



QUALIFICATION FILE

Astro Tour Guide

☒ 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:

Tourism and Hospitality Skill Council

#301, 3rd Floor, A Block, Naurang House, Kasturba Gandhi Marg, Connaught Place

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Section 1: Basic Details

1.	Qualification Name	Astro-Tour Guide														
2.	Sector/s	Tourism & Hospitality														
3.	Type of Qualification: <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	NQR Code & version of existing/previous qualification: QG-04-TH-046352025-V1-THSC		Qualification Name of existing/previous version: NA												
4.	a. OEM Name b. Qualification Name (Wherever applicable)	Astro-Tour Guide														
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-04-TH-046352025-V1-THSC Version 1.0		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 Astro Tour Guide specializes in leading tours focused on astronomy and stargazing experiences. They are knowledgeable about celestial bodies, constellations, and astronomical phenomena, and they educate and guide participants in observing the night sky using telescopes and binoculars. Astro tour guides often provide fascinating insights into the science and mythology of stars, planets, and galaxies, ensuring an engaging and memorable experience for guests, whether at observatories, remote stargazing spots, or during special celestial events.														
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></td> </tr> <tr> <td>2.</td> <td>Completed 3rd year of 3-year diploma (after 10th)</td> <td></td> </tr> <tr> <td>3.</td> <td>10th Grade Pass</td> <td>3 -years relevant experience in Tourism & Hospitality</td> </tr> </tbody> </table> b. Age-NA			S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	12th grade pass		2.	Completed 3rd year of 3-year diploma (after 10th)		3.	10th Grade Pass	3 -years relevant experience in Tourism & Hospitality
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)														
1.	12th grade pass															
2.	Completed 3rd year of 3-year diploma (after 10th)															
3.	10th Grade Pass	3 -years relevant experience in Tourism & Hospitality														
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): II												

12.	Any Licensing requirements for Undertaking Training on This Qualification <i>(wherever applicable)</i>	NA																			
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>	<input type="checkbox"/> Offline <input type="checkbox"/> Online <input checked="" type="checkbox"/> Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td></td> <td>222:00</td> <td>120:00</td> <td>342:00</td> </tr> <tr> <td>Online</td> <td>168:00</td> <td></td> <td></td> <td>168:00</td> </tr> </tbody> </table> <i>(Refer Blended Learning Annexure for details)</i>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	Total (Hours)	Classroom (offline)		222:00	120:00	342:00	Online	168:00			168:00
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	Total (Hours)																	
Classroom (offline)		222:00	120:00	342:00																	
Online	168:00			168:00																	
14.	Aligned to NCO/ISCO Code/s <i>(if no code is available mention the same)</i>	NCO-2015/ 5113.9900																			
15.	Progression path after attaining the qualification <i>(Please show Professional and Academic progression)</i>	Travel Consultant																			
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																			
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:																			
18.	Is the Job Role Amenable to Persons with Disability	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", specify applicable type of Disability:																			
19.	How Participation of Women will be Encouraged	The inclusion of women in the workplace is important as there is an increase in the number of educated women. Despite progress in some areas, women still face significant challenges and barriers to their full participation in the workforce. This can be addressed by formulating policy measures on skilling, job creation and support services. To increase the proportion of women in the workforce, various support measures like childcare facilities, close proximity to the workplace, safe transportation, gender acceleration plans and return to work (allowing women to re-join the workforce after motherhood) should be provided. Organizations should provide flexible work arrangements like part-time or remote work options. This not only helps the organization to retain talented women employees, but it also helps women to balance work and family responsibilities.																			
20.	Are Greening/ Environment Sustainability Aspects Covered <i>(Specify the NOS/Module which covers it)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No THC/N9906.Follow Health, Hygiene and Safety practices																			
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: Ms. Meenakshi Sharma Email: meenakshi.sharma@thsc.in Contact No.: 011-41608056/8057 Ext.1102 Website: www.thsc.in																			

23.	Final Approval Date by NSQC: 07.10.2025	24. Validity Duration: 3 years	25. Next Review Date: 07.10.2028
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NSQC Approved

