No. of Printed Pages : 3 **MGYL–012(Set-I)**

M. SC. (GEOINFORMATICS)

(MSCGI)

Term-End Practical Examination

June, 2026

MGYL-012(Set-I) : ADVANCED GEOINFORMATICS LABORATORY

Time : 3 Hours *Maximum Marks : 30*

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

(ii) Evaluation would be done under three parameters (i.e., performance, result/output and viva-voce).

(iii) The data to be used in the examination is provided by your examination centre in the computer allotted to you.

(iv) The data to be used for the examination are in the folders named as A, B, C, ... which are mentioned in the question paper as (A), (B), (C), ... , respectively.

(v) Keep all the soft copy results/outputs appropriately in the computer in a folder with your enrollment number.

(vi) Incomplete and illegible results/ outputs will not be evaluated.

1. Perform the tasks mentioned and submit the results/outputs :

   (a) Generate a land use land cover map of Kolkata region (having at least *five* classes) using sentinel multispectral dataset (having < 5% cloud cover) of any year between 2017 and 2021 using Google Earth Engine. Write interpretation of the classified output in your answer sheet. Assess accuracy of the classified output with stratified random points. 6+1+3

(b) Create a map showing the FCC and the classified output generated at '1a' with suitable map elements. 2

(c) Apply unsupervised classification on the dataset (B) using Python to create a land use land cover map having at least five classes. 5

(d) Visualise and clip a vector data from the folder (E) using R. 2

(e) Write major steps for visualising a sentinel microwave data using SNAP software. 2

(f) Create a basic map in Open Layers and display it on a web page. 2

(g) Publish a vector dataset in Geo Server. [Hint : You can use the data in the folder (E)]. 2

2. Viva-voce. 5

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