



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

**COMPETENCY BASED CURRICULUM**

# PHOTOGRAPHER

(Duration: One Year)

**CRAFTSMEN TRAINING SCHEME (CTS)**

**NSQF LEVEL- 3.5**



**SECTOR – MEDIA AND ENTERTAINMENT**

**CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE**

Kolkata-700091

# PHOTOGRAPHER

(Non-Engineering Trade)

(Revised in August 2025)

Version: 3.0

**CRAFTSMEN TRAINING SCHEME (CTS)**

**NSQF LEVEL – 3.5**



Developed By

**CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE**

Directorate General of Training

Ministry of Skill Development and Entrepreneurship

EN-81, Sector-V, Salt Lake City,

Kolkata – 700 091

[www.cstaricalcutta.gov.in](http://www.cstaricalcutta.gov.in)

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## 1. COURSE INFORMATION

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During the one-year duration of “Photographer” trade, a candidate is trained on Professional Skill, Professional Knowledge and Employability Skill related to job roles. In addition to this, a candidate is entrusted to undertake project work, extracurricular activities and on-the-job training to build up confidence. The broad components covered in one year duration are as below:

During the one-year duration, Participants will learn to identify and safely use various camera lenses and master indoor and outdoor lighting techniques, including studio setups like three-point lighting. The course covers the use of natural and artificial lighting sources—daylight, electronic flash, and reflectors—and integrates computer fundamentals such as monitor calibration, interface usage, and digital workflow from image transfer to editing and printing. Students will gain expertise in digital photo editing using professional software, understanding key aspects of organizing, editing, and sharing images. Emphasis is placed on developing the four key skills of a successful photographer. The curriculum also introduces the use of diverse video equipment and foundational principles of video and audio recording. Advanced photographic techniques such as time lapse, hyper lapse, high sync flash, aerial, and stop motion photography are taught alongside a strong focus on the principles of light and its qualities. Additionally, students will conceptualize and execute a photo story, learning the importance of planning in field photography, and explore the growing role of Artificial Intelligence (AI) in modern photographic practices.

### 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 Directorate General of Training (DGT). Craftsman Training Scheme (CTS) with variants and Apprenticeship Training Scheme (ATS) are two pioneer programs of DGT for propagating vocational training.

‘Photographer’ trade under CTS is one of the professional courses delivered nationwide through a network of ITIs. The course is of one year duration. It mainly consists of Domain area and Core area. In the Domain area (Trade Theory & Practical) impart professional skills and knowledge, while the core area (Employability Skill) imparts requisite core skills, knowledge, and life skills. After passing out the training program, the trainee is awarded National Trade Certificate (NTC) by DGT which is recognized worldwide.

**Candidates broadly need to demonstrate that they are able to:**

- Read and interpret technical parameters/documents, plan and organize work processes, identify necessary materials and tools;
- Perform tasks with due consideration to safety rules, accident prevention regulations and environmental protection stipulations;
- Apply professional skill, knowledge & employability skills while performing jobs.
- Document the technical parameters related to the task undertaken.

### 2.2 PROGRESSION PATHWAYS

- Can join industry as Photographer and will progress further as Senior Photographer, Supervisor and can rise up to the level of Manager.
- Can become Entrepreneur in the related field.
- Can join Apprenticeship programs in different types of industries leading to a National Apprenticeship certificate (NAC).
- Can join Advanced Diploma (Vocational) courses under DGT as applicable.

## 2.3 COURSE STRUCTURE

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

| S No.                                      | Course Element                        | Notional Training Hours |
|--------------------------------------------|---------------------------------------|-------------------------|
| 1                                          | Professional Skill (Trade Practical)  | 840                     |
| 2                                          | Professional Knowledge (Trade Theory) | 240                     |
| 3                                          | Employability Skills                  | 120                     |
| <b>Total</b>                               |                                       | <b>1200</b>             |
| On the Job Training (OJT)/ Group Project * |                                       | 150                     |
| Optional Courses**                         |                                       | 240                     |
| <b>Grand Total</b>                         |                                       | <b>1590</b>             |

\* The trainee has to undergo 150 hours of mandatory OJT (On the Job Training) at nearby industry or wherever industry not available then group project has to be done with the supervision of the trade instructor for every year.

\*\* Trainees of one-year or two-year trade can also opt for optional courses of up to 240 hours in each year for obtaining 10th/ 12th class certificate from NIOS along with ITI certification, or, short term courses for extra skills/knowledge.

## 2.4 ASSESSMENT & CERTIFICATION

The trainee will be tested for his/her skill, knowledge and attitude during the period of course through formative assessment and at the end of the training programme through summative assessment as notified by the DGT from time to time.

a) The Continuous Assessment (Internal) 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 formative assessment template provided on [www.cstaricalcutta.gov.in](http://www.cstaricalcutta.gov.in) or [www.bharatskills.gov.in](http://www.bharatskills.gov.in)

b) The final assessment will be in the form of summative assessment. The All India Trade Test for awarding NTC will be conducted by, DGT as per the guidelines. The pattern and marking structure is being notified by DGT 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**

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 percentage for Trade Practical and Formative assessment are 60% & for all other subjects is 33%.

### **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, behavioral attitude, sensitivity to the environment and regularity in training. The sensitivity towards Occupational Safety, Health and Environment (OSHE) and self-learning attitude are to be considered while assessing competency.

