

T.Y.B.Sc.I.T.
Sem VI
Principles of GIS
Sample question set

1. What are the two abstractions of Real Objects in GIS
 - A. Discrete, continuous
 - B. Integer, float
 - C. Char, String
 - D. CLOB, BLOB

2. By spatial data we mean data that has
 - A. Complex values
 - B. Positional values
 - C. Graphic values
 - D. Decimal values

3. Which of the following is an example of Human Geographical phenomena?
 - A. River Overflow
 - B. Volcano eruption
 - C. Plague deforestation
 - D. Construction of Roads

4. Tiling of the plane is a collection of plane figures that fills the plane with no overlaps and no gaps is known as
 - A. Topographic
 - B. Tessellation
 - C. contour
 - D. Boundary

5. In vector data, the basic units of spatial information are
 - A. points, lines(arcs) and polygons
 - B. integer, float, char
 - C. sets, bags and Array
 - D. tuples, tables, structure

6. Spatiotemporal data models are way of organizing representations of ----- in GIS.
 - A. size and time
 - B. space and temperature
 - C. space and time
 - D. continuous field

7. ____ is a computerized system that facilitates the phases of data entry, data management, data analysis and data presentation specifically for dealing with georeferenced data.
 - A. Geo-Information Science
 - B. geology science
 - C. geographic information system
 - D. Life Science

8. The discipline that deals with all aspects of the handling of spatial data and Geo Information is called ____
- A. geographic life Science
 - B. geographic information science
 - C. geographic information system
 - D. geographic information processing
9. The technique which refers to the spatial data which is geo-referenced is called as ____
- A. geo-referenced data
 - B. geo-spatial data
 - C. geo-attribute data
 - D. meta data
10. ____ is a specific type of information resulting from the interpretation of spatial data.
- A. geo-referenced data
 - B. geospatial
 - C. Geo information
 - D. numeric data
11. A ____ is a miniature representation of some part of the real world.
- A. model
 - B. data
 - C. Attribute
 - D. map
12. ____ is the science and art of map making, functions as an interpreter, translating real world phenomena (primary data) into correct, clear and understandable representations for our use.
- A. Cartography
 - B. photography
 - C. Data Analyst
 - D. biologist
13. A _____ is a repository for storing large amounts of data
- A. structure
 - B. database
 - C. data
 - D. information
14. Air temperature is example of
- A. spatial
 - B. Continuous Field
 - C. geodatabase
 - D. Discrete Field
15. Population is an example of
- A. geodatabase
 - B. Discrete Field
 - C. Continuous Field
 - D. spatial

16. Nominal and categorical data values are Data.
- A. Quantitative
 - B. Qualitative
 - C. Distributive
 - D. Substitutive
17. Roads, river are represented by feature
- A. simplex
 - B. Point
 - C. Polygon
 - D. Line
18.deals with spatial properties that do not change under certain transforation.
- A. Analogy
 - B. Hydrology
 - C. Biology
 - D. Topology
19. can be defined as the ratio between the distance on a paper map and the distance of the same stretch in the terrain.
- A. Left Scale
 - B. Real Scale
 - C. Right Scale
 - D. Map scale
20. _____ refers to the shape of the surface.
- A. Application Map
 - B. Thematic Map
 - C. Calligraphy
 - D. Topography Map
21. Which one of the following is not capability of GIS?
- A. Data capture
 - B. Data management
 - C. Data presentation
 - D. Sharing files in the network
22. While presenting data ____ is not important.
- A. Audience
 - B. Programming Language
 - C. Message
 - D. Rule of aesthetics
23. Various geographic objects can have same _____.
- A. location
 - B. shape
 - C. size
 - D. orientation

