



QUALIFICATION FILE

Aircraft Avionics Junior Technician

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☒ Apprenticeship

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

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

NCrF/NSQF Level: 4

Submitted By:

Aerospace and Aviation Sector Skill Council

C/o Dynamatic Manufacturing Ltd,

Plot No. V77 & 78, 1st Main Road, 2nd stage

Peenya Industrial Area, Bengaluru - 560058

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Section 1: Basic Details

1.	Qualification Name	Aircraft Avionics junior Technician													
2.	Sector/s	Maintenance Repair and Overhauling													
3.	Type of Qualification: ☒ New ☐ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: (change to previous, once approved) QG-04-AA-04184-2025-V1-AASSC & Version 4.0	Qualification Name of existing/previous version: Aircraft Avionics junior Technician												
4.	a. OEM Name b. Qualification Name (Wherever applicable)	b. Aircraft Avionics junior Technician													
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-04-AA-04184-2025-V1-AASSC	6. NCrf/NSQF Level: 4												
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 Qualification	An Aircraft Avionics Technician qualification equips individuals with the skills to install, maintain, and troubleshoot aircraft electronic systems, including navigation, communication, and flight control systems. It covers electrical theory, system diagnostics, and regulatory compliance. This qualification is essential for ensuring the safety and efficiency of modern aircraft operations.													
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12th grade Pass</td> <td>in Science (Math's & Physics)</td> </tr> <tr> <td>2</td> <td>10th grade pass</td> <td>2-year relevant Experience</td> </tr> <tr> <td>3</td> <td>Previous relevant qualification of NSQF Level 3</td> <td>Minimum 3 Years Experience.</td> </tr> </tbody> </table> b. Age: 18		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12 th grade Pass	in Science (Math's & Physics)	2	10 th grade pass	2-year relevant Experience	3	Previous relevant qualification of NSQF Level 3	Minimum 3 Years Experience.
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)													
1	12 th grade Pass	in Science (Math's & Physics)													
2	10 th grade pass	2-year relevant Experience													
3	Previous relevant qualification of NSQF Level 3	Minimum 3 Years Experience.													
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrf))	17	11. Common Cost Norm Category (I/II/III) (wherever applicable): I												
12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	Nil													

13.	Training Duration by Modes of Training Delivery <i>(Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</i>	☒ Offline ☐ Online ☐ Blended <table><tr><th>Training Delivery Modes</th><th>Theory (Hours)</th><th>Practical (Hours)</th><th>OJT Mandatory (Hours)</th><th>OJT Recommended (Hours)</th><th>Total (Hours)</th></tr><tr><td>Classroom (offline)</td><td>185:00</td><td>255:00</td><td>70:00</td><td>00:00</td><td>510:00</td></tr><tr><td>Online</td><td></td><td></td><td></td><td></td><td></td></tr></table> <i>(Refer Blended Learning Annexure for details)</i>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	185:00	255:00	70:00	00:00	510:00	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																			
Classroom (offline)	185:00	255:00	70:00	00:00	510:00																			
Online																								
14.	Aligned to NCO/ISCO Code/s <i>(if no code is available mention the same)</i>	NCO-2015/2144.0900																						
15.	Progression path after attaining the qualification <i>(Please show Professional and Academic progression)</i>	Aircraft Avionics Junior Technician, Senior Aircraft Avionics Technician,																						
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Nil																						
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:																						
18.	Is the Job Role Amenable to Persons with Disability	☐ Yes ☒ No If “Yes”, specify applicable type of Disability:																						
19.	How Participation of Women will be Encouraged	To encourage women in avionics tech, we can showcase female role models and provide scholarships, mentorship, and training programs. Creating inclusive workplaces with equal growth opportunities is key. Networking events and supportive policies also help. Empowering women through awareness and support fosters long-term success.																						
20.	Are Greening/ Environment Sustainability Aspects Covered <i>(Specify the NOS/Module which covers it)</i>	☐ Yes ☒ No																						
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☐ Yes ☐ No Colleges ☒ Yes ☐ No																						
22.	Name and Contact Details of Submitting / Awarding Body SPOC <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: Aerospace and Aviation Sector Skill Council Email: touchdown@aassc.in Website: https://www.aassc.in/ Contact No.: 080-28398506																						
23.	Final Approval Date by NSQC: 08/05/2025	24. Validity Duration: 3years			25. Next Review Date: 08/05/2028																			

