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R—109—2017

FACULTY OF SCIENCE

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

MARCH/APRIL, 2017

(Old Course)

PHYSICS

Paper XIII

(Astrophysics)

(Saturday, 8-4-2017)

Time : 10.00 a.m. to 12.00 noon

Time—Two Hours

Maximum Marks—40

N.B. :— (i) All questions are compulsory.

(ii) All questions carry equal marks.

1. Attempt any *four* : 8
 - (a) What is Astrophysics ?
 - (b) Define blackbody radiation.
 - (c) State Hubble's Law.
 - (d) State the numbers of moons of Venus, Saturn and Jupiter.
 - (e) Define parsec.
 - (f) What do you mean by minor objects of solar system ? What are the different types of minor objects ?
2. Attempt any *two* : 8
 - (a) Describe structure and composition of Venus.
 - (b) Explain Kepler's theory of planetary motion.
 - (c) Write a note on comets.
3. Attempt any *two* : 8
 - (a) Describe in brief about physical properties of Astronomical stars.
 - (b) Write a short note on Milkyway Galaxy.
 - (c) Describe in brief chromosphere.

P.T.O.

- 4. Attempt any *one* : 8
 - (a) Explain in detail spectral and luminosity classification of stars.
 - (b) Discuss the Big-Bang Universe.

- 5. Write short notes on (any *two*) : 8
 - (a) Steady state cosmology
 - (b) Asteroids
 - (c) Sun spot and sun cycle
 - (d) Electromagnetic spectrum.