

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086**  
(For candidates admitted during the academic year 2011-2012 & thereafter)  
**SUBJECT CODE : 11MT/UI/PA23**

**B. Sc. DEGREE EXAMINATION, NOVEMBER 2014**  
**BRANCH I – MATHEMATICS**

**COURSE : INDEPENDENT COURSE**  
**PAPER : POPULAR ASTRONOMY**

**TIME : 3 HOURS**

**MAX. MARKS : 100**

**SECTION A**

**ANSWER ALL THE QUESTIONS :**

**(10 × 2 = 20)**

1. Name one that is visible to you all the time and justify the reason.
2. Describe Sidereal time.
3. Define age of moon.
4. What is lunar libration? Name them.
5. State Kepler's laws of planetary motion.
6. Name a few calendars.
7. What are Asteroids?
8. Name a few comets you know of.
9. What is Zodiac?
10. Write the names of any two Spring constellations.

**SECTION B**

**ANSWER ANY FIVE QUESTIONS :**

**(5 × 8 = 40)**

11. Explain the effects of : twilight, refraction and dip of a horizon.
12. Write about the Space probes.
13. Explain: i) Tides; ii) Tsunami waves.
14. Give reasons for occurrence of seasons.
15. Write a note on Solar wind and prominences.
16. Write a note on the Colour and size of stars.
17. Write short notes on Summer Constellations.

**SECTION C**

**ANSWER ANY TWO QUESTIONS :**

**(2 × 20 = 40)**

18. a) Trace the changes in co-ordinates of the sun in the course of a year.  
b) Write in detail about Number of eclipses in a year.  
c) Compare Lunar and Solar eclipses.
19. a) Discuss direct and retrograde motion of the planets.  
b) Describe the successive phases of moon.
20. Write short notes on any three of the following :  
a) Sun spots; b) Orion; c) surface structure of the moon; d) Ursa Major.

\*\*\*\*\*