

KATHMANDU UNIVERSITY
End Semester Examination
August/September, 2017

Marks scored:

Level : B.E.
Year : II

Course : GEOM 206
Semester: II

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date

SEP 13 2017

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Choose the most appropriate answer among the given choices.

1. Which of the following is virtual type 1 map
 - a. Map in the computer monitor which is visible but not tangible.
 - b. Maps in the secondary storage devices which is tangible but not visible.
 - c. Maps neither visible nor tangible.
 - d. Maps both tangible and visible.

2. If a map at 1:10000 is to be reduced to 1: 25000, the reduction percentage is
 - a. 20%
 - b. 40%
 - c. 30%
 - d. 50%

3. In cartographic terms, what is neat line?
 - a. The line enclosing the body of the map
 - b. The line enclosing the marginal information on the map
 - c. The line joining the grid value on the map
 - d. The line joining the graticule values on the map

4. The cartographic method 'Generalization' is applied using which of the following cartographic tool?
 - a. Function
 - b. Rule
 - c. Convention
 - d. Habits

5. Which of the following statement is **incorrect**?
 - a. Nominal data differ in type and cannot be ranked
 - b. Ordinal data can be ranked but have only one relative value
 - c. Quantitative information with arbitrary zero is ratio data
 - d. Temperature is an example of interval measure

6. Nominal information should be represented by the visual variables with which of the following perception properties?
 - a. Associative
 - b. Ordered
 - c. Quantitative
 - d. Selective

7. In thematic mapping, the nominal scaling is the subdivision of data based on:
 - a. Qualitative considerations
 - b. Quantitative considerations
 - c. Descriptive considerations
 - d. Mathematical considerations

8. Which of the following is the most dimensionally stable material?
 - a. Drafting film
 - b. Drawing Paper
 - c. Plastic sheet
 - d. Mounted paper

9. Which of the following map sheet lies in the right side of the sheet 157-0017-4
 - a. 157-0017-3
 - b. 157-0018-3
 - c. 158-0017-3
 - d. 158-0018-3

10. What is the false easting of Southern Hemisphere in UTM projection system?
 - a. 500 Km
 - b. 10,00 Km
 - c. 1500 Km
 - d. 2000 Km

11. The Lower left corner value of the sheet 2785-13C is
 - a. $27^{\circ}\text{N}, 85^{\circ}\text{E}$
 - b. $27^{\circ} 07' 30''\text{N}, 85^{\circ} 07' 30''\text{E}$
 - c. $27^{\circ}\text{N}, 85^{\circ}07'30''\text{E}$
 - d. $27^{\circ} 07' 30''\text{N}, 85^{\circ}\text{E}$

12. Remote Sensing Imagery is the best example of
 - a. Chorocromatic map
 - b. Choropleth maps
 - c. Isoline maps
 - d. Isopleth maps

13. Topographic base map series of Nepal are produced from
 - a. Field Survey using Total Station
 - b. Plane Table survey
 - c. Photogrammetric Compilation
 - d. Chain Survey

14. Which of the following statement is **incorrect**?
 - a. In UTM projection system, there is no distortion at 1 degree 49 minutes east or west of central meridian
 - b. In MUTM projection system, there is no distortion at 55 minutes east or west of central meridian
 - c. In UTM system, Scale factor remains constant through the zone.
 - d. In UTM system, Scale factor varies throughout the zone.

15. If map is revised in certain interval of time only, it is known as
 - a. Periodic map revision
 - b. Continuous map revision
 - c. Periodic or cyclic map revision
 - d. Cyclic Map Revision

Fill in the blanks with appropriate answer.

16. Scale distortions can be measured and shown on a map by ellipses of distortion, called _____

17. In MUTM projection system, the value of distortion at central meridian is _____

18. Country with large in size and having rectangular in shape should choose _____ as an ideal projection system.

19. Geometry and Location of the objects are affected in _____ generalization.

20. The role of updating topographical base map of Nepal is carried out by _____.

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SECTION "B"

[6Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. What is cartography? Describe its importance in dissemination of spatial and non-spatial information with suitable examples. [1+3]
2. Discuss the role of visual variables in perception of geographic data. Briefly explain different types of perception properties. [2+2]
3. Define relief. If you are given a task of making topographical map of KU area, Discuss different ways to represent relief. Which is the most accurate? [1+2+1]
4. Define continuous and discrete fields and write two differences between them. [2+2]
5. Which type of thematic map is best to show actual spatial distribution? Write advantages and disadvantages of such type of map. [1+3]
6. Write short notes on: [2+2]
 - a. Dynamic visual variables
 - b. Interactive maps
7. What is the importance of generalization in map compilation? Differentiate between graphic and conceptual generalization. [2+2]
8. What is map revision? Write the advantages and disadvantages of using satellite imageries in revising topographical maps. [1+3]

SECTION "C"

[2Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

9. Describe in detail the sheet numbering system for large scale maps being used in Nepal. The topographic map of LMTC premises at 1:500 scale contains the fourth order control point whose coordinates according to Survey Department of Nepal is E= 356363 m N = 3056512 m. Find the sheet number of the aforementioned topographic map sheet. [4+4]
10. Topographical branch of Survey department of Nepal is responsible for the preparation and revision of Topographic base map of Nepal. Discuss the progress made by this branch till date. Which method is being followed for updating existing topographical maps? Suggest ideas so that up to date topographical maps can be produced. [4+1+3]
11. Which projection system has been followed in Nepal? Write its characteristics. Do you think the projection system is suitable for Nepal? If your answer is yes, give reasons and if your answer is no, suggest the suitable projection system with reasons. [1+3+4]

