

KATHMANDU UNIVERSITY
End Semester Examination
August/September, 2017

Mark Scored:

Level : B. E.

Year : III

Exam Roll No. :

Time: 30 min

Course : GEOM 313

Semester : II

F. M. : 10

Registration No.:

Date :

SEP 06 2017

SECTION "A"

[20 Q × 0.5 = 10 marks]

Tick the correct answer from the given choices.

1. Which technique is most efficient to print 2000 color maps of high quality?
a. Ink-jet printer b. Photocopying c. Offset printer d. Laser printer
2. Raster Image Processor
a. Produces digital map file
b. Converts digital map file into page description data
c. Processes raster image and prints the map
d. Interprets page description data and produces raster image
3. Six color approach for printing commonly uses the:
a. Spot color b. Process color
c. High fidelity process color d. Continuous tone color
4. High fidelity process colors are based on traditional process colors (CMYK) with two additional colors. Those additional colors are:
a. Orange and brown b. Orange and purple
c. Green and brown d. Green and orange
5. Usually offset presses are capable to print on one side of the print medium at a time. Some are capable of printing on both sides simultaneously. They are :
a. Perfectors b. Sheet-fed c. Web-fed d. Direct-to-press
6. The cylinder that receives an image from a printing plate and transfers it to print medium (paper) is:
a. Blanket cylinder b. Plate cylinder c. Printing cylinder d. Impression cylinder
7. During this proofing method, the press is inked and calibrated and sample prints are made:
a. Press check proof b. Laminate proof c. Overlay proof d. On-screen display
8. The OGC standard web service used to disseminate grid data through web:
a. Web Coverage Service b. Web Feature Service
c. Web Map Service d. Web Catalog Service
9. Which of the following web map category best fits the route finding option?
a. Personalized web maps b. Analytic web maps
c. Interactive web maps d. Animated web maps
10. Which of the following is not a map server?
a. ArcGIS server b. University of Minnesota 'mapserver'
c. Apache server d. World wind WMS server

11. Which of the following is an example of temporal animation?
 - a. A blinking dot in a map showing road accidents
 - b. Map of boundary change in Europe since the World War II
 - c. A simulated flight through the landscape
 - d. A display of Choropleth maps with different classification methods used
12. According to Blok (2005) which of the following is a derived dynamic variable:
 - a. Order
 - b. Frequency
 - c. Synchronization
 - d. Moment of display
13. In order to show the formation of a river delta, which element of multimedia cartography would be best?
 - a. Sound
 - b. Text
 - c. Images
 - d. Animation
14. Data sets can be combined to create new data sets. Computations are possible. These statements are TRUE for:
 - a. Analytical electronic atlas
 - b. Paper atlas
 - c. View only electronic atlas
 - d. Interactive atlas
15. Select the incorrect statement about electronic atlas:
 - a. Digital equivalents of paper atlas
 - b. Users can manipulate datasets contained
 - c. May or may not be interactive
 - d. All electronic atlas are an AIS
16. The role of maps in geovisualization process is to:
 - a. To stimulate (visual) thinking about geospatial patterns, relationships & trends
 - b. To increase insight about the geographical problems
 - c. To represent geographical features
 - d. To create visual representation of geographical phenomenon
17. In exploratory cartography, a strategy is to look at the data from different perspectives. This requires different alternative views on the data. Why would one create those alternative views?
 - a. They are helpful in creating map animation
 - b. They potentially reveal patterns that otherwise remain hidden
 - c. They reveal errors present in the map
 - d. They will help users to analyze the geospatial phenomenon
18. The present trend of map use research has the following characteristics, except:
 - a. Testing effectiveness of existing map displays
 - b. Greater emphasis on cognitive research
 - c. User centered design process
 - d. Deals with usability of the information system
19. _____ is a research technique to test usability of cartographic products that is not just helpful to know what users are doing but also why they are doing
 - a. Focus group discussion
 - b. Thinking aloud
 - c. Video recording
 - d. Eye tracking
20. Usability refers to achieving users' goals with:
 - a. effectiveness, efficiency and satisfaction
 - b. free and open source software and data
 - c. maximum resource expenditure
 - d. inaccuracy and incompleteness

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F. M. : 40

SECTION "B"

(Short answer question)

[6 Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. Why are digital dissemination of maps more preferred nowadays than paper format? What are the advantages of maps disseminated over web compared to maps distributed using CD/DVD? [2+2]
2. Explain the UCD approach used for map use research. Briefly describe the think aloud technique used in map use research. [2+2]
3. Define High Fidelity Process Color. Why is black added as an extra process color while color printing even when mixture of CMY gives black? [3+1]
4. Explain dynamic visualization variables. How can frequency act as a dynamic visual variable in any non-temporal animation of geo-data? [3+1]
5. What is mobile cartography? Explain the conceptual framework of mobile cartography. [2+2]
6. Describe the types of electronic atlas. [4]
7. Write short notes on: [2+2]
 - a. Visual information seeking mantra
 - b. Multimedia maps

SECTION "C"

(Long answer question)

[2 Q × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. Differentiate between map reproduction and map dissemination. Explain the steps used in high volume print reproductions from prepress phase to printing with particular emphasis on offset lithographic printing process. [1+7]
9. Highlight the importance of interoperability for web maps. Consider the following two cases: [2+6]
 - a. For a Travel & Tours Company, you are assigned to design web maps for their tour packages. Assuming any given area, for eg: Dhulikhel to Namobuddha hike route, explain which web maps will you use and why? *Note: you are free to choose any tourist route.*
 - b. As a cartographer working in Nepal Airlines, your task is to show the flight traffic (number of flights per day) over Asia in their website using web maps. Which web maps will you choose and why?
10. Why is geovisual exploration necessary for any geospatial project? Define geovisual analytics with an example. Geovisualization is based on principle: *Detect the expected and discover the unexpected.* Using the Minard's map of Napoleon's Moscow Campaign, explain this statement. [1+3+4]