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

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 /NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Understand the process, procedures, and precautions of Avionics systems components removal/installation	AAS/N2018 NOS Version No-2.0	Core	4	4	40:00	60:00	20:00	00:00	120:00	40	60	-	-	100	20
2.	Wiring and Installation of Avionics System	AAS/N2023 NOS Version No-1.0	Core	4	3	35:00	45:00	10:00	00:00	90:00	40	60	-	-	100	20
3.	Perform Avionics systems components removal/installation	AAS/N2019 NOS Version No-2.0	Core	4	3	30:00	45:00	15:00	00:00	90:00	42	58	-	-	100	10
4.	Perform Avionics inspections & servicing	AAS/N2020 NOS Version No-2.0	Core	4	3	30:00	45:00	15:00	00:00	90:00	40	60	-	-	100	20
5.	Record Keeping and Documentation on Avionics Maintenance	AAS/N2024 NOS Version No-1.0	Core	4	3	35:00	45:00	10:00	00:00	90:00	40	60	-	-	100	20
6.	Employability skills	DGT/VSQ/N 0101 NOS Version No-1.0	Non-core	4	1	15:00	15:00	00:00	00:00	30:00	20	30	-	-	50	10
Duration (in Hours) / Total Marks					17	185:00	255:00	70:00	00:00	510:00	222	328	-	-	550	100

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.																
2.																
Duration (in Hours) / Total Marks																

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.																
2.																
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 70 % (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)	Graduation in Instrumentation/ Electronics/ Electrical/Mechanical and 2 years in Relevant Industry Experience
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Graduation in Instrumentation/ Electronics/ Electrical/Mechanical and 5 years in Relevant Industry Experience
3.	Tools and Equipment Required for Training	☒ Yes ☐ No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	Nil

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Graduation in Instrumentation/ Electronics/ Electrical/Mechanical and 2 years in Relevant Industry Experience
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma in Instrumentation/ Electronics/ Electrical/Mechanical and 2 years in Relevant Industry Experience
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Graduation in Instrumentation/ Electronics/ Electrical/Mechanical and 5 years in Relevant Industry Experience
4.	Assessment Mode (Specify the assessment mode)	Offline
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 Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): No
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 3
5.	Estimated nos. of persons to be trained and employed: 1500
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors (Mandatory)	Attached
2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Attached
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Attached
4.	Annexure: Assessment Strategy (Mandatory)	
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	Attached
6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	
7.	Annexure: Acronym and Glossary (Optional)	Attached
8.	Supporting Document: Model Curriculum (Mandatory – Public view)	Attached
9.	Supporting Document: Career Progression (Mandatory - Public view)	Attached
10.	Supporting Document: Occupational Map (Mandatory)	Attached
11.	Supporting Document: Assessment SOP (Mandatory)	Attached
12.	Any other document you wish to submit:	

