

Roll No. ....

## **MGIS–07**

### **Advance GIS & RS**

Master of Geographical Information System

(MGIS–11/16)

Second Year, Examination, 2017

**Time : 3 Hours**

**Max. Marks : 60**

**Note :** This paper is of **sixty (60)** marks containing **three (03)** sections A, B and C. Learners are required to attempt the questions contained in these sections according to the detailed instructions given therein.

#### **Section–A**

##### **(Long Answer Type Questions)**

**Note :** Section ‘A’ contains four (04) long answer type questions of fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. What is the advantage of doing orthorectification ? How many control points are required to perform orthorectification of an image using 3rd order polynomial ?
2. What is image enhancement ? Describe the types of image enhancement.
3. What is spatial analysis ? Describe the types of spatial analysis.
4. What is the difference between hyperspectral and multispectral image ?

**Section-B****(Short Answer Type Questions)**

**Note :** Section 'B' contains eight (08) short answer type questions of five (05) marks each. Learners are required to answer *four* (04) questions only.

1. What is the advantage of supervised classification ?
2. What is advantage of microwave remote sensing ?
3. Write a short note on DSM.
4. Write a short note on IRNSS or GPS.
5. Write a short note on NSDI.
6. What is CIDAR ?
7. What is low-pass filter ?
8. For what purpose NDVI method is used ?

**Section-C****(Objective Type Questions)**

**Note :** Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

Choose only one correct option.

1. Sliver polygons are :
  - (a) Gap between polygons
  - (b) Overlapping polygons
  - (c) Both of the above options are correct
  - (d) None of the above
2. Which of the following methods may be used to input paper maps into a GIS ?
  - (a) Scanning
  - (b) Tracing
  - (c) Keyboard entry
  - (d) None of the above

3. Which of the following is not an important component of GIS ?
  - (a) GIS software
  - (b) Spatial data
  - (c) Internet
  - (d) None of the above
  
4. OGC stands for :
  - (a) Open Geospatial Consortium
  - (b) Open Geographical Consortium
  - (c) Offline Geographical Consortium
  - (d) None of the above
  
5. Which of the following is an open source GIS software ?
  - (a) ArcGIS
  - (b) IGIS
  - (c) QGIS
  - (d) None of the above
  
6. Which of the following is microwave satellite ?
  - (a) Cartosat-3
  - (b) Landsat-8
  - (c) RISAT-1
  - (d) Oceansat-2
  
7. LIDAR works in which of the following EMR ranges ?
  - (a) Optical range
  - (b) IR range
  - (c) Radio
  - (d) None of the above

8. Hyperspectral sensor can have .....
- (a) 1 band
  - (b) 2 band
  - (c) 200 bands
  - (d) None of the above
9. In 1 : 100000 scale map, 1 cm on map corresponds to how many kilometers on the ground ?
- (a) 1 km
  - (b) 0.1 km
  - (c) 10 km
  - (d) 100 km
10. Clip operation is :
- (a) Feature extraction operation
  - (b) Feature merging operation
  - (c) Intersection operation
  - (d) None of the above