POST GRADUATE DIPLOMA IN GEOINFORMATICS/M. SC. (GEOINFORMATICS) (PGDGI/MSCGI) Term-End Practical Examination

MGYL-104(Set-II): GEOINFORMATICS
LABORATORY

December, 2024

Time: 3 Hours Maximum Marks: 30

Note: (i) All questions are compulsory. Marks are indicated against each question.

- (ii) Evaluation is done under 3 parameters (i.e. performance, result/output and viva-voce).
- (iii) The data to be used in the examination is provided by the centre in the computer allotted to you.

- (iv) The data to be used in the examination are in the folders named as A, B, C,, which are mentioned in the question paper as (A), (B), (C),, respectively.
- (v) Incomplete and illegible results/outputs will not be evaluated.
- 1. Perform the tasks mentioned here and submit the results/outputs:
 - (a) Draw histogram of 'band 3' of the given dataset (B) in your answer sheet with neat labelling and briefly describe the characteristics of the image and the features present in it.

 3+2
 - (b) Perform layer stacking operation on the give dataset (B) and create spectral profiles of any *four* landuse land cover classes from the standard false colour composite. 2+4
 - (c) Extract contours of 200 m interval and derive slope from the given data (A). Prepare a map showing the DEM (in pseudocolour), derived contours and the slope with appropriate map elements.

- (d) Perform georeferencing of the given data (D). Digitise any *three* habitated places as polygons. Enter the class attributes for the digitised features and prepare a map showing them with appropriate map elements.

 2+2+2
- (e) Perform complex attribute query operation on the given data (C) and generate a map showing the places with population greater than 1,00,000 in India.

(**Hint**: Population information is available in the field 'POP-Max'). 2+2

2. Viva-voce.

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