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	NCr F/ 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.	Plan for an astro-tourism event	THC/N8711 (v1.0)	Core	4	3	45:00	45:00	00:00	0	90:00	30	30	0	40	100	15
2.	Prepare for the domain knowledge needed for an astro-tourism event	THC/N8712 (v1.0)	Core	4	1	12:00	18:00	00:00	0	30:00	10	25	0	15	50	15
3.	Conduct the astro-tourism event	THC/N8713 (v1.0)	Core	4	3	18:00	22:00	50:00	0	90:00	20	45	00	35	100	15
4.	Operate a telescope	THC/N8714 (v1.0)	Core	4	1	05:00	15:00	10:00	0	30:00	10	25	0	15	50	15
5.	Incorporate local astronomy knowledge	THC/N8715 (v1.0)	Core	4	4	30:00	40:00	50:00	0	120:00	35	35	00	30	100	15
6.	Engage with home-stays, hotels, etc. about promoting astro-tourism	THC/N8716 (v1.0)	Core	4	1	10:00	10:00	10:00	0	30:00	10	25	00	15	50	10
7.	Ensure to Maintain Organizational Confidentiality and Guest's Privacy	THC/N9910	Non-Core	4	1	12:00	18:00	00:00	0	30:00	10	5	0	5	20	5
8.	Follow Health, Hygiene and Safety practices	THC/N9906 v2.0	Non-Core	4	1	12:00	18:00	00:00	00:00	30:00	25	35	0	15	75	5

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	Total	Weightage (%) (if applicable)
9.	Employability Skills (60 Hours)	DGT/VSQ/ N0102 & v1.0	Non-Core	2	2	24:00	36:00	00:00	00:00	60:00	20	30	0	0	50	5
Duration (in Hours) / Total Marks					17	168:00	222:00	120:00	0	510:00	170	255	0	170	595	100

Assessment - Minimum Qualifying PercentagePlease 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.)

Minimum Pass Percentage – NOS/Module-wise: ____% (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module 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)	B.Sc. or B.E./B. Tech with specialization in Physics, maths, computer science, electronics OR Astronomy (research, amateur astronomy, science communicator and educator, telescope manufacturer OR 5 years' experience as an amateur astronomer or astronomy educator)
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	NA
3.	Tools and Equipment Required for Training	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	B.Sc. or B. Tech/B.E. with specialization in Physics, maths, computer science, electronics and 3 years of Relevant experience OR can include amateur astronomers of at least 5 years of experience irrespective of educational qualification
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	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	NA
	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	NA
	Assessment Mode (Specify the assessment mode)	Blended
	Tools and Equipment Required for Assessment	<input checked="" type="checkbox"/> Same as for training <input type="checkbox"/> Yes <input type="checkbox"/> 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): No
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 05
5.	Estimated nos. of persons to be trained and employed: 500
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: No If "No", why: Mail sent to Ministry, awaiting reply.

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)	Attached
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	Attached

6.	Annexure: Multiple Entry-Exit Details (<i>Mandatory, in case qualification has multiple Entry-Exit</i>)	<i>Attached</i>
7.	Annexure: Acronym and Glossary (<i>Optional</i>)	<i>Attached</i>
8.	Supporting Document: Model Curriculum (<i>Mandatory – Public view</i>)	<i>Attached</i>
9.	Supporting Document: Career Progression (<i>Mandatory - Public view</i>)	<i>Attached</i>
10.	Supporting Document: Occupational Map (<i>Mandatory</i>)	<i>Attached</i>
11.	Supporting Document: Assessment SOP (<i>Mandatory</i>)	<i>Attached</i>
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	Fundamental knowledge <ul style="list-style-type: none"> Understand the celestial sphere, directions, motion, etc. Understanding the motion of stars, planets, Moon, Sun on the celestial sphere. Identify bright stars and constellations, planets, on the sky Monthly and annual motion of celestial objects Coordinate system on the celestial sphere How the sky changes over a year How to observe planets, Moon, and Sun How to observe interesting objects in the night sky How to observe transient objects like meteors, satellites, etc. How does a telescope work Assemble, align, collimate of telescope Perform 2- and 3-point alignment of telescopes for automated tracking and pointing Create a plan for list of objects to see on a particular night 	<ul style="list-style-type: none"> In terms of Professional Theoretical Knowledge/Process in the Astro Tourism course represents a stage where learners not only master theoretical foundations but also contribute to the field through critical analysis, interdisciplinary integration, research, and professional application of knowledge. Hence Level 4 	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	Celestial Navigation Skills: <ul style="list-style-type: none"> At Level 4, learners are expected to exhibit proficiency in celestial navigation techniques. They should be capable of navigating using celestial bodies, contributing to an enhanced astro tourism experience through precise and informed guidance. Specialized Equipment Handling:	<ul style="list-style-type: none"> In terms of Professional and Technical Skills/Expertise/Professional Knowledge in the Astro Tourism qualification represents a stage where learners possess not only a deep understanding of professional knowledge but also advanced technical skills, expertise, and a commitment to ongoing professional development. 	4

