GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
DIRECTORATE GENERAL OF TRAINING

COMPETENCY BASED CURRICULUM

REMOTELY PILOTED AIRCRAFT (RPA)/ DRONE PILOT – REFRESHER COURSE

(Duration: One Week)

UNDER

RECOGNITION OF PRIOR LEARNING (RPL)

NSQF LEVEL- 4

SECTOR – AEROSPACE & AVIATION

REMOTELY PILOTED AIRCRAFT (RPA)/ DRONE PILOT – REFRESHER COURSE

(Non-Engineering Trade)

(Designed in 2018)

Version: 1.0

RECOGNITION OF PRIOR LEARNING (RPL)

NSQF LEVEL - 4

Developed By

Ministry of Skill Development and Entrepreneurship

Directorate General of Training

CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE

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ACKNOWLEDGEMENT

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List of Expert Members contributed/ participated for finalizing the course curriculum of Remotely Piloted Aircraft (RPA)/ Drone Pilot held at NSTI (V) - Hyderabad on 24.09.2018.			
S No.	**Name & Designation Shri/Mr./Ms**	**Organization**	**Remarks**
1.	B.V.S. Sesha Chari, Director	CSTARI, Kolkata	Chairman
2.	Nirmalya Nath, ADT	CSTARI, Kolkata	Co-ordinator cum Member
3.	Raveendra Reddy Alla,	AP Drones Corporation, Vijaywada – A.P.	Member
4.	Siva Kumar Jadala,	Director General of Civil Aviation, O/O Ddas, Hyderabad	Member
5.	Sanjay Nath, Founder Chairman, TWT Academy of aviation and management	TWT Academy of Aviation of Management, Kolkata	Member
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7.	GP Capt. Yashpal Dhariwal, IAF-Retired	UAV Instructor Pilot	Member
8.	Pranavkumar B Chitte	PBC's Aero Hub, Pune	Member
9.	Sai Pattabiram,	Sree Sai Aerotech Innovations, Chennai	Member
10.	RLVR Murthy	Value Thought IT Solution Pvt. Ltd., Hyderabad	Member
11.	G.P. Vijaya Krishna, ADT	NSTI(V), Hyderabad	Member
12.	T. Ragulan, DDT	NSTI (R), Hyderabad	Member
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14.	V.V. Satish Reddy, T.O.	NSTI, Hyderabad- Vidyanagar	Member
15.	C. Harsha Vardhan	MLR Institute of Technology	Member
16.	T. Pavan Kalyan,	MLR Institute of Technology	Member
17.	A. Harish,	Thanos Technologies Pvt. Ltd.	Member
18.	KVS Narayana, TO	CSTARI, Kolkata	Member
19.	Biswanath Khan, Jr. Consultant	CSTARI, Kolkata	Expert

CONTENTS

1. COURSE INFORMATION

During the One Week duration of "Remotely Piloted Aircraft (RPA)/ Drone Pilot – Refresher Course" trade a candidate is trained on professional skills and professional knowledge. In addition to this a candidate is entrusted to undertake Simulator Refresher & Flying to regenerate confidence. The broad components covered related to the trade are categorized in one week duration as below:-

The trainee begins with learning first aid, fire fighting and various safety practices for working in industrial environment. Recognizes DGCA Safety Regulations & develop safety attitude while flying Drones. Identifies & selects ATC procedures & Radio Telephony, Civil Aviation Requirements, Weather and meteorology. Develops & applies knowledge of Airframes & Propellers. Plans & estimates different payload considerations like Cameras, Gimbals & other payloads and make use of them in drone flying/maintenance. Performs Assembling, MRO & battery care of Drones. Identifies & selects Basic operating features of a Drone Flight Simulator. Flies a Drone with instructor and then perform solo flight (Virtual reality training & live Drone flying). Carries out entire flying operations from pre-flight checks to after flight checks while flying a drone in simulator training & live training.

