CURRICULUM

Course Name	DTH SET TOP BOX INSTALLATION & SERVICING
Course Code	**EC/2020/025**
Course Duration	40 Hours
Minimum Eligibility Criteria	10th/+2/ITI/Diploma/Graduate
Pre-requisites (if any)	-
Course Objectives	Training module has been designed for the participants to • Understand the DTH Technology. • Practice on repairing of DTH Set Top Box • Learn the installation procedure of DTH Set Top Box • Learn the activation procedure of DTH Set Top Box
Course Outcomes	At the end of training, the trainees will be able to • Explain the concept of DTH Technology. • Repair the fault in DTH Set Top Box and its accessories • Complete Installation and Activation of DTH Set Top Box
Expected Job Roles	DTH Technician

TEACHING AND SCHEME OF EXAMINATION						
Course Code	Course Name	Hours		Assessment Marks		Duration of Examination
				Min	Max	
EC/2020/025	DTH SET TOP BOX INSTALLATION & SERVICING	Theory	16	10	20	3 Hours
		Practical	24	40	80	
		Total	40	50	100	

EC/2020/025 – DTH SET TOP BOX INSTALLATION & SERVICING

DETAILED SYLLABUS

Unit No	Modules	No.of.Hours	
		Theory	Practical
I	**Introduction to DTH Technology**	**20 Hours**	
1.1	Introduction to communication of Signals and VHF transmission.	10	10
1.2	Understanding of TV transmission and TV standards.		
1.3	Basic concepts of Satellite communication – History of DTH.		
1.4	Concepts of DTH Technology		
II	**Install and repair DTH set-top box**	**20 Hours**	
2.1	DTH Set Top Box Architecture, block diagram and Hardware	06	14
2.2	Dish installation, check signal strength		
2.3	Activation process of DTH connection		
2.4	Identification of faults, Servicing and resolution		
2.5	Different DTH Providers in India		
Total Theory / Practical Hours		**16**	**24**
Total hours		**40**	

HARDWARE REQUIREMENT

S.NO	LIST OF TOOLS /EQUIPMENTS
1	Set Top Box
2	Reflector Antenna and Connectors
3	RJ 6 Cables, Remote control
4	Multimeter, Tester, RF Strength Meter

SOFTWARE REQUIREMENT

S.NO	NAME OF THE SOFTWARE
1	Spanner Set, Drilling Machine, Wire Stripper
2	Screw Driver Set and Hand Tools set

REFERENCE BOOKS

S.NO	NAME OF THE BOOK	AUTHOR	PUBLISHER
1	Audio-Video Engineering	R.C.Jaiswal	NiraliPrakashan

ASSESSMENT AND CERTIFICATION

S.No	Criteria for assessment
1.	A trainee will be assessed based on the performance in End Examination for Theory and Practical conducted internally in the CIICP Project Polytechnic College for a duration of 3 hours
2.	A trainee must have 75% of attendance to appear for End examination in Theory and Practical.
3.	The assessment for theory part will be based on the marks scored in the end examination on the knowledge bank of questions (1 word/objective type questions)
4.	The assessment for practical part will be based on the marks scored in the end examination conducted by the CIICP Project Polytechnic and assessed by the Examiners approved by Strategic Plan Implementation Committee (SPIC) of the project polytechnic.
5.	The passing criteria for successful completion of training is every trainee should score 50% of marks in theory and practical examination.
6.	On successful completion of training, certificate will be issued to the participants by the Directorate of Technical Education through the Project Polytechnics.

END EXAMINATION

ALLOCATION OF MARKS

S.NO	Description	Max. Marks
1.	Theory Examination	20
2.	Practical Examination	
	a)Objective and Circuit Diagram	20
	b)Procedure and Connections / Execution	20
	c)Result and Viva	20
	d)Record	20
	Total Marks	**100**

EC/2020/025 DTH Set Top Box Installation and Servicing

(Maximum Marks: 20)

(N.B: Answer any Twenty questions)   **20x1= 20 Marks**

1. What is the frequency range of VHF?

2. What is the wavelength of Very High Frequency?

3. What is the frame rate of a typical TV transmission?

4. What is the line rate of a typical TV transmission?

5. Write any two types of TV Standards.

6. What is DTH?

7. Which antenna is used for DTH Communication?

8. Write the two types of antenna used during the transmission of signal from a satellite.

9. Write the abbreviation for HDMI and STB.

10. What are the two versions of MPEG?

11. Write any two DTH providers in India.

12. What are the components required for communication in DTH network?

13. What are the functions of TT&C?

14. What are the functions of Broadcast Center?

15. Write the functions of Customer Service.

16. What are the three major points to be checked while installing a dish antenna?

17. List the different surfaces in which antenna can be mounted?

18. Write the steps involved in antenna assembling.

19. Write the three steps to be followed for correct dish positioning.

20. Write the two steps to be followed for Correct Cable Routing .

21. Write the two steps in the final connection of DTH.

22. Write any two solutions to resolve improper cable connections.

23. Write any two solutions to resolve improper card insertion.

24. Write any two solutions if set top box is not receiving signal.

25. What are the two types of disruptions which happen in the satellite signals.