Approved in 22nd NSQC dated 19th December 2018

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

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Name and address of submitting body:

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Name and contact details of individual dealing with the submission

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List of documents submitted in support of the Qualifications File

1. Competency-based curriculum (Annexure 1)
2. Advertisements of different organisations for posts relevant to NTC in the trade

Model Curriculum to be added which will include the following:

- **Indicative list of tools/equipment to conduct the training:** Enclosed with curricula
- **Trainers qualification:** Indicated in the curriculum
- **Lesson Plan:** All NCVT curricula are designed indicating specific practical to be carried out during training along with details of trade theory. Based on this the concerned instructor prepares the Lesson Plan with support of Reference Books and IMPs developed by DGT.

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- **Distribution of training duration into theory/practical/OJT component:** Indicated in the curriculum.

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SUMMARY

1	**Qualification Title**	'Remotely Piloted Aircraft (RPA)/Drone Pilot'
2	**Qualification Code, if any**	N/A
3	**NCO code and occupation**	Yet to be prepared
4	**Nature and purpose of the qualification (Please specify whether qualification is short term or long term)**	National Council for Vocational Training (NCVT) (long term qualification)
5	**Body/bodies which will award the qualification**	**National Council for Vocational Training (NCVT)** affiliates the ITIs as per DGT guidelines issued from time to time.
6	**Body which will accredit providers to offer courses leading to the qualification**	National Council for Vocational Training (NCVT)
7	**Whether accreditation/affiliation norms are already in place or not , if applicable (if yes, attach a copy)**	Yes. The accreditation/ affiliation norms for all training providers are as per DGT guidelines issued from time to time with approval of NCVT.
8	**Occupation(s) to which the qualification gives access**	REMOTELY PILOTED AIRCRAFT (RPA)/DRONE PILOT has a wide scope of Employability ranging from self-employment, contractual employment to Industrial jobs. On successful completion of this course, the candidates shall be gainfully employed in the Aviation/Other industries for following occupations: • Remotely Piloted Aircraft (RPA)/Drone Pilot • Technical Assistant at Drone Service Centre • Entrepreneur of Drone Training Academy
9	**Job description of the occupation**	Remotely Piloted Aircraft (RPA)/Drone Pilot can fly the Drone autonomously through software-controlled flight plans in their embedded systems working in conjunction with onboard sensors and GPS with basic maintenance operations.
10	**Licensing requirements**	DGCA Approval is required for running the course.
11	**Statutory and Regulatory requirement of the relevant**	N/A

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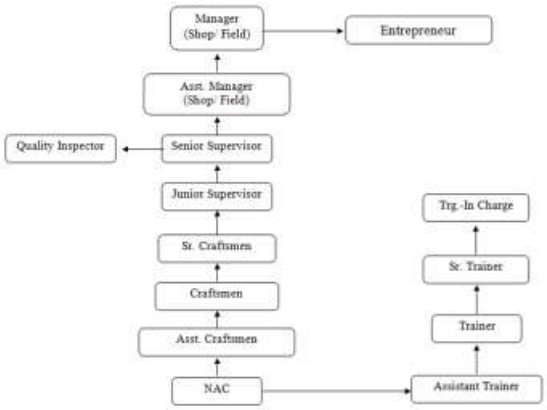
	sector (documentary evidence to be provided)	
12	**Level of the qualification in the NSQF**	Level 4
13	**Anticipated volume of training/learning required to complete the qualification**	

Sl. No.	Course Element	Notional Training Hours
1.	Professional Skill (Trade Practical)	510
2.	Professional Knowledge (Trade Theory)	102
3.	Employability Skills	55
4.	Library & Extracurricular Activities	13
5.	Simulator Training & Live Training	280
6.	Specific Course content as per DGCA Guidelines	40
7.	Revision & Examination	40
	Total	**1040**