24. Collection and maintenance of base data remain the responsibility of government agencies such as _____.
- A. National Mapping Agencies
 - B. Central Bureau of Investigation
 - C. Reserve Bank of India
 - D. Nuclear Fuel Complex
25. Quality can often defined as _____.
- A. accuracy
 - B. fitness for use
 - C. completeness
 - D. precision
26. GIS tools are unable to help us making decision such as _____
- A. finding area with high risk of flood
 - B. finding most likely sites for mosquito habitat
 - C. finding best bank for loan
 - D. finding area with variety of vegetation
27. Which one of the following is not a function of database?
- A. Creating a graph
 - B. Concurrent use
 - C. Data integrity
 - D. Query optimization
28. Successful spatial analysis requires appropriate _____.
- A. software, hardware and internet
 - B. software, hardware, and competent user
 - C. software and internet connection
 - D. only competent user
29. Which Protocol allows digital communication of text, audio & video
- A. GIS
 - B. HSDPA
 - C. UMTS
 - D. SDI
30. What can be expressed as an example of hardware component
- A. Keyboard
 - B. Arc GIS
 - C. Auto CAD
 - D. Digitalization
31. Which data structure represents Vector
- A. Simple
 - B. Spatial
 - C. Complex
 - D. Non-Spatial
32. Which data for image processing works with pixels
- A. Raster
 - B. Vector
 - C. Simple
 - D. Complex

33. Which data allow Representing network
- A. Simple
 - B. Complex
 - C. Vector
 - D. Raster
34. What is NOT the Stage of Spatial data handling
- A. Spatial query & analysis
 - B. Spatial Data Infrastructure
 - C. Spatial Data Presentation
 - D. Spatial data storage & maintenance
35. The phenomenon that can lead to situation in which stored fact can contradict each other causing reduced usefulness of the data means.
- A. Data replication
 - B. Data management
 - C. Data redundancy
 - D. Data reduction
36. ISO(International Organization for Standardisation) and OGS(Open Geospatial Consortium) are _____
- A. Attribute
 - B. Standards
 - C. Objects
 - D. Fields
37. A tuple can refer to another tuple by storing that other tuple key value this attribute is called as.
- A. foreign key
 - B. primary key
 - C. unique key
 - D. candidate key
38. A _____ is a computer program that extracts data from the database.
- A. query
 - B. data model
 - C. Data Table
 - D. Data Structure
39. Which is not belong to spatial data presentation methods:
- A. Hard copy
 - B. Output of digital data sets.
 - C. Soft copy
 - D. Digitizing
40. Which of the following is not true about DBMS
- A. A DBMS provides a high-level, 'declaration query language'
 - B. A DBMS does not supports the use of a 'data model'
 - C. A DBMS includes 'data backup' and 'recovery' functions to ensure data availability at all times
 - D. A DBMS allows the control of 'data redundancy'

41. Data integrity constraints are used to _____.
- A. Control who is allowed access to the data
 - B. Prevent users from changing the values stored in the table
 - C. Ensure that duplicate records are not entered into the table
 - D. Improve the quality of data entered for a specific property
42. Cartography mainly deals with which of the functionality of GIS?
- A. Spatial data capture and preparation
 - B. Spatial data analysis
 - C. Spatial data storage and maintenance
 - D. Spatial data presentation
43. In non-spatial domain, database have been in use since _____.
- A. 1970's
 - B. 1989's
 - C. 1960's
 - D. 1950's
44. Raster approach subdivides space into regular cells. These cells are called _____ in 2D and _____ in 3D.
- A. pixels, voxels
 - B. voxels, pixels
 - C. 2D Cartesian coordinate, 3D Cartesian coordinate
 - D. 2D Geographic coordinate, 3D geographic coordinate
45. .During the _____, object-oriented and object relational data models were developed to represent and manage spatial data
- A. 1990's
 - B. 1980's
 - C. 1970's
 - D. 1960's
46. Which one of the following is advantages of raster representation in GIS?
- A. efficient representation for topology
 - B. adapts well to scale changes
 - C. efficient for image processing
 - D. allows representing networks
47. Which of the following is not full fledged GIS packages?
- A. ILSIS
 - B. ArcGIS
 - C. QGIS
 - D. AutoCAD
48. A row in a table is also known as _____.
- A. attribute
 - B. tuple
 - C. relation
 - D. domain