Assessment will be evidence based comprising some of the following:

- Job carried out in labs/workshop
- Record book/ daily diary
- Answer sheet of assessment
- Viva-voce
- Progress chart
- Attendance and punctuality
- Assignment
- Project work
- Computer based multiple choice question examination
- Practical Examination

Evidences and records of internal (Formative) assessments are to be preserved until forthcoming examination for audit and verification by examining body. The following marking pattern to be adopted for formative assessment:

| <b>Marks Allotted during Assessment</b> | <b>Performance Level</b>                                                                                                                                                                                                                             | <b>Evidence</b>                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Marks between 60% to 75%                | 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.                              | <ul style="list-style-type: none"> <li>• Demonstration of good skill in the use of hand tools, machine tools and workshop equipment.</li> <li>• 60-70% accuracy achieved while undertaking different work with those demanded by the component/job.</li> <li>• A fairly good level of neatness and consistency in the finish.</li> <li>• Occasional support in completing the project/job.</li> </ul> |
| Marks above 75% to 90%                  | 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.                                                       | <ul style="list-style-type: none"> <li>• Good skill levels in the use of hand tools, machine tools and workshop equipment.</li> <li>• 70-80% accuracy achieved while undertaking different work with those demanded by the component/job.</li> <li>• A good level of neatness and consistency in the finish.</li> <li>• Little support in completing the project/job.</li> </ul>                      |
| Marks Above 90%                         | 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. | <ul style="list-style-type: none"> <li>• High skill levels in the use of hand tools, machine tools and workshop equipment.</li> <li>• Above 80% accuracy achieved while undertaking different work with those demanded by the component/job.</li> <li>• A high level of neatness and consistency in the finish.</li> <li>• Minimal or no support in completing the project.</li> </ul>                |

#### **Brief Description of Job Roles:**

**Digital Photographer General;** takes photograph of persons, places, or other subjects, using various kinds of photographic equipment. Measures day light using exposing meter or arranges artificial lighting and holds or places camera at desired angle and distance from subject to be photographed. Focuses lens and adjusts lens opening and exposure time. Loads camera with film or plate. Presses lever to open lens shutter and exposes film or plate by pressing lever, allowing time, if for publication. Supplies series of pictures on selected topics, for writing feature articles in magazines. May develop films and print copies. Photographers and Image and Sound Recording Equipment Operators, Other take photographs of persons, places and objects and record sound for different purposes and include Photographers, Image and Sound Recording Equipment Operators not elsewhere classified.

**Photographer News;** or Press Photographer photographs news events, persons or objects for use in news-papers, magazines and other publications. Receives instructions from News Editor or Chief Reporter regarding nature of pictures to be taken. Travels to location; loads camera with film, waits for suitable moment and takes photographs. Attends State functions and parties and takes photographs of important persons arousing special interest of news value for publication. Accompanies important visitors and dignitaries and takes photographs of significant events associating important persons. Removes exposed film for developing and printing. Examines print, gives appropriate title or heading, and hands it over to News Editor.

**Photographer, Aerial;** photographs objects, places and areas of vital importance from aero planes in flight, for use in surveys, planning, development and other scientific and military purposes. Determines number of exposures and time lapse between them by making necessary calculations. Loads camera, adjusts exposure-time and exposes film by opening shutter at calculated intervals. Operates and maintains automatic camera and photo equipment for aerial photographs. Develops aerial films of various types in automatic, semi-automatic or manual tank developers. Makes prints for photo interpretation.

**Digital photographic institutions;** it will provide the familiarization with the institution, its importance of trade training & professional use of Digital camera into different types of uses into variety of interests of the Govt. and public sectors. After getting trained, the trainee will be able to do the job for making short documentary, news items, and interviews of great personalities of different areas, music videos and professional photography for wild life, modeling, drama documentary, serial, story board making news, live broadcasting, seminar/workshop industrial, musical event, advertisement as well as domestic purposes etc.

**Reference NCO-2015:**

- (i) 3431.0100 – Photographer General
- (ii) 3431.0200 – Photographer News
- (iii) 3431.0300 – Photographer, Aerial
- (iv) 3431.9900 – Photographer & Others

**Reference NOS: -**

- (i) MES/N9419
- (ii) MES/N9427
- (iii) MES/N9428
- (iv) MES/N9406
- (v) MES/N9429
- (vi) MES/N9430
- (vii) MES/N9431
- (viii) MES/N9432

## 4. GENERAL INFORMATION

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Name of the Trade</b>              | <b>DIGITAL PHOTOGRAPHER</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Trade Code</b>                     | DGT/1094                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>NCO - 2015</b>                     | 3431.0100, 3431.0200, 3431.0300, 3431.9900                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>NOS Covered</b>                    | MES/N9419, MES/N9427, MES/N9428, MES/N9406, MES/N9429, MES/N9430, MES/N9431, MES/N9432                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>NSQF Level</b>                     | Level-3.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Duration of the Trade</b>          | One Year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Entry Qualification</b>            | Passed 10 <sup>th</sup> class examination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Minimum Age</b>                    | 14 years as on first day of academic session.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Eligibility for PwD</b>            | LD, CP, LC, DW, AA, DEAF, HH, AUTISM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Unit Strength (No. of Student)</b> | 24 (There is no separate provision of supernumerary seats)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Space Norms</b>                    | 48 Sq. m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Power Norms</b>                    | 6.35 KW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Instructors Qualification for:</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>(i) Photographer Trade</b>         | <p>B.Voc/Degree in Photography/ Cinematography/ Videography from UGC recognized College/University with <b>one year of teaching or industry experience</b> in the Photography field.</p> <p style="text-align: center;"><b>OR</b></p> <p>Diploma (Minimum 2 Years) in Photography/ Cinematography/ Videography from recognized board or relevant Advanced Diploma (Vocational) from DGT with <b>two years of teaching or industry experience</b> in the Photography field.</p> <p style="text-align: center;"><b>OR</b></p> <p>NAC/NTC passed in the trade of Digital Photographer/ Photographer with three years' <b>three years of teaching or industry experience</b> in the Photography field.</p> <p><b><u>Essential Qualification:</u></b></p> <p>Regular/ RPL variants of National Craft Instructor Certificate (NCIC) in Machinist trade under DGT.</p> |