14	**Indicative list of training tools required to deliver this qualification**	As per Annexure enclosed in the curriculum
15	**Entry requirements and/or recommendations and minimum age**	Passed 10th Class Examination under 10+2 system of education with minimum 18 years of age
16	**Progression from the qualification (Please show Professional and academic progression)**	
17	**Arrangements for the Recognition of Prior learning (RPL)**	1. At present the students who have passed 10th class with minimum 3 years' experience in relevant field can appear

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		for NCVT theory and practical examination directly. 2. The students who have passed SCVT examination in 'Remotely Piloted Aircraft (RPA)/Drone Pilot' trade can also appear for the NCVT Examination in the relevant Trade directly.
18	**International comparability where known (research evidence to be provided)**	1. Existence of any official document suggesting the comparability of the qualification with the qualifications in other countries is not known. 2. However, ITI passed out trainees are getting employment in many Gulf countries, European countries, Australia, New Zealand, Singapore etc.
19	**Date of planned review of the qualification.**	October 2023
20	**Formal structure of the qualification** **Mandatory components**	

	Title of component and identification code/NOSs/Specific Learning outcomes	**Estimated size (learning hours)**	**Level**
(i)	Apply safe working practices.	40	4
(ii)	Identify & select different types of Drones and illustrate Fundamentals of Flight (Aerodynamics).	120	4
(iii)	Interpret DGCA Safety Regulations & observe safety guidelines, ATC procedures & Radio Telephony, Weather and meteorology as a Drone Pilot in flying a Drone.	160	4
(iv)	Identify & select different Airframes & Propellers in drone flying.	40	4
(v)	Explain & apply knowledge of Power systems viz. Electric motors, Batteries, Chargers, Connectors etc. in drone flying.	80	4
(vi)	Identify & select various Controllers like Electronic Speed Controllers (ESC), Transmitters, Receivers & flight Controllers for Drones.	80	4

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(vii)	Plan & estimate different payload considerations like Cameras, Gimbals & other payloads and make use of them in drone flying/maintenance.	40	4
(viii)	Apply knowledge of Ground Control Stations & FPV.	40	4
(ix)	Perform Assembling, MRO & battery care of Drones.	40	4
(x)	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 (70% of flying practice in simulator and rest 30% in live flying).	40	4
	Simulator Training & Live Training, DGCA 5 Day Course, Revision and Examination	360	4
	Sub Total (A)	**1040**	**4**
	Optional components	**N/A (All components are compulsory)**	
	Title of component and identification code/NOSs/ Learning outcomes	**Estimated size (learning hours)**	**Level**
	Sub Total (B)		

Total (A+B)	**1040**	**4**

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SECTION 1
ASSESSMENT

21	**Body/Bodies which will carry out assessment:** National Council for Vocational Training (NCVT)
22	**How will RPL assessment be managed and who will carry it out?** 1. At present the students who have passed 10th class with minimum 3 years' experience can appear for NCVT theory and practical examination directly. 2. The students who have passed SCVT examination in 'Remotely Piloted Aircraft (RPA)/Drone Pilot' trade can also appear for the NCVT Examination in the relevant Trade directly. NCVT will carry out the assessment and State Directorates advertise in newspapers for informing the prospective candidates.
23	**Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.** **(1) Assessment process:** The assessment for the qualification is carried out by conducting formative assessments, and end- examinations. The internal assessments for theory subjects and practical are conducted by the concerned instructors for evaluating the knowledge and skill acquired by trainees and the behavioural transformation of the trainees. This internal assessment is primarily carried out by collecting evidence of competence gained by the trainees by evaluating them at work based on assessment criteria, asking questions and initiating formative discussions to assess understanding and by evaluating records and reports, and sessional marks are awarded to them. Theory and practical examinations are conducted in Trade theory, and Employability Skills. The question papers for the theory Examinations contain objective type questions. Trade practical examinations are conducted by the respective State Governments. However, the question papers for the Trade practical are prepared by NCVT. The marking pattern and distribution of marks for the qualification are as under:

Marking Pattern		
Sl. No.	Subject for the trade test	Maximum marks for the each subject
a)	Practical	100
b)	Trade Theory	80 Objective type Written test of 80 marks (Trade Theory 30 marks & Employability Skills 50 marks)
c)	Employability Skills	

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d)	Internal assessment	20
TOTAL:		200

(2) Minimum pass marks:

For the purposes of determining the overall result, weightage of 100% is applied for six months and one year duration courses and 50% weightage is applied to each examination for two years courses. The minimum pass percent for Practical is 60% & minimum pass percent for Theory subjects 40%.

