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Skill India
कौशल भारत - कुशल भारत

N·S·D·C
National
Skill Develop

QP Name: Radio Broadcast Technician

QP Code: MES/Q2806

QP Version: 1.0

NSQF Level: 4

Model Curriculum Version: 1.0

Media & Entertainment Skills Council, 522-524, DLF Tower-A, Jasola, New Delhi - 110025

Table of Contents

Table of Contents

Training Parameters

Sector	Media and Entertainment
Sub-Sector	Radio
Occupation	Production
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3521.0800
Minimum Educational Qualification and Experience	ITI in relevant field (2 years after 10th) with one year of relevant experience **OR** Class 12th pass with one year of relevant experience **OR** Class 10th pass with three years of relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	10/02/2022
Next Review Date	30/03/2027
NSQC Approval Date	31/03/2022
QP Version	1.0
Model Curriculum Creation Date	14/02/2022
Model Curriculum Valid Up to Date	30/03/2027
Model Curriculum Version	1.0
Minimum Duration of the Course	510 Hours
Maximum Duration of the Course	510 Hours

Program Overview

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

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Analyse the task of Radio Technician
- Install and maintain different types of radio equipment
- Maintain the communication/transmission system
- Carry out schedule of maintenance of radio stations
- Maintain workplace health and Safety

Compulsory Modules

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

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
MES/N2818: Analyse the task of Radio Technician **NOS Version No. 1.0** **NSQF Level 4**	**30:00**	**30:00**			**60:00**
MES/N2819: Install and maintains different types of radio equipments **NOS Version No. 1.0** **NSQF Level 4**	**50:00**	**70:00**			**120:00**
MES/N2820: Maintains the communication / transmission system **NOS Version No. 1.0** **NSQF Level 4**	**50:00**	**70:00**			**120:00**
MES/N2821: Carry out schedule of maintenance of radio stations **NOS Version No. 1.0** **NSQF Level 4**	**30:00**	**60:00**			**90:00**
MES/N0104: Maintain workplace health and Safety **NOS Version No. 1.0** **NSQF Level 4**	**20:00**	**40:00**			**60:00**
Total	**180:00**	**270:00**	**60:00**		**510:00**

Module Details

Module 1: Analyse the job of Radio Jockey

Terminal Outcomes: After the successful completion of this module, the Participant will be able to:

- Describe and demonstrate the role of Radio Technician
- Demonstrate ways to operate and maintain various electronic equipment

Duration: *30:00*	**Duration**: *30:00*
Theory – Key Learning Outcomes After the successful completion of this module, the Participant will be able to:	**Practical – Key Learning Outcomes After the successful completion of this module, the Participant will be able to :**
- Identify various skills that a Radio Technician should possess - Enlist various electronic equipment used to acquire, edit, and transmit audio and video for radio or television programs - Elaborate types of issues that may come up while inspecting buildings, equipment, and systems	- Demonstrate the role of Radio Technician and broadcasting - Show how to set up, operate, and maintain the electronic equipment used to acquire, edit, and transmit audio and video for radio or television programs - Demonstrate ways to inspect buildings, equipment, and systems to identify any issues
Classroom Aids:	
Laptop, whiteboard, marker, projector	
Tools, Equipment and Other Requirements	
Audio mixing consoles, media control systems, oscilloscopes, frequency analyzers, and satellite receivers,	

Module 2: Install and maintain different types of radio equipment

Terminal Outcomes: After the successful completion of this module, the Participant will be able to:

- Demonstrate ways to install and operate all types of equipment used to broadcast radio and television programs
- Troubleshoot different transmission, broadcasting and operating errors.