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         | <p><b><u>Note:</u></b><br/> <b><i>Out of two Instructors required for the unit of 2 (1+1), one must have Degree/Diploma and other must have NTC/NAC qualifications.</i></b></p>                                                                                                                                                                                                                                                                                                                               |
| <b>(ii) Employability Skill</b>         | <p>MBA/ BBA / Any Graduate/ Diploma in any discipline with <b>Two years' of teaching or industry experience with short term ToT Course</b> in Employability Skills conducted by DGT institutions.<br/>           (Must have studied English/ Communication Skills and Basic Computer at 12th / Diploma level and above)</p> <p style="text-align: center;"><b>OR</b></p> <p>Existing Social Studies Instructors in ITIs with short term ToT Course in Employability Skills conducted by DGT institutions.</p> |
| <b>(iii) Minimum age for Instructor</b> | 21 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>List of Tools and Equipment</b>      | As per Annexure – I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## 5. LEARNING OUTCOME

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

### 5.1 LEARNING OUTCOMES

| Sl. No. | NOS CODE  | Learning Outcome                                                                                                                                                                                                                                                     | Duration  |        |       |
|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|-------|
|         |           |                                                                                                                                                                                                                                                                      | Practical | Theory | Total |
| 1.      | MES/N9419 | Identify and use Lenses following safety precautions.                                                                                                                                                                                                                | 45        | 15     | 60    |
| 2.      | MES/N9427 | Apply various lighting techniques for indoor and outdoor photography, including three-point lighting for studio shoots, and capture diverse subjects using digital cameras across multiple photography genres.                                                       | 150       | 45     | 195   |
| 3.      | MES/N9428 | Use various lighting types such as daylight, artificial light, electronic flash, and reflectors; apply computer fundamentals including monitor calibration and interfaces; and transfer, edit, and print digital images using editing software and computer systems. | 150       | 45     | 195   |
| 4.      | MES/N9428 | Develop the skill & knowledge of Multimedia in Photography. Demonstrate most of the important aspects of Photo Editing software Elements. Show the usual workflow steps for photo editing, organizing, and sharing.                                                  | 70        | 20     | 90    |
| 5.      | MES/N9406 | Demonstrate four Key Skills of a Successful Photographer.                                                                                                                                                                                                            | 40        | 20     | 60    |
| 6.      | MES/N9429 | Use different video equipment and their operations. Demonstrate the basic principles of Video and audio recording.                                                                                                                                                   | 70        | 20     | 90    |
| 7.      | MES/N9430 | Apply specific technique of photography viz., time lapse, hyper lapse, high sync flash photography, arial photography & stop motion photography.                                                                                                                     | 70        | 20     | 90    |
| 8.      | MES/N9428 | Apply Principles of Light, demonstrating the quality and types of lights.                                                                                                                                                                                            | 35        | 10     | 45    |

|                             |           |                                                                                                          |            |            |             |
|-----------------------------|-----------|----------------------------------------------------------------------------------------------------------|------------|------------|-------------|
| 9.                          | MES/N9431 | Creating a photo story on a theme/idea/concept and apply the necessity of planning on field photography. | 180        | 30         | 210         |
| 10.                         | MES/N9432 | Demonstrate application of Artificial Intelligence (AI) in photography.                                  | 30         | 15         | 45          |
| <b>Employability Skills</b> |           |                                                                                                          |            | <b>120</b> | <b>120</b>  |
| <b>Total</b>                |           |                                                                                                          | <b>840</b> | <b>360</b> | <b>1200</b> |

## 6. ASSESSMENT CRITERIA

| LEARNING OUTCOMES                                                                                                                                                                                                                  | ASSESSMENT CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identify and use Lenses following safety precautions. (NOS: MES/N9419)                                                                                                                                                          | <ul style="list-style-type: none"> <li>Identify different types of lenses for different types of digital camera.</li> <li>Demonstrate lenses with wide angle, Normal, telephoto and zoom range.</li> <li>Identify and understand the focal length of the different types of lenses.</li> <li>Demonstrate disposal procedure of wastage/electronic materials.</li> <li>Identify the different types of lenses to take variety of photo.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2. Apply various lighting techniques for indoor and outdoor photography, including three-point lighting for studio shoots, and capture diverse subjects using digital cameras across multiple photography genres. (NOS: MES/N9427) | <ul style="list-style-type: none"> <li>Demonstrate different types of composition using various lighting techniques.</li> <li>Take photographs by varying aperture, shutter speed and use of different types of lenses.</li> <li>Take photographs by varying aperture, shutter speed and use of different types of lenses.</li> <li>Take photographs on special area of photography.</li> <li>Perform Lighting of different areas of video shooting.</li> <li>Demonstrate three-point lighting, indoor and outdoor lighting etc.</li> <li>Demonstrate hard and soft lighting. Single camera lighting, bounce lighting.</li> <li>Demonstrate Use of reflectors &amp; skimmer.</li> <li>Demonstrate different parts of digital camera photography for commercial/advertisement.</li> <li>Demonstrate photography for sports by digital cameras.</li> <li>Demonstrate photography for fashion by digital cameras.</li> <li>Demonstrate photography for basic architecture/monuments with digital cameras.</li> <li>Demonstrate photography for animal and birds in slow and fast - moving conditions by digital cameras.</li> <li>Demonstrate photography in night conditions for children/group by digital cameras</li> </ul> |
| 3. Use various lighting types                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Take photographs in natural light, tungsten light and</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

