

M.Sc. 3rd Semester Examination, 2022

REMOTE SENSING AND GIS

(Fundamentals of Earth System/Application of Geo-informatics in Earth Science)

PAPER – RSG-303C.1 & 303C.2

Full Marks : 40

Time : 2 hours

Answer all questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

PAPER—RSG-303 C.1

[Marks : 20]

(Fundamentals of Earth System)

GROUP – A

Answer any two questions : 2 × 2

- 1. Mention the major rock types present in earth.**
- 2. What is lineament ?**
- 3. Diagrammatically represent the inter-relationship among different components of earth system.**
- 4. What is Geomorphology ?**

GROUP – B

Answer any two questions : 4 × 2

- 5. What is the difference between topography and landform ? Define the principle of uniformitarianism.**
- 6. Distinguish between fault and lineament.**
- 7. What are the major coastal erosional features ?**
- 8. How are the following distinguished in satellite images ?**

(a) Igneous and Sedimentary terrain.

(b) Limestone and shale.

GROUP – C

Answer any one question : 8 × 1

9. Discuss briefly about plate boundaries with recent examples. What do you mean by plate tectonics ? 4 + 4
10. Enumerate the relationship between the drainage pattern and geological features of an area with illustration. 8

PAPER—RSG-303 C.2

[Marks : 20]

(Application of Geo-informatics in Earth Science)

GROUP – A

Answer any two questions : 2 × 2

11. What do you mean by Risk and Vulnerability ?

12. What are the main causes of Landslides ?
13. What is an aftershock ?
14. What is metamorphism of rocks and their types ?

GROUP – B

Answer any two questions : 4 × 2

15. What are the digital image enhancement techniques for lithology discrimination ?
16. Describe the role of GNSS technology in earthquake early warning system.
17. What are the Components of Disaster Management with example ?
18. Describe factors affecting slope stability.

GROUP – C

Answer any one question : 8 × 1

19. Discuss Seismic hazard & vulnerability.

20. Write a detail note on the processes of erosion and transportation by water in the upstream areas.
