No. of Printed Pages : 8

Question Booklet Code

21APG2S2LP

Question Booklet Serial Number

M.Sc. II Semester (NEP) Degree Examination, October - 2023

APPLIED GEOLOGY

Digital Image Processing

Time : 1 Hour

Maximum Marks: 30

INSTRUCTIONS TO CANDIDATES

- 1. The Question Paper will be given in the form of a Question Booklet. There will be four/two versions of Question Booklets with Question Booklet Code viz. **A**, **B**, **C** & **D** / **A** & **B** / **A** only.
- 2. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same Code.
- 3. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him contains all the 30 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same Code. This is most important.
- 4. A blank sheet of paper is attached to the Question Booklet. This may be used for Rough Work.
- 5. Please read carefully all the instructions on the top of the Answer Sheet before marking your answers.
- Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Black Ball-Point Pen in the OMR Answer Sheet.
- 7. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator.
- 8. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.
- 9. First fifteen minutes is provided to fill the general information of the Student. Eg. Student Name, Student ID, etc. in the OMR Answer Sheet
- 10. Without the instruction of the Invigilator do not open the Question Paper Booklet Seal.

1.	RADAR data are acquired during the :							
	(A)	Night only	(B)	Day only				
	(C)	Early morning	(D)	Night and Day				
2.	LiD	iDAR stands for :						
	(A)	(A) Light Detecting and Ranging						
	(B)	(B) Land Developing Radar						
	(C)	(C) Light Detecting and Radar						
	(D) Land Developing and Ranging							
3.	In the following is not an image data collection :							
	(A)	Remote Sensing	(B)	Scanning				
	(C)	Television	(D)	Photography				
4.	In t	he following is not an Data :						
	(A)	DEM	(B)	Lidar				
	(C)	RADAR	(D)	Thermal				
5.	Noise refers to random variations in pixel values that can occur during :							
	(A)	Image acquisition	(B)	Image loading				
	(C)	Image printing	(D)	Image sending				
6.	Higher radiometric resolution allows for of subtle differences in surface features and properties.							
	(A)	Good discrimination	(B)	Medium discrimination				
	(C)	Better discrimination	(D)	Bad discrimination				
7.	Ima	ge Enhancement Functions are	e use	d to improve the :				
- •	(A)	Bad quality of images	(B)	Visual quality of images				
	(C)	Good quality of images	(D)	Medium quality of images				
	(0)	soon quality of middob	(2)					

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Common filters includes :						
(A)	Gaussian	(B)	Median			
(C)	Sobel	(D)	All of the above			
Remote sensing images are broadly categorised into :						
(A)	TWO	(B)	THREE			
(C)	FOUR	(D)	FIVE			
. Image Restoration functions are aim to remove :						
(A)	Pixels are Blurriness	(B)	Noise and Pixels			
(C)	Noise and Blurriness	(D)	None of the above			
. Image Compression functions are reduce the file of an image.						
(A)	Width	(B)	Pixels			
(C)	Size	(D)	Grids			
. The spatial arrangement of visibly discernible objects is refers to :						
(A)	Shape	(B)	Pattern			
(C)	Texture	(D)	Slope			
• The 16-bit colour format is developed by :						
(A)	Mircosoft	(B)	Google			
(C)	Apple	(D)	Android			
• The arrangement and frequency of tonal variation in particular areas of an image refers to :						
(A)	Texture	(B)	Tone			
(C)	Slope	(D)	Pattern			
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	Con (A) (C) Ren (A) (C) Ima (A) (C) Ima (A) (C) The (A) (C) The (A) (C)	Common filters includes : (A) Gaussian (C) Sobel Remote sensing images are broad (A) TWO (C) FOUR Image Restoration functions are at (A) Pixels are Blurriness (C) Noise and Blurriness (C) Noise and Blurriness Image Compression functions are (A) Width (C) Size The spatial arrangement of visibly (A) Shape (C) Texture The 16-bit colour format is develop (A) Mircosoft (C) Apple The arrangement and frequency of refers to : (A) Texture (C) Slope	Common filters includes : (A) Gaussian (B) (C) Sobel (D) Remote sensing images are broadly card (A) TWO (B) (C) FOUR (D) (C) FOUR (D) Image Restoration functions are aim to (A) Pixels are Blurriness (B) (C) Noise and Blurriness (D) Image Compression functions are redu (A) Width (B) (C) Size (D) The spatial arrangement of visibly discu (A) (B) (C) Texture (D) The 16-bit colour format is developed by (A) (A) Mircosoft (B) (C) Apple (D) The arrangement and frequency of tom (D) The arrangement and frequency of tom (D) (A) Texture (B) (C) Slope (D)			

- **15.** ______ is also helpful in interpretation as it may provide an idea of the profile and relative height of a target or targets which may make identification easier.
 - (A) Shape (B) Shadow
 - (C) Texture (D) Size
- **16.** The ability of the entire photographic system, including lens, exposure, processing and other factors, to render a sharply defined image is called :
 - (A) Resolution (B) Pixel
 - (C) Image (D) Sensor
- **17.** FCC stands for :
 - (A) False Colour Composite (B) Fake Colour Composite
 - (C) Full Colour Composite (D) Fun Colour Composite
- **18.** DEM stands for :

(A)	Digital Earth Model	(B)	Digital Elevation Model
(C)	Digital Explore Model	(D)	Dummy Earth Model

19. Atmospheric correction can be done through :

- (A) Physical modeling (B) Histogram minimum
- (C) Regression (D) All of the above

20. Vertical distance of a point above or below a reference surface or datum is called :

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- (A) Height (B) Elevation
- (C) Altitude (D) MSL
- 21. Geometric distortion are mainly occurs due to :
 - (A) Pitch (B) Roll
 - (C) Yaw (D) All of the above

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22. The process by which the geometry of an image is made planimetric is called :

- (A) Rectification (B) Registration
- (C) Georeferencing (D) Geocoding

23. The process of making an image conform to another image is called :

- (A) Rectification (B) Registration
- (C) Georeferencing (D) Geocoding
- **24.** Any data in computer readable format usually stored on magnetic tape, CD, disk or hard drive is called :
 - (A) Digital (B) Electronic
 - (C) Data (D) Softcopy

25. ______ classifiers do not utilize training data as the basis for classification.

- (A) Supervised (B) Unsupervised
- (C) Both (A) and (B) (D) None of these
- 26. MSL Stands for :
 - (A) Mass Sea Level (B) Mean Sea Level
 - (C) Main Sea Level (D) Measure Sea Level

27. Following is not an application of aerial photography :

- (A) Movie production (B) Commercial advertising
- (C) Sub-surface study (D) Power line inspection

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- **28.** Following is not an image type :
 - (A) Binary image (B) Grey scale image
 - (C) Black and white image (D) Colour image

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29. Each colour image has :

(A)	8 bpp	(B)	16 bpp
(C)	24 bpp	(D)	32 bpp

- **30.** Ground Control Points collected using a :
 - (A) GPS (B) QGIS
 - (C) Mobile (D) Satellite

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SPACE FOR ROUGH WORK

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