|                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| such as daylight, artificial light, electronic flash, and reflectors; apply computer fundamentals including monitor calibration and interfaces; and transfer, edit, and print digital images using editing software and computer systems. (NOS: MES/N9428) | <p>fluorescent light.</p> <ul style="list-style-type: none"> <li>• Take photographs with single &amp; multiple electronic flash.</li> <li>• Take photographs with Reflectors, exposure meters, studio flash.</li> <li>• Take photographs with different accessories (Lux Meter, Slave Unit) and guide number.</li> <li>• Work with operating software with accessories and configuration of multimedia PC with other application software. Monitor Calibration.</li> <li>• Work on multimedia platform for internet and its functions.</li> <li>• Perform digital editing by using bit map and vector-based image editing software.</li> <li>• Demonstrate ability of taking printouts of photographs taken by a digital camera from computer printer.</li> <li>• Explain the concept of image transportation to storage media.</li> <li>• Demonstrate sending photographs through internet/E-mail.</li> </ul> |
| 4. Develop the skill & knowledge of Multimedia in Photography. Demonstrate most of the important aspects of Photo Editing software Elements. Show the usual workflow steps for photo editing, organizing and sharing. (NOS: MES/N9428)                     | <ul style="list-style-type: none"> <li>• Demonstrate ability to work with Adjustment Layers.</li> <li>• Demonstrate blending modes for layers using filters, styles, and effects, working with text layers.</li> <li>• Repair and retouching tools and techniques with the Smart Brush and adjustment layers.</li> <li>• Demonstrate colour spaces, colour management, and printing.</li> <li>• Demonstrate resolution and pixels for printing image with the we band working with old photos. Scanning, colorizing, black &amp; white.</li> <li>• Perform slide shows with adding music and titles to old photographs and old video.</li> <li>• Demonstrate the Photo merge tools to combine the best parts of photos/video.</li> </ul>                                                                                                                                                                       |
| 5. Demonstrate Four Key Skills of a successful Photographer. (NOS: MES/N9406)                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• Demonstrate hard skill: Technical</li> <li>• Demonstrate on hard skill: Artistic</li> <li>• Communication skill and body language to be checked.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6. Use different video equipment and their                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• Work with digital video cameras on tripod stand, VTR, Camcorder, Monitor.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| operations. Demonstrate the basic principles of Video and audio recording. (NOS: MES/N9429)                                                                          | <ul style="list-style-type: none"> <li>• Set up a single camera unit: Black balance and White balance, Adjustment of viewfinder and monitor, Familiarization of in-camera filters and other in-camera controls, Day-&amp;-night Video-graphy by manipulation of white balance.</li> <li>• Demonstrate operation of various camera movements.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 7. Apply specific technique of photography viz., time lapse, hyper lapse, high sync flash photography, arial photography & stop motion photography. (NOS: MES/N9430) | <ul style="list-style-type: none"> <li>• Demonstrate Operations and Camera movements Pan, tilt, trolley, dolly, crane, steady – cam and usage of other camera support.</li> <li>• Apply specific technique of photography time lapse/ hyper lapse/high sync flash photography/ arial photography / stop motion photography.</li> <li>• Action Axis (360 insta camera degree rule); matching of action, Static and Dynamic Continuity, Reverse angle.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 8. Apply Principles of Light, demonstrating the quality and types of lights. (NOS: MES/N9428)                                                                        | <ul style="list-style-type: none"> <li>• Interpret basic principle of light. (i) Electromagnetic spectrum, visible spectrum. (ii) Behavior of light (Direct and Indirect) (iii) Inverse square law. (iv) Basic principles of color, Color temperature, CIE diagram, trichromatic theory of vision.</li> <li>• Work on quality of light: Specular, diffused and bounced. (ii) Types of light: Natural day light, Incandescent, (tungsten-halogen, LED and PAR etc.</li> <li>• Work on Low key and High key technique of lighting, use of back light, kicker and background light. Practice to light up 2-point and 3-point lighting in an indoor situation. Light source filters and gels for mixed lighting situation.</li> <li>• Use the reflectors, mirrors, skimmers as fill light in an outdoor situation.</li> <li>• Demonstrate how to expose at different times of day and different lighting situations.</li> </ul> |
| 9. Creating a photo story on a theme/ idea/ concept and apply the necessity of planning on field photography. (NOS: MES/N9431)                                       | <ul style="list-style-type: none"> <li>• Interpret different rules of composition.</li> <li>• Apply golden rules of composition, rule of third, golden point, perspective lines, s-curve frame within frame.</li> <li>• Pitch the idea of photo story.</li> <li>• Perform location recce.</li> <li>• Choose the subject of photo story.</li> <li>• Perform previsualization.</li> <li>• Shoot the already designed story idea using different</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|                                                                                              |                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                              | <p>photography methods.</p> <ul style="list-style-type: none"> <li>• Perform post processing and colour correction of already photographed images for the photo story.</li> </ul> |
|                                                                                              |                                                                                                                                                                                   |
| 10. Demonstrate application of Artificial Intelligence (AI) in photography. (NOS: MES/N9432) | <ul style="list-style-type: none"> <li>• Use of Artificial intelligence in photography.</li> <li>• Explore different avenues and technologies in AI photography.</li> </ul>       |
|                                                                                              |                                                                                                                                                                                   |

## 7. TRADE SYLLABUS

| SYLLABUS FOR PHOTOGRAPHER TRADE                                   |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                |
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| DURATION: ONE YEAR                                                |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                |
| Duration                                                          | Reference Learning Outcome                               | Professional Skills (Trade Practical)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Professional Knowledge (Trade Theory)                                                                                                                                                                                                                                          |
| Professional Skill 45 Hrs.;<br><br>Professional Knowledge 15 Hrs. | 1. Identify and use Lenses following safety precautions. | 1. Identify basic first aid devices and use them in different circumstances.<br>2. Identify different fire Extinguishers and its use as per requirement and also the use of safety alarms.<br>3. Identify, handle and disposed off dangerous goods according to policy and procedures and also know how to report to supervisor /competent authority in case of any incident.<br>4. Identify and observe evacuation procedure according to site policy.<br>5. Identify different types of digital cameras and its different parts. | Importance of safety and general precautions.<br>Observed in the trade by the Institution. Care & maintenance of equipment & material.<br>Introduction to photography and its applications.<br>Introduction to Cameras & it's History (From pin-hole camera to digital camera) |
|                                                                   |                                                          | 6. Identify different types of lenses for different types of digital camera.<br>7. Use the lenses with wide angle, Normal, telephoto and zoom range.<br>8. Identify and understand the focal length of the different types of lenses.<br>9. Identify and practice the different types of lenses to take variety of photo.<br>10. Practice with digital camera                                                                                                                                                                      | Types of Lenses<br>Four basic types of lenses, they are: •Normal •Wide angle •Telephoto •Zoom<br>Introduction to Focal length.<br>Depth-of-field in comparison with human eye. Depth of focus<br>Perspective, aberrations of Lens.                                             |

