

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.  
(For candidates admitted during the academic year 2015-16 & thereafter)

SUBJECT CODE : 15PH/UI/GP23

B.Sc. DEGREE EXAMINATION NOVEMBER 2019

COURSE : INDEPENDENT ELECTIVE  
PAPER : GEOPHYSICS  
TIME : 3 HRS

MAX. MARKS : 100

Section-A

(10x3=30)

Answer all the questions:

1. State Kepler's law of planetary motion.
2. Draw the earth's structure.
3. State the Newton's law of universal gravitation.
4. What is gravitational acceleration.
5. What is a seismograph?
6. Explain earth's rotation.
7. What is Diffraction?
8. Give an example of Dia-magnetic material.
9. Give any two types of traps.
10. What are porous materials?

Section-B

(5 x 5=25)

Answer any FIVE questions:

1. Explain the structure of the earth.
2. Discuss the discovery of magnetism.
3. Derive an expression for gravitational potential.
4. Explain earth's gravity.
5. Enumerate the characteristics of planet.
6. Write a note on Elastic waves, Body waves and Surface waves.
7. Explain briefly about magnetic properties of material.

Section-C

(3x15=45)

Answer any **THREE** questions:

1. Discuss elaborately the origin of the solar system.
2. What is a seismograph? Explain the various types of seismometers.
3. What are magnetometers? With necessary diagram, explain any one type of magnetometer.
4. Explain in detail about the origin and theory of hydrocarbons and its relation to petroleum.

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