



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PHYSICS

FIFTH SEMESTER – NOVEMBER 2016

PH 5403 - GEOPHYSICS

Date: 09-11-2016
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART - A

Answer ALL Questions

10x2=20

1. What are seismic waves?
2. Define Richter scale of magnitude.
3. How do define "focus "of an earthquake.
4. Write down Poisson's equation for gravitational potential?
5. What are Tsunamis?
6. Write down seismograph equation for strain seismograph?
7. Name the various layers of Earth and its major composites?
8. Short list the types of magnetometers and its merits.
9. Give reasons for sources of heat in Earth's interior?
10. How geochronology plays vital role on age determination of rocks?

PART B

Answer ANY FOUR Questions

4x7.5=30

11. Write a short note on Mohorovicic discontinuity.
12. What is Shadow zone? Explain the properties of P-waves and S-waves?
13. With neat figure, explain the dynamo theory of magnetic field.
14. Draw neat diagram and explain interior of Earth.
15. Determine geochronology by potassium-argon method.

PART C

Answer ANY FOUR Questions

4x12.5=50

16. Discuss the direct and indirect effects of an earthquake?
17. With neat schematic figure .explain the recording og seismic vibrations by horizontal seismograh.
18. Briefly explain continental drift by weigner's theory.
19. Describe the working principle of proton precession magnetometer.
20. Explain the working of worden gravimeter.