(3) Testing and certifications for the course:

- OMR sheet based question paper.
- A panel of expert paper setters, who are graduates in the concerned field with minimum 5-7 years experience, is prepared for setting question papers for the Trade. The panel is vetted by the Member Secretary, NCVT.
- Paper setters are appointed from the panel after the approval of the competent authority for setting the question paper.
- The question papers are then moderated by the Board of Moderation to see if the paper is set as per the requirement and syllabus.
- The manuscripts of the moderated question papers are sent to Government Printing Presses for printing.
- Printed question papers, packed in sealed covers, are despatched to Banks/Police Stations for keeping in safe custody.
- The question papers are handed over to the Chairman/Principal of the Testing Centre two hours before the commencement of the Examination.
- An Examination Board consisting of representatives of industry/Employer/State Government are set up to supervise and monitor the conduct of Examinations at every Centre.
- Theory and practical Examinations are carried out with invigilators/examiners with the overall supervision of the Examination Board.
- Examiners called for evaluation of practical should have minimum technical qualification of a Diploma in the respective engineering field. However, when diploma holders not available, the qualification is suitably relaxed.
- Examiners for practical Examinations are appointed preferably from Polytechnics/ Engineering colleges/ Industry of repute/ Government Departments or from amongst retired qualified personnel possessing

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requisite qualifications and sufficient experience in the trade/discipline.

- Each State Directorate prepares a panel of Examiners according to the norms as mentioned above and the Examiners are appointed from the panel.
- Flying squads from State Governments as well as the Central Government are constituted to check malpractices during the conduct of Examinations.
- OMR based answer sheets are evaluated by the third party evaluator only. Third party evaluator is selected for three years by open bidding process.
- Evaluation of every practical examination is carried out by the concerned examiner (from industry/ polytechnics) with the overall supervision of the Examination Board in a free and fair manner as per the assessment criteria.
- Till 2014, the marks were compiled by the State Governments as per NCVT guidelines and the results were declared by the State Governments. At present, the marks are compiled by NCVT on its portal www.ncvtmis.gov.in and the results are declared by the State Governments.
- The successful trainees are awarded National Trade Certificates.

Overall assessment strategy:

Assessment of the qualification evaluates trainees to show that they can integrate knowledge, skills and values for carrying out relevant tasks as per the defined assessable outcomes and assessment criteria. The trainees may choose the preferred language for assessment. The underlying principle of assessment is fairness and transparency. While assessing the trainee, assessor is directed to assess as per the defined assessment criteria against the assessable outcomes. The evidence of the competence acquired by the trainees can be obtained by conducting theory and practical examinations, observing the trainees at work, asking questions and initiating formative discussions to assess understanding and evaluating records and reports. The ultimate objective of the assessment is to assess the candidates as per the defined assessment criteria for the assessable/ learning outcomes.

Specific Arrangements for assessment:

- Assessment is outcome-based.
- There are formative and summative assessments in Theory and Practical.
- Assessment is carried out in Trade theory, Trade Practical, and Employability Skills.
- While Trade Theory and Trade Practical are used for assessing Trade-related jobs, and Employability skills is used to test the communication and language skills of the trainee.

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	• In addition to demonstration of theory and practical knowledge, trainees get a chance to present total personality. **Quality assurance activities:** • Question papers are set by external paper setters • Evaluation of Theory Examinations is done by third-part agency. Third party evaluator is selected for three years by open bidding process. • Trade Practical is examined by External Examiner (as explained above).

Please attach most relevant and recent documents giving further information about assessment and/or RPL.
Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

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ASSESSMENT EVIDENCE

Complete a grid for each component as listed in "Formal structure of the qualification" in the Summary.

NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – i.e. Learning Outcomes to be assessed, assessment criteria and the means of assessment.

24. Assessment evidences

Title of Component: Remotely Piloted Aircraft (RPA)/Drone Pilot

Means of assessment 1
Assessment will be evidence based comprising the following:

- Job carried out in the field

- Record book/ daily diary
- Answer sheet of assessment
- Viva-voce
- Progress chart
- Attendance and punctuality
- Assignment
- Assessment of Simulator Training & Live Training

Means of assessment 2
Add boxes as required.

Pass/Fail
For the purposes of determining the overall result, weightage of 100% is applied for six months and one year duration courses and 50% weightage is applied to each examination for two years courses. The minimum pass percent for Practical is 60% & minimum pass percent for Theory subjects 40%.

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GENERIC LEARNING/ ASSESSABLE OUTCOME:

Outcomes to be assessed/NOSs to be assessed	Assessment criteria for the outcome
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.
3. Assist in exigencies and carry out elementary first-aid during emergencies.	3.1 Demonstrate elementary first-aids.
	3.2 Demonstrate safety practices to be observed in kitchen.
	3.3 Demonstrate use of personal protective dresses.
	3.4 Identify emergency exit route.
	3.5 Demonstrate fire fighting procedure using fire extinguishers.
4. Work in a team, understand and practice soft skills, technical English to communicate with required clarity.	4.1 Obtain sources of information and recognize information.
	4.2 Use documents, regulations and occupationally related provisions.
	4.3 Conduct appropriate and target oriented discussions with higher authority and within the team.
	4.4 Present facts and circumstances, possible solutions & use English and French terminology.
	4.5 Resolve disputes within the team.
	4.6 Conduct written communication.

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5. Explain energy conservation, global warming, pollution, and contribute in day- to-day work by using available resources optimally.	5.1 Examination to test knowledge on energy conservation, global warming and pollution.
	5.2 Their applications will be assessed during execution of assessable outcome.
6. Explain personnel finance, entrepreneurship and manage/organize related task in day-to- day work for personal & societal growth.	6.1 Examination to test knowledge on personnel finance, entrepreneurship.
	6.2 Their applications will be assessed during execution of assessable outcome.

SPECIFIC ASSESSABLE OUTCOME:

Outcomes to be assessed/NOSs to be assessed	Assessment criteria for the outcome
SIX MONTHS	
7. Identify & select different types of Drones and illustrate Fundamentals of Flight (Aerodynamics).	7.1 Identify & select different types of Drones.
	7.2 Identify basic components of Drones.
	7.3 Recognise basic principles of flying like Bernoulli's Principle etc.
	7.4 Apply principles of flight to Drones.
	7.5 Identify Longitude/Latitude etc.
8. Interpret DGCA Safety Regulations & observe safety guidelines, ATC procedures & Radio Telephony, Weather and meteorology as a Drone Pilot in flying a Drone.	8.1 Apply workshop safety norms.
	8.2 Identify & select safety rules while flying a drone.
	8.3 Apply DGCA safety regulations.
	8.4 Recognize Do's and Don'ts of drone flying.
	8.5 Recognize issues Drone pilots encounter including airspace, traffic patterns etc.
	8.6 Perform Radio telephony using Standard radio terminology and RT Phraseology.
	8.7 Communicate with ATC including Position, Altitude Reporting etc.
	8.8 Identify & prepare specific Flight Planning Procedures for specific drone flights.
	8.9 Take METAR from MET office/ ATC before flying.
9. Identify & select different Airframes & Propellers in	9.1 Recognize multi rotor design, various configurations, airframe sizes and construction

