



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination – January 2021
V Semester

Class : III UG
Major : Physics

Time : 3 Hours
Max. Marks : 100

18BPHC13 - Geographic Information System

PART A
Choose the Correct Answer

10 x 1 = 10

- _____ are characteristics of the elements that may be perceived and measured.
a. Entities
b. Relationships
c. Spatial concepts
d. Attributes
- The first web based interactive map was developed by
a. Howard Fisher
b. Steve Putz
c. Roger Tomlinson
d. Koshkariov
- The most basic element of an information organization is called a
a. ordinal
b. spatial
c. data store
d. data item
- _____ is a simple method for storing data.
a. Spread sheet
b. Layer
c. Coverage
d. Raster
- _____ is an electronic device consisting of a tablet upon which map can be placed.
a. Scanner
b. Reflexer
c. Digitizer
d. Raster
- A semiconductor device that translates photons of light falling on its surface into counts of electrons is known as
a. charge storage
b. coupled charger
c. coupled charge device
d. charge coupled device
- _____ tolerance is used to ensure accurate map registration on a digitizer.
a. Node Snap
b. Fuzzy
c. Tic Match
d. Arc Snap
- To maintain highly accurate geographic data, the RMS should be kept under _____ inches.
a. 0.008
b. 0.006
c. 0.004
d. 0.002
- The information related to change of an object in time is called as
a. geometric
b. semantic
c. physical
d. temporal
- An example of one line camera is
a. SPORT
b. SPOT
c. LEICA
d. HELICA

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

11. a. What is GIS? Discuss about data and information.
(or)
11. b. List the applications of GIS in various industries and state its uses.
12. a. Discuss about organizing attribute data.
(or)
12. b. Compare flat, hierarchical and relational files.
13. a. Discuss about entering the non spatial associated attributes.
(or)
13. b. Discuss briefly about the pollution level along the river.
14. a. Discuss about data maintenance with an illustration.
(or)
14. b. Explain quality assurance plan and validation process.
15. a. Discuss about Photogrammetric products.
(or)
15. b. Describe the components of aerial cameras with necessary diagram.

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

16. a. Explain the elements of GIS and state its objectives.
(or)
16. b. Discuss the advantages of geographic information system with illustrative examples.
17. a. Explain raster and vector data models. State its advantages and disadvantages.
(or)
17. b. Explain different data structures with illustrative examples.
18. a. Give a brief account on digitizing.
(or)
18. b. Explain how to link spatial and non-spatial data.
19. a. Discuss sources of errors in GIS database.
(or)
19. b. Give an account on data quality parameters.
20. a. Discuss in detail photographic processes.
(or)
20. b. What is meant by aerial photography? Explain in detail the classification of aerial photographs.