49. The direction of gravity is known as _____
- A. Pump-line
 - B. Lumb-line
 - C. Glumb-line
 - D. Plumb-line
50. Due to irregularities in distribution the global ocean results in undulated surface, which is called as _____
- A. Ellipsoid
 - B. Geoid
 - C. Geoid Separation
 - D. GIOD Line
51. Geoid is used to describe _____
- A. Height
 - B. Width
 - C. Range
 - D. weight
52. The height of a point in Mumbai with respect to tide gauge is measured using technique known as _____
- A. Graph Levelling
 - B. Geodetic levelling
 - C. Ellipsodetic levelling
 - D. Geo levelling point
53. The local datum is implemented through a _____
- A. Labelling network
 - B. Levelling Network
 - C. Labelling Connection
 - D. Levelling connection
54. An ellipsoid is formed when an ellipse is rotated about its _____
- A. Major axis
 - B. Semi-major axis
 - C. Minor axis
 - D. flattening
55. Lines of equal latitude are called as _____
- A. Parallels
 - B. Perpendiculars
 - C. Meridians
 - D. deviations
56. Satellite to user range can be calculated by using which of the following methods?
- A. Relative positioning
 - B. Absolute positioning
 - C. Carrier wave
 - D. Pseudo ranging
57. Spatial data infrastructure makes data available through _____
- A. Spatial data clearinghouse
 - B. Space data temporal
 - C. Spatial data clear home
 - D. spatial data agent

58. Measurement errors are generally described in terms of _____

- A. Position
- B. Space
- C. Accuracy
- D. Time

59. Numerical data deals with _____ accuracy

- A. Numerical
- B. Labelling
- C. Logical
- D. spatial

60. What is reclassification?

- A. An analytical technique based on point data.
- B. The process of simplifying data in a data layer.
- C. The process of combining one or more data ranges into a new data range to create a new data layer.
- D. The process of combining two or more data layers.

61. What is point-in polygon overlay?

- A. A method interpolating point data.
- B. An overlay method used to determine which points lie within the boundary of a polygon.
- C. An overlay method used to reclassify polygon data.
- D. An overlay method used to determine the distance between a point and its nearest neighbouring polygon

62. Which of the following overlay methods would you use to calculate the length of road within a forest polygon?

- A. Union
- B. Point-In-Polygon
- C. Erase
- D. Line-in-Polygon

63. What is the difference between slope and aspect?

- A. Slope is the gradient directly down the fall line, while aspect is the direction of the fall line relative to north.
- B. Slope is the gradient of the fall line relative to vertical, while aspect is the direction of the fall line relative to the line of greatest slope.
- C. Slope is the distance down the fall line from the top of the slope to its bottom, while aspect is the percentage gradient of this line averaged over its full distance.
- D. Slope is the direction of the fall line, while aspect is the gradient of the fall line.

64. _____ is a set of objects with similar attributes.

- A. BLOB
- B. Class
- C. Aggregation
- D. Association

65. _____ Convert street addresses or street interpolation into point feature.

- A. Geocoding
- B. Path Distance
- C. Networking
- D. Coding

66. The conversion of raster data into vector data is called_____.
- A. Rasterization
 - B. Vectorization
 - C. Spatial system
 - D. Geospatial
67. A raster that contains cells of continuous values is called_____.
- A. Floating point Raster
 - B. Geo reference Raster
 - C. Contiguous Raster
 - D. Poly Raster
68. When was the first GPS satellite launched?
- A. 1978
 - B. 1994
 - C. 1776
 - D.1963
69. A better option for representing continuous phenomenon is the_____
- A. Raster Data Model
 - B. Vector Data Model
 - C. Binary Data Model
 - D. Digital Data Model
70. The raster data model uses a _____to cover the space.
- A. Regular grid
 - B. Irregular grid
 - C.one directional grid
 - D. Bi directional grid
71. Satellite image use the _____ encoding method for data storage.
- A. Cell by cell
 - B. Run length encoding
 - C. Quad tree
 - D. Spatial System
- 72.What is GLONASS?
- A. Missile Defence System
 - B. Europe's GPS system span
 - C. China's GPS System
 - D. Russian's GPS System
- 73.Topological characteristics of spatial data do not include:
- A. Adjacency
 - B. Inclusion
 - C. Connectivity
 - D. Elevation
74. _____ functions allow the selective search of data
- A. Classification
 - B. Retrieval
 - C. Generalization
 - D. Estimation

