STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2004-05 & thereafter)

SUBJECT CODE : PH/MO/AP14

B.Sc. DEGREE EXAMINATION NOVEMBER 2007
BRANCH III - PHYSICS
FIRST SEMESTER

COURSE : MAJOR – OPTIONAL
PAPER : ASTROPHYSICS
TIME : 3 HOURS **MAX. MARKS : 100**

SECTION – A

ANSWER ALL QUESTIONS: **(10 x 3 = 30)**

1. Define constellation. Give examples.
2. What are meteors? Differentiate Meteors and meteoroids.
3. Define nebulae and name two nebulaes.
4. Define circumpolar star.
5. What is Maunder Minimum?
6. Why was Gregerian calender introduced?
7. Define focal length, resolving power and light gathering power.
8. Write a note on expanding universe.
9. What is "Obler's paradox".
10. What are Galaxies? Give examples.

SECTION – B

ANSWER ANY SIX QUESTIONS: **(6 x 5 = 30)**

11. Describe solar wind. What causes it?
12. Distinguish refracting and reflecting telescope.
13. Compare and contrast sideral days and solar days.
14. Discuss the various stages in the life cycle of a star.
15. Briefly describe about space WANDERERS.
16. Describe (a) proper motion (b) radial velocity
17. Explain the terms Interstellar communication and Interstellar travel.
18. Describe the visual appearance of a comet. How does comet orbit differs from planetary orbit?

..2

SECTION – C

ANSWER ANY TWO QUESTIONS: **(2 x 20 = 40)**

19. Write an essay on the solar system. Give their Terrestrial relations.

20. (a) Give the characteristics and significance of the Hertz sprung Russell diagram. List the results of the diagram.

    (b) Write a note on Birth of a star.

21. Write short notes on:-

    (i) Internal structure of stars.

    (ii) Stellar brightness

    (iii) Visual binaries

    (iv) Stellar Co-ordinates

22. a) Describe each of three types of galaxies.

    b) What are the nearest irregular galaxies.

●●●●●●●