Also the trainee will learn environment regulation, productivity and enhance self-learning.

2. TRAINING SYSTEM

2.1 GENERAL

The Directorate General of Training (DGT) under Ministry of Skill Development & Entrepreneurship offers a range of vocational training courses catering to the need of different sectors of the economy/ labour market. The vocational training programs are delivered under the aegis of National Council of Vocational Training (NCVT). Recognition of Prior Learning (RPL) is a pioneer program of DGT by propagating vocational training and recognising previous learning, often experiential towards gaining a qualification which is basically for skills up-gradation for the workmen in the Aerospace & Aviation sector and is based on a competency led Recognition of Prior Skills (RPL) certification framework.

'Remotely Piloted Aircraft (RPA)/ Drone Pilot – Refresher Course' is one of the newly designed course under Recognition of Prior Learning (RPL). The course is of one week duration. It mainly consists of Domain area (Trade Theory and Trade Practical) which imparts professional skills and knowledge. After passing out of the Refresher training programme, the trainee is awarded DGET approved competency based certificate/ National Trade Certificate (NTC) by NCVT which is recognized worldwide.

Candidates broadly need to demonstrate that they are able to:

- Read and interpret technical parameters/ documentation, executes work, identify necessary equipments and tools.
- Perform tasks with due consideration to safety rules, accident prevention regulations.
- Apply professional knowledge while performing the job and maintenance work.
- Check the equipment/ panel as per functioning, identify and rectify faults/ defects.
- Document the technical parameters related to the task undertaken.

2.2 CAREER PROGRESSION PATHWAYS

- Can join Aviation industry/ other sectors as drone Pilot for implementing different applications of Drone.

- Can work in a Drone service centre or start own Drone Training Academy.

2.3 COURSE STRUCTURE

Table below depicts the distribution of training hours across various course elements during a period of one week: -

S No.	Course Element	Notional Training Hours
1.	Professional Skill (Trade Practical)	30
2.	Professional Knowledge (Trade Theory)	10
3.	Simulator Training, Live Training & Examination	16
	Total	**56**

2.4 ASSESSMENT & CERTIFICATION

The trainee will be tested for his skill, knowledge and attitude during the period of the course and at the end of the training program as notified by the Government of India (GoI) from time to time.

a) The **Internal Assessment** during the period of training will be done by **Formative Assessment Method** by testing for assessment criteria listed against learning outcomes. The training institute has to maintain an individual trainee portfolio as detailed in assessment guideline. The marks of internal assessment will be as per the template (Annexure – II).

b) The final assessment will be in the form of summative assessment method. The All India Trade Test for awarding NTC will be conducted by NCVT at the end of the Refresher Course as per the guideline of Government of India. The pattern and marking structure is being notified by Govt. of India from time to time. **The learning outcome and assessment criteria will be the basis for setting question papers for final assessment. The examiner during final examination will also check** the individual trainee's profile as detailed in assessment guideline before giving marks for practical examination.

2.4.1 PASS REGULATION

The minimum pass percentage for practical is 60% &minimum pass percentage of theory subjects is 40%.

2.4.2 ASSESSMENT GUIDELINE

Appropriate arrangements should be made to ensure that there will be no artificial barriers to assessment. The nature of special needs should be taken into account while undertaking the assessment. Due consideration should be given while assessing for teamwork, avoidance/ reduction of scrap/ wastage and disposal of scrap/ waste as per procedure, behavioural attitude, sensitivity to the environment and regularity in training. The sensitivity towards OSHE and self-learning attitude are to be considered while assessing competency.

