

Seat No.

Post Graduate Diploma in Digital Cartography (ANNUAL/CR)

Annual Examination: March/April-2023

Geography (Compulsory) Paper-II

DCT2: Quantitative Techniques in Cartography

Day and Date: Monday, 22/05/2023

Total Marks: 60

Time: 3.30 PM To 5.30 PM

Instructions:

1. All Questions are Compulsory.
2. All Questions carry equal marks.
3. Figures to the right indicate full marks

Q.1. Choose the Correct alternatives from the following.

15

- 1 Number of trees and height of the trees are example ofrespectively.
A) Continuous data and Discrete data
B) Discrete data and Continuous data
C) Discrete data and Qualitative Data
D) Qualitative Data and Continuous data
- 2 Why ogive curves named resembles 'ogive curve'?
A) It has a shape like curves
B) It draws on graph paper
C) Curves draw on the basis of cumulative frequencies
D) As it resembles 'S' shaped ogee curve
- 3 Scatter diagram is one the method to study a
A) Correlation B) Standard Deviation C) Mean D) Quartile
- 4 DTM stands for
A) Digital Transverse Model B) Digital Terrain Model C) Digital Travel Model D) Data Traffic Model
- 5 Choropleth map is an example of
A) Qualitative map B) Pictorial map C) Quantitative map D) Flow line map
- 6 Dot map is an example of
A) Qualitative map B) Pictorial map C) Quantitative map D) Flow line map
- 7 T-test is not used for:
A) The significance of mean of small sample
B) The significance of different means for two small independent sample
C) The significance of correlation coefficient in small samples
D) Testing the goodness of fit.

- 8 Number of streams and length of the streams are example ofrespectively.
- Continuous data and Discrete data
 - Discrete data and Continuous data
 - Discrete data and Qualitative Data
 - Qualitative Data and Continuous data
- 9 Which of the followings is not Operating System Software?
- Windows-10
 - Fedora
 - Mac OS
 - Adobe Photoshop
- 10 Number of Pebbles and size of the Pebbles are example ofrespectively.
- Continuous data and Discrete data
 - Discrete data and Continuous data
 - Discrete data and Qualitative Data
 - Qualitative Data and Continuous data
- 11 Full form of PCA.
- Principal Component Analysis
 - Principle Component Analysis
 - Principal Composite Analysis
 - Principle Composite Array
- 12 Color and age of the horse are examples ofrespectively.
- Continuous data and Discrete data
 - Discrete data and Quantitative data
 - Discrete data and Qualitative Data
 - Qualitative Data and Quantitative data
- 13 Any Scalar matrix whose diagonal elements are unity is known as.....Matrix.
- Row
 - Square
 - Column
 - Identity
- 14 A matrix is called a matrix in which all other elements except the diagonal element are zero.
- Row
 - Square
 - Diagonal
 - Identity
- 15 An matrix is a square matrix where all the elements that are present below the diagonal elements are zero.
- Row
 - Square
 - Diagonal
 - Upper triangular

Q.2. Write short Notes (Three out of Four) .

15

- Digital Elevation Model (DEM)
- Central Tendency
- Network Analysis
- Isopleths

Q.3. Write short Answers (Three out of Four) .

15

- Measures of Central Tendency
- What is Difference between Discrete Data and Continuous Data?
- Difference between Rectangular and Square Matrix.
- What are the types of Quantitative Maps?

Q.4.. Answer the following question on broad. (One out of two).

15

- What is Matrix Addition? Explain the Properties of Matrix Addition with examples.

2 What is Vector data? Explain various types of Vector data in detail.

Q.1. Choose the Correct alternatives from the following.

15

1 Number of trees and height of the trees are example ofrespectively.

- A) Continuous data and Discrete data
- B) Discrete data and Continuous data
- C) Discrete data and Qualitative Data
- D) Qualitative Data and Continuous data

Option 2

2 Why ogive curves named resembles 'ogive curve'?

- A) It has a shape like curves
- B) It draws on graph paper
- C) Curves draw on the basis of cumulative frequencies
- D) As it resembles 'S' shaped ogee curve

Option 4

3 Scatter diagram is one the method to study a

- A) Correlation B) Standard Deviation C) Mean D) Quartile

Option 1

4 DTM stands for

- A) Digital Transverse Model B) Digital Terrain Model C) Digital Travel Model D) Data Traffic Model

Option 2

5 Choropleth map is an example of

- A) Qualitative map B) Pictorial map C) Quantitative map D) Flow line map

Option 3

6 Dot map is an example of

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Option 3

7 T-test is not used for:

- A) The significance of mean of small sample
- B) The significance of different means for two small independent sample
- C) The significance of correlation coefficient in small samples
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Option 4

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Option 2

9 Which of the followings is not Operating System Software?

- A) Windows-10 B) Fedora C) Mac OS D) Adobe Photoshop

- Option 4
10 Number of Pebbles and size of the Pebbles are example ofrespectively.
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- Option 2
11 Full form of PCA.
A) Principal Component Analysis
B) Principle Component Analysis
C) Principal Composite Analysis
D) Principle Composite Array

- Option 1
12 Color and age of the horse are examples ofrespectively.
A) Continuous data and Discrete data
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- Option 4
13 Any Scalar matrix whose diagonal elements are unity is known as.....Matrix.
A) Row B) Square C) Column D) Identity

- Option 4
14 A matrix is called a matrix in which all other elements except the diagonal element are zero.
A) Row B) Square C) Diagonal D) Identity

- Option 3
15 An matrix is a square matrix where all the elements that are present below the diagonal elements are zero.
A) Row B) Square C) Diagonal D) Upper triangular

Option 4

Q.2. Write short Note (Three out of Four)

15

- 1 Digital Elevation Model (DEM)

Ans:

- 2 Central Tendency

Ans:

- 3 Network Analysis

Ans:

- 4 Isopleths

Ans:

Q.3. Write short Answers (Three out of Four).

15

- 1 Measures of Central Tendency

Ans:

- 2 What is Difference between Discrete Data and Continuous Data?

Ans:

- 3 Difference between Rectangular and Square Matrix.

Ans:

- 4 What are the types of Quantitative Maps?

Ans:

Q.4. Answer the following question on broad. (One out of two).

15

- 1 What is Matrix Addition? Explain the Properties of Matrix Addition with examples.

Ans:

- 2 What is Vector data? Explain various types of Vector data in detail.

Ans:
