

No. of Printed Pages : 2

**RGYE-104**

**Ph. D. (GEOLOGY)**

**(PHDGY)**

**Term-End Examination**

**June, 2023**

**RGYE-104 : PETROLOGY**

*Time : 3 Hours*

*Maximum Marks : 100*

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**Note :** (i) Answer any **five** questions.

(ii) Draw well labelled diagrams wherever required.

(iii) All questions carry equal marks.

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1. Write an essay on the processes of magma generation. 20
2. Discuss elaborately about the magnetism taking place at the divergent plate margins with appropriate examples. 20
3. Write a detailed account of geochemical processes involved in rock weathering and soil formation. 20
4. Explain the development of sedimentary facies in relation to plate tectonics. 20

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5. Describe in detail about the textures found in metamorphic rocks. 20
6. Explain the concepts and characteristics of metamorphic facies. 20
7. Write short notes on any *four* of the following :  
4×5=20
- (a) Inequigranular texture
  - (b) Structure of oceanic crust
  - (c) Biogenic sedimentary structures
  - (d) Significance of heavy minerals
  - (e) Prograde metamorphism
  - (f) Cataclastic metamorphism
8. Answer briefly any *five* of the following : 5×4=20
- (a) What is schistose structure ?
  - (b) What is metasomatism ?
  - (c) What are the minerals of blueschist facies assemblage ?
  - (d) How is carbonatite rock formed ?
  - (e) What is magmatic differentiation ?
  - (f) Write about the typical texture found in Komatiitic rocks.
  - (g) What are the factors responsible for rock weathering ?
  - (h) What are volcanoclastic rocks ?

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