Total No. of Printed Pages—4

1 SEM TDC GEOH (CBCS) C 1

2022

(Nov/Dec)

GEOLOGY

(Core)

Paper : C–1

(Earth System Science)

Full Marks : 53
Pass Marks : 21

Time : 3 hours

The figures in the margin indicate full marks for the questions

UNIT—1

(*Marks* : 10)

1. Write short notes on any *two* of the following : 5×2=10

(a) Big-Bang theory

(b) Supernova

(c) Black holes and white dwarf

UNIT—2

(*Marks* : 10)

2. Choose the correct option : 1×5=5

(a) The inner core of the earth is solid. It was first illustrated by

(i) Inge Lehmann

(ii) R. D. Oldham

(iii) Alfred Wegener

(iv) None of them

(b) The core of the earth is made of the mixture of

(i) silicon and nickel

(ii) nickel and magnesium

(iii) silicon and magnesium

(iv) nickel and iron

(c) The asthenosphere is

(i) totally molten

(ii) partially molten

(iii) totally solid

(iv) partially solid

(Continued)

(d) Lithosphere is mostly composed of

(i) amphibole

(ii) granite

(iii) basalt

(iv) peridotite

(e) The source of earth's magnetic field is

(i) outer mantle

(ii) liquid outer core

(iii) lower crust

(iv) outer crust

3. Briefly discuss the Kepler's laws of planetary motion. 5

UNIT—3

(*Marks* : 33)

4. Write short notes on any *five* of the following : 3×5=15

(a) S-waves and P-waves

(b) Types of igneous rocks based on silica content

(c) Convection cycles in mantle and its role in plate motions

(d) Coriolis force and its influence on atmospheric winds

(e) Laws of superposition and faunal succession

(f) Uniformitarianism and catastrophism

5. Briefly discuss with neat sketches (any *three*) : 6×3=18

(a) Landforms associated with fluvial systems

(b) Land-air-sea interaction

(c) Soil profile

(d) Geological Time Scale

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