIM tools, technologies, and industry practices as the field evolves.
- Time Management: Ability to prioritize tasks and manage multiple BIM-related responsibilities in project timelines.
- Continuous Learning: Commitment to staying updated on advancements in BIM technologies, MEP systems, and civil engineering best practices.

This document provides a comprehensive framework for evaluating performance in the "Fundamentals of BIM Integration for MEP Systems in Mechanical Engineering" course, aligning with industry standards and professional expectations.

Annexure 5: Assessment Criteria

Detailed PC-wise assessment criteria and assessment marks for the NOS are as follows:

S. No.	Assessment Criteria for Performance Criteria	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC 1.	Design Hydronic Systems for efficient fluid distribution in MEP applications.	2	5	4	1
PC 2.	Develop Domestic Cold, Hot, and Sanitary Water Systems using Autodesk Revit.	2	5	4	1
PC 3.	Perform HVAC Cooling Load Calculations to optimize energy efficiency in building design.	2	5	4	1
PC 4.	Design and integrate Fire Protection Systems within a BIM workflow.	2	5	4	1
PC 5.	Model and analyze Ductwork Systems within a building using Revit tools.	2	5	4	1
PC 6.	Prepare and extract Construction Drawings from BIM models for project execution.	5	5	5	2
PC 7.	Customize and create Revit Component Families to enhance project-specific requirements.	5	10	5	3
Total Marks		**20**	**40**	**30**	**10**
Grand Total		**100**			

Annexure 6: Assessment Strategy

1. ASAP follows an assessment framework which provides weightage for all the activities connected with skilling in which students get involved during the training program. The components of assessment include Attendance, Assignments, Internal Assessments and Final Assessment. Of these, Attendance and Internal Assessment come under Continuous and Comprehensive Evaluation (CCE). All Assessments with regard to the academic status of the student should be reflected as marks and overall assessment by awarding grades. The report card/certificate will state only the overall grade.

1.1 Weightages: For Short-term training courses (knowledge based) aligned to NSQF at Level 4 and above, the assessment shall be done with 60% weightage for practical component and 40% weightage for theoretical part.

Theory	Practical

Type of Assessment	Max Marks	Type of Assessment	Max Marks
Assignment 1	40	Practical Assignment	40
Internal Assessment 1	60	Internal Practical assessment	60
Assignment 2	40	Internship/OJT Evaluation	100
Internal Assessment 2	60	Viva	90
Final Assessment	100	Attendance	10
Total	300	Total	300

1.2 Attendance Criteria: Skill based sessions and training are delivered through lectures, discussions, demonstrations, and experiments ensuring student participation during daily learning activities. So those who miss such sessions will not be able to compensate for the loss. Regular student participation in daily classroom activities plays a significant role in student's success. For each course and batch, the student's attendance will be marked daily, and marks will be awarded accordingly on course completion before final assessment. Students whose attendance fall below 70% will not be eligible for final assessment and course completion certificate.

Point Scale	Marks
Attendance Above 90%	10
86 to 90%	8
80 to 85%	5
70 to 80%	3
Below 70%	0

2. Internal assessment & student involvement:

2.1 A Continuous and Comprehensive Evaluation (CCE) shall be done for candidates for Assignments and Internal Assessments.

2.2 The Assessment Plan: The outcome-based assessment followed by the Assessment Division for the course offered will have the following design:

2.2.1 Continuous and Comprehensive Skill Assessment

a) Knowledge and Application tests carried out at four intervals during a skill course.

b) Attendance, Assignments, and Internal Assessments

2.2.2 Course End Assessment – Performance-based

a) Practical test/Hands on experience/Skill test in an OJT Centre/SDC

b) Project Presentation and Viva voce

c) Final Assessment with MCQ and Descriptive answer writing.

2.3 Assignments:

Students can complete assignments according to his/her preferred approach. This might involve reading technical study materials, chapters and assigned reading materials to gain a better understanding prior to completing an assignment or exploring new resources to gain additional information. There shall be no restriction on the resources that the students are allowed to consult or any limit to the number of hours he/she chooses to spend on the assignment. Since each student employs his/her own personal learning style, an individual assignment may actually be a fairer measure of the student's learning.

