QUALIFICATION FILE – Standalone NOS

Fundamentals of Product Design and Manufacturing (Autodesk)

☒ 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, Kerala

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 Product Design and Manufacturing (Autodesk)**	
2.	**Sector/s**	Capital Goods	
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 Product Design and Manufacturing (Autodesk)**	
5.	**National Qualification Register (NQR) Code & Version** *(Will be issued after NSQC approval.)*	***NG-4.5-CG-04444-2025-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**	This course offers a comprehensive introduction to Autodesk Fusion 360, equipping participants with essential skills for modern product design and manufacturing. Designed for beginners, it covers core aspects such as 3D modeling, parametric design, simulation, and collaborative workflows, enabling students to create industry-standard designs effectively. Participants will gain hands-on experience in designing, prototyping, and optimizing products, bridging the gap between conceptualization and manufacturing. With a focus on practical applications, this course is ideal for engineering students and professionals seeking to enhance their skills in a rapidly evolving design ecosystem.	

<table>
<tr><td>9.</td><td>Eligibility Criteria for Entry for a Student/Trainee/Learner/Employee</td><td colspan="2">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 UG certificate or equivalent in Mechanical/ Automobile/ Relevant Engineering Branches</td><td>No experience required</td></tr>
<tr><td>2</td><td>Pursuing 1st year of UG in Mechanical/ Automobile/ Relevant Engineering Branches</td><td>No experience required</td></tr>
<tr><td>3</td><td>Pursuing 3rd year of 3-year diploma in Mechanical/ Automobile/ Relevant Engineering after 10th</td><td>No experience required</td></tr>
<tr><td>4</td><td>Previous NSQF level 4</td><td>2 years in relevant field</td></tr>
</table>
*Mechanical/ Automobile/ Relevant field</td></tr>
<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>
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<table>
<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>
<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>20</td><td>40</td><td>60</td></tr>
</table>
☒ Offline Only ☒ Online Only ☒ Blended
</td></tr>
<tr><td>14.</td><td>Assessment Criteria</td><td>
<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>2144.0201</td></tr>
<tr><td>16.</td><td>Progression Path After Attaining the Qualification, wherever applicable (Please show Professional and Academic progression)</td><td>Junior Product Designer</td></tr>
<tr><td>17.</td><td>Other Indian languages in which the Qualification & Model Curriculum are being submitted</td><td>Hindi</td></tr>
<tr><td>18.</td><td>Is similar NOS available on NQR-if yes, justification for this qualification</td><td>☐ Yes ☒ No URLs of similar Qualifications:</td></tr>
<tr><td>19.</td><td>Is the Job Role Amenable to Persons with Disability</td><td>☐ Yes ☒ No
If “Yes”, specify applicable type of Disability:</td></tr>
<tr><td>20.</td><td>How will participation of women be encouraged?</td><td>ASAP Kerala offers courses in a gender-neutral manner, ensuring egalitarian mobilization of students and providing equal opportunity for all.</td></tr>
</table>

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 Product Design and Manufacturing (Autodesk)	ASP/CSC/N0901	Core	4.5	2	20	40	-	-	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)*	Diploma or Bachelor's Degree in Engineering* with at least 2 years of Industry experience using Design Software preferably Autodesk Fusion 360 and, at least 1 year of post qualification experience Preferably in training Design Software. *Mechanical/Electrical/Production/Automobile/Instrumentation
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 using Design Software preferably Autodesk Fusion 360 and, at least 1 year of post qualification experience Preferably in training Design Software. *Mechanical/Electrical/Production/Automobile/Instrumentation
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 using Design Software preferably Autodesk Fusion 360 and, at least 1 year of post qualification experience Preferably in training Design Software. *Mechanical/Electrical/Production/Automobile/Instrumentation

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 using Design Software preferably Autodesk Fusion 360 and, at least 1 year of post qualification experience Preferably in training Design Software. *Mechanical/Electrical/Production/Automobile/Instrumentation
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 using Design Software preferably Autodesk Fusion 360 and, at least 1 year of post qualification experience Preferably in training Design Software. *Mechanical/Electrical/Production/Automobile/Instrumentation
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: 750
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 fields 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 equips learners with a comprehensive understanding of Autodesk Fusion 360, enabling them to develop deeper knowledge of product design and manufacturing principles. It also imparts specialized skills in design, prototyping, and testing, ensuring the ability to solve problems by effectively selecting and applying appropriate tools, methods, and materials.	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 advanced knowledge of materials in difficult situations and different contexts. Possesses a range of professional and technical skills, displays clarity of knowledge and practice in a broad range of activities/ tasks.	This qualification trains learners to identify and utilize relevant tools within Autodesk Fusion 360 while encouraging adaptability to improvise with available resources. It develops advanced knowledge of materials and techniques, equipping learners with professional and technical skills to perform a wide range of tasks with clarity and precision in diverse contexts.	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. Very good in complex calculations, and mathematical and financial analysis skills for applied solutions.	This qualification enhances learners' communication and collaboration skills, enabling them to effectively convey design and manufacturing concepts to team members at all levels. Additionally, it develops proficiency in complex calculations and analytical skills, ensuring the ability to apply mathematical and financial	4.5

