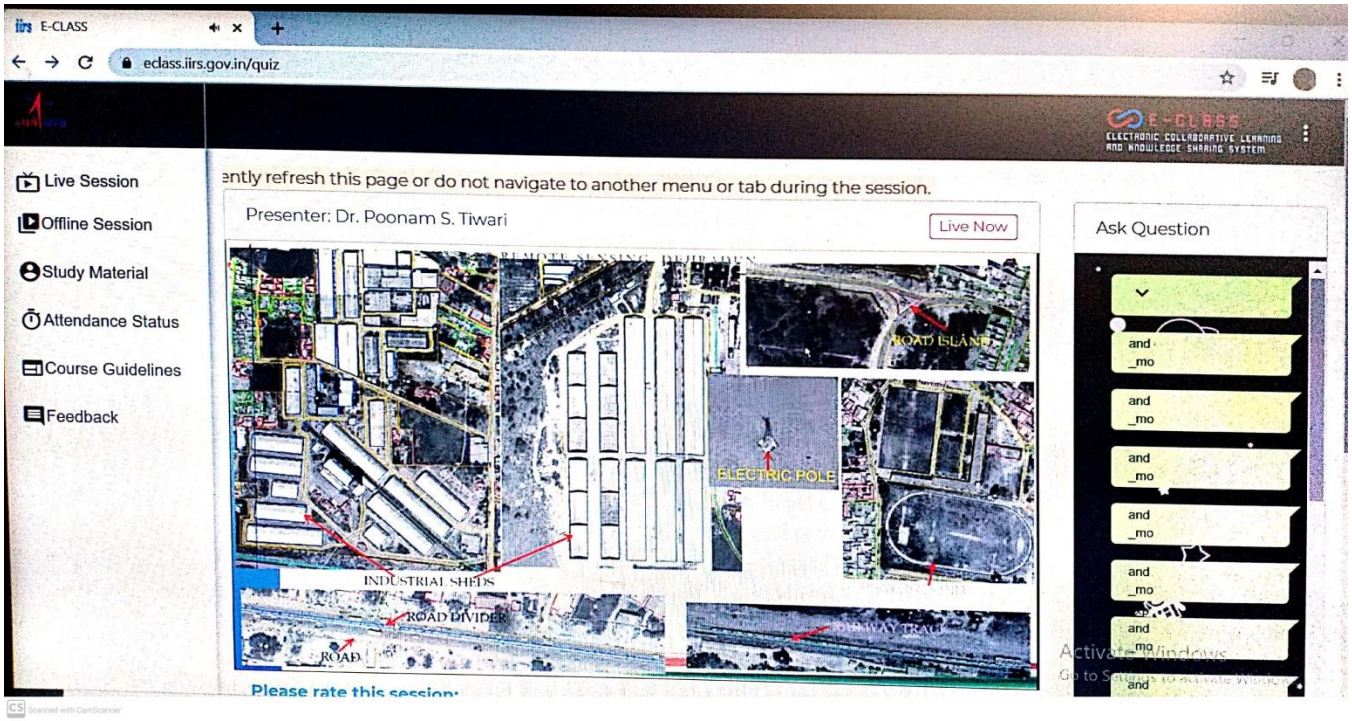
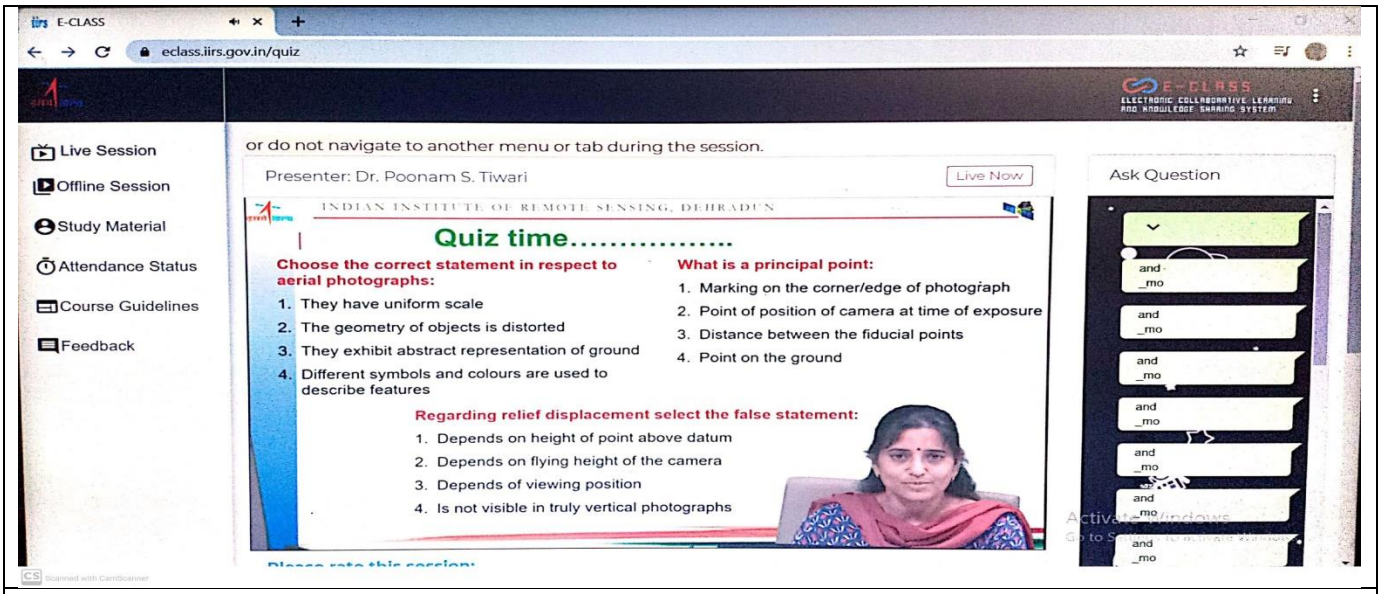
DAILY ASSESSMENT FORMAT

