

Seat No.

**Post Graduate Diploma in Digital Cartography (ANNUAL/CR)**

**Annual Examination: March/April-2023**

**Geography (Compulsory) Paper-III**

**DCT3: Thematic Mapping and Remote Sensing**

**Day and Date: Tuesday, 23/05/2023**

**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

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

15

- 1 Which of the following process helps in Image enhancement?  
a. Digital Image Processing b. Analog Image Processing c. Both a and b d. None of the above
- 2 Which characteristics are taken together in chromaticity?  
a. Hue and Saturation b. Hue and Brightness c. Saturation, Hue, and Brightness d. Saturation and Brightness
- 3 Which of the following operation is done on the pixels in sharpening the image, in the spatial domain?  
a. Differentiation b. Median c. Integration d. Average
- 4 Which of the following filter's responses is based on the pixels ranking?  
a. Sharpening filters b. Nonlinear smoothing filters c. Geometric mean filter d. Linear smoothing filters
- 5 Which gray-level transformation increases the dynamic range of gray-level in the image?  
a. Negative transformations b. Contrast stretching c. Power-law transformations d. None of the mentioned
- 6 Which type of maps focus on specific information such as roads, maps, rainfall, distribution of forest, industries etc?  
a. Political map b. Physical map c. Thematic map d. Large scale map
- 7 Which type of map shows natural features of earth such as mountains, plateaus, plains, rivers, oceans etc?  
a. Physical map b. Political map c. Thematic map d. None of the above
- 8 In which of the following methods different density shadings are used to represent the quantity or percentage of any given commodity in the map?  
a. Dot b. Isopleth c. Choropleth d. Flow line
- 9 According to purpose, maps are broadly classified into  
a. Political & Historical maps b. World map and Atlas maps c. Physical & Cultural maps d. Ocean and Relief maps
- 10 An imaginary lines drawn on a map joining all places with the same height.  
a. Isobars b. Isotherms c. Profiles d. Contours

- 11 ----- studies land's surface configuration and the effects on land use and cover.  
 a. Land use & Land cover b. Land cover c. Topography d. Morphometry
- 12 VIIRS stands for -----  
 a. Visible Infrared Imaging Radiometer Suite b. Video Imaging Radiometer Suite c. Vegetation Imaging Spectro Radiometer d. Visible multispectral Imaging Radiometer
- 13 Application of Remote Sensing techniques can help to solve the problems regarding Urban planning  
 a. Urban Infrastructure and Utility b. Urban Hydrology c. Traffic Management d. All of above
- 14 Government of India has launched the series of ..... scanner for the Remote sensing application in agricultural field.  
 a. IRS b. LISS c. WiFS d. All of above
- 15 -----remote sensing technology that can measure the 3-dimensional distribution of vegetation in the forest canopies  
 a. Airborne laser scanning b. Radar System c. Digital Aerial Photogrammetry d. Deforestation monitoring

**Q.2. Write short Notes (Three out of Four) .** 15

- 1 Image enhancement
- 2 Types of camera
- 3 Isoline maps
- 4 Application of remote sensing in soil mapping

**Q.3. Write short Answers (Three out of Four) .** 15

- 1 Comparison between whisk broom and push broom scanner
- 2 Types of General map on the basis of scale
- 3 Application of remote sensing in land use
- 4 Application of remote sensing in flood mapping

**Q.4.. Answer the following question on broad. (One out of two).** 15

- 1 What is image interpretation explain elements of image interpretation
- 2 What is image interpretation explain elements of image interpretation

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**Model Answer Paper**  
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**Q.1. Choose the Correct alternatives from the following.**

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- 1 Which of the following process helps in Image enhancement?  
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Option 3

- 2 Which characteristics are taken together in chromaticity?  
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Option 1

- 3 Which of the following operation is done on the pixels in sharpening the image, in the spatial domain?  
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Option 1

- 4 Which of the following filter's responses is based on the pixels ranking?  
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- Option 2
- 5 Which gray-level transformation increases the dynamic range of gray-level in the image?  
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- Option 2
- 6 Which type of maps focus on specific information such as roads, maps, rainfall, distribution of forest, industries etc?  
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- Option 3
- 7 Which type of map shows natural features of earth such as mountains, plateaus, plains, rivers, oceans etc?  
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- Option 3
- 9 According to purpose, maps are broadly classified into  
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Option 1  
**Q.2. Write short Note (Three out of Four)**

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- 1 Image enhancement  
 Ans:
- 2 Types of camera  
 Ans:

3 Isoline maps

Ans:

4 Application of remote sensing in soil mapping

Ans:

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

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1 Comparison between whisk broom and push broom scanner

Ans:

2 Types of General map on the basis of scale

Ans:

3 Application of remote sensing in land use

Ans:

4 Application of remote sensing in flood mapping

Ans:

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

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1 What is image interpretation explain elements of image interpretation

Ans:

2 What is image interpretation explain elements of image interpretation

Ans:

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