	<ul style="list-style-type: none"> Learners will have acquired expertise in handling specialized equipment used in astro tourism, such as telescopes, cameras, preferably AR tools. They should demonstrate proficiency in maintaining, calibrating, and troubleshooting equipment to ensure optimal performance <p>Customized Astro Tourism Experiences:</p> <ul style="list-style-type: none"> Learners will be skilled in designing and delivering customized astro tourism experiences tailored to the interests and preferences of diverse audiences. They should exhibit creativity and innovation in crafting unique and memorable astronomical encounters. <p>Collaborative and Cross-functional Proficiency:</p> <ul style="list-style-type: none"> Learners should demonstrate the ability to collaborate with professionals from diverse fields, such as astronomers, tour guides, and hospitality experts. They should exhibit strong teamwork and leadership skills, effectively integrating their astro tourism expertise into broader organizational objectives. 	<ul style="list-style-type: none"> Learners will have a deep understanding of the environmental impact of astro tourism Hence Level 4 	
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	<p>Employment readiness</p> <ul style="list-style-type: none"> Entrepreneurial Mindset: Learners at this level will have developed an entrepreneurial mindset, demonstrating a proactive and innovative approach to astro tourism. Business Planning and Strategy: learners are expected to demonstrate advanced skills in developing comprehensive business plans for astro tourism ventures. Leadership and Team Management: learners should demonstrate 	<p>In terms of Employment Readiness & Entrepreneurship Skills & Mindset/Professional Skill in the Astro Tourism qualification represents a stage where learners are not only prepared for employment but are also equipped with the skills and mindset to thrive as entrepreneurs in the dynamic astro tourism industry.</p>	4

	<p>leadership skills, capable of leading teams in the planning and execution of astro tourism initiatives. They should exhibit effective team management, fostering a collaborative and high-performance work environment.</p>		
Broad Learning Outcomes/Core Skill	<ul style="list-style-type: none"> • Explain celestial phenomena and constellations. • Organize and conduct night sky observation tours. • Storytelling: Link astronomy with cultural and mythological narratives. • Operate telescopes and sky mapping tools. • Effective Communication: Simplify concepts and engage diverse audiences. • Promote eco-friendly practices during tours. • Respect and integrate local traditions related to astronomy. 	<ul style="list-style-type: none"> • In terms of Core skills, Demonstrating knowledge of facts, principles, and processes in a specialized field (e.g., astronomy and tourism). Assumes responsibility for individual and team performance in predictable and unpredictable scenarios. 	
Responsibility	<ul style="list-style-type: none"> • Ethical Leadership • Assist tourists in their exploration of the night sky and celestial objects from a dark site • Holistic Customer/group Engagement • Explain the wonders of the night sky • Show prominent celestial objects to tourists through telescopes 	<ul style="list-style-type: none"> • The Astro-tourism guide's job is to help tourists explore the night sky and celestial objects from a dark location, plan and execute night sky events for tourists, explain the wonders of the night sky, show tourists prominent celestial objects through telescopes, and engage with them about astronomy. The guides will not only leverage the area sky's blackness to lure astro-tourists but will also help to preserve the dark skies through light management. • Hence Level 4 	4