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|                              |                                                                                                                                                                                                                   | lenses with depth of field.                                                                                 |                                                                                                                                                                                                                                                                                                                                               |
| Professional Skill 150 Hrs.; | 2. Apply various lighting techniques for indoor and outdoor photography, including three-point lighting for studio shoots, and capture diverse subjects using digital cameras across multiple photography genres. | 11. Practice on different types of composition using various lighting techniques.                           | Correct Exposure, ('rules' of photographic composition)                                                                                                                                                                                                                                                                                       |
|                              |                                                                                                                                                                                                                   | 12. Practice on taking photographs by varying aperture, shutter speed and use of different types of lenses. | Conception of aperture, shutter speed, ISO.                                                                                                                                                                                                                                                                                                   |
|                              |                                                                                                                                                                                                                   | 13. Practice of taking photographs on special area of photography.                                          | Knowledge of Pixels& their uses. Use of lens hood, tripod and mono pod stand.                                                                                                                                                                                                                                                                 |
|                              |                                                                                                                                                                                                                   | 14. Practice for ring Lighting of different areas of video shooting.                                        | <b>Lighting for still &amp; video photography.</b><br>Knowledge of different types of video lighting. Concept of power distribution depending upon the requirement of the light output. Detailed light source including natural and studio lights instruments, Field lighting instruments. Usage of Light meter (Lux meter), Inter velometer. |
|                              |                                                                                                                                                                                                                   | 15. Practice on three-point lighting, indoor and outdoor lighting etc.                                      |                                                                                                                                                                                                                                                                                                                                               |
|                              |                                                                                                                                                                                                                   | 16. Practice on hard and soft lighting. Single camera lighting, bounce lighting.                            |                                                                                                                                                                                                                                                                                                                                               |
|                              |                                                                                                                                                                                                                   | 17. Use of reflectors & skimmer.                                                                            |                                                                                                                                                                                                                                                                                                                                               |
|                              |                                                                                                                                                                                                                   | 18. Practice on different parts of digital camera photography for commercial/ advertisement.                | Understand of special & professional shooting techniques.<br>Learning & usage of various filters like- (ND-Neutral Density, Gradient Filters)                                                                                                                                                                                                 |
|                              |                                                                                                                                                                                                                   | 19. Practice of photography for sports by digital cameras.                                                  |                                                                                                                                                                                                                                                                                                                                               |
|                              |                                                                                                                                                                                                                   | 20. Practice of photography for fashion by digital cameras.                                                 |                                                                                                                                                                                                                                                                                                                                               |
|                              |                                                                                                                                                                                                                   | 21. Practice of photography for basic architecture /monuments with digital cameras.                         |                                                                                                                                                                                                                                                                                                                                               |
|                              |                                                                                                                                                                                                                   | 22. Practice of photography for animal and birds in slow and fast-moving conditions by digital cameras.     |                                                                                                                                                                                                                                                                                                                                               |

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|                                                                    |                                                                                                                                                                                                                                                                         | 23. Practice of photography in night conditions for children/ group by digital Cameras.                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                |
| Professional Skill 150 Hrs.;<br><br>Professional Knowledge 45 Hrs. | 3. Use various lighting types such as daylight, artificial light, electronic flash, and reflectors; apply computer fundamentals including monitor calibration and interfaces; and transfer, edit, and print digital images using editing software and computer systems. | 24. Practice of taking photographs in natural light, tungsten light and fluorescent light.<br>25. Practice of taking photographs with single & multiple electronic flash.<br>26. Practice of taking photographs with Reflectors, exposure meters, studio flash.<br>27. Practice of taking photographs with including color calibration system for color balance different accessories (Lux Meter, Slave Unit) and guide number. | Understanding visual communication and aesthetic in Photography. Theory of light and sources.<br>Whitebalance, Kelvin temperature & colour balance.                                                                                                            |
|                                                                    |                                                                                                                                                                                                                                                                         | 28. Practice on operating software with accessories and configuration of multimedia PC with other application software. Monitor Calibration.<br>29. Practice on multimedia platform for internet and its functions.                                                                                                                                                                                                             | Basics of Computers, OS, RAM, ROM and Graphic cards, Concept of operating software, functions and its uses.<br>Basics of Internet, different image editing software & its application.<br>Multimedia platform, accessories and configuration of multimedia PC. |
|                                                                    |                                                                                                                                                                                                                                                                         | 30. Practice on digital editing by using bit map and vector-based image editing software.<br>31. Practice on ability of taking printouts of photographs taken by a digital camera from computer printer.<br>32. Practice on the concept of image transportation to                                                                                                                                                              | Knowledge of image editing software. Knowledge of different types of printing media for hard copy.<br>Knowledge of different types of printers in respect of their resolution.                                                                                 |

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|                                                                   |                                                                                                                                                                                                                        | storage media.<br>33. Practice of sending photographs through internet/ E-mail.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                           |
| Professional Skill 70 Hrs.;<br><br>Professional Knowledge 20 Hrs. | 4. Develop the skill & knowledge of Multimedia in Photography. Demonstrate most of the important aspects of Photo Editing software Elements. Show the usual workflow steps for photo editing, organizing, and sharing. | 34. Practice on ability to Work with Adjustment Layers.<br>35. Practice on blending modes for layers using filters, styles, and effects, working with text layers.<br>36. Practice on repairing and retouching tools and techniques with the Smart Brush and adjustment layers.<br>37. Practice on colour spaces, colour management, and printing.<br>38. Practice on resolution and pixels for printing image with the web and working with old photos. Scanning, colorizing, black & white.<br>39. Practice on slide shows with adding music and titles to old photographs and old video.<br>40. Practice by using the Photo merge tools to combine the best parts of photos/video. | Workflow steps for editing photos in Photo editing using photoshop cc, adobe lightroom software & Elements, learning the tools and techniques in a natural way.                                                                                                                                                                           |
| Professional Skill 40 Hrs.;<br><br>Professional Knowledge 20 Hrs. | 5. Demonstrate four Key Skills of a Successful Photographer.                                                                                                                                                           | 41. Practice on hard skill: Technical.<br>42. Practice on hard skill: Artistic.<br>43. Practice on soft skills.<br>44. Practice on Communication, Body Language.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | External Soft skills. Internal Hard Skills.<br>Knowledge for the selection criteria for a good quality camera and its accessories.<br>Copy right Act. 1957<br>Etiquette of Photography Basic<br>Rule for Photographer<br>Corporate Etiquette<br>Ethics of Photographer (NPPA)<br>The combination of skilled photographer and the empathic |

