

वियोज्य **DETACHABLE**

0000363

**I.F.S. EXAM-2015**

**GEOLOGY**

**Paper I**

**Time Allowed : Three Hours**

**Maximum Marks : 200**

**QUESTION PAPER SPECIFIC INSTRUCTIONS**

**Please read each of the following instructions carefully before attempting questions.**

There are **EIGHT** questions in all, out of which **FIVE** are to be attempted.

Question No. 1 and 5 are compulsory. Out of the remaining **SIX** questions, **THREE** are to be attempted selecting at least **ONE** question from each of the two **Sections A and B**.

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

All questions carry equal marks. The number of marks carried by a question/part is indicated against it.

Answers must be written in **ENGLISH** only.

Neat sketches may be drawn, wherever required.

**SECTION 'A'**

1. Write critical notes on the following : 8×5=40
  - 1.(a) Causes of earthquakes and Global seismic belts.
  - 1.(b) Global positioning system (GPS).
  - 1.(c) Types of Aerial photographs.
  - 1.(d) Classification of Folds with respect to axial plane orientation.
  - 1.(e) Mid Oceanic Ridges.
- 2.(a) Describe transform and transcurrent faults, and their differences with diagram. 15
- 2.(b) Discuss various types of drainage patterns, illustrate your answer with suitable sketches. 15
- 2.(c) Discuss critically on stress and strain relationships in plastic and elastic rock materials. 10

- 3.(a) Give an account on classification of faults and critically comment on the mechanism of faulting. 15
- 3.(b) Describe the different types of key-elements for interpretation of satellite images. 15
- 3.(c) What are volcanoes ? Discuss critically causes and products of volcanoes. 10
- 4.(a) Draw the labelled diagrams to explain the mechanism of different plate boundaries. 15
- 4.(b) What is mass wasting ? Describe the different types of mass wasting. 15
- 4.(c) Discuss the importance of Stereographic Projections in structural analysis. 10

### SECTION 'B'

5. Write critical notes : 8×5=40
- 5.(a) Morphology of Trilobites.
- 5.(b) Lithostratigraphy.
- 5.(c) Permo-Triassic Event.
- 5.(d) Hydraulic Conductivity.
- 5.(e) Prevention of Landslides.
- 6.(a) Discuss the evolutionary trends in Proboscidea, answer with suitable sketches. 15
- 6.(b) Describe the stratigraphic succession of the rocks of the Siwalik Group. 15
- 6.(c) Discuss the problems on seawater intrusion as coastal aquifers. 10
- 7.(a) Describe the challenges and management strategies for effective use of groundwater. 15
- 7.(b) Discuss the evolutionary trends in Hominoidea. 15
- 7.(c) Discuss briefly stratigraphy of Dharwar Super Group of rocks. 10
- 8.(a) Describe the different types of Landslides and the possible rehabilitation measures. 15
- 8.(b) Discuss the importance of Gondwana flora in palaeoclimatic interpretation. 15
- 8.(c) Describe the stratigraphic succession of Palaeogene rocks of North Western Himalaya. 10