



**2022/TDC(CBCS)/EVEN/SEM/  
GELSEC-601T/255**

**TDC (CBCS) Even Semester Exam., 2022**

**GEOLOGY**

**( 6th Semester )**

Course No. : GELSEC-601T

**( Photogeology and Remote Sensing )**

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

**SECTION—A**

Answer/Write on any *fifteen* of the following :

1×15=15

1. Define remote sensing.
2. Name one weather and one earth observation satellite.
3. What do you mean by geosynchronous orbit?
4. What is the major difference between a vertical aerial photo and an oblique photo?



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5. The wavelength of visible spectrum
6. What is stereopair?
7. Write the abbreviation of LISS.
8. Name one foreign remote sensing satellite.
9. Define raster data.
10. Give two examples of vector data.
11. Write the number of bands used in MSS.
12. Write the full forms of GIS and GPS.
13. What is the full form of RADAR?
14. Name two GIS softwares.
15. What is GCP?
16. What is radiometric correction?
17. Write one difference between a photo and an image.
18. What are DN numbers?
19. What is 'decision' in image classification?
20. What is GIS datum?

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SECTION—B

Write short notes on any *five* of the following :  
2×5=10

21. Aerial photography and its product
22. Aerial camera
23. Stereoscope
24. Remote sensing technology
25. Active and passive sensors with example
26. FCC
27. Georeferencing
28. Pattern recognition
29. GIS tools
30. User segment of GIS

SECTION—C

Answer any *five* of the following questions : 5×5=25

31. Write two advantages and two limitations of aerial photography. What are the factors affecting aerial photography? 2+3=5

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( Turn Over )



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32. Write notes on the following :  $2\frac{1}{2}+2\frac{1}{2}=5$
- (a) EMS
  - (b) Principal point, isocentre and nadir point
33. Write notes on the following :  $2\frac{1}{2}+2\frac{1}{2}=5$
- (a) Spectral reflectance curve and its application
  - (b) Space borne platform
34. Write two advantages of RS in comparison to aerial photography. Discuss the application of RS in geomorphological studies.  $2+3=5$
35. Write notes on the following :  $2\frac{1}{2}+2\frac{1}{2}=5$
- (a) Foreign remote sensing satellites
  - (b) RADAR
36. Write about the Indian remote sensing satellites. Name the organization associated with the Space Mission in India.  $4+1=5$
37. Write notes on the following :  $2\frac{1}{2}+2\frac{1}{2}=5$
- (a) Supervised classification
  - (b) DIP

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38. Write about the steps of image classification. Add a note on image preprocessing.  $3+2=5$
39. Define GIS and name the components of GIS. Write about the software system of GIS.  $1+1+3=5$
40. Explain the following :  $2\frac{1}{2}+2\frac{1}{2}=5$
- (a) Space segment of GIS
  - (b) Product generation in GIS

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