Assessment will be evidence based comprising the following:

- Job carried out in labs/workshop/Field
- Record book/ daily diary
- Answer sheet of assessment
- Viva-voce
- Progress chart
- Attendance and punctuality
- Assignment
- Project work/Simulator Training & Live Training

Evidences of internal assessments are to be preserved until forthcoming Block examination for audit and verification by examining body. The following marking pattern to be adopted while assessing:

Performance Level	Evidence
(a) Weightage in the range of 60%-75% to be allotted during assessment	
For performance in this grade, the candidate should produce work which demonstrates attainment of an acceptable standard of craftsmanship with occasional guidance and due regard for safety procedures and practices	• Demonstration of good skill in the use of hand tools and workshop/Field equipment. • Below 70% tolerance dimension achieved while undertaking different work with those demanded by the component/job. • A fairly good level of neatness and consistency in the finish. • Occasional support in completing the project/job.
(b) Weightage in the range of 75%-90% to be allotted during assessment	
For this grade, a candidate should produce work which demonstrates attainment of a reasonable standard of craftsmanship, with little guidance, and regard for safety procedures and practices	• Good skill levels in the use of hand tools and workshop/Field equipment. • 70-80% tolerance dimension achieved while undertaking different work with those demanded by the component/job. • A good level of neatness and consistency in the finish. • Little support in completing the project/job.
(c) Weightage in the range of more than 90% to be allotted during assessment	
For performance in this grade, the candidate, with minimal or no support in organization and execution and with due regard for safety procedures and practices, has produced work which demonstrates attainment of a high standard of craftsmanship.	• High skill levels in the use of hand tools and workshop/ Field equipment. • Above 80% tolerance dimension achieved while undertaking different work with those demanded by the component/ job. • A high level of neatness and consistency. • Minimal or no support in completing the project.

3. JOB ROLE

Remotely Piloted Aircraft (RPA)/ Drone Pilot – Refresher Course; Remotely controls Drone/ Unmanned Arial Vehicle (UAV) which is a flying robot and can fly autonomously through software-controlled flight plans in their embedded systems working in conjunction with onboard sensors and GPS.

Can take photography for Real estate, Film Making, special events, Journalism, Agriculture etc., can apply it for liquid pesticides, fertilizers, herbicides, seeding, farm land mapping & surveying, crop theft or theft by animal etc. Provides key surveying capabilities and point the way to new excavation sites for mapping archaeological remains. Inspects infrastructure from power lines to pipelines, which are often in hard-to-reach, dangerous places to mitigate hazardous, time consuming and expensive work. Not only are they cutting costs, reducing time and decreasing injuries, but with drones, Individual can also obtain high-quality, detailed images of overhead utility lines to look for damage, corrosion and more. They are able to provide engineers with real-time data, images and post-inspection analysis—the benefits of which are causing a shift away from traditional utility inspection methods. Carries on commercial Inspection of Bridges, Cell & TV Towers, Wind Turbines, Power lines, Pipe Lines & even solar panels. Checks roofs, chimneys, sliding, bricks and other structures for exterior damage as Residential Home Inspection. Uses drones for wild life Management & conservation where wildlife drones can be used in many different ways, from small multi-rotor units that can scare invasive birds away from crops, to fixed-wing aircraft that fly above rainforests to spot orangutan nests. Provides more precise data than traditional ground-based techniques when it comes to monitoring seabird colonies. Individual may use it for law and order and aerial surveillance in police departments for Public Service Surveillance. Applies it in E-Commerce: for a variety of purposes: to take inventory, streamline its distribution system and use for deliveries to customers. Medical drones are the future of disaster relief, providing much-needed help to isolated areas. Can take part in DRONE Aerobatics show & Aerial Advertising.