Annexure: 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	Aircraft Avionics junior Technician is responsible for functional checks of aircraft avionics systems components, accessories and LRUs	The job holder is responsible for functional checks of aircraft avionics systems components, accessories and LRUs. This involves working in some familiar, predictable and routine situations. He will be responsible for carrying out a range of jobs where some of them will require them to make choices about the approaches that must be adopted. Hence, it qualifies as a Level 4 Role. For ex: Aircraft Avionics Technician will be responsible for perform fault diagnosing, snag rectification, trouble shooting and carry out the repairs identified, interpretation of fault messages/Signal/Indication, calibration and testing of avionic systems etc., However, the job holder does not perform problem solving or supervisory role. Therefore, it does not qualify for Level 5 role. At the same time, the job holder is not required to work in a limited to range of jobs under close supervision. He is also not a 'partly skilled' worker, the job role cannot be pegged at level 3. for ex: identify the faults/ snags of Aircraft/ helicopter by using flowcharts/ drawings, operate the aircraft ground support equipment etc., as mentioned in the adjacent cell. Hence NSQF level should be 4	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	The user/individual on the job needs to know and understand how to: comprehend the organisation's safety and security policies and procedures, comprehend the regulatory guidelines on safe conduct of operations and maintenance of conditions to thwart any acts of unlawful interference, report any	The job holder is expected to have factual knowledge of the field of Aircraft Instrumentation. For ex: knowledge of Aeronautical Standards, knowledge of relevant maintenance processes, knowledge to assess the types of faults are within or outside terms, knowledge of Induction /service requirements, knowledge in IT system, Quality management system, Quality procedure of the	4

	identified breaches of safety, and security policies and procedures to the designated person, coordinate with other resources at the workplace (within and outside the organisation) to achieve safe and secure environment, identify and mitigate any safety and security hazards like illness, accidents, fires or acts of unlawful interference if it falls within the limits of individual's authority, report any hazards outside the individual's authority to the relevant person in line with organisational procedures and regulatory guidelines, follow organisation's emergency procedures for accidents, fires or acts of unlawful interference, identify and recommend opportunities for improving health, safety, and security to the designated person, ensure all health and safety records are updated and procedures well defined, perform pre-survey of Aircraft /LRUs, perform disassembly of Aircraft/Helicopter and associated major systems, etc.	organisation etc., Since all the above-mentioned areas are commensurate to the level 4 professional knowledge, the role qualifies for Level 4. As the job holder is required to possess professional knowledge higher than basic facts, processes in the field etc., therefore it cannot be pegged at level 3. As the job holder requires factual knowledge of knowledge or study. For ex : knowledge of different types of Tools, Test equipment required for the repair, basic Knowledge on Electrical systems used in Aircrafts, knowledge of troubleshooting, flow charts, Engineering drawing, Symbols etc., knowledge of LRU Testing/ troubleshooting/ repair of LRU and PCBs and through hole and SMD Soldering techniques, knowledge of interpretation of fault messages/Signal/Indication, knowledge of Assembly/Disassembly, Inspection, testing, processes and documentation, knowledge of Basic Test methods for operation and their limits, knowledge of various calibration procedures etc., Therefore, it cannot be pegged at level 3 and ideally fit as a level 4 Job Role.	
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	The user/individual on the job needs to know and understand how to: make decisions on a suitable course of action or response if permitted by the authority matrix, plan, organise & prioritise the job received from the Supervisor, validate all the process/equipment manuals so that the final process selection is correct, support the supervisor in scheduling tasks for timely completion of the job, communicate with stakeholders in a courteous manner, maintain cordial working relationship with the customers, skilled in identifying the faults/ snags of Aircraft by using flowcharts/ drawings, skill in operating the aircraft/ helicopter ground support equipment, skilled in	The job holder is expected to carry out routine and repetitive activities in a narrow range of application, using appropriate rule and tool. For instance, make decisions on a suitable course of action or response if permitted by the authority matrix, plan, organise & prioritise the job received from the Supervisor, validate all the process/equipment manuals so that the final process selection is correct, support the supervisor in scheduling tasks for timely completion of the job, communicate with stakeholders in a courteous manner, maintain cordial working relationship with the customers. Etc., These activities are mostly repetitive and have a narrow range of application, hence qualifying the role for a Level 4. As the job does not require to recall and demonstrate practical	4

