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B.A. B.Ed. Semester - VI
EXAMINATION MAY 2023
Geography Paper X (Practical) - Remote Sensing and GIS

[Time: 4 Hours]   [Max. Marks:100]

Instructions:
i) All questions are **compulsory**
ii) Figures to the right indicate **maximum** marks
iii) Use of non-programmable calculator is allowed.

Q1 A. Define the following (any five):   10
    i) Spatial Resolution
    ii) GIS
    iii) Principal point
    iv) Remote sensing
    v) Wavelength
    vi) GPS

B. Draw a neat diagram of mirror stereoscope and discuss its various functions.   4

C. Calculate the following: 6
    i) The focal length of the camera is 200 mm and the flying height of the aeroplane is 3.4 km. Find out the photo scale of the aerial photograph.
    ii) The photo scale is 1: 25,000 and the aeroplane is flying at a height of 4.5 km above mean sea level. Find out the focal length of the camera.
    iii) The photo scale of the aerial photograph is 1: 50,000 and the focal length of the camera is 100 mm. Find out the flying height of the aircraft.

Q2 Study the aerial photograph provided to you and answer **any five** of the following: 25

    a) Natural vegetation
    b) Land use and land cover
    c) Settlement pattern and distribution
    d) Water bodies
    e) Transport and communication
    f) Relief features
    g) Marginal Information of the aerial photograph

Q3 Answer the following (any four):   20

    a) Discuss in detail Active and Passive Remote sensing.
    b) Briefly explain the application of Remote Sensing in various fields.
    c) How maps and aerial photographs are different from each other? Explain.
    d) Diagrammatically explain Geostationary Satellites.
    e) Define Along-Track scanner and explain its characteristics.

Q4   A.   Draw a neat diagram of Electromagnetic spectrum and explain its various   10
          components.

     B.   Answer the following **(Any three):**   15
          i)   What are the uses of point, line and polygon features in GIS?
          ii)   Write a note on uses of GPS system in today's world.
          iii)   Explain Raster and Vector data model with the help of a diagram.
          iv)   What are the key components of GIS? Explain.

Q5   A.   Journal   5
     B.   Viva-voce   5