Duration: 50:00	Duration: 70:00
Theory – Key Learning Outcomes After the successful completion of this module, the Participant will be able to:	**Practical – Key Learning Outcomes After the successful completion of this module, the Participant will be able to :**
• Describe the process of installation and operation of different types of radio equipment such as audio mixing consoles, media control systems, oscilloscopes, frequency analyzers, and satellite receivers • Elaborate different issues that may arise during transmission and ways to effectively troubleshoot these issues. • Discuss the relevance of complying with regulations and state, and local laws • State the importance of coordinating with engineers to integrate new systems • Identify various broadcasting and operating errors.	• Demonstrate ways to install and operate all equipment, such as audio mixing consoles, media control systems, oscilloscopes, frequency analyzers, and satellite receivers, used to broadcast radio and television programs • Show how to maintain different equipment • Conduct functional and operational testing procedures of broadcast products • Demonstrate ways to keep scheduled broadcasts running and setting up live broadcasts in the field or studio • Demonstrate ways to maintain and update broadcasting hardware and software • Demonstrate ways to troubleshoot broadcasting and operating errors.
Classroom Aids:	
Laptop, whiteboard, marker, projector	
Tools, Equipment and Other Requirements	
Audio mixing consoles, media control systems, oscilloscopes, frequency analyzers, and satellite receivers,	

Module 3: Maintain the communication/transmission system, equipment

Terminal Outcomes: After the successful completion of this module, the Participant will be able to:

- Demonstrate ways to maintain the communication/transmission system and equipment
- Demonstrate ways to participate in the establishment, organization, and implementation of short- and long-range goals, objectives, policies, and operating procedures

Duration: *50:00*	Duration: *70:00*
Theory – Key Learning Outcomes After the successful completion of this module, the Participant will be able to:	**Practical – Key Learning Outcomes After the successful completion of this module, the Participant will be able to :**
- Elaborate the importance of ensuring that all on-air broadcast programming complies with local rules and regulation - Discuss the relevance and ways to ensure that operations of radio stations comply with broadcast standards, policies, and relevant laws and regulations - State the ways to monitor and evaluate program effectiveness - Discuss the importance of coordinating with different team members for smooth running of operations, systems and procedures	- Demonstrate ways to maintain accurate schedules, records, discrepancy reports, and follow-through communications - Show how to coordinate the continuous, multifaceted daily operations of the radio station - Demonstrate ways to participate in the establishment, organization, and implementation of short- and long-range goals, objectives, policies, and operating procedures - Show how to develops and implement systems to maintain records on station operations, volunteers, equipment, and compliance activities; - Prepare a regular and ad-hoc report - Demonstrate ways to provide advice and assistance to senior station management in the planning, implementation, and evaluation of modification to existing operations, systems, and procedures. - Display how to check data transmission over the IFE Ethernet interface or EIFE embedded Ethernet interface

Classroom Aids:
Laptop, whiteboard, marker, projector
Tools, Equipment and Other Requirements
Audio mixing consoles, media control systems, oscilloscopes, frequency analyzers, and satellite receivers

Module 4: Carry out schedule of maintenance of radio stations

Terminal Outcomes: After the successful completion of this module, the Participant will be able to:

- Conduct periodic station inspection
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Duration: *30:00*	**Duration**: *60:00*
Theory – Key Learning Outcomes After the successful completion of this module, the Participant will be able to:	**Practical – Key Learning Outcomes After the successful completion of this module, the Participant will be able to :**
• Discuss the importance of scheduling all preventive and routine work. • State the type and relevance of modification required in equipment inventory	• Show how to conduct periodic station inspection • Demonstrate ways to conduct various test such as Receiver sensitivity, Transmitter Power Output, Carrier frequency stability, Carrier modulation deviation and Physical cleanness • Demonstrate ways of maintenance of time and material

Classroom Aids:
Laptop, whiteboard, marker, projector
Tools, Equipment and Other Requirements
Audio mixing consoles, media control systems, oscilloscopes, frequency analyzers, and satellite receivers

Module 5: Maintain Workplace Health and Safety

Terminal Outcomes: After the successful completion of this module, the Participant will be able to:

- Discuss the health, safety and security risks prevalent in the workplace and report health and safety issues to the person responsible for health and safety and the resources available.
- Comply with procedures in the event of an emergency
- Discuss the various safety precautions to be taken.