	analysing the faults using engineering tools, skill in using tools and instruments for airborne hardware and software, monitor efficient functioning of all activities, etc	skill, routine and repetitive in narrow range application. For ex: make decisions on a suitable course of action or response if permitted by the authority matrix plan, organise & prioritise the job received from the Supervisor, validate all the process/equipment manuals so that the final process selection is correct, support the supervisor in scheduling tasks for timely completion of the job, etc., Here the job holder has to use appropriate rules and tools to perform his role, this role does not fit at level 3 but at level 4.	
Broad Learning Outcomes/Core Skill	The user/individual on the job needs to know and understand how to: complete accurately well written report in English language with attention to detail, read instructions/guidelines/procedures/rules, listen to and orally communicate information with all concerned, document the available information, note down observations in the given format, write information documents to concerned departments/teams under guidance of supervisor, enter the information in Inspection record sheets, relevant registers etc,	The job holder is expected to complete accurately well written report in English language with attention to detail, read instructions/guidelines/procedures/rules, listen to and orally communicate information with all concerned, document the available information, note down observations in the given format, write information documents to concerned departments/teams under guidance of supervisor, enter the information in Inspection record sheets, relevant registers etc, read and interpret engineering drawings, electrical wiring diagrams, flow charts, read and interpret engineering parameters, engineering data, engineering symbols, engineering specification , attentively listen with full attention and comprehend the information given by the supervisor etc., Since the role requires written and oral communication with required clarity for interpreting engineering data and carry out the fault diagnosis of systems and write reports for the same with clarity, this role qualifies for Level 4. As the job holder requires core skills of language, written and oral to communicate with required clarity, read instructions/guidelines and communicate higher than requiring core skills of language, written and oral to communicate with minimum clarity, therefore it cannot be pegged at level 3.	4

Responsibility	The Aircraft Avionics Junior Technician is responsible for Compulsory: 1. AAS/N2018 - Understand the process, procedures, and precautions of Avionics systems components removal /Installation 2. AAS/N2023: Wiring and Installation of Avionics System 3.AAS/N2019 - Perform Avionics systems components removal /installation 4. AAS/N2020 - Perform Avionics inspections & servicing 5. AAS/N2024: Record Keeping and Documentation on Avionics Maintenance 6. DGT/VSQ/N0101-Employability skills	The job holder is responsible for only own work and learning. S/he is a skilled worker who carries out work activities of Follow safety and security procedures, Repair and Overhaul of avionics systems of aircraft avionics systems, components, LRUs, Hence, this role qualifies for Level 4 and it does not comprise of any supervisory activities. As this job is about having responsibility for own working and learning and is not working under close supervision within defined limits. Therefore, it cannot be pegged at level 3. For ex: Repair and Overhaul of avionics systems of aircraft by carrying out varying out various fault diagnosis tests, calibration of systems and instruments for these tests, preparing reports for the tests and repairing the systems.	4
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Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size:

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
	Black/White Board & Markers		1
	PC based projection system		1
	First aid kit		3
	Basic fire safety aids		1
	Precision Tool kit		6
	Multimeter		6
	Soldering kit		6
	SMT Repair/ Assembly kit		6
	Standard Tool kit		6
	Oscilloscope		6
	Antistatic tool kit		6
	Wattmeter		6
	Functional Generator		6
	Crimping tool kit		6
	Decade Resistance Box		6
	Micro-controller software loading kits		6

	ESD Worktable		6
	IC Trainer kit		6
	Computer aided instructional packages/video films		1
	Concerned wall charts		4

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. White/Black, board, Markers, computer and projector, trainer's guide, student handbook

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	Hindustan Aeronautics Ltd	Mr. Suresh	Addl. General Manger	HAL -SDU Bangalore	9902132788	m.suresh@hal-india.co.in	
2	MAX. MRO Service Pvt. Ltd	VENKATESH MALIGI	Quality Manager	Hongor No. Cl, Juhu Aerodrome Juhu, Mumboi - 400 056. INDIA.	87791597 51	venkatesh.maligi@maxmroservices.com	
3	Vikram Aviation Pvt Ltd	Aditya Kumar	Manager	PLOT NO-2, KHASRA NO-348/2, VILL-SHAHBAD MOHAMADPUR, 61, Delhi, New Delhi, Delhi 110061	7531929493	accounts@vikramaviation.com	

Annexure: Training & Employment 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	400	350	50	30		
2026	500	400	50	30		
2027	600	500	50	30		

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

- 1.
- 2.