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Globe	Durable, 8–12-inch rotatable globe for celestial and Earth demonstrations.	01
2	Green laser pointer	532 nm wavelength, with safety lock.	01
3	Flashlights for night observations	Red LED, adjustable brightness, battery-operated or rechargeable	01
4	Stellarium app installed on laptop	Standard (& with Internet Connection)	01
5	Star charts and/or star map apps installed on participants phones,	Printable or apps like Sky Safari for real-time sky tracking.	01
6	Telescopes & outdoor power supply for the telescopes	8-inch aperture telescope with portable 12V power pack.	01
7	Maps or lists of bright objects in the sky	Standard	01
8	Chair or stool	Foldable, weather-resistant, and lightweight.	2 to 3
9	Binoculars	7x50 or 10x50 with wide field of view and anti-reflective coating.	01
10	Mobile phone, phone stand, adaptor for mobile phone for eyepiece,	Smartphone, adjustable tripod, and telescope adapter.	01
11	DLSR, DSLR stand and adaptor.	with manual mode, sturdy tripod, and T-ring adapter	01
12	Copy of Panchang or almanac	Print or digital format for celestial event timings.	01
13	Personal Protection Equipment: Safety glasses, Head protection, Rubber gloves, Safety footwear, Warning signs and tapes,	Standard	01 set
14	Fire extinguisher & First aid kit,	Portable ABC-rated extinguisher and basic first aid supplies	01 each

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Flip Chart
2. Duster
3. Projector
4. Projector screen
5. Computer/ Laptop with charger
6. Power Point Presentation

7. Laptop External Speakers
8. Training kit (Trainer guide, Presentations)
9. Participant Handbook and Related Standard Operating Procedures
10. Markers

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	Aperture Telescopes	Ajay Talwar	Proprietor	B49, Vijay Rattan Vihar, Sector 15-II, Gurgaon-122001	9810274724	Ajaytalwar80@yahoo.com	-
2	Bangalore Astronomical Society	Sudhash Natrajan	Trustee	#448, 2 nd cross, Srinivas Nagar, AGS Layout, Hosakerahalli, Bengaluru	9986057711	info@bas.org.in , sudhashn@gmail.com	-
3	Aryabhat Foundation,	Alok Mandavgane	Joint Secretary	S-1, Swapnil Apartment VIII 258, Trilanga, Shahpura, Bhopal 462039,	8225855428	a lokmandavgane@gmail.com	-
4	Homi Bhabha Centre for Science Education (HBCSE-TIFR)	Aniket Sule	Associate Professor	V. N. Purav Marg, Mumbai, 400088	9820273239	anikets@hbsce.tifr.res.in	-
5	Starscapes Experience Pvt. Ltd.	Ramashish Ray	Director	-	9810000304	Ramashish.ray@starscapes.zone	-
6	Science Communication, Public outreach, and Education)	Niruj Mohan Ramanujam	Head, IIA SCOPE Section	-	080-2254-1269	niruj.mohan@iiap.res.in	-

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
2025-2026	250		50		NA	NA
2026-2027	250		100		NA	NA
2027-2028	250		100		NA	NA

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
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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: **NA**

Content availability for previous versions of qualifications: **NA**

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

Languages in which Content is available: **NA**

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:**Refer NCVET “Guidelines for Blended Learning for Vocational Education, Training & Skilling**

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline: Online Ratio
1	<input checked="" type="checkbox"/> Theory/ Lectures - Imparting theoretical and conceptual knowledge	<ul style="list-style-type: none"> • Books/ e-books • Presentations • Reference Material • Audio / Video Modules 	20:00
2	<input checked="" type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	<ul style="list-style-type: none"> • Self-Learning Videos • Broadcasts • Mobile Learning • Curated Digital content 	00:00
3	<input checked="" type="checkbox"/> Showing Practical Demonstrations to the learners	<ul style="list-style-type: none"> • Video Content • E-Resource library • AR/ VR/ XR 	00:00
4	<input checked="" type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	<ul style="list-style-type: none"> • Training tools (tools list attached) • Video Play • Presentations 	80:20
5	<input checked="" type="checkbox"/> Tutorials/ Assignments/ Drill/ Practice	<ul style="list-style-type: none"> • Online Question Bank • Mobile Quick Test App • MCQ based tests 	50:50
6	<input checked="" type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations	<ul style="list-style-type: none"> • Assessment engine for Essays • Up-loadable file examinations • Mock test sessions 	00:00
7	<input checked="" type="checkbox"/> On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	<ul style="list-style-type: none"> • Online tests • Offline assessments 	80:20

