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(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

(2)

(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

- (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

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