

1 (Sem-1)MDC 8

2024

(Multidisciplinary Course)

Paper : MDC0100803

**(Understanding Physical
Formation of the Earth)**

Full Marks : 45

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

Answer **all** questions

1. Choose the correct answer of the following :
1×5=5

(a) In which of the following layers of the earth's atmosphere, the temperature increases with height?

(i) Stratosphere

(ii) Troposphere

(iii) Mesosphere

(iv) All of the above

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(Turn Over)

(b) Which process is primarily responsible for the movement of tectonic plates?

- (i) Volcanism
- (ii) Mantle convection
- (iii) Ocean currents
- (iv) Erosion

(c) Which one of the following is the hardest naturally occurring mineral on the earth?

- (i) Quartz
- (ii) Feldspar
- (iii) Garnet
- (iv) Diamond

(d) Which one of the following is a physical property of mineral?

- (i) Extinction
- (ii) Interference colour
- (iii) Stream
- (iv) Both (ii) and (iii)

(3)

(e) Which of the following landforms is created by the movement of tectonic plates?

- (i) Sand dune
- (ii) Fold mountains
- (iii) Lagoon
- (iv) Karst topography

2. Answer the following questions briefly : $2 \times 5 = 10$

- (a) What is the definition of the earth system?
- (b) Write the definition of mineral.
- (c) What is frost action?
- (d) Write the definition of disconformity present in the interior of the earth.
- (e) Provide two examples each of igneous and metamorphic rocks.

3. Write short notes on any *four* of the following : $5 \times 4 = 20$

- (a) Erosion
- (b) Diastrophism
- (c) Endogenetic and exogenetic processes of the earth

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(4)

- (d) Process of formation of sedimentary rocks
- (e) Earthquake and its causes
- (f) Distinguishing features of continental and oceanic crusts
- (g) Carbon cycle
- (h) Climate feedbacks

4. Answer the following questions (any one) : 10

- (a) What are the components of the hydrosphere of the earth? Write briefly about the interaction of the hydrosphere with the atmosphere. $4+6=10$
- (b) Provide a detailed account of the origin of the earth. Additionally, discuss the general composition of the earth's atmosphere in its early stages. $8+2=10$
- (c) What are igneous rocks? How are they formed? Write about different types of igneous rocks. $2+4+4=10$
- (d) What are landforms and how are they classified? Explain your answer with examples. $7+3=10$