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
THC/N8711: Plan for an astro-tourism event	<i>Preparing for a relevant guiding activity</i>	20	10	0	20
	PC1. plan physical logistics for the activity - transport, food/water, two-way radio, backup plans if the sky is cloudy, selection of location based on how much of the sky is blocked by landscape,	-	-	-	-
	PC2. Plan for medical assistance if needed, warmer color lights for navigation, transport or stay after the show is over at night.	-	-	-	-
	PC3. Plan technical logistics for the activity - transport or access to telescope, power supply, star maps and other accessories to hand out to tourists, online or offline astronomy apps for the phone, chairs or stools for shorter people to access the eyepiece, etc.	-	-	-	-
	PC4. have an alternative program schedule on sky observation nights in case it gets cloudy.	-	-	-	-
	<i>Providing and collecting pre-trip information from guests and colleagues</i>	10	10	-	10
	PC5. provide pre-activity details to guests (access to location, celestial objects that will be shown, expected temperature at night and appropriate clothing, time duration of the show, etc.),	-	-	-	-
	PC6. collect basic health information (e.g. night blindness, issues with colder temperature, altitude etc.).	-	-	-	-
	PC7. Define the script of your experience, the chronology of the important events and the primary ideas that you will transmit in each of them (for example, the landscape and history of the region you are in, facts about the Solar System, major astronomical discoveries, and so on).	-	-	-	-
	PC8. Give clear route information, as well as maps and location details	-	-	-	-
	<i>Planning for the physical movement of tourists among the telescopes</i>	0	10	-	10
	PC9. Provide information on the nature and purpose of the astronomical facilities and equipment that will be used.	-	-	-	-
	PC10. Teach the group how to adjust the focus of each lens of the binoculars or how to adjust the eyepiece of the telescope	-	-	-	-
	PC11. If the number of tourists is large, then plan where they will be standing, how they will access the telescopes and then move to let others see through them etc. since the event will be held in darkness.	-	-	-	-
	PC12. Arrange proper standing arrangements should be made so that they don't fall or trip the telescope during the various instructions sets.	-	-	-	-
	Total Marks	30	30	0	40
	<i>Planning for the celestial objects to be shown</i>	1	7	0	5

THC/N8712: Prepare for the domain knowledge needed for an astro-tourism event	PC1. Find out which celestial objects will be visible in the sky at the time of the event	-	-	-	-
	PC2. Make a list of celestial objects that can be seen at that time (taking into account light pollution, phase of the Moon, etc.)	-	-	-	-
	PC3. Decide the order in which to show the tourists these objects, and which telescopes are to be used for which objects,	-	-	-	-
	<i>Planning for the usage of telescopes</i>	3	8	0	5
	PC4. Decide on how many telescopes are needed, and are available, how to access them, and assign relevant individuals to operate each telescope if needed	-	-	-	-
	PC5. Decide on where to obtain power supply for operating the telescope	-	-	-	-
	PC6. Scout out the area ahead of time to decide the exact locations to place the telescopes to avoid bright lights (or make arrangements to dim or shut them)	-	-	-	-
	PC7. Provide a stool or chair for people who cannot reach the eyepiece at a height, and prepare to assist tourists with impaired night vision and physical disabilities	-	-	-	-
	<i>Planning for photography of the sky</i>	6	10	0	5
	PC8. Send the participants advance information of what they can do if they have (1) cellphone cameras and (2) DSLR cameras, and ask them to come prepared	-	-	-	-
	PC9. Plan for which photographs you will guide them for, depending on the darkness of the sky, presence of the moon, etc. Come prepared with suitable accessories like adaptors etc.	-	-	-	-
	Total Marks	10	25	0	15
THC/N8713: Conduct the astro-tourism event	<i>Organize the start of the event</i>	5	10	0	7
	PC1. Arrange safe transport to the location and verify the presence of all guests and their comfort	-	-	-	-
	PC2. Perform alignment and collimation of all telescopes and get them ready for automated tracking with the motor connected to power supply.	-	-	-	-
	PC3. Place telescopes at appropriate location, instruct the participants on where to stand, move, etc.	-	-	-	-
	PC4. Provide information on access to services like drinking water, washrooms, etc.	-	-	-	-
	PC5. Initiate with Indigenous storytelling	-	-	-	-
	PC6. Introduce visitors to the local geography. Identify the major landmarks visible in the landscape and provide a brief historical overview of the location (e.g., who were the first settlers, what human activities characterize it today, and so on).	-	-	-	-
	<i>Explain the night sky and what the program will be</i>	10	9	0	8

