

**M.Sc. ENVIRONMENTAL SCIENCE
THIRD SEMESTER
GEOINFORMATICS: FUNDAMENTALS OF GIS & GPS
MEV-304C**

**SET
A**

[USE OMR FOR OBJECTIVE PART]

Duration: 1.30 hrs.

Full Marks: 35

Time: 15 min.

(**Objective**)

Marks: 10

1X10=10

Choose the correct answer from the following:

1. Which semivariogram used in Kriging interpolation?
 - a. Circular
 - b. Linear
 - c. Gaussian
 - d. None of the above
2. IDW is a type of _____ interpolation
 - a. Statistical
 - b. Deterministic
 - c. Geostatistical
 - d. None of above
3. _____ tool creates hydrologically corrected raster surface from vector data
 - a. Trend
 - b. Spline
 - c. Topo to Raster
 - d. Point interpolation
4. Where is the GPS Master Control Station situated?
 - a. Indian Ocean
 - b. Hawaii Island
 - c. Greenland
 - d. Colorado Spring
5. Which of the following is not a source of error in GPS signal?
 - a. Atmospheric error
 - b. Selective error
 - c. Time error
 - d. None of the above
6. GIS maps were first used to control _____ in 1854.
 - a. French Flu
 - b. London cholera epidemic
 - c. Bird flu
 - d. All of the above
7. Why does raster data structure seem to be rather undesirable?
 - a. Lack of proper methods
 - b. Lack of accuracy
 - c. Lack of absolute locational information
 - d. Lack of clarity
8. Vector representations of shapes can be _____
 - a. Average
 - b. Precise
 - c. Good
 - d. Predictable
9. Which among the following is the best model in GIS spatial relationships?
 - a. Spaghetti model
 - b. Topological model
 - c. Relational database model
 - d. Parent-child model

10. DEMs are used often in geographic information systems and are the most common basis for digitally produced:
- a. Relief maps
 - b. Pollution maps
 - c. Population maps
 - d. None of the above

(Descriptive)

Time : 1 hrs. 15 min.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

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|---|------------|
| 1. Define GIS and explain the history and development of GIS. | 1+2+2=5 |
| 2. Explain how spatial data and attribute data integrated to make a GIS. | 5+5=10 |
| 3. Write short note on (any two)
a. NAVSTAR
b. GLONASS
c. IRNSS
d. GALILEO | 5+5 = 10 |
| 4. What is GPS? How does it work? Discuss the segments of GPS? | 2+2+6 = 10 |
| 5. What is spatial interpolation in GIS and why it is done? What are different types of models of interpolation. Discuss any one commonly used method of interpolation. | 4+2+4 = 10 |

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