Duration: *20:00*	**Duration**: *40:00*

Theory – Key Learning Outcomes
    After the successful completion of this module, the Participant will be ableto:
	Practical – Key Learning Outcomes
	    After the successful completion of this module, the Participant will be able to:

- Recall health, safety and security- related guidelines and identify the risks involved. - Maintain correct posture while working and maintain and use the first aid kit whenever required. - report health and safety risks/ hazards to concerned personnel - Recall people responsible for health and safety and able to contact in case of emergency - Illustrate security signals and other safety and emergency signals - Explain the process to identify and report risk. - Enumerate and recommend opportunities for improving health, safety, and security to the designated person - Describe how to report any hazards outside the individual's authority to the relevant person in line with organisational procedures and warn other people who may be affected - complying with procedures in the event of an emergency - Explain the impact of the violation of safety procedures.	- Identify the different types of health and safety hazards in a workplace - Practice safe working practices for own job role - Perform evacuation procedures and other arrangements for handling risks - Perform the reporting of hazard - identify and document potential risks like sitting postures while using the computer, eye fatigue and other hazards in the workplace - Demonstrate the use of Personal Protective Equipment (PPE) appropriately.
Classroom Aids:	
Laptop, whiteboard, marker, projector, Health and Safety Signs and policy	
Tools, Equipment and Other Requirements	
Health and Safety Signs and policy	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Bachelor in physics/Electronics /Computer science/IT		2	Relevant experience required in production	1		

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Radio Broadcast Technician" mapped to QP: "MES/Q2806", version 1.0. Minimum accepted score as per SSC guidelines is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q2601, v1.0 Trainer" with the scoring of a minimum of 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Bachelor in physics/Electronics/Computer science/IT		3	Relevant experience required in production	2		

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Radio Broadcast Technician" mapped to QP: "MES/Q2806", version 1.0. Minimum accepted score as per SSC guidelines is 80%.	Recommended that the Assessor is certified for the Job Role: "Assessor", mapped to the Qualification Pack: "MEP/Q2701, v1.0 Assessor" with the scoring of a minimum 80%.

Assessment Strategy

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

Assessment system Overview:-

Assessment will be carried out by MESC affiliated assessment partners. Based on the results of assessment, MESC certifies the learners. Candidates have to pass online theoretical assessment which is approved by MESC. The assessment will have both theory and practical components in 30:70 ratio. While theory assessment is summative and an online written exam; practical will involve demonstrations of applications and presentations of procedures and other components. Practical assessment will also be summative in nature.

Testing Environment:-

Training partner has to share the batch start date and end date, number of trainees and the job role. Assessment is fixed for a day after the end date of training. It could be next day or later. Assessment will be conducted at the training venue. Question bank of theory and practical will be prepared by assessment agency and approved by MESC. From this set of questions, assessment agency will prepare the question paper. Theory testing will include multiple choice questions, pictorial question, etc. which will test the trainee on theoretical knowledge of the subject. The theory and practical assessments will be carried out on same day. If there are candidates in large number, more assessorsand venue will be organized on same day of the assessment.

Assessment			
Assessment Type	Formative or Summative	Strategies	Examples
Theory	Summative	Written Examination	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks	Presentation
Viva	Summative	Questioning and Probing	Mock interview on topics

Assessment Quality Assurance framework

Only certified assessor can be assigned for conducting assessment. Provision of 100 % video recording with clear audio to be maintained and the same is to be submitted to MESC. The training partner will intimate the time of arrival of the assessor and time of leaving the venue.

Methods of Validation:-

Unless the trainee is registered, the person cannot undergo assessment. To further ensure that the person registered is the person appearing for assessment, id verification will be carried out. Aadhar card number is required of registering the candidate for training. This will form the basis of further verification during the assessment. Assessor conducts the assessment in accordance with the assessment guidelines and question bank as per the job role. The assessor carries tablet with the loaded questions. This tablet is geotagged and so it is monitored to check their arrival and completion of assessment. Video of the practical session is prepared and submitted to MESC. Random spot checks/audit is conducted by MESC assigned persons to check the quality of assessment. Assessment agency will be responsible to put details in SIP. MESC will also validate the data and result received from the assessment agency.

Method of assessment documentation and access

The assessment agency will upload the result of assessment in the portal. The data will not be accessible for change by the assessment agency after the upload. The assessment data will be validated by MESC assessment team. After upload, only MESC can access this data. MESC approves the results within a week and uploads it.