	PC7. Explain the directions in the sky, motion of the Sun, Moon and stars, point out visible planets	-	-	-	-
	PC8. Point out the bright stars and major constellations and how to use phone apps to identify them	-	-	-	-
	PC9. Explain what are the celestial objects that will be shown through the telescope.	-	-	-	-
	PC10. Engage multiple human senses, such as those of sight, sound and smell	-	-	-	-
	<i>Conduct the telescope viewing session and explain what is being seen</i>	0	10	0	8
	PC11. Point the telescopes to the pre-determined objects and ensure tracking	-	-	-	-
	PC12. Guide the participants to see through the eyepieces, adjusting the focus if needed, and ensuring that they see the object properly, and from a stool if needed.	-	-	-	-
	PC13. Explain about the object being shown, and answer basic questions about it	-	-	-	-
	PC14. Guide participants in taking their own Astro photographs	-	-	-	-
	<i>Talk about local cultural astronomy and answer any questions</i>	5	8	0	7
	PC15. Know about and explain the astronomy knowledge in the local area, e.g. calendars, usage of constellations in time keeping, agriculture, etc.	-	-	-	-
	PC16. Answer basic questions about local astronomy knowledge, Indian astronomy traditions, and point out further reading material for advanced questions.	-	-	-	-
	PC17. Explain the difference between astronomy and non-scientific disciplines like astrology etc. and the historical and cultural antecedents of each.	-	-	-	-
	<i>Closing the event safely</i>	0	8	0	5
	PC18. Pack up the telescopes safely for storage or transport	-	-	-	-
	PC19. Lead the participants to their vehicles or accommodation in the dark conditions and ensure their well being	-	-	-	-
	PC20. Provide avenues for feedback from participants	-	-	-	-
	Total Marks	20	45	0	35
THC/N8714: Operate a telescope	<i>Assembling, aligning, and placing the telescope for manual use</i>	5	10	-	7
	PC1. Set up the telescope on a suitable ground, remove the covers, and attach accessories.	-	-	-	-
	PC2. Align the view-finder, attach the eyepiece, and adjust the length of the optical tube if needed	-	-	-	-
	<i>2 or 3-star alignment of the telescope for motorized pointing and tracking</i>	5	15	0	8
	PC3. Align the telescope with 2 or 3-star technique so that the telescope can automatically point and track on celestial objects.	-	-	-	-
	PC4. Check if the alignment is correct	-	-	-	-
	PC5. How to unpack and pack the telescope safely and store in a proper way	-	-	-	-
	PC6. Protect the telescope from damage while in use	-	-	-	-
	PC7. Safety of the participants eyes in case telescope is used during daytime	-	-	-	-
	Total Marks	10	25	0	15

THC/N8715: Incorporate local astronomy knowledge	<i>Compiling and understanding the traditional and cultural astronomy in the local communities, and separate it from pseudo-science</i>	20	20	-	20
	PC1. Compile information about astronomy knowledge in the local communities through reading, talking to local elderly people, and consulting astronomers	-	-	-	-
	PC2. Identify the components of traditional and cultural astronomy that are based on empirical observations and practice, as opposed to unscientific beliefs.	-	-	-	-
	<i>Evolve ways of exposing the astro-tourists to this knowledge, orally as well as through printed material</i>	15	15	0	10
	PC3. Be familiar with the traditional and cultural astronomy knowledge and integrate it into the astro-tourism event	-	-	-	-
	PC4. Make this knowledge available in the form of flyers or leaflets if needed	-	-	-	-
	PC5. Identify local experts if they exist, who can talk to visiting tourists about their knowledge	-	-	-	-
Total Marks		35	35	0	30
THC/N8716: Engage with homestays, hotels, etc. about promoting astro- tourism	<i>Identifying and engaging with tourism stakeholders for astro-tourism</i>	10	25	0	15
	PC1. Contact stakeholders like tourism agencies, home-stay owners, hotels, etc. for networking	-	-	-	-
	PC2. Educate them on the potential for astro-tourism and the value addition to their programs	-	-	-	-
	PC3. Set up a system by which you can advertise and conduct astro-tours for their clientele.	-	-	-	-
	PC4. Interact with various stakeholders involved in Astro tourism	-	-	-	-
	PC5. Promote Astro Tourism to the common mass and guests of various accommodations nearby	-	-	-	-
	PC6. Plan a business idea for promoting Astro Tourism	-	-	-	-
Total Marks		10	25	0	15
THC/N9910: Ensure to maintain organizational confidentiality and guest's privacy	<i>Maintain organizational confidentiality</i>	6	3	0	3
	PC1. prevent leak of new plans and designs to competitors	-	-	-	-
	PC2. ensure protection of employee information	-	-	-	-
	PC3. prevent leak of organization's policies like pricing strategies, revenue management policies, marketing plans etc.	-	-	-	-
	PC4. take immediate and appropriate action in case of any IPR violation	-	-	-	-
	PC5. make sure that the subordinates report any infringement observed by anyone in the organization to the immediate supervisor	-	-	-	-

