This question paper contains **1** printed page]

FACULTY OF SCIENCE

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

OCTOBER/NOVEMBER, 2019

(CBCS/New Pattern)

PHYSICS

Paper XIII-C

(Astrophysics)

(Tuesday, 3-12-2019)   **Time : 10.00 a.m. to 12.00 noon**

Time—2 Hours   *Maximum Marks—40*

N.B. :— (i) Attempt *all* questions.

     (ii) Illustrate your answers with suitable labelled diagrams, wherever necessary.

1. Obtain an expression for Planck's Law and Wien's Displacement Law for Black body radiation.   15

Or

(a) Write a note on geocentric and heliocentric universe.   8

(b) Explain stellar parallax method for distance measurement in astronomy.   7

2. Define Kepler's laws of planetary motion and obtain an expression for Kepler's third law of planetary motion.   15

Or

(a) Write a note on solar atmosphere (photosphere, chromosphere)   8

(b) Define sunspot's and explain sunspot cycle.   7

3. Write short notes on any *two* (each of *five* marks)   10

(a) Local sideral time and zonal time

(b) Solar and lunar eclipses

(c) Radiant flux and luminosity

(d) Solar limb darkening