Reference NCO: Yet to be prepared

4. GENERAL INFORMATION

Name of the Trade	**REMOTELY PILOTED AIRCRAFT (RPA)/ DRONE PILOT – REFRESHER COURSE**
NCO - 2015	Yet to be prepared
NSQF Level	Level 4
Duration of Craftsmen Training	One Week
Entry Qualification	Passed 10th Class Examination under 10+2 system of education with minimum 18 years of age & Expertise in Drone flying.
Unit Strength (No. of Student)	20 (Max. Supernumeraries seats: 6)
Space Norms	35 Sq. m
Power Norms	3 KW
Instructors Qualification for:	
(i) Remotely Piloted Aircraft (RPA)/ Drone Pilot – Refresher Course	M. Tech/ B. Tech or equivalent in Aeronautical engineering /ECE/EEE/Mechatronics with one year experience in building & piloting drones and good at teaching. Candidates with experience of a drone project or a project experience in Robotics are preferred. OR Diploma in Aeronautical engineering/ECE/EEE/Mechatronics with two year experience in building & piloting drones and good at teaching. Candidates with experience of a drone project or a project experience in Robotics are preferred. OR NTC passed in "Remotely Piloted Aircraft (RPA)/ Drone Pilot Trade (or Refresher Course)" with three years experience in building & piloting drones and good at teaching. Candidates with experience of a drone project or a project experience in Robotics are preferred.
(ii) Employability Skill	MBA OR BBA with two years experience OR Graduate in Sociology/ Social Welfare/ Economics with Two years experience OR Graduate/ Diploma with Two years experience and trained in Employability Skills from DGT institutes. AND Must have studied English/ Communication Skills and Basic Computer at 12th / Diploma level and above. OR Existing Social Studies Instructors duly trained in Employability Skills from DGT institutes
List of Tools and Equipment	As per Annexure – I

Distribution of training on hourly basis: (Indicative only)		
Total hours /day	**Trade practical**	**Trade theory**
08 Hours	06 Hours	02 Hours

5. NSQF LEVEL COMPLIANCE

NSQF level for **'Remotely Piloted Aircraft (RPA)/ Drone Pilot – Refresher Course'** under RPL: **Level - 4**

As per notification issued by Govt. of India dated- 27.12.2013 on National Skill Qualification Framework total 10 (Ten) Levels are defined.

Each level of the NSQF is associated with a set of descriptors made up of five outcome statements, which describe in general terms, the minimum knowledge, skills and attributes that a learner needs to acquire in order to be certified for that level.

Each level of the NSQF is described by a statement of learning outcomes in five domains, known as level descriptors. These five domains are:

a. Process
b. Professional knowledge
c. Professional skill
d. Core skill
e. Responsibility

The Broad Learning outcome of **'Remotely Piloted Aircraft (RPA)/ Drone Pilot – Refresher Course '** mostly matches with the Level descriptor at Level- 4.

The NSQF level-4 descriptor is given below:

Level	Process Required	Professional Knowledge	Professional Skill	Core Skill	Responsibility
Level 4	Work in familiar, predictable, routine, situation of clear choice	Factual knowledge of field of knowledge or study	Recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool, using quality concepts	Language to communicate written or oral, with required clarity, skill to basic Arithmetic and algebraic principles, basic understanding of social political and natural environment	Responsibility for own work and learning

6. LEARNING OUTCOME

Learning outcomes are a reflection of total competencies of a trainee and assessment will be carried out as per the assessment criteria.

3.1 GENERIC LEARNING OUTCOME

1. Apply safe working practices.

2. Comply with environment regulation and housekeeping.

3.2 SPECIFIC LEARNING OUTCOME

3. Interpret DGCA Safety Regulations & observe safety guidelines, ATC procedures & Radio Telephony, Weather and meteorology as a Drone Pilot in flying a Drone.

4. Identify & select different Airframes & Propellers in drone flying.

5. Plan & estimate different payload considerations like Cameras, Gimbals & other payloads and make use of them in drone flying/maintenance.

6. Perform Assembling, MRO & battery care of Drones.

7. Identify basic operating features of a drone flight simulator and fly a Drone in simulator training & live training for various applications first with instructor & then solo (40% of flying practice in simulator and rest 60% in live flying).

