STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86
(For candidates admitted during the academic year 2011–12 & thereafter)

SUBJECT CODE: 11PH/UI/GP23

B.A./B.Sc./B.Com./ B.V.A./B.C.A./B.S.W. DEGREE EXAMINATION
APRIL 2015

COURSE : INDEPENDENT ELECTIVE
PAPER : GEOPHYSICS
TIME : 3 HOURS MAX. MARKS: 100

SECTION – A

Answer ALL questions: (10 x 3 = 30)

1. StateBode's law.
2. Briefly explain the formation of solar system.
3. Comment on the shape of the earth.
4. Define gravitational potential and acceleration.
5. Differentiate body waves and surface waves.
6. What is a seismometer?
7. List the properties of paramagnetic materials.
8. Define Curie temperature.
9. Explain Fermat's principle.
10. How are reservoir rocks classified?

SECTION – B

Answer any SIX questions: (6x 5= 30)

11. State Kepler's law of planetary motion.
12. Briefly explain the layers of earth
13. Explain the elastic and behavior of materials with example.
14. Differentiate diamagnetic and ferromagnetic materials.
15. With a neat diagram explain the structure and formation of Cap rocks.
16. Comment on the various types of seismometers.
17. Write a short note on earth's rotation
18. What are source rocks and migration rocks?

..2

SECTION – C

Answer any TWO questions: **(2x 20= 40)**

19. With a neat diagram explain the characteristics of planets and how are they classified
20. State the laws of gravitation. How does gravity vary with latitude, altitude and depth, derive expression for the same.
21. Explain Huygens's principle and explain reflection and refraction of light on the basis of Huygens's theory.
22. With a neat diagram explain the principle, construction and working of Proton Precession magnetometer.
23. Discuss the various types of traps with neat diagram.

❖❖❖❖❖❖