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**PG CBCS**  
**M.A. /M.Sc. Semester-III Examination, 2020**  
**GEOGRAPHY**  
**PAPER: GEO 303D**  
**(REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM)**

**Full Marks: 40**

**Time: 2 Hours**

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**Write the answer for each unit in separate sheet**

**GROUP/UNIT-A**

**(GEO 303D.1: PHYSICAL BASIS OF REMOTE SENSING)**

**Answer any two questions of the following:**

**10×2=20**

1. Describe the processes of energy-matter interaction of an incoming light beam when it passes through the atmosphere and interact with the earth's surface.
2. Discuss the factors controlling the emission in thermal infrared region for an object.
3. How do you explain the radiation from an object using the wave and particle theories?
4. Explain the concept of path radiance. Mention its importance in Optical Remote Sensing.
5. What are the fundamental differences among scattering, reflection, and refraction?
6. Enumerate different types of platform used in Remote Sensing Technique.

**GROUP/UNIT-B**

**(GEO 303D.2: PHOTOGRAMMETRY, AERIAL PHOTO AND SATELLITE SYSTEM)**

**Answer any two questions of the following:**

**10×2=20**

1. How do you find the height of a building in an air photo? Explain with suitable illustration.
2. What are the different properties of photographic film motioning their impact on the multiple resolutions of serial photograph?
3. Write down the working principle of mirror stereoscope with suitable diagrams.
4. Illustrate with suitable diagram various geometric errors produced due to unwanted movement of the aircraft.
5. Compare the relative advantage and disadvantages of fine resolution and coarse resolution satellite systems.
6. Evaluate the advantages and disadvantages of Push-broom scanning system.

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