Content availability for previous versions of qualifications:

☐ Participant Handbook ☐ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available:

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline: Online Ratio
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1	☐ Theory/ Lectures - Imparting theoretical and conceptual knowledge		
2	☐ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners		
3	☐ Showing Practical Demonstrations to the learners		
4	☐ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training		
5	☐ Tutorials/ Assignments/ Drill/ Practice		
6	☐ Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7	☐ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training		

Annexure: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
AAS/N2018: Understand the process and procedures of avionics systems components removal/installation	<i>Interpret Technical Documents and Drawings</i>	6	8	-	-
	PC1. Interpret system schematics, component drawings, sketches, and work instructions as per AMM and procedure sheets before starting the task.	3	4	-	-
	PC2. Identify and verify applicable maintenance documentation required for component removal and installation.	3	4	-	-
	<i>Understand System Requirements and Tolerances</i>	6	8	-	-
	PC3. Comprehend limits, tolerances, and geometric dimensions necessary for precise component fitting.	3	4	-	-
	PC4. Apply knowledge of tolerances and clearances in component alignment and assembly.	3	4	-	-
	<i>Use Tools and Equipment Appropriately</i>	4	8	-	-

	PC5. Select and use appropriate tools, gauges, instruments, and torque wrenches for component removal/installation.	2	4	-	-
	PC6. Ensure all tools and equipment are calibrated and used as per standard operating procedures.	2	4	-	-
	<i>Understand Avionics Systems and Components</i>	4	6	-	-
	PC7. Demonstrate basic understanding of avionics systems and the functions of their components.	2	3	-	-
	PC8. Identify critical sub-assemblies and explain their role in the overall system performance.	2	3	-	-
	<i>Follow Correct Removal/Installation Procedures</i>	4	6	-	-
	PC9. Perform component removal and installation as per standard procedures, applying correct torque, fastening techniques, and fitting tolerances.	2	3	-	-
	PC10. Ensure all steps are in line with AMM, organizational procedures, and safety guidelines.	2	3	-	-
	<i>Handle Materials and Consumables Properly</i>	4	6	-	-
	PC11. Identify required parts, materials, and consumables and handle them appropriately.	2	3	-	-
	PC12. Verify compatibility of materials and ensure proper usage during the maintenance task.	2	3	-	-
	<i>Maintain Safety and Compliance</i>	4	6	-	-
	PC13. Follow safety protocols during handling, removal, and installation to prevent damage and ensure personal and system safety.	2	3	-	-
	PC14. Adhere to applicable regulatory and quality compliance standards.	2	3	-	-
	<i>Perform Troubleshooting and Post-Checks</i>	4	6	-	-
	PC15. Conduct basic troubleshooting of avionics systems before and after component replacement.	2	3	-	-
	PC16. Perform post-installation checks to ensure proper functionality of installed components.	2	3	-	-
	<i>Complete Documentation and Reporting</i>	4	6	-	-
	PC17. Fill out maintenance logs and documentation accurately, including component details and serial numbers.	2	3	-	-
	PC18. Report any discrepancies, damages, or issues encountered during the removal/installation process as per organizational protocols.	2	3	-	-
	NOS Total	40	60	-	-
	<i>Planning and preparing for the installation</i>	12	24	-	-
	PC1: Review and understand installation manuals, schematics, and diagrams relevant to the avionics system.	2	4	-	-
	PC2: Ensure all necessary tools, equipment, and materials are available and in working condition before starting.	2	4	-	-

