

KATHMANDU UNIVERSITY
End Semester Examination
February/March, 2018

Marks Scored:

Level : B. E.
Year : IV

Course : GEOM 405
Semester : I

Exam Roll No.:

Time: 30 mins.

F. M. : 10

Registration No.:

Date

MAR 07 2018

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Choose the most appropriate answer among the given choices.

1. WMS images are transmitted via _____.
a. GML format
b. ASCII format
c. Binary format
d. html, .css, .js format
2. The full form of URL is _____.
a. United Resource Locator
b. Uniform Resource Locator
c. Uniform Resource Linking
d. Union Resource Locator
3. In Client/Server approach, _____.
a. servers are requesting information
b. clients are responding to each request
c. clients are requesting information and servers are responding to each request
d. servers are requesting service and clients are responding
4. In Thin client, _____.
a. processing is done on the client side
b. most of the processing is done on the server side
c. visualization is done on the server side
d. high end client machines are required
5. GML is a _____.
a. Database language
b. Geographic data exchange language
c. Object oriented data language
d. Structured data sharing and exchange language for geographic data
6. WCS delivers _____.
a. XML
b. GML
c. Map Image
d. SQL
7. General scripting language used in web pages is _____.
a. Python
b. JSON
c. JavaScript
d. CSS
8. Coordinate system used in web mapping is _____.
a. Spherical coordinate system
b. Geographic coordinate system
c. Cartesian coordinate system
d. Mercator projection system
9. Responsive application means _____.
a. web based application
b. mobile based application
c. device independent application
d. device dependent application

10. Main work of GeoServer is to _____.
 - a. publish maps
 - b. connect with spatial database
 - c. connect with spatial database, produce maps and publish it
 - d. render maps
11. Spatial databases are also known as _____.
 - a. Monodatabases
 - b. Relational databases
 - c. Concurrent databases
 - d. Geodatabases
12. Mashup is a technique by which a web app _____.
 - a. uses data, presentation or functionality
 - b. mixes and refines data
 - c. uses resources from two or more resources to create a web service
 - d. creates a new web service
13. OpenLayers is a _____.
 - a. JavaScript library
 - b. mapping library
 - c. JavaScript library for displaying map data in web
 - d. JavaScript library for map rendering
14. Which of the following is not OGC standard service?
 - a. WMS
 - b. WFS
 - c. WCS
 - d. WDS
15. Which of the following is not XML based?
 - a. GML
 - b. KML
 - c. GeoJSON
 - d. KMZ
16. Which of the following is not true?
 - a. GetFeature is one of the WFS interface operation and returns rendered map image
 - b. WMS interface has GetCapabilities, GetMap and GetFeatureInfo Operation
 - c. GetFeatureInfo returns information on published map feature
 - d. GetCapabilities returns about capabilities document with layer information
17. SLD is defined as _____.
 - a. Style Line Descriptor
 - b. Style Line Definition
 - c. Style Layer Descriptor for rendering maps
 - d. Rendering for Web Map Services
18. Interoperable systems provides a mechanism _____.
 - a. to access functions seamlessly
 - b. to transfer data and access functions seamlessly
 - c. to transfer data seamlessly
 - d. for compatibility
19. Which of the following is not a Web Service ?
 - a. WMS
 - b. SOA based API
 - c. PHP
 - d. WebAPI
20. Web cache (or HTTP cache) is _____.
 - a. fishing IT via web
 - b. IT for temporary storage
 - c. IT for permanent storage
 - d. both temporary and permanent storage

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Level : B. E.
Year : IV
Time : 2 hrs. 30 mins.

Course : GEOM 405
Semester : I
F. M. : 40

SECTION "B"
[6 Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. What is WebGIS? Discuss briefly the impact of the Internet on GIS. [1+3]
2. What is client/server approach? Differentiate between thin and fat client server architecture. [1+3]
3. Why interoperability is considered as an important system in web mapping? [4]
4. Briefly explain the following terms with their usage. [4]
 - a. OGC service specifications
 - b. WMS and WFS
5. What are the main essential servers that are needed for developing web application? Explain their roles with examples. [1+3]
6. "Data refinement process is an initial and very important step for building geospatial database for web mapping". Elaborate this statement. [4]
7. How do you symbolise feature, raster and text while publishing web map services? Illustrate with examples. [4]

SECTION "C"
[2 Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. Differentiate between data and web services with promising examples?
9. How can you use WebGIS technologies to map resources for local bodies (urban/rural municipalities) in new federal structure of Nepal?
10. What is Geospatial Portal? Discuss its components and functions.

