

U.G. 5th Semester Examination-2020

PHYSICS

[HONOURS]

Discipline Specific Elective (DSE)

Course Code : PHY-H-DSE-T-02

(Earth Science)

Full Marks : 60

Time : 2½ Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any **five** questions : 2×5=10
 - a) What are the features of the cosmic microwave background radiations?
 - b) What is Mohorovicic discontinuity?
 - c) What do you mean by polar caps and ice sheets?
 - d) State the origin of Earth's magnetic field.
 - e) Mention the effect of Coriolis forces on oceanic current system.
 - f) Write down the differences between Tsunami and cyclone.
 - g) What is Geothermal energy?
 - h) Write briefly on nuclear waste.

2. Answer any **four** questions: 5×4=20
 - a) Discuss the process to determine the interior structure of Earth by seismic studies.

- b) What are the differences between Meteorites and Asteroids?
- c) Discuss about the composition of atmosphere w.r.t. altitude.
- d) Mention the major factors that disturbing our earth.
- e) What are the different theories of origin of life?
- f) State the law of superposition and faunal succession.

3. Answer any **three** questions: 10×3=30
 - a) Briefly explain the Geodynamic elements of Earth.
 - b) What are the different cycles of biosphere? Discuss their role in maintaining steady state.
 - c) Explain Earth's heat budget.
 - d) Discuss the role of the biosphere in shaping the environment.
 - e) What is Green House effect? Briefly explain the impact of Green House effect on Climate Change.
 - f) What is Radiosonde measurement? Describe the process of vertical atmospheric profiling using a Radiosonde instrument.