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drone flying.	materials.
	9.2 Identify different propeller designs.
10. Explain & apply knowledge of Power systems viz. Electric motors, Batteries, Chargers, Connectors etc. in drone flying.	10.1 Calculate motor ratings for load capabilities for a drone build.
	10.2 Identify different electricity fundamentals (Wattage, voltage, Amperage and their relationship) and soldering techniques.
	10.3 Identify parallel vs. serial arrangements of batteries.
	10.4 Perform charging, cell balancing and explore various connectors.
11. Identify & select various Controllers like Electronic Speed Controllers (ESC), Transmitters, Receivers & flight Controllers for Drones.	11.1 Identify different role of ESCs.
	11.2 Calibrate and mount ESCs..
	11.3 Recognize different sensors & their applications in drones.
	11.4 Apply sense-and-avoid technology
	11.5 Identify GPS applications in drone flying.
	11.6 Distinguish GPS open source vs. closed source programming.
	11.7 Compare current FCs on the market.
	11.8 Identify different radio control systems, controllers, transmitters and receivers, Frequency bands and programming transmitters.
12. Plan & estimate different payload considerations like Cameras, Gimbals & other payloads and make use of them in drone flying / maintenance.	12.1 Plan & estimate payload considerations.
	12.2 Explore camera options, resolution etc.
	12.3 Identify & select other pay load possibilities.
	12.4 Identify different payloads including cameras like Lidar, Thermal, RGB, Hyper spectral etc.
	12.5 Use different payloads in drone flying/maintenance.
13. Apply knowledge of Ground Control Stations & FPV.	13.1 Track data using telemetry.
	13.2 Plan Drone missions.
	13.3 Perform 3D mapping and modeling.
	13.4 Carry out First-person-view (FPV) flying& drone racing.
14. Perform Assembling, MRO & battery care of Drones.	14.1 Perform assembling & de assembling of drones.
	14.2 Carry out Maintenance Repair and Overhaul

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		(MRO) of the drone.
	14.3	Apply safety precautions while handling LiPo batteries.
15. 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 (70% of flying practice in simulator and rest 30% in live flying).	15.1	Identify Basic operating features of a drone flight simulator.
	15.2	Select different aircrafts/drones and aerodromes.
	15.3	Carry out Demo flight in Drone Flight Simulator.
	15.4	Perform Pre-flight checks and start-up.
	15.5	Prepare & coordinate drone flight.
	15.6	Take-off drone and carry out flight stage.
	15.7	Do Approach and safe landing.
	15.8	Perform after flight checks.
	15.9	Identify emergency and handle it accordingly.
	15.10	Tackle In flight emergencies, Loss of link, Fly-aways (Straying).
	15.11	Loss of power, Control surface failures etc.
	15.12	Perform Practical flying with instructor in drone simulator.
	15.13	Perform Practical flying without instructor in drone simulator.
	15.14	Fly a live drone with instructor.
	15.15	Fly a live drone without instructor/Solo.

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SECTION 2

25. EVIDENCE OF LEVEL

OPTION A

Title/Name of qualification/component: Remotely Piloted Aircraft (RPA)/Drone Pilot			**Level: 4**
NSQF Domain	**Outcomes of the Qualification/Component**	**How the outcomes relates to the NSQF level descriptors**	**NSQF Level**
Process	**Familiar, Predictable, Routine Situations of Clear Choice** • Identify & select different types of Drones and illustrate Fundamentals of Flight (Aerodynamics). • Interpret DGCA Safety Regulations & observe safety guidelines, ATC procedures & Radio Telephony, Weather and meteorology as a Drone Pilot in flying a Drone. • Identify & select various Controllers like Electronic Speed Controllers (ESC), Transmitters, Receivers & flight Controllers for Drones. • 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	In the learning outcomes for example in 'Identify & select different types of Drones and illustrate Fundamentals of Flight (Aerodynamics).' and 'Identify & select various Controllers like Electronic Speed Controllers (ESC), Transmitters, Receivers & flight Controllers for Drones', the learner will be required to choose appropriate tools, equipments, procedures as per the requirement of the job. The work will however be done within a familiar, predictable and routine range of situations to achieve the required performance/tolerance levels and accuracy demanded as per the job. Thus the learner requires to demonstrate ability to work in familiar, predictable, routine, situation of clear choice. Hence the NSQF level as per this descriptor will	4