AAS/N2023: Wiring and Installation of Avionics System	PC3: Assess the specific location and environment within the aircraft for safe and efficient installation of avionics components.	2	4	-	-
	PC4: Identify and follow the manufacturer's specifications for avionics system installation.	2	4	-	-
	PC5: Prepare the work area, ensuring safety standards and cleanliness are met.	2	4	-	-
	PC6: Identify and mitigate potential hazards related to working with avionics wiring and equipment.	2	4	-	-
	<i>Install and Connect Wiring</i>	12	19	-	-
	PC7: Perform wiring and connection of avionics systems according to approved electrical schematics.	2	3	-	-
	PC8: Use appropriate tools and techniques to ensure wiring is installed securely, without damage to components.	2	3	-	-
	PC9: Route and secure wires in the aircraft to minimize interference and avoid electrical hazards.	2	3	-	-
	PC10: Follow best practices for grounding and bonding of avionics systems to ensure correct system function.	2	3	-	-
	PC11: Verify wire gauge and insulation requirements are met according to avionics specifications.	2	4	-	-
	PC12: Ensure that wiring installations comply with applicable aviation safety standards and regulations.	2	3	-	-
	<i>Test and Troubleshoot Avionics Systems</i>	16	17	-	-
	PC13: Perform initial power-on checks to verify proper operation of installed avionics systems.	3	3	-	-
	PC14: Conduct functional testing to ensure systems are installed and connected correctly.	3	3	-	-
	PC15: Use diagnostic tools and equipment to troubleshoot and resolve wiring issues or system failures.	3	3	-	-
	PC16: Correct any installation errors or deficiencies found during testing	3	3	-	-
	PC17: Document and report any issues identified during testing to the appropriate team or supervisor.	2	2	-	-
	PC18: Perform final checks and confirm that all avionics systems are functioning within specifications.	2	3	-	-
NOS Total		40	60	-	-
AAS/N2019: Perform Avionics Systems	<i>Avionics Systems components removal/installation</i>	6	8	-	-
	PC1. receive the components on the aircraft and perform visual inspection of the components to identify defects	6	8	-	-
	PC2. receive the documentation received with the components to ensure that all relevant details are filled in the documents as per regulatory/organizational policies and procedures	6	8	-	-

components removal/installation	PC3. install the components on the aircraft and perform applicable operational/functional/BITE of the aircraft systems	6	8	-	-
	PC4. visually inspect the Avionics, aircraft systems and record the defects observed & to ascertain if the defects are within acceptable limits to certify airworthiness of the aircraft	6	8	-	-
	PC5. tag the parts with the appropriate tags and ensure all relevant information is filled as per regulatory/organization policy and procedures	6	8	-	-
	PC6. perform wiring checks as per electrical wiring standard maintenance practices for troubleshooting purposes	6	8	-	-
	PC7. dispatch the aircraft after performing applicable scheduled line maintenance inspections as per approved maintenance program & snag rectifications	6	9	-	-
	NOS Total	42	58	-	-
AAS/N2020: Perform Avionics systems inspections & servicing	<i>Safety to be considered before aircraft inspections</i>	20	29	-	-
	PC1. comply with organizations Occupational Health & Safety (OHS) standards	5	8	-	-
	PC2. ensure that work area around the aircraft are clean as mentioned in the work instruction/ Standard Operating Procedure (SOP) of organization	5	8	-	-
	PC3. check for the correctness of Ground Support Equipment.	5	7	-	-
	PC4. escalate any queries to the supervisor	5	6	-	-
	<i>Performing aircraft inspections/operational test/BITE etc.</i>	20	31	-	-
	PC5. select appropriate AMM/TSM task, inspection schedule applicable	5	8	-	-
	PC6. select appropriate component part number from IPC	5	8	-	-
	PC7. perform the required maintenance task, inspection schedule as per AMM & standard maintenance practices	5	8	-	-
	PC8. assist supervisor in closure of maintenance task & normalizing the aircraft.	5	7	-	-
	NOS Total	40	60	-	-
AAS/N2024: Record Keeping and Documentation in Avionics Maintenance	PC1. Maintain accurate records for avionics system maintenance, repairs, and component replacements as per regulatory requirements and organizational procedures.	4	5	-	-
	PC2. Understand the importance of documentation related to maintenance history, operational checks, test results, and compliance with standards.	4	5	-	-
	PC3. Record details in the correct format (inspection forms, maintenance logs, work orders) and ensure all entries are legible, accurate, and complete.	4	5	-	-
	PC4. Follow the correct procedure for updating and storing maintenance records, ensuring they are up-to-date and easily accessible for future reference or audits.	4	5	-	-
	PC5. Maintain detailed logs of components removed or installed, including serial numbers, part numbers, and maintenance actions performed, as per the Aircraft Maintenance Manual (AMM).	4	5	-	-