7. LEARNING OUTCOME WITH ASSESSMENT CRITERIA

GENERIC LEARNING OUTCOME	
LEARNING OUTCOME	**ASSESSMENT CRITERIA**
1. Apply safe working practices	1.1 Follow and maintain procedures to achieve a safe working environment in line with occupational health and safety regulations and requirements, and according to policy.
	1.2 Recognize and report all unsafe situations according to policy.
	1.3 Identify and take necessary precautions on fire and safety hazards and report according to work policy and procedures.
	1.4 Identify, handle and store/ dispose-off dangerous goods and substances according to policy and procedures following safety regulations and requirements.
	1.5 Identify and observe policies and procedures with regard to illness or accident.
	1.6 Identify safety alarms accurately.
	1.7 Report supervisor/ competent of authority in the event of accident or sickness of any staff and record accident details correctly according to accident/injury procedures.
	1.8 Identify and observe evacuation procedures according to site policy.
	1.9 Identify Personal Productive Equipment (PPE) and use the same as per related working environment.
	1.10 Identify basic first-aid and use them under different circumstances.
	1.11 Identify different fire extinguisher and use the same as per requirement.
2. Comply with environment regulation and housekeeping	2.1 Identify environmental pollution & contribute to the avoidance of instances of environmental pollution.
	2.2 Deploy environmental protection legislation & regulations.
	2.3 Take opportunities to use energy and materials in an environmentally friendly manner.
	2.4 Avoid waste and dispose waste as per procedure.
	6.1 Their applications will be assessed during execution of assessable outcome.

SPECIFIC LEARNING OUTCOME	
LEARNING OUTCOME	**ASSESSMENT CRITERIA**
3. Interpret DGCA Safety Regulations & observe safety guidelines, ATC procedures & Radio Telephony, Weather and meteorology as a Drone Pilot in flying a Drone.	3.1 Apply workshop/Field safety norms.
	3.2 Identify & select safety rules while flying a drone.
	3.3 Apply DGCA safety regulations.
	3.4 Recognize Do's and Don'ts of drone flying.
	3.5 Recognize issues Drone pilots encounter including airspace, traffic patterns etc.
	3.6 Perform Radio telephony using Standard radio terminology and RT Phraseology.
	3.7 Communicate with ATC including Position, Altitude Reporting etc.
	3.8 Identify & prepare specific Flight Planning Procedures for specific drone flights.
	3.9 Take METAR from MET office/ ATC before flying.
4. Identify & select different Airframes & Propellers in drone flying.	4.1 Recognize multi rotor design, various configurations, airframe sizes and construction materials.
	4.2 Identify different propeller designs.
5. Plan & estimate different payload considerations like Cameras, Gimbals & other payloads and make use of them in drone flying / maintenance.	5.1 Plan & estimate payload considerations.
	5.2 Explore camera options, resolution etc.
	5.3 Identify & select other pay load possibilities.
	5.4 Identify different payloads including cameras like Lidar, Thermal, RGB, Hyper spectral etc.
	5.5 Use different payloads in drone flying/maintenance.
6. Perform Assembling, MRO & battery care of Drones.	6.1 Perform assembling & de assembling of drones.
	6.2 Carry out Maintenance Repair and Overhaul (MRO) of the drone.
	6.3 Apply safety precautions while handling LiPo batteries.
7. Identify basic operating features of a drone flight simulator and fly a Drone in simulator training & live training for various applications first with instructor & then solo (40% of flying practice in simulator and rest 60% in live	7.1 Identify Basic operating features of a drone flight simulator.
	7.2 Select different aircrafts/drones and aerodromes.
	7.3 Carry out Demo flight in Drone Flight Simulator.
	7.4 Perform Pre-flight checks and start-up.
	7.5 Prepare & coordinate drone flight.
	7.6 Take-off drone and carry out flight stage.
	7.7 Do Approach and safe landing.
	7.8 Perform after flight checks.
	7.9 Identify emergency and handle it accordingly.
	7.10 Tackle In flight emergencies, Loss of link, Fly-aways (Straying).

flying).	7.11 Loss of power, Control surface failures etc.
	7.12 Perform Practical flying with instructor in drone simulator.
	7.13 Perform Practical flying without instructor in drone simulator.
	7.14 Fly a live drone with instructor.
	7.15 Fly a live drone without instructor/Solo.