|                                                                   |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                   |
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|                                                                   |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | communicator is what makes a successful photographer.                                                                                                                                             |
| Professional Skill 70 Hrs.;<br><br>Professional Knowledge 20 Hrs. | 6. Use different video equipment and their operations. Demonstrate the basic principles of Video and audio recording.                               | 45. Practice with digital video cameras on tripod stand, VTR, Camcorder, Monitor.<br>46. Set up a single camera unit: Black balance and White balance, Adjustment of viewfinder and monitor, Familiarization of in- camera filters and other in-camera controls, Day-&-night Videography by manipulation of white balance.<br>47. Operational practice of various camera movements.                                                                                                     | Persistence of Vision, Understand the concept of handling the video cameras and their accessories. Understand the techniques of shooting etc. Understanding theoretical knowledge of videography. |
| Professional Skill 70 Hrs.;<br><br>Professional Knowledge 20 Hrs. | 7. Apply specific technique of photography viz., time lapse, hyper lapse, high sync flash photography, arial photography & stop motion photography. | 48. Practice on basic shot terminology: Close up, Mid shot, long shot, Big close up, Mid-long shot, Extreme long shot, Point of view (POV) shot, Over-the Shoulder (OSS) shot, high angle and low angle shot, top angle shot.<br>49. Practice on Action Axis (360 insta camera degree rule); matching of action, Static and Dynamic Continuity, Reverse angle.<br>50. Operations and Camera movements Pan, tilt, trolley, dolly, crane, steady – cam and usage of other camera support. | Camera, parts & its Setting Knowledge of visual composition and aesthetic approaches. Knowledge of still digital camera, Video camera and drone camera.                                           |
| Professional Skill 35 Hrs.;<br><br>Professional Knowledge         | 8. Apply Principles of Light, demonstrating the quality and types of lights.                                                                        | 51. Practice on basic principle of light.<br>(i) Electromagnetic spectrum, visible spectrum.<br>(ii) Behaviour of light (Direct                                                                                                                                                                                                                                                                                                                                                         | Basic principle of light. (i) Electromagnetic spectrum, visible spectrum. (ii) Behaviour of light falling on an object – absorption, reflection,                                                  |

|                              |                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| 10 Hrs.                      |                                                                                                            | <p>and Indirect)</p> <p>(iii) Inverse square law.</p> <p>(iv) Basic principles of color, Color temperature, CIE diagram, trichromatic theory of vision.</p> <p>52. Practice on quality of light: Specular, diffused and bounced. (ii) Types of light: Natural day light, Incandescent, (tungsten-halogen, LED and PAR etc.</p> <p>53. Practice on Low key and high key technique of lighting, use of back light, kicker and background light. Practice to light up 2-point and 3-point lighting in an indoor situation. Light source filters and gels for mixed lighting situation.</p> <p>54. Practice to use the reflectors, mirrors, skimmers as fill light in an outdoor situation.</p> <p>55. Demonstrate how to expose at different times of day and different lighting situations.</p> | <p>refraction, transmission, diffraction, dispersion, scattering of light, refractive index. (iii) Inverse square law. (iv) Basic principles of color, CIE diagram, trichromatic theory of vision. 2. (i) Quality of light: Specular, diffused and bounced. (ii) Types of light: Natural day light, Incandescent, (tungsten-halogen, [Tenner (10K), Senior (5K), Junior (2K), Baby (1K), Inkie Multi 10, Multi 20 etc], photoflood), fluorescent, (Kino Flo), Metal Halide enclosed AC arc (HMI) etc. 3. Basic understanding of lighting ratio (key + fill: fill alone) use of back light, kicker and back ground light. How to lit up an indoor situation. Use of light source filters. 4. Use of reflectors, and soft boxes, mirrors, skimmers as fill light in an outdoor situation. 5. Knowledge of symbols (icon) to identify the various lighting equipments. Leaning exposure triangle, and exposing with different settings of aperture, iso and shutter.</p> |
| Professional Skill 180 Hrs.; | 9. Creating a photo story on a theme/idea/concept and apply the necessity of planning on field photography | <p>56. Interpret different rules of composition.</p> <p>57. Apply golden rules of composition, rule of third, golden point, perspective lines, s-curve frame within frame.</p> <p>58. Pitch the idea of photo story.</p> <p>59. Perform location recce.</p> <p>60. Choose the subject of photo</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Learning through composition. Study of paintings and works of photographers. Pre planning and ideation of a photo story idea.</p> <p>Shooting on field. Shooting in uncontrolled situations. Documentary photography and</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                                                                          |                                                                                    | <p>story.</p> <p>61. Perform previsualization.</p> <p>62. Shoot the already designed story idea using different photography methods.</p> <p>63. Perform post processing and colour correction of already photographed images for the photo story.</p> | <p>photojournalism</p> <p>Giving look to the photo story and giving visual consistency to the photographs.</p> |
| <p>Professional Skill 30 Hrs.;</p> <p>Professional Knowledge 15 Hrs.</p> | <p>10. Demonstrate application of Artificial Intelligence (AI) in photography.</p> | <p>64. Use of Artificial intelligence in photography.</p> <p>65. Explore different avenues and technologies in AI photography.</p>                                                                                                                    | <p>Understanding AI and the role of a photographer in today's technology driven world.</p>                     |
|                                                                          |                                                                                    |                                                                                                                                                                                                                                                       |                                                                                                                |

| SYLLABUS FOR CORE SKILLS                                       |
|----------------------------------------------------------------|
| 1. Employability Skills (Common for all CTS trades) (120 Hrs.) |

