

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI - 600 086**  
**(For candidates admitted from the academic year 2008-09)**

**SUBJECT CODE : MT/GE/FA24**

**B.A./B. Sc./B.Com./B.C.A/B.S.W. DEGREE EXAMINATION, APRIL 2009**  
**SECOND SEMESTER**

**COURSE : GENERAL ELECTIVE**  
**PAPER : FUNDAMENTALS OF ASTRONOMY**  
**TIME : 2 HOURS**

**MAX. MARKS : 100**

**SECTION – A**

**ANSWER ANY TEN QUESTIONS**

**(10X2=20)**

1. Define Diurnal motion.
2. Define sidereal day.
3. What is meant by Astronomical refraction?
4. Define elongation of moon.
5. Define age of moon.
6. Name two kinds of eclipse.
7. State Kepler's laws of planetary motion.
8. Define Sidereal period of a planet.
9. What is meant by 'Stationary points'?
10. List out two differences between planets and comets.
11. Define inner and outer planets.
12. How are the distance of stars expressed?

**SECTION – B**

**ANSWER ANY FOUR QUESTIONS**

**(4X20=80)**

13. a) Describe with a neat diagram the following system of celestial coordinates:  
(i) horizontal (ii) ecliptic.  
b) Trace the changes in the coordinates of the sun in the course of an year.
14. a) Define phase of moon. With a help of a diagram explain successive phases of moon.  
b) Write short notes on (i) latitude of a place (ii) twilight
15. a) Write short notes on any two:  
(i) surface structure of moon (ii) position of rising and setting of Moon  
(iii) importance of solar eclipse (iv) tides  
b) Explain in detail how different types of lunar eclipse are caused.

- 16. a) Explain the changes in the elongation of an inferior planet.  
b) Write short notes on any two:
  - (i) Bode's law
  - (ii) longitude of perigee
  - (iii) relation between sidereal and synodic period of a superior planet
  - (iv) seasons
  
- 17. a) Explain solar prominences  
b) Write short note on Saturn's rings  
c) Explain meteors
  
- 18. a) Explain variable stars  
b) Write down the different winter constellations and explain in detail about any two constellations.

