

V P & R P T P SCIENCE COLLEGE- VALLABH VIDYANAGAR

B. Sc. SEMESTER - V

Subject: PHYSICS Course Code: US05CPHY06

(Internal test: 2019-20)

[Astronomy and astrophysics]

Date: 10 /10/2019 (Thursday)

Morning, Time: 11:00 am to 12:15 pm

[Max marks: 25]

Instructions: i. all the questions are compulsory.

ii. Figures on the right hand side indicate full mark of that question.

Q-1 Write appropriate answer from given options:

[5]

- 1 The ratio of the focal length of the objective to the focal length of the eye piece is called.....of a telescope.  
(a) Wide field planetary camera (b) Faint object camera  
(c) Faint object spectrograph (d) High resolution spectrograph
- 2 The typical grain-like fine structures of the visible disc of the Sun are known as.....  
(a) faculae (b) limb darkening  
(c) filaments (d) photospheric granulations
3. The typical grain-like fine structures of the visible disc of the Sun are known as.....  
(a) faculae (b) limb darkening  
(c) filaments (d) photospheric granulations
4. .... binary stars are identify on the basis of their absorption lines.  
(a) eclipsing (b) visual  
(c) spectroscopic (d) none of above three
5. The ..... Star cloud of the milky way nebula lays in the constellation Sagittarius.  
(a) Brightest (b) Darkest  
(c) Smallest (d) Biggest

Q- 3. What is telescope? Discuss the Radio telescope in detail.

OR

Q-3. What are the celestial coordinates? Discuss position of Aries and Leo.

Q- 4. Explain in short: "Zurich sunspot number".

OR

Q- 4. Write a note on Solar Corona.

Q- 5. Draw a neat sketch of Hertz sprung-Russell (H-R) diagram showing proper notations.

OR

Q- 5. Derive Mass - Luminosity relation.

Q- 6. Discuss the various parts of our Galaxy.

OR

Q- 6. Write a note on cosmic rays in short.

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