Learning outcomes, assessment criteria, syllabus and Tool List of Employability Skills is provided separately in [www.cstaricalcutta.gov.in](http://www.cstaricalcutta.gov.in) / [www.bharatskills.gov.in](http://www.bharatskills.gov.in) / [www.dgt.gov.in](http://www.dgt.gov.in).

| LIST OF TOOLS & EQUIPMENT                 |                                                                                                                               |                                                                                                                   |              |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------|
| PHOTOGRAPHER (for batch of 24 Candidates) |                                                                                                                               |                                                                                                                   |              |
| S No.                                     | Name of the Tools and Equipment                                                                                               | Specification                                                                                                     | Quantity     |
| A. TOOLS AND EQUIPMENT                    |                                                                                                                               |                                                                                                                   |              |
| 1.                                        | Digital Full HD Camera/ Mirror less camera                                                                                    |                                                                                                                   | 12+1 Nos.    |
| 2.                                        | Action camera                                                                                                                 | 360-degree camera                                                                                                 | 1 no.        |
| 3.                                        | Min. 27" HD monitor, Electronic View finder                                                                                   | (RGB- 95%)                                                                                                        | 2 Nos.       |
| 4.                                        | Multimedia speaker                                                                                                            | 2.1                                                                                                               | 2 sets       |
| 5.                                        | Prime lens (Normal/wide), Macro                                                                                               | 16mm, 24mm, 35mm, 50mm, 85mm                                                                                      | 12 sets each |
| 6.                                        | Telephoto lens compatible with Digital SLR camera (Full HD)/ mirror less                                                      | 24-70mm, 70-200mm                                                                                                 | 6 each       |
| 7.                                        | Fish eye lens for APS-C and Full frame                                                                                        | 10 mm                                                                                                             | 1 No.        |
| 8.                                        | Camera stand for still camera                                                                                                 |                                                                                                                   | 12 + 1Nos.   |
| 9.                                        | Cable release                                                                                                                 |                                                                                                                   | 2 Nos.       |
| 10.                                       | Different types of filters, (10 types) match able with camera                                                                 | UV filter Graduated, Star filter, multi image, ND, Skylight, polarizer, colour filter set, both for video & still | 6 Nos.       |
| 11.                                       | Extension ring (4 types)                                                                                                      |                                                                                                                   | 2 Nos.       |
| 12.                                       | Electronic flash/ strobe light with flash controlling trigger                                                                 |                                                                                                                   | 12 Nos.      |
| 13.                                       | Drone with accessories                                                                                                        |                                                                                                                   | 1 Nos.       |
| 14.                                       | Umbrella soft box, Diffusers, back drop screen with stands, Colour Gels, Scrim, 18 % Greycard + calibration system, Reflector | Octabox with honeycomb, deep octabox, square softbox, beauty dish with honeycomb, snoot, spherical softbox        | 1 set        |
| 15.                                       | Air conditioner for studio                                                                                                    |                                                                                                                   | As Required  |
| 16.                                       | LUX Meter, Intervalo meter                                                                                                    |                                                                                                                   | 2 Nos.       |
| 17.                                       | Studio room (30ft. x 30ft. x 18ft. height) fitting with cataract system, light grid, sound proof, AC, with cyclorama          |                                                                                                                   | 1 Room       |

|     |                                                                                                                    |                                                                                                                                                                                                                                                                                                     |              |
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| 18. | Studio & Classroom furniture<br>a) Steel chairs folding type with arm rest for trainees<br>b) Working table molded |                                                                                                                                                                                                                                                                                                     | 24 Nos. each |
| 19. | Computer with LAN                                                                                                  | CPU: 32/64 Bit i3/i5/i7 or latest processor, Speed: 3 GHz or Higher. RAM: 4 GB DDR-III or Higher, Wi-Fi Enabled. Network Card: Integrated Gigabit Ethernet, with USB Mouse, USB Keyboard and Monitor (Min. 17 Inch. Licensed Operating System and Antivirus compatible with trade related software. | 12 Nos.      |
| 20. | Inkjet printer with colour cartridge                                                                               | 1200 dpi or higher                                                                                                                                                                                                                                                                                  | 1 No.        |
| 21. | Laser printer with colour cartridge                                                                                | 1200 dpi or higher                                                                                                                                                                                                                                                                                  | 1 No.        |
| 22. | Scanner                                                                                                            | 1200 dpi or higher                                                                                                                                                                                                                                                                                  | 2 Nos.       |
| 23. | Online UPS or Offline UPS                                                                                          |                                                                                                                                                                                                                                                                                                     | As required  |
| 24. | Windows operating system                                                                                           | latest version                                                                                                                                                                                                                                                                                      | 12 Licenses  |
| 25. | Photo editing software                                                                                             | latest version                                                                                                                                                                                                                                                                                      | As required  |
| 26. | Office software                                                                                                    | latest version                                                                                                                                                                                                                                                                                      | 12 Licenses  |
| 27. | Free Hand / light room software                                                                                    | latest version                                                                                                                                                                                                                                                                                      | 12 Licenses  |
| 28. | Anti Virus software                                                                                                | latest version                                                                                                                                                                                                                                                                                      | 12 Licenses  |
| 29. | Portable hard disk                                                                                                 | 2 TB or higher                                                                                                                                                                                                                                                                                      | 1 No.        |
| 30. | Pen drive                                                                                                          | 128 GB or higher                                                                                                                                                                                                                                                                                    | 6 Nos.       |
| 31. | Multiple card reader                                                                                               |                                                                                                                                                                                                                                                                                                     | 6 each       |
| 32. | Porto pack light                                                                                                   |                                                                                                                                                                                                                                                                                                     | 3 Sets       |
| 33. | Power Cable                                                                                                        |                                                                                                                                                                                                                                                                                                     | As required  |
| 34. | Extension Board                                                                                                    |                                                                                                                                                                                                                                                                                                     | As required  |
| 35. | Steel almirah                                                                                                      |                                                                                                                                                                                                                                                                                                     | 2 Nos.       |
| 36. | Pigeon hole steel almirah                                                                                          |                                                                                                                                                                                                                                                                                                     | 1 No.        |
| 37. | Fire extinguisher                                                                                                  |                                                                                                                                                                                                                                                                                                     | 4 Nos.       |
| 38. | LCD Projector with white board / Interactive Panel 75" with OPS or more                                            |                                                                                                                                                                                                                                                                                                     | 1 No.        |

