

MA GEOGRAPHY
Third Semester
GEO-INFORMATICS
(MGE - 13)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer any *five* of the following questions

1. Discuss the concept of remote sensing and its development in recent years. (10)
2. Discuss about different types of sensors used in remote sensing. (10)
3. Discuss the various types of aerial photographs and their application in remote sensing. (10)
4. Discuss the different components and functions of Geographic Information system (GIS). (10)
5. How spatial data can be represented in Geographic Information system (GIS)? Discuss with examples. (10)
6. Discuss the application of GIS and RS in forestry and wildlife studies. (10)
7. Discuss in brief different technologies available for Global Positioning system (GPS). (10)
8. Write short notes: (5×2=10)
 - a. Triangulated Irregular Network (TIN)
 - b. Supervised classification

MA GEOGRAPHY
Third Semester
GEO-INFORMATICS
(MGE - 13)

Duration: 20 minutes

Marks – 20

(PART A - Objective Type)

I. Choose the correct answer:

1×20=20

1. Normal altitude of GPS Satellite is about
 - a. 20,000 km
 - b. 36,000 km
 - c. 16,200 km
 - d. 24,400 km
2. A passive sensor uses
 - a. Flash light as a source of energy
 - b. Sun as a source of energy
 - c. Its own source of energy
3. Distance of geostationary satellite from the earth
 - a. 26,000 km
 - b. 36,000 km
 - c. 32,000 km
 - d. 34,600 km
4. The interaction of electromagnetic radiation produced with a specific wavelength to illuminate a target on the terrain for studying its scattered radiation is called
 - a. Passive remote sensing
 - b. Active remote sensing
 - c. Neutral remote sensing
 - d. None of these
5. Who coined the term “remote sensing”
 - a. Wilbur Wright, an Italian scientist
 - b. Gaspard Felix Tournachon, a French scientist
 - c. Evelyn L. Pruitt, a geographer
 - d. None of these
6. The infra-red portion of EMR lies between
 - a. 0.4 – 0.7 μm
 - b. 0.5 mm to 1m
 - c. 0.7 – 14 μm
 - d. 0.7 – 1.3 μm
7. For interpolation of satellite data use for monitoring dynamic changes that occur on the earth surface, the most suitable orbit for the satellite is
 - a. Earth-synchronous orbit
 - b. Neo – polar orbit
 - c. Earth centric orbit
 - d. Sun synchronous orbit
8. Worldwide geocaching is carried out by
 - a. GIS
 - b. Remote sensing
 - c. GPS
 - d. None of the above

9. GIS data in future will not come from
 a. NASA's EOSDIS b. Landsat 7 c. Private satellite
 d. U.S Federal Govt. e. Landsat 6
10. Typical data input or data capture functional capabilities for GIS do not include
 a. Digitizing b. Scanning c. Mosaicing
 d. Editing e. File compression
11. Which one of the following is a microwave remote sensing satellite?
 a. Landsat 5 b. Radarsat
 c. Resource SAT d. INSAT 1B
12. Which one below is a opensource GIS software?
 a. Arc GIS b. Map Info c. Geomedia d. Q-GIS
13. Which of the following is an input device in GIS?
 a. Scanner b. Printer
 c. Plotter d. Projector
14. Which of the following is an output device in GIS?
 a. Software b. Mouse
 c. Digitizer d. Plotter
15. UTM stands for
 a. Universal Time Meridian
 b. Universal Transverse Mercator
 c. Universal Time Machine
 d. Universal travel management
16. How many satellites are being used for GPS?
 a. 22 b. 24 c. 26 d. 28
17. How many orbits these satellites follow?
 a. 5 b. 6 c. 7 d. 8
18. In a georeferencing process minimum known points necessary are :
 a. 2 b. 3 c. 4 d. 5
19. What is bhuvan?
 a. Indian Earth Observation Visualization Programme
 b. Indian satellite
 c. Indian space shuttle to Mars
 d. Indian forest management programme
20. ISRO stands for
 a. Indian Space Research Organization
 b. Indian Sugar Research Organization
 c. India's Scientific Research programme
 d. India's Space Research Office