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Title/Name of qualification/component: Remotely Piloted Aircraft (RPA)/Drone Pilot			Level: 4
NSQF Domain	**Outcomes of the Qualification/Component**	**How the outcomes relates to the NSQF level descriptors**	**NSQF Level**
	(70% of flying practice in simulator and rest 30% in live flying).	be 4.	
Professional knowledge	**Factual Knowledge of field of Knowledge or study** • Different types of Drones, Nomenclatures. • Regulations of DGCA, Civil Aviation Requirements: Classification, Basic Air Regulations, Salient points, Do's and Don'ts. • Radio Telephony (RT) techniques. • Met Terminal Aviation Routine Weather Report (METAR).	The learner demonstrates factual knowledge of field such as "Radio Telephony (RT) techniques, Regulations of DGCA, Met Terminal Aviation Routine Weather Report (METAR)" etc. Hence NSQF Level 4 for this Descriptor.	4
Professional skill	• Identify & select different Airframes & Propellers in drone flying. • Explain & apply knowledge of Power systems viz. Electric motors, Batteries, Chargers, Connectors etc. in drone flying. • Identify & select various Controllers like Electronic Speed Controllers (ESC), Transmitters, Receivers & flight Controllers for Drones. • Plan & estimate different payload	The learner after the training will be able to work independently and recall and demonstrate practical skill, routine and repetitive type in narrow range of application for the learning outcomes such as 'Identify & select various Controllers like Electronic Speed Controllers (ESC), Transmitters, Receivers & flight Controllers for Drones'. The learning outcomes like "Plan & estimate different payload considerations like Cameras,	4

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Title/Name of qualification/component: Remotely Piloted Aircraft (RPA)/Drone Pilot			Level: 4
NSQF Domain	**Outcomes of the Qualification/Component**	**How the outcomes relates to the NSQF level descriptors**	**NSQF Level**
	considerations like Cameras, Gimbals & other payloads and make use of them in drone flying/maintenance. • Apply knowledge of Ground Control Stations & FPV. • Perform Assembling, MRO & battery care of Drones. • 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 (70% of flying practice in simulator and rest 30% in live flying).	Gimbals & other payloads and make use of them in drone flying/maintenance" involve making independent decisions using appropriate rule and tools. The learning outcomes like " 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 (70% of flying practice in simulator and rest 30% in live flying)" requires the learner to perform the tasks assigned as per quality performance standards using quality concepts. The learner will also be responsible for his/her own performance standards. Hence NSQF Level is 4 for this descriptor.	
Core skill	**Language to communicate written or oral, with required clarity** • Obtain sources of information and recognize information. • Use documents and technical regulations and occupationally related provisions. **Skill to basic arithmetic and algebraic**	The job of REMOTELY PILOTED AIRCRAFT (RPA)/DRONE PILOT requires competence in written language with sufficient clarity in order to perform up to the standard performance level. The learner will also need to communicate with ATC using Radio Telephony which requires	4

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Title/Name of qualification/component: Remotely Piloted Aircraft (RPA)/Drone Pilot			Level: 4
NSQF Domain	**Outcomes of the Qualification/Component**	**How the outcomes relates to the NSQF level descriptors**	**NSQF Level**
	principles • Basic skills in Arithmetic, Algebra, Trigonometry and statistics and apply knowledge of specific area to perform practical operations. **Basic understanding of social political and natural environment** • Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.	competence in oral language with required clarity. The learner will also require to have basic understanding of social political and natural environment as mentioned in the learning outcomes for example in 'Explain energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources' Hence NSQF Level is 4 for this descriptor	
Responsibility	• Interpret DGCA Safety Regulations & observe safety guidelines, ATC procedures & Radio Telephony, Weather and meteorology as a Drone Pilot in flying a Drone. • Plan & estimate different payload considerations like Cameras, Gimbals & other payloads and make use of them in drone flying/maintenance. • Apply knowledge of Ground Control Stations & FPV.	The role of REMOTELY PILOTED AIRCRAFT(RPA)/DRONE PILOT is independently responsible for his own work & learning to perform the job as per performance standards based on his own analysis of what needs to be done depending on his understanding of Drone architecture & flying, DGCA guidelines and standards as indicated in the learning outcomes like "Perform Assembling, MRO & battery care of Drones.", "fly a Drone in simulator training & live training for various applications first with instructor & then solo." etc.	4