#### **B. SHOP FLOOR FURNITURE AND MATERIALS**

|     |                             |  |         |
|-----|-----------------------------|--|---------|
| 39. | Steel almirah               |  | 2 Nos.  |
| 40. | Pigeon hole steel almirah   |  | 1 No.   |
| 41. | Table for computer          |  | 12 Nos. |
| 42. | Chairs for computer classes |  | 24 Nos. |
| 43. | Table printer and scanner   |  | 4 Nos.  |

|                                                                                     |                                                                                                                      |  |              |
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| 44.                                                                                 | Studio room (30ft. x 30ft. x 18ft. height) fitting with cataract system, light grid, sound proof, AC, with cyclorama |  | 1 Room       |
| 45.                                                                                 | Studio & Classroom furniture<br>a) Steel chairs folding type with arm rest for trainees<br>b) Working table molded   |  | 24 Nos. each |
| 46.                                                                                 | Instructor Chair and instructor Table                                                                                |  | Each One No. |
| <b>Note: -</b><br>1. Internet facility is desired to be provided in the class room. |                                                                                                                      |  |              |

The DGT sincerely acknowledges contributions of the Industries, State Directorates, Trade Experts, Domain Experts, trainers of ITIs, NSTIs, faculties from universities and all others who contributed in revising the curriculum.

Special acknowledgement is extended by DGT to the following expert members who had contributed immensely in this curriculum.

| List of Contributors |                                                        |                                                           |          |
|----------------------|--------------------------------------------------------|-----------------------------------------------------------|----------|
| S No.                | Name & Designation<br>Mr./Ms.                          | Organization                                              | Remarks  |
| 1.                   | T. Ragulan, Director                                   | CSTARI, Kolkata                                           | Chairman |
| 2.                   | Brindaban Das, DD/HOO                                  | CSTARI, Kolkata                                           | Member   |
| 3.                   | Amit Kumar Kundu                                       | The Ceremony, Kolkata                                     | Member   |
| 4.                   | Seyasri Sen Kundu                                      | The Ceremony, Kolkata                                     | Member   |
| 5.                   | Prantik Ghosh                                          | Prantik Ghosh Production, Kolkata                         | Member   |
| 6.                   | Liya Hitesh K, Asst. Professor                         | SRFTI (Satyajit Ray Film & Television Institute), Kolkata | Member   |
| 7.                   | Pargunan Babu, Asst. Production Manager                | SRFTI (Satyajit Ray Film & Television Institute), Kolkata | Member   |
| 8.                   | Arnab Guha                                             | Arnav Guha Studio's, Kolkata                              | Member   |
| 9.                   | Arijit Chakraborty, Freelancer                         | Freelancer, Belur                                         | Member   |
| 10.                  | Sukdip Saha                                            | Durato Barta, Kolkata                                     | Member   |
| 11.                  | Koushik Banerjee                                       | Durato Barta, Kolkata                                     | Member   |
| 12.                  | Sanjoy Das                                             | Durato Barta, Kolkata                                     | Member   |
| 13.                  | Archana Singh, AD                                      | CSTARI, Kolkata                                           | Member   |
| 14.                  | Sk. Altaf Hossain, AD                                  | CSTARI, Kolkata                                           | Member   |
| 15.                  | Akhilesh Pandey, AD                                    | CSTARI, Kolkata                                           | Member   |
| 16.                  | B. K. Nigam, TO                                        | CSTARI, Kolkata                                           | Member   |
| 17.                  | B. Biswas, TO                                          | CSTARI, Kolkata                                           | Member   |
| 18.                  | K.V.S. Narayana, TO                                    | CSTARI, Kolkata                                           | Member   |
| 19.                  | P.K Bairagi, TO                                        | CSTARI, Kolkata                                           | Member   |
| 20.                  | Hemant Kujur Jr. D/Man                                 | CSTARI, Kolkata                                           | Member   |
| 21.                  | Mahendar, Director of Photography                      | AAFT University, Noida, UP                                | Member   |
| 22.                  | R. K. Narendra Kumar, Chief Founder of Ahobila Academy | Ahobila Photography Institute, Jayanagar, Bangalore       | Member   |
| 23.                  | Mallikarjun. G. N., Bank Manager (Retd.)               | Ahobila Photography Institute, Jayanagar, Bangalore       | Member   |
| 24.                  | Sminurath PA, Cinematographer, UAV Drone Instructor    | Friday Mirror Films Pvt. Ltd., Ernakulam, Kerala          | Member   |

| <b>ABBREVIATIONS</b> |                                                    |
|----------------------|----------------------------------------------------|
| CTS                  | Craftsmen Training Scheme                          |
| ATS                  | Apprenticeship Training Scheme                     |
| CITS                 | Crafts Instructor Training Scheme                  |
| DGT                  | Directorate General of Training                    |
| MSDE                 | Ministry of Skill Development and Entrepreneurship |
| NTC                  | National Trade Certificate                         |
| NAC                  | National Apprenticeship Certificate                |
| NCIC                 | National Craft Instructor Certificate              |
| LD                   | Locomotor Disability                               |
| CP                   | Cerebral Palsy                                     |
| MD                   | Multiple Disabilities                              |
| LV                   | Low Vision                                         |
| HH                   | Hard of Hearing                                    |
| ID                   | Intellectual Disabilities                          |
| LC                   | Leprosy Cured                                      |
| SLD                  | Specific Learning Disabilities                     |
| DW                   | Dwarfism                                           |
| MI                   | Mental Illness                                     |
| AA                   | Acid Attack                                        |
| PwD                  | Person with disabilities                           |