Students have to submit two assignments, the first after coverage of 25% of the total syllabus and the second assignment after coverage of 75% of the total syllabus. Both assignments shall be evaluated and assigned a score. The scores should be marked on the student's assignment sheets by the Trainer after evaluation. The scores shall be entered in the student profile twice. The first shall be made on completion of 25% of the initial part of the syllabus. It will be based on the average score up to that point. The second entry shall be made on completion of 75% of the syllabus.

2.4 Internal Assessment:

There are two internal tests, one after completing 50% of the syllabus and the other at the end of the training course. These tests are conducted by the trainer based on the topics covered in the course. Questions are selected at random from the question bank already generated. Of these, for each test,60% of the questions are theoretical and in the form of objective type and the rest 40% will be descriptive questions which will be oriented towards procedure/strategies/ways of doing/ ethics of doing etc.The duration of the first test after 50% of the total session is 1 hr and the second test after completion of the total syllabus is 3hrs.The duration is so fixed to

ensure coverage of the total learning events. The grades shall be entered in the student's profile twice. The first entry shall be made on completion of the 50% of the initial syllabus and the second entry shall be made on completion of the rest of the syllabus.

3. Responsibility of Assessment Division of ASAP Kerala

Final Assessment: Final assessment will be conducted by ASAP Kerala. The questions will be generated randomly from the question bank. The Assessment Division of ASAP Kerala will coordinate the assessment process with the Cluster, Training and Curriculum Division.

3.1 The Assessment Division with support of the Curriculum Division and Cluster will prepare the Question Bank. The Question Bank is prepared at the time of initial course creation by Subject Matter Experts identified by the Curriculum division in consultation with respective Clusters. For courses already created the question banks are prepared by the Assessment Division, Cluster and Curriculum Division in consultation with the Training Division. The Question Bank will be used to prepare the question paper for the final assessment. The assessment division shall conduct the assessment through the assessors. The assessment shall be monitored by the assessors on the assessment platform. The final answer sheets shall be evaluated by experts in the field and the final scores with grades shall be shared by the assessment division to the certification division for final certificate issue.

3.2 Randomly selected questions from the Question bank developed will be used for Final Assessments. 20% of questions will be replaced with new ones every year and a blueprint that elaborates weightage to QP/NOS, degree of difficulty and application type questions will be used for the assessment. This will be done by a committee formed from members of cluster, training, curriculum and assessment division.

3.3 Question Bank: A Question Bank will be developed by experts following prescribed norms. Selected questions will be enlisted in the bank. The Question Bank will have 6 times the requirement of questions for the first year to start with and thereafter 20% questions will be replaced every year with new ones in each category with the help of experts following the same procedures.

3.3.1 Generation of Question Paper: Each batch will have a unique user id and the trainer will be given access to the Question Bank once for each category of the test. They will be given access to the test only at the prescribed hour on the day of assessment. Question paper will be generated from the Question Bank at random following the criteria specified for assessing each competency given in the session assessment evidence. Guidelines will be given to the trainers in terms of evaluation of assignments and internal tests.

3.4 Grading Scheme: ASAP Kerala shall follow the Grading Scheme given below Grade Score/percentage range

Score	**Grade**
90-100	A+ (Excellent)
80-89	A (Very Good)
70-79	B (Good)
60-69	C (Above Average)
50-59	P (Pass)
Below 50	F (Fail)

Annexure 7: Acronym and Glossary

Acronym

Acronym	Description
AA/AB	Assessment Agency/Awarding Body
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
QA/QC	Quality Assurance/Quality Control
ToT	Training of Trainers
ToA	Training of Assessors
MS	Multi-skill
CS	Cross Sectoral
CAPA	Corrective and Preventive Actions
FMEA	Failure Mode and Effects Analysis
KU	Knowledge and Understanding
GS	Generic Skills

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.