75. _____ is a function that joins different classes of objects with common characteristics to a higher level generalized class
- A. Classification
 - B. Retrieval
 - C. Generalization
 - D. Estimation
76. _____ functions allow the calculation of distances, lengths, or areas
- A. Classification
 - B. Retrieval
 - C. Generalization
 - D. Measurement
77. _____ function allows the combination of two (or more) spatial data layers comparing them position by position, and treating areas of overlap and of non-overlap in distinct ways
- A. Classification
 - B. Retrieval
 - C. Generalization
 - D. Overlay
78. Which function evaluates the characteristics of an area surrounding feature's location?
- A. Neighbourhood
 - B. Overlay
 - C. Classification
 - D. Retrieval
79. Which neighbourhood function determines a spatial envelope (buffer) around given feature?
- A. Buffer zone generation
 - B. Overlay
 - C. Classification
 - D. Retrieval
80. _____ is a technique of purposefully removing detail from an input data set to reveal important patterns of spatial distribution
- A. Classification
 - B. Regression
 - C. Retrieval
 - D. derivation
81. In _____ classification user only specifies the number of classes in the output data set and system automatically determines the class break points
- A. User controlled
 - B. Automatic
 - C. Static
 - D. dynamic
82. In _____ classification, a user selects the attributes that will be used as the classification parameters and defines the classification method
- A. Automatic
 - B. Equal interval
 - C. User-controlled
 - D. Equal frequency

83. Polygon clipping and polygon overwrite are _____ operations
- Raster overlay
 - Raster intersection
 - Polygon division
 - Polygon overlay
84. Determination of contour lines comes under which type of function?
- Classification
 - Overlay
 - Neighbourhood
 - Connectivity
85. Which function allow the retrieval of features that fall within a given search window?
- Classification
 - Overlay
 - Search
 - Buffer zone generation
86. What are the primitives of vector data set?
- Point
 - Polyline
 - Polygon
 - All of them
87. The interactively defined selection objects like points, lines, or polygons are used in which type of query?
- Interactive spatial selection
 - Spatial selection by attribute
 - Combined attribute condition
 - Spatial selection using topological selection
88. Should be indicated at the bottom of the map
- Details
 - Scale
 - States
 - Countries
89. The cadastral maps, topographical maps and the city plans come under the category of
- Large scale maps
 - Small scale maps
 - Medium scale maps
 - Minor Scale maps
90. The scale of topographical maps varies in general from
- 3 inch to the mile to 3/4 inch to the mile
 - 2 inch to the mile to 2/4 inch to the mile
 - 1 inch to the mile to 1/4 inch to the mile
 - 16 inch to the mile to 32 inch to the mile

91. When different objects are shown by various colours, the map is known as
- A. Choro-schematic
 - B. Chorochromatic
 - C. Chorographic
 - D. Choropleth
92. Which of the following map not comes under the category of physical map?
- A. Mineral map
 - B. Astronomical map
 - C. Soil map
 - D. Vegetation map
93. The distribution of the elements of natural environment is denoted by
- A. Geographical map
 - B. Physical map
 - C. Topographical map
 - D. Hypsometric map
94. In which of the following sciences maps occupy the most important place?
- A. Oceanography
 - B. Pedology
 - C. Climatology
 - D. Military science
95. Which of the following is qualitative data?
- A. Bank full capacity measurements
 - B. A description of flood damage
 - C. Infiltration rates
 - D. % of different land uses
96. Partitioning of space into mutually exclusive cells is known as
- A. Tessellation
 - B. Tracking
 - C. Thematic Study
 - D. Tier I Study
97. Conversion of maps from one scale to another may lead to problems of _____
- A. Visualization
 - B. Cartographic generalization
 - C. Map characteristics
 - D. Map presentation
98. Map based scientific visualization refers to
- A. Sci Visualization
 - B. Map Visualization
 - C. Geo visualization
 - D. Point visualization

99. In the sentence, "How do I say ? What ? To whom? ", 'How' and 'I' refers to
- A. Demographic information methods and demographer respectively
 - B. Geological methods and geologist respectively
 - C. Geographic methods and geologist respectively
 - D. Cartographic methods and Cartographer respectively

100. Animated GIF can be seen as a
- A. draw only version of dynamic map
 - B. view only version of dynamic map
 - C. draw only version of static map
 - D. view only version of static map