WEST BENGAL STATE UNIVERSITY
B.A./B.Sc. Honours 6th Semester Examination, 2021

GEOACOR14T-GEOGRAPHY (CC14)

Time Allotted: 2 Hours   Full Marks: 40

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

CATEGORY-A

Answer any *one* question from the following (within 600 words)   10×1 = 10

1. What is an Electromagnetic spectrum? Explain how the electromagnetic spectrum   4+6
    interacts with the earth's atmosphere.

2. What is the standard false colour composite (FCC)? How the band combination   4+6
    changes in preparing the standard FCC from IRS and Landsat images?

CATEGORY-B

Answer any *four* questions from the following (within 150 words each)   5×4 = 20

3. State the merits and demerits of raster data format.

4. Explain the importance of spectral and radiometric resolution in digital image
    interpretation.

5. What are the orbital characteristics of GPS satellites?

6. What is image classification? Differentiate between the two methods of image
    classification.

7. How GIS is related to database management systems?

8. Discuss the importance of overlay analysis in geographical studies.

9. Explain how spatial data and attribute data integrate to make a GIS.

CATEGORY-C

Answer any *five* questions from the following (within 50 words each) $2\times5 = 10$

10. Define atmospheric window.

11. What is Pixel? What are the units of measurements?

12. What is the role of sensors in a satellite?

13. Differentiate 2-bit and 8-bit image.

14. What are the wavelengths of Green, Red, and Near IR radiation?

15. Why Landsat 8 TM satellite data is more useful than Landsat 1 MSS data to prepare a LULC map of an urban area?

16. Which band combination is required to prepare standard FCC from IRS LISS III data?

17. What is PRN code?

18. What is differential GPS?

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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