	PC6. Ensure compliance with aviation regulatory bodies' standards (e.g., DGCA, FAA, EASA) for record keeping and reporting.	4	6	-	-
	PC7. Understand the requirements for quality assurance documentation and how to file reports or deviations noted during maintenance or testing.	4	6	-	-
	PC8. Maintain safety and incident documentation, such as hazard reports, incident logs, and corrective actions taken.	4	6	-	-
	PC9. Ensure that all documents related to avionics systems are properly archived and preserved as per organizational standards and regulations.	4	6	-	-
	PC10. Confirm that any changes made to records are made according to audit guidelines and through the correct change management process.	2	6	-	-
	PC11. Alert the supervisor or quality assurance personnel if any discrepancies are found during the record-keeping process or if documentation is incomplete or erroneous.	2	5	-	-
	NOS Total	40	60	-	-
DGT/VSQ/N0101: Employability Skills (30 Hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. identify employability skills required for jobs in various industries	-	-	-	-
	PC2. identify and explore learning and employability portals	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
	PC4. follow environmentally sustainable practices	-	-	-	-
	<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
	PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
	PC6. practice the 21st Century Skills such as Self- Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
	<i>Basic English Skills</i>	2	3	-	-
	PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
	PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
	PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
	<i>Career Development & Goal Setting</i>	1	2	-	-
	PC10. understand the difference between job and career	-	-	-	-
	PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
	<i>Communication Skills</i>	2	2	-	-

PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline/online methods as per requirement	-	-	-	-

	PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
	PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
	NOS Total	20	30	-	-
	Grand Total	222	328	-	-

Annexure: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

Mention the detailed assessment strategy in the provided template.

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records

2. Testing Environment:

- Check the Assessment location, date and time
- If the batch size is more than 30, then there should be 2 Assessors.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the Assessment start and end time to be as 10:00 AM and 05:00 PM
- Check the Eligibility of Attendance

3. Assessment of Quality Assurance levels/Framework:

- Question bank is created by the Subject Matter Experts (SME) are verified by the other SME
- Questions are mapped to the specified assessment criteria
- Assessor must be ToA certified & trainer must be ToT Certified
- Assessment agency must follow the Assessment Guidelines to conduct the Assessment

4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Centre photographs with signboards and scheme specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period.
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:

- Surprise visit to the assessment location.
- Random audit of the batch
- Random audit of any Candidate

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage • Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

On the Job:

1. Each module (which covers the job profile of Aerospace CNC Machinist) will be assessed separately.
2. The candidate must score 60% in each module to successfully complete the OJT.
3. Tools of Assessment that will be used for assessing whether the candidate is having desired skills and etiquette of dealing with customers, understanding needs & requirements, assessing the customer and perform Soft Skills effectively:
 - Videos of Trainees during OJT
 - Answer Sheets of Question Banks
 - Assessing the Logbook entries of Trainees at Employer location
 - Employer Performance Feedback.
4. Assessment of each Module will ensure that the candidate is able to:
 - Effective engagement with the customers

Understand the working of various tools and equipment

Annexure: Acronym and Glossary

Acronym

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
PC	Performance Criteria
OJT	On-the-job training
ToT	Training of Trainers
ToA	Training of Assessors
AB	Awarding Body
AA	Assessment Agency
AMM	Aircraft Management manual
LRU	Line-replaceable unit
BITE	Built In Test Equipment
SOP	Standard Operation Procedure
OHS	Occupational Health and Safety
TSM	Troubleshooting Manual
FOD	Foreign Object Damage
GSE	Ground Support Equipment
IPS	Illustrated Parts Catalog

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.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf