

M.E. Fourth Semester (Civil (Environmental Engineering)) (P.T.)(CBS)
13412 : Elective : Remote Sensing & GIS In Environmental Engineering
4 SCEE 3

P. Pages : 1

Time : Three Hours



AU - 3223

Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Answer **three** question from Section A and **three** question from Section B.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Assume suitable data wherever necessary.

SECTION – A

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| 1. | a) | Write about basic concepts of remote sensing. | 7 |
| | b) | Describe active and passive remote sensing systems. | 7 |
| 2. | | What do you understand by atmospheric scattering? What are atmospheric windows within electromagnetic spectrum? Explain with examples. | 13 |
| 3. | a) | Write the different resolutions of all the sensors of any Indian Remote sensing satellite. | 7 |
| | b) | Differentiate between Histogram and scatter plot with respect to their use. | 6 |
| 4. | | What do you mean by resolution of satellite data? Describe in details various types of resolutions. | 13 |
| 5. | | Why image registration is necessary for digital analysis? Explain in details the various steps and procedure involved in supervised certificate. | 13 |

SECTION – B

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| 6. | | What is GIS? What are various steps involved in GIS analysis? Explain with diagrams. | 13 |
| 7. | a) | Explain the integrated analysis of spatial and attribute data. | 7 |
| | b) | Write a short note on Raster data. | 7 |
| 8. | | "Geoinformatics is a tool for spatial data management aimed at better resource planning" comment on statement giving suitable examples. | 13 |
| 9. | a) | Describe in brief advantages & limitation of GIS. | 7 |
| | b) | Explain the need of transferring raster data to vector data. | 6 |
| 10. | | Explain the methodology adopted, RS data selection and parameters involved in application of RS and GIS in environmental Engineering Investigations. | 13 |
