

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



**B.Sc. DEGREE EXAMINATION – PHYSICS**

**FIFTH SEMESTER – APRIL 2022**

**16/17/18UPH5ES03 – GEO PHYSICS**

Date: 20-06-2022  
Time: 09:00-12:00

Dept. No.

Max. : 100Marks

**PART – A**

**Q. No** Answer **ALL** questions **(10 x 2 = 20 Marks)**

1. How earthquake induced by human activities?
2. What is Geochronology?
3. Define “dip poles” of earth’s surface.
4. The disintegration constant of a radioactive element is 0.00283/day. Find half-life and mean life.
5. Draw block diagram of alkali vapour magnetometer.
6. Specify the region of shadow zone, with neat diagram.
7. Write a short note on gravity of Earth by relative method.
8. What is Magma?
9. Write an expression for the wave velocity of P-waves and S-waves.
10. Discuss the merits and demerits of Carbon-14 method of dating.

**PART – B**

Answer any **FOUR** questions **(4 x 7.5 = 30 Marks)**

11. Explain elastic rebound theory and how subduction zones are formed.
12. Discuss focus and Intensity of earthquake.
13. Briefly describe the working of proton precession magnetometer.
14. Write a short on Richter scale of magnitude.
15. Discuss the origin of Earth’s magnetic field.
16. Explain the working principle of Worden gravimeter.

**PART – C**

Answer any **FOUR** questions **(4 x 12.5 = 50 Marks)**

17. What is Tsunami? Discuss in detail primary and secondary effect of earthquake.
18. Draw neatly horizontal seismograph and derive seismograph equation.
19. Give an account on continental drift by plate tectonic theory.
20. Explain Rb-Sr method of age determination of rocks.
21. Write a short note on “Temperature and pressure” with in the earth.
22. Discuss in detail mechanical properties of earth.

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