8. SYLLABUS

SYLLABUS – REMOTELY PILOTED AIRCRAFT(RPA)/ DRONE PILOT – REFRESHER COURSE			
Duration: One Week			
Days	**Reference Learning outcome**	**Professional Skills (Trade Practical)**	**Professional Knowledge (Trade Theory)**
1	Apply safe working practices.	1. Visit to various sections of the institute and identify location of various installations. 2. Identify safety signs for danger, warning, caution & personal safety message. 3. Practice Use of Personal Protective Equipment (PPE). 4. Practice elementary first aid. 5. Practice Preventive measures for electrical accidents & steps to be taken in such accidents. 6. Practice Use of Fire extinguishers.	Familiarization with the working of Industrial Training Institute system. Importance of safety and precautions to be taken in the industry/ shop floor. Introduction to PPEs. Introduction to First Aid. Importance of housekeeping & good shop floor practices. Occupational Safety & Health: Health, Safety and Environment guidelines, legislations & regulations as applicable.
2-3	Interpret DGCA Safety Regulations & observe safety guidelines, ATC procedures & Radio Telephony, Weather and meteorology as a Drone Pilot in flying a Drone.	7. Practice workshop/Field safety norms. 8. Identify safety rules while flying a drone. 9. Practice DGCA safety regulations, Do's and Don'ts. 10. Recognise issues Drone pilots encounter including airspace, traffic patterns etc. 11. Practice Radio telephony using Standard radio terminology and RT Phraseology. 12. Communicate with virtual ATC including Position, Altitude Reporting etc. 13. Identify specific Flight Planning Procedures for specific drone flights. 14. Recognise importance of Weather and meteorology in drone flight.	Importance of adopting a “safety attitude” when flying a drone. workshop/Field safety norms and outdoor flying safety regulations. Regulations of DGCA, Civil Aviation Requirements: Classification, Basic Air Regulations, Salient points, Do's and Don'ts. Issues aircraft pilots encounter including airspace, traffic patterns, and safe attitudes. Understanding ATC operations Airspace Structure and Airspace Restrictions with knowledge of No Drone Zones Communicating with ATC including Position and Altitude Reporting Flight Planning Procedures Collision avoidance Radio Telephony (RT) techniques Standard radio terminology and RT Phraseology Practice Session in Radio

		15. Take METAR from MET office/ ATC before flying.	Communication. Weather and meteorology : The standard atmosphere ,Measuring air pressure, Heat and temperature Wind Moisture, cloud formation Met Terminal Aviation Routine Weather Report (METAR).
4	Identify & select different Airframes & Propellers in drone flying.	16. Recognize multi rotor design, various configurations, airframe sizes and construction materials. 17. Identify different propeller designs and choose appropriate propeller.	History of helicopter design, early multi rotor design, various Configurations, airframe sizes and construction materials. History of propeller design, fixed-pitch and constant speed blades, airfoil design, size, pitch, and blade-count including balancing tips and construction materials.
	Plan & estimate different payload considerations like Cameras, Gimbals & other payloads and make use of them in drone flying/ maintenance.	18. Plan & estimate payload considerations, camera options, resolution etc. & other pay load possibilities. 19. Identify different payloads including cameras like Lidar, Thermal, RGB, Hyper spectral etc.	Payload considerations, camera options, resolution, still photography, video photography, vibration and Jello effect, exposure settings, camera lenses, video Frame rate, image files, delivery payloads, and other pay load possibilities.
	Perform Assembling, MRO & battery care of Drones.	20. Perform assembling & disassembling of drones. 21. Carry out Maintenance Repair and Overhaul (MRO) of the drone. 22. Apply safety precautions while handling LiPo batteries.	Assembling & disassembling of the drone equipments & Maintenance Repair and Overhaul (MRO)of the drone. safety when using LiPo batteries including proper charging methods, discharging, handing, and disposal.
5	Identify Basic operating features of a Drone Flight Simulator.	23. Identify Basic operating features of a drone flight simulator. 24. Select different aircrafts/drones and aerodromes.	Basic operating features of a drone flight simulator, How to select different aircrafts/drones and aerodromes, knowledge of Demo flight.
6-7	**Simulator training & live training:** **Broad Area: -** Fly a Drone with instructor and then perform solo flight (Virtual reality training & live Drone flying).Carry out entire flying operations from pre-flight checks to after flight checks while flying a drone in simulator training & live training. Application of drones in different domains and how different cameras can be used for different surveys. Introduction to Photogrammetry for stitching and analysis of drone pictures. Handling In flight emergencies, fail safe mechanisms.		
	Examination		

