

**Detailed Syllabus For the post of Junior Instructor - Digital
Photographer in Industrial Training department
(Cat No 650/2023)**

Module 1: Introduction and Safety Precautions, History of photography - (10 marks)

Camera and Equipment's safety, General precautions. Care & maintenance of equipment & material. Pin-hole camera to digital camera: Camera obscura, rangefinder, TLR, SLR, DSLR, Mirrorless. Black & White film, colour film, film speed, ASA

Module 2: Lenses, Light and Exposure (10 marks)

Types of Lenses, Concave and convex. Four basic types of lenses, they are: Normal, Wide angle, Telephoto, Zoom lens, Focal length. Depth-of-field in comparison with human eye. Depth of focus, Perspective, aberrations of Lens. Aperture, Shutter speed, ISO. Knowledge of Pixels & their uses. Use of lens hood, tripod and mono pod stand.

Module 3: Areas in Photography (10 marks)

Portrait photography, Advertising photography, Landscape photography, Sports, Abstract photography, Head shot photography, Storm photography, Travel photography, Fashion photography, Aerial photography, Architecture photography, Macro photography, Aesthetic photography, Action photography, Flower photography etc.

Module 4: Computer Fundamentals and Image editing(10 marks)

Basics of Computers, OS, RAM, ROM and Graphic cards, Concept of operating software, functions and its uses. Basics of Internet, different image editing software & its application. Multimedia platform, accessories and configuration of multimedia PC. Knowledge of image editing software. Knowledge of different types of printing media for hard copy. Different types of printers and Printer Resolution. Steps for editing photos, using Photoshop, light room. Types of scanners, & capture cards, editing and capturing methods, different types of updated photo editing software's.

Module 5: Etiquettes of Photographer (10 marks)

Respect, ask permission Arrive on time, Camera gear is irrelevant, Mind your gear. Do dress photography, be professional, be approachable,

Respect venue rules, Respect personal boundaries, get there early, Be kind and courtesy etc. External soft skills and internal Hard skills.

Basic rule of photography : Rule of thirds, picture frame, ratio, color, straight horizon, frame your subject, enter dominant eye, angle, leading lines, symmetry, negative space, repetition, balance, pattern, composition, simplify, framing, depth, background, rule of odds, diagonals etc.

Module 6: Motion Picture Video/Audio Production (10 marks)

Video cameras and their accessories. Techniques of shooting, Camera , parts & its Setting, visual composition, still digital video camera, Video camera and drone camera. Knowledge of sound techniques, different microphones, Recording methods

Basic principle of light : A) Electromagnetic spectrum, visible spectrum B) Behaviour of light falling on an object - absorption, reflection refraction, transmission, diffraction, dispersion, scattering of light, refractive index. C) Inverse square law. D) Basic principles of color, CIE diagram, trichromatic theory of vision.

1. A) Quality of light : Specular, diffused and bounced. Types of light
2. Basic understanding of lighting ratio: (key + fill: fill alone) use of back light, kicker and back ground light. Use of light source filters.
3. Use of reflectors, and soft boxes, mirrors, skimmers as fill light in an outdoor situation.
4. Various lighting equipment's

Module 7: Light up (10 marks)

Three-point lighting, indoor and outdoor lighting etc. Hard and soft lighting, Single camera lighting, bounce lighting. Use of reflectors & skimmer. Natural and studio lights instruments, Field lighting instruments. Usage of Light meter (Lux meter), Inter valometer. Gels for mixed lighting situation

Module 8: Film Making (10 marks)

Make documentary films, Shoot interviews, news, and make advertisements etc. Preparing Story board, shooting of news, interview, seminar/ workshop, industrial, live broadcasting, musical event, Advertisement, Architectural, monuments, travel videos and Landscapes.

Module 9: Post Production (10 marks)

Learning Video Editing Process. Ingesting media (capturing and transferring). Editing equipment: Edit VTR, Edit Control Unit, Vision Mixer, Computer Graphics (C.G.). Non-linear Recording of audio, Effects (visual and audio). Understand video formats and principles. Video editing Practice on Different Audio & Video Software's with Effect, Titling, frame cutting/ trimming/ editing/ inserting audio & video/Pictures. Rendering on Different format and resolutions

Module 10: Planning and Direction Production (10 marks)

Necessity of planning a production while working. Planning for quality production, co-ordinating with director during production, objective to be coped with during pre-production.

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper.