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## **GIS-502/DGIS-502**

# MAGIS/MSCGIS/DGIS/CGIS Ist Semester Examination Dec., 2023 FUNDAMENTALS OF

### FUNDAMENTALS OF PHOTOGRAMMETRY AND REMOTE SENSING

Time : 2 Hours] [Max. Marks : 70

Note :- This paper is of Seventy (70) marks divided into two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given there in. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

#### Section-A

### (Long Answer Type Questions) 2×19=38

*Note* :- Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

(1)

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- Discuss the concept, definition, and importance of Remote Sensing. Present an account on the evaluation of space technology and Satellite Remote Sensing in India?
- 2. Define remote sensing platform and sensor. Explain the characteristics of different remote sensing platforms?
- What do you mean by stereoscopic vision ? Explain different types of stereoscopes and types of stereoscopic visions.
- 4. What is photogrammetric workstation ? Give detail discussion on the elements of the aerial photograph interpretation.
- 5. Describe the spectral characteristics of different types of remote sensing data? Highlight the points of trade-offs between spatial, spectral, and radiometric resolution.

#### Section-B

#### (Short Answer Type Questions) 4×8=32

- *Note* :- Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.
- 1. Explain the functions of different types of sensors.

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- What do you mean by the atmospheric absorption ? Explain atmospheric window with the help of suitable diagram.
- 3. Compare the characteristics of passive and active sensors.
- 4. Explain the camera, lenses and film used in aerial photography.
- 5. Describe the methods of computing scale of aerial photographs.
- 6. Explain the influences of spatial resolution on the application of remote sensing data in different fields.
- How temporal resolution is useful in the field of remote sensing ? Write the characteristics of polar sunsynchronous satellite orbit.
- Define the concept and principle of image interpretation. List out the steps for visual interpretation of remote sensing data.

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