ANNEXURE-I

LIST OF TOOLS & EQUIPMENT			
Remotely Piloted Aircraft (RPA)/ Drone Pilot - Refresher Course under RPL (For Batch of 20 Candidates)			
S No.	**Name of the Tools and Equipment**	**Specification**	**Quantity**
A. TRAINEES TOOL KIT			
1.	Pliers		6 Nos.
2.	Soldering Station		6 Nos.
3.	Multi meter		6 Nos.
4.	Tweezer		6 Nos.
5.	Binoculars		6 Nos.
6.	Anemometer		6 Nos.
7.	Magnifier		6 Nos.
B. DRONE KIT			
8.	GPS Module		1 x 6 Nos.
9.	Propellers		4 x 6 Nos.
10.	BLDC Motors -		4 x 6 Nos.
11.	ESC(Electronic Speed controllers)		4 x 6 Nos.
12.	FCB (Flight Controller Board)/Auto pilot		1 x 6 Nos.
13.	Lipo Battery		1 x 6 Nos.
14.	Lipo Battery Charger		6 Nos.
15.	Transmitter		1 x 6 Nos.
16.	Drone base -		1 x 6 Nos.
17.	Receiver cables		As required
18.	Real Flight Simulator		4 No.
19.	Thrust measurement meter		2 Nos.
20.	Balance Charger		2 Nos.
21.	Power distribution board		6 Nos.
22.	Simulator to teach drone assembly		6 Nos.

TOOLS & EQUIPMENT FOR EMPLOYABILITY SKILLS		
S No.	**Name of the Equipment**	**Quantity**
1.	Computer (PC) with latest configurations and Internet connection with standard operating system and standard word processor and worksheet software.	10 nos.
2.	UPS - 500VA	10 nos.
3.	Scanner cum Printer	01 no.
4.	Computer Tables	10 nos.
5.	Computer Chairs	20 nos.
6.	LCD Projector	01 no.
7.	White Board 1200mm x 900mm	01 no.
Note: *Above Tools &Equipments not required, if Computer LAB is available in the institute.*		

ANNEXURE-II

FORMAT FOR INTERNAL ASSESSMENT

Name & Address of the Assessor:		**Year of Enrollment:**
Name & Address of ITI (Govt./Pvt.):		**Date of Assessment:**
Name & Address of the Industry:		**Assessment location: Industry/ ITI**
Trade Name:	**Block:**	**Duration of the Trade/course:**
Learning Outcome:		

S No.	**Candidate Name**	**Father's/Mother's Name**	Safety Consciousness	Workplace Hygiene	Attendance/ Punctuality	Ability to Follow Manuals/ Written Instructions	Application of Knowledge	Skills to Handle Tools & Equipment	Economical Use of Materials	Speed in Doing Work	Quality in Workmanship	VIVA	**Total Internal Assessment Marks**	**Result (Y/N)**
Maximum Marks (Total 100 Marks)			**15**	**5**	**10**	**5**	**10**	**10**	**5**	**10**	**15**	**15**		
1														
2														