		insights for practical and innovative solutions in product development.	
Broad Learning Outcomes/Core Skill	Demonstrates a wide range of specialized professional and technical skills in a 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 equips learners with specialized professional and technical skills to perform both standard and non-standard tasks, including design, prototyping, and testing, while addressing real-world challenges. It develops strong communication and collaboration abilities to effectively bridge senior management and shop-floor teams. Furthermore, the course emphasizes analytical and decision-making skills, enabling learners to evaluate information and determine solutions to unpredictable problems in product design and manufacturing.	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 learners to take on roles such as Technical Supervisor or Junior/Deputy Manager by equipping them with the skills to manage processes and procedures within defined parameters. It develops their ability to supervise routine work, take responsibility for evaluating outcomes, and implement improvements in work or study activities to meet organizational goals.	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 Fusion 360 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 product design, parametric modeling, assembly creation, sculpt modeling, and production drawing preparation using Autodesk Fusion 360. Performance criteria aim to evaluate students' proficiency in theoretical knowledge, practical skills, problem-solving, creativity, professionalism, collaboration, and commitment to continuous improvement in product design and manufacturing.

2. Scope:

The scope of the performance criteria for this course includes various aspects of product design and manufacturing using Autodesk Fusion 360. These performance criteria are designed to evaluate students' competencies and capabilities 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 fundamental concepts of 3D parametric modeling and assembly creation.
- Ability to explain the principles of sculpt modeling and its applications in product design.
- Knowledge of production drawing standards and their significance in manufacturing.
- Familiarity with tools and features of Autodesk Fusion 360 for design and analysis.

Practical Skills Assessment Criteria:

- Proficiency in sketching and developing 3D models with parametric features.
- Skill in creating both top-down and bottom-up assemblies using real-world components.
- Competence in designing sculpt models and refining them into manufacturable components.
- Ability to prepare shop floor production drawings adhering to industry standards.
- Application of design validation and simulation tools to evaluate product feasibility.

Overall Performance Evaluation Criteria:

- Mastery of both theoretical knowledge and practical skills in product design and manufacturing using Autodesk Fusion 360.
- Capability to apply learned concepts and methodologies to solve real-world design and manufacturing challenges.
- Effective communication of design concepts, analyses, and recommendations.
- Demonstration of creativity, innovation, and adherence to professional standards in design projects.

4. Knowledge and Understanding (KU):

After completing this course, the individual on the job will have acquired the following knowledge and understanding:

a. **3D Parametric Modeling:** Principles and practices of 3D parametric modeling, including sketching, constraints, and feature-based design.
b. **Assembly Design:** Fundamentals of creating and managing top-down and bottom-up assemblies in Autodesk Fusion 360.
c. **Sculpt Modeling:** Techniques for creating sculpt models and refining them to meet manufacturability requirements.
d. **Production Drawing Preparation:** Standards for shop floor production drawings, including dimensioning, tolerancing, and annotations.
e. **Design Validation and Simulation:** Methods for validating designs using simulation tools to ensure functional and manufacturable components.
f. **Professionalism and Collaboration:** Ethical behavior, effective communication, and teamwork in design and manufacturing projects.
g. **Continuous Improvement:** Commitment to lifelong learning and staying updated with emerging tools and practices in product design and manufacturing.

5. Generic Skills (GS):

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

- **Problem-Solving:** Ability to identify design and manufacturing challenges and develop effective solutions.
- **Critical Thinking:** Capacity to evaluate design options critically and make informed decisions.
- **Communication:** Proficiency in presenting design concepts and analyses through visual and verbal communication.
- **Teamwork:** Capability to collaborate effectively with peers and stakeholders to achieve project goals.
- **Attention to Detail:** Precision in creating 3D models, assemblies, and production drawings.
- **Adaptability:** Flexibility to learn and apply new tools and techniques as technology evolves.
- **Time Management:** Skill in prioritizing tasks and meeting project deadlines.
- **Continuous Learning:** Dedication to improving skills and knowledge in product design and manufacturing.

This document provides a comprehensive framework for evaluating performance in the "Fundamentals of Product Design and Manufacturing (Autodesk)" 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.	Understanding fundamental concepts of three dimensional parametric modeling and assembly creation	1	4	2	1
PC 2.	Ability to explain the principles of sculpt modeling and its applications in product design	2	5	2	1
PC 3.	Knowledge of production drawing standards and their significance in manufacturing	2	4	2	1
PC 4.	Familiarity with tools and features of Autodesk Fusion for design and analysis	2	3	2	1
PC 5.	Proficiency in sketching and developing three dimensional models with parametric features	2	3	2	1
PC 6.	Skill in creating both top down and bottom up assemblies using real world components	2	3	2	1
PC 7.	Competence in designing sculpt models and refining them into manufacturable components	2	3	2	1
PC 8.	Ability to prepare shop floor production drawings adhering to industry standard	2	3	2	1
PC 9.	Application of design validation and simulation tools to evaluate product feasibility	1	3	3	1
PC 10.	Mastery of both theoretical knowledge and practical skills in product design and manufacturing using Autodesk Fusion	1	3	3	1
PC 11.	Capability to apply learned concepts and methodologies to solve real world design and manufacturing challenges	1	3	3	0
PC 12.	Effective communication of design concepts analyses and recommendations	1	1	3	0
PC 13.	Demonstration of creativity innovation and adherence to professional standards in design projects	1	2	2	0
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 choose 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 Cluster. 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 defines 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.