	PC6. protect sensitive data with strong passwords and change passwords on a regular basis	-	-	-	-
	PC7. ensure policies around confidential information are followed by all staff members	-	-	-	-
	<i>Maintain guests' privacy</i>	4	2	0	2
	PC8. ensure the team refrains from infringing upon guest's professional deals and plans	-	-	-	-
	PC9. make sure guest's personal information and financial data is protected all times	-	-	-	-
	PC10. ensure proper disposal of guest's information like booking details, credit card slips etc.	-	-	-	-
	Total Marks	10	5	0	5
THC/N9906: Follow Health, Hygiene and Safety practices	<i>Maintain personal and workplace hygiene</i>	10	10	0	5
	PC1. wash and sanitize hands at regular intervals using hand wash & alcohol-based sanitizers	-	-	-	-
	PC2. clean the workplace with appropriate cleaning solution and disinfectants as recommended	-	-	-	-
	PC3. clean the crockery and other articles as per established standards	-	-	-	-
	PC4. sanitize all tools and equipment requiring touch points at regular intervals	-	-	-	-
	PC5. ensure that the trashcans are cleared regularly following the cleanliness and maintenance schedule	-	-	-	-
	PC6. use appropriate PPE (headwear, glasses, goggles, footwear etc.) considering the task to be performed and the working environment	-	-	-	-
	PC7. dispose of the waste as per the prescribed standards	-	-	-	-
	PC8. maintain good personal hygiene by brushing teeth regularly, washing and sanitizing hands, wearing clean clothes, following a healthy diet etc.	-	-	-	-
	<i>Take precautionary health measures</i>	5	5	0	0
	PC9. attend regular health check-ups organized by the management	-	-	-	-
	PC10. report personal health issues related to injury, food, air and infectious disease	-	-	-	-
	PC11. report to the concerned authority in case any coworker is unwell	-	-	-	-
	<i>Follow standard safety procedure</i>	5	10	0	5
	PC12. follow safety procedures while handling materials, tools, equipment etc.	-	-	-	-
	PC13. follow first aid procedures appropriately	-	-	-	-

	PC14. identify hazards at the workplace and report to the concerned person intime	-	-	-	-
	<i>Follow effective waste management</i>	5	10	0	5
	PC15. identify and segregate recyclable, non-recyclable and hazardous waste at workplace	-	-	-	-
	PC16. segregate waste into different colored dustbins	-	-	-	-
	PC17. handle the waste as per SOP	-	-	-	-
	PC18. recycle waste wherever applicable	-	-	-	-
	PC19. dispose of PPEs in a plastic bag, sealed and labelled as infectious waste	-	-	-	-
	Total Marks	25	35	0	15
DGT/VSQ/N0102 - Employability Skills (60 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	-	-	-	-
Getting ready for apprenticeship & Jobs	-	-	-	-
<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	-	-	-	-
Total Marks	20	30	0	0
Grand Total	170	255	0	170

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. **(PLEASE NOTE THAT MOST PRACTICAL EXAMS AS WELL AS PRACTICAL SESSIONS WILL BE AFTER DARK (For Astro Tour Guide))**

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.

3. Assessment 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

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

5. Method of verification or validation:

- Surprise visit to the assessment location

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored

On the Job:

1. Each module (which covers the job profile of Kitchen Helper) will be assessed separately.
2. The candidate must score 50% 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
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

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
SOP	Standard operating procedure
OH & S	Occupational Health and Safety
PPE	Personal Protective Equipment
HACCP	Hazard Analysis and Critical Control Points
FSSAI	Food Safety and Standards Authority of India
ISO	International Standards Organization

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.