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NA—36—2023

FACULTY OF SCIENCE

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/New Pattern)

PHYSICS

Paper-XIII

(Astrophysics)

(Saturday, 9-12-2023)

Time : 10.00 a.m. to 12.00 noon.

Time—2 Hours

Maximum Marks—40

N.B. :— All questions are compulsory and carry equal marks.

1. Explain in detail the terrestrial and Jovian planets 15

Or

 - (a) Write notes on the following terms : 8
 - (i) Hour angle
 - (ii) Mean solar time
 - (iii) Light year
 - (iv) Parsec.
 - (b) Explain stellar parallax method for distance measurement. 7
2. Define Kepler's laws of planetary motion and obtain an expression for Kepler's third law of planetary motion. 15

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Or

- (a) Write a note on solar atmosphere (photosphere chromosphere) 8
- (b) Define sunspot and explain sunspot cycle. 7
3. Write short notes on any *two* (each of *five* marks) : 10
- (a) Radiant flux and luminosity.
- (b) Solar limb darkening.
- (c) Celestial sphere
- (d) Local sidereal time and zonal time.

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