

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**

**MGU-UGP (HONOURS)**

**FIRST SEMESTER EXAMINATION**

**(2024 ADMISION ONWARDS)**

**MG1DSCGEO100 - THE EARTH: AN INTRODUCTION**

Duration: 1.5 hrs

Maximum Marks: 50

*Students should attempt atleast one question from each course outcome (CO) to enhance their overall outcome attainability.*

**Part A**

**Attend any 7 of the following in 60 words**

Each question carries 2 marks

1. Define Geomorphology. Mention any two geomorphological features [U][CO1]
2. Differentiate outer core and inner core. [U][CO1]
3. How do tectonic movements influence endogenic processes? [U][CO2]
4. List out the main factors that control metamorphism. [U][CO3]
5. How does the physical and biological weathering processes accelerate the chemical weathering processes? [U][CO2]
6. Define carbonization with respect to process of fossilisation. [K][CO4]
7. Distinguish between apparent dip and true dip. [U][CO5]
8. How does weathering contribute to the rock cycle? [U][CO3]

(7x2 marks =14 marks)

**Part B**

**Write short notes on any 3 of the following in 250 words**

Each question carries 8 marks

9. Discuss the composition and characteristics of earth's crust including its types. [U][CO1]
10. Discuss the rock cycle, and how does it explain the transformation of igneous, sedimentary, and metamorphic rocks?

- [U][CO3]
11. Compare and contrast fold and fault in rocks with neat diagrams. [U][CO5]
12. Differentiate Palynology & Ichnology, Micropalaeontology & Palaeontology with examples [U][CO1]
13. Compare the rate of soil formation in tropics, temperate, arid and polar regions. [U][CO4]
- (3x8 marks = 24 marks)

### **Part C**

**Write essay on any 1 of the following in 400 words.**

Each question carries **12** marks

14. Compare and contrast the lithosphere, asthenosphere, and lower mantle in terms of their structure, composition, and their roles within the Earth system [U][CO1]
15. Describe igneous, metamorphic and sedimentary rocks and their process of formation. [U][CO4]
- (1x12 marks =12 marks)



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**FIRST SEMESTER EXAMINATION**

**(2024 ADMISION ONWARDS)**

**MG1MDCGEO100 – UNDERSTAND THE EARTH**

Duration: 1 hr

Maximum Marks: 35

*Students should attempt atleast one question from each course outcome (CO) to enhance their overall outcome attainability.*

**Part A**

**Write short notes on any 7of the following in 60 words**

Each question carries 2 marks

1. Distinguish polar radius and equatorial radius and state their absolute difference [U][CO1]
2. Differentiate outer core and inner core. [U][CO1]
3. How do tectonic movements influence endogenic processes? [U][CO2]
4. Define vadose zone, water table and saturated zone [ U][CO3]
5. Define petrology and discuss about the types of petrology [U][CO2]
6. Describe the chemical composition of the Earth crust, mantle and core.. [K][CO4]
7. List the major types of fossil fuels and name their primary sources.. [U][CO5]
8. Various mitigation measures of landslide [U][CO3]

(7x2 marks =14 marks)

## **Part B**

**Write short notes on any 3 of the following in 230 words**

Each question carries 7 marks

9. Describe the ocean-continent convergent plate boundary. [U][CO1]
  
10. Explain plate tectonics and its major evidences [U][CO3]
  
11. Define geology and explain about the various branches of geology [U][CO5]
  
12. Explain internal structure of Earth with a neatly labelled diagram. [U][CO1]
  
13. Describe weathering and erosion. Add a short note on types of weathering. [U][CO4]

(3x7marks = 21marks)