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Title/Name of qualification/component: Remotely Piloted Aircraft (RPA)/Drone Pilot			Level: 4
NSQF Domain	**Outcomes of the Qualification/Component**	**How the outcomes relates to the NSQF level descriptors**	**NSQF Level**
	• Perform Assembling, MRO & battery care of Drones. • 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 (70% of flying practice in simulator and rest 30% in live flying).	Hence NSQF Level is 4 for this descriptor.	

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SECTION 3
EVIDENCE OF NEED

26	**What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?**

Basis	In case of other Awarding Bodies (Institutes under Central Ministries and states departments)
Need of the qualification	The Proposed qualification will cater to ever increasing demands of Aerospace & Aviation sector and the course has been designed as per demand of the industry.
Industry Relevance	The job role defined for the qualification is as per the National Qualification of Occupation 2015 which is developed by Employment Directorate under the ministry of Labour and Employment in collaboration with different industry partners and as per ILO guidelines. This justifies the qualification is very much relevance for industry.
Usage of the qualification	The Proposed qualification will cater to ever increasing demands of Aerospace & Aviation sector and the course has been designed as per demand of the industry.
Estimated uptake	This is a New Trade.

27	**Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences.** This qualification is run by Ministry of Skill Development and Entrepreneurship and different industries under the related line ministry are also generally consulted before finalizing the curricula.
28	**What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification** The qualification is originally designed and approved by NCVT for the Craftsmen Training Scheme and is in existence for the last 60 years. NCVT has been entrusted with the responsibilities of prescribing

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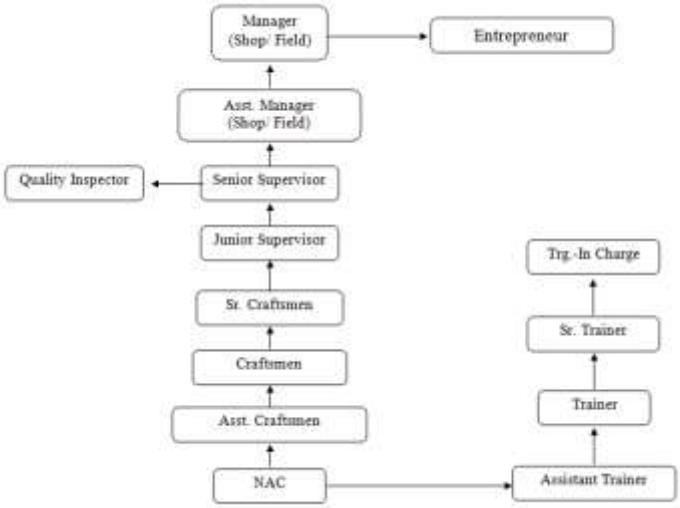
	standards and curricula for craftsmen training, advising the Government of India on the overall policy and programmes, conducting All India Trade Tests and awarding National Trade Certificates.
29	**What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated? Specify the review process here** • Mentor Council (MC) for the Aerospace & Aviation Sector was formed in 2014 to review the curriculum of this qualification under the sector. • CSTARI, the research wing of DGT, reviews and updates the qualification, in consultation with industries and other stakeholders, on a regular basis by conducting trade committee meetings. • DGT will keep on doing continuous comparative study in the trade by referring to relevant upcoming qualifications in the National Qualifications Register (NQR) and relevant sectors.

SECTION 4
EVIDENCE OF PROGRESSION

30	**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?** ***Show the career map here to reflect the clear progression*** • Qualifying trainee will obtain an NCVT Certificate in Remotely Piloted Aircraft (RPA)/Drone Pilot trade which gives the following options of progression to the trainee: 

NSQC APPROVED

Approved in 22nd NSQC dated 19th December 2018

Please attach most relevant and recent documents giving further information about any of the topics above.
Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

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