Date:	**29/06/2020**	**Name:**	**Gaganashree P**
Course:	**IIRS Outreach Program on Satellite Photogrammetry**	**USN:**	**4AL15EC024**
Topic:	**Introducing Photogrammetric Concepts**	**Semester & Section:**	**8th A**
Github Repository:	**Gaganashree-P**		

AFTERNOON SESSION DETAILS

Image of session





Report:-

Map: It shows an area as seen vertically form above. Different symbols and colours are used to represent various objects on a map.

Aerial Photo: They are taken from an aircraft to show objects on the ground. They can be divided into vertical aerial photos and oblique aerial photos.

Map	**Aerial photo**
Orthogonal projection	Central projection
Uniform scale	Variable scale
Terrain relief without distortion	Relief displacement
All objects represented on a particular scale	Only objects that are visible
Abstract representation	Real representation

WHAT IS PHOTOGRAMMETRY

- The science of quantitative analysis of measurements from photographs

- Photos - light
- Gramma - to draw
- Metron - to measure

Distinct Areas in Photogrammetry

Metric Photogrammetry

- Making precise measurements from photos determine the relative locations of points.
- Finding distances, angles, areas, olumes, elevations, and sizes and shapes of objects.

Interpretative Photogrammetry

- Deals in recognizing and identifying objects and judging their significance through careful and systematic analysis.

Most common applications:

- preparation of planimetric and Interpretation Sensing topographic maps
- production of digital orthophotos
- Military intelligence such as targeting

BRANCHES OF PHOTOGRAMMETRY

Based on platform:

- Ground Based
- UAV/drone based
- Aerial Photogrammetry
- Satellite Photogrammetry

Based on processing techniques:

Analogue System

- Optical or mechanical instruments were used to reconstruct three-dimensional geometry from two overlapping photographs
- The main product during this phase was topographic maps

Digital System

- Digital photogrammetry is applied to digital images that are stored and processed on a computer
- Digital photogrammetry is sometimes called softcopy photogrammetry.
- The output products are in digital form, such as digital maps, DEMs, and digital orthophotos saved on computer storage media.

Analytic system

- The computer replaces some expensive optical and mechanical components
- Devices were analog/digital hybrids
- Main developments- Analytical aerotriangulation, analytical plotters, and orthophoto projectors
- Outputs - can be topographic maps, but can also be digital products such as digital maps and DEMs

Scale of Aerial Photography

Before a photograph can be used as a map supplement or substitute, it is necessary to know its scale. On a map, the scale is printed as a representative fraction that expresses the ratio of map distance to ground distance, For example:

RF=MD/ GD

On a photograph, the scale is also expressed as a ratio, but is the ratio of the photo distance (PD) to ground distance. For example:

RF PD/GD

scale = f / H

scale = photo distance + ground distance

BASIC CONCEPT

- The primary objective of the technique is to derive precise coordinates of a point
- This is done by viewing the area from two different angles, thereby recreating the same conditions as it existed at the time of photography.

TYPES OF AERIAL PHOTOGRAPHY

- Vertical
- Low oblique
- High oblique