AXU

2007

GEOLOGY - I (Optional) 100047

Standard : Degree **Total Marks : 200**

Nature : Conventional **Duration : 3 Hours**

Note :

(i) *Answers must be written in* ***English.***

(ii) *Question* ***No. 1*** *is* ***Compulsory.*** *Of the remaining questions, attempt* ***any four*** *selecting one question from* ***each section.***

(iii) *Figures to the* ***RIGHT*** *indicate marks of the respective question.*

(iv) *Number of optional questions upto the prescribed number in the order in which they have been solved will only be assessed. Excess answers will not be assessed.*

(v) *Credit will be given for orderly, concise and effective writing.*

(vi) *Candidate should not write roll number, any name (including their own), signature, address or any indication of their identity anywhere inside the answer book otherwise he/she will be penalised.*

(vii) *For each slab of 10 and 15 marks, the examinee is expected to write answers in 125 and 200 words respectively.*

1. ***Answer any four of the following questions :***

(a) What are earthquakes ? How are they measured ? Discuss the distribution and causes of earthquakes. **10**

(b) What is Geographical Information System ? Discuss in brief the applications of geographical information system. **10**

(c) Give the Geological Time Scale in tabular form and describe the important events of its units. **10**

(d) Discuss the objects of Dams and various types of dams suitable for achieving different objects. **10**

(e) Define Volcano. Describe various types of volcanoes citing examples. **10**

P.T.O.

Marks

SECTION - A

2. *Answer the following sub-questions :*

(a) What are meteorites ? Describe various types of meteorites. **15**

(b) Describe various concepts regarding origin of mountain building. **15**

(c) Describe various depositional features formed due to glaciers. **10**

3. *Answer the following sub-questions :*

(a) Describe various theories regarding origin of continents and ocean basins. **15**

(b) Briefly describe the concepts of sea floor spreading, island arcs, hot spots and plumes. **15**

(c) Describe the geological work done by wind. **10**

SECTION - B

4. *Answer the following sub-questions :*

(a) Discuss in detail about the factors which are responsible for the development of different landforms and comment on the relationship of landforms and geology. **15**

(b) What are photointerpretation elements ? Discuss different photorecognition elements with suitable examples. **10**

(c) Define folds and give detailed classification of folds with suitable examples. **15**

5. *Answer the following sub-questions :*

(a) Write detailed account on basic concepts in Geomorphology. **15**

(b) Enlist different Indian remote sensing satellites with their payloads and applications. **10**

(c) Define petrofabric analysis. What are the applications of petrofabric analysis in structural geology. **15**

Marks

SECTION - C

6. *Answer the following sub-questions :*

(a) Describe the Deccan Trap Supergroup of rocks. **15**

(b) Describe the general morphological characters and geological distribution of Brachiopods. **15**

(c) Describe the evolution of man in geologic time. **10**

7. *Answer the following sub-questions :*

(a) Describe the stratigraphic sequence, lithology and distribution of Vindhyan supergroup. **15**

(b) Describe the general morphological characters and geological distribution of Lamellibranchs. **15**

(c) Describe the evolution of Horse in geological time. **10**

SECTION - D

8. *Answer the following sub-questions :*

(a) Describe the Hydrological Cycle in detail. **15**

(b) Discuss the methods of artificial groundwater recharge. **15**

(c) What are natural hazards ? Describe different methods for the mitigation of flood hazards. **10**

9. *Answer the following sub-questions :*

(a) What is an Aquifer ? Describe the different types of aquifers. **15**

(b) What is a rainwater harvesting ? Discuss the conventional and non-conventional methods of rainwater harvesting. **15**

(c) What are earthquakes ? How they are generated ? How the preventive measures can be taken during and after the earthquakes. **10**

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