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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech (Civil Engg EL-III) (2016 Batch) (Sem.-3)

**REMOTE SENSING AND GIS FOR WATER RESOURCES AND
ENVIRONMENTAL ENGINEERING**

Subject Code : MTCE -216

Paper ID : [74765]

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

1. What are the various Methods for obtaining elevation data used to create DEMs? Explain each of them.
2. What is the difference between Airborne and space borne Radars? Briefly explain with diagrams.
3. Explain the concept of color image processing fundamentals. Also describe the converting of colors to different models.
4. Discuss the limiting effect of repeatedly applying a 3×3 low pass spatial filter to a digital image. You may ignore border effects.
5. Let the RGB values of a point be (0.4, 0.6, 0.8). Find the HSV equivalent of RGB. Also verify whether the original point can be obtained by the inverse transform from HSV to RGB.
6. How GIS works on vegetation monitoring and irrigation management. Explain with suitable examples.
7. Is it possible with the help of remote sensing and GIS technology to analyze Pre or Post flood? How? Explain.
8. What do you mean by GPS? What is its Basic Concept and fundamentals? Explain in brief.