VP&RPTP SCIENCE COLLEGE-VALLABH VIDYANAGAR

B.Sc. (Semester-V)

Subject: Physics Monday, Date: 08-10-2018 First Internal Test Time: 10:00 am to 12:00 noon

[Total Marks-50

(Astronomy & Astrophysics)

Instructions: 1. Attempt all questions. 2. Figures to the right indicate full marks.

Q-1 **Multiple Choice Questions:** [Attempt all] (08)(1) The value of focal length ratio for reflecting telescope is in between to a) 1.0 to 3.0 b) 3.0 to 5.0 4.0 to 6.0 2.0 to 4.0 d) c) (2) The light gathering power of a telescope is depends on ... LIBRAN f/a - ratio b) aperture a) c) primary mirror d) secondary mirror (3) Zurich sun spot number is given by..... b) a) R = K(10g+f)R = K(10f+g)R = K(20g+f)d) R = 2K(10g+f)c)is not a type of prominences. (4) **Ouiescent** prominences b) Eruptive prominences a) Inactive prominences d) Sunspot type prominences c) (5) Which of the following is not a type of binary stars? Visual Spectrometric a) b) Spectroscopic d) Eclipsing c) (6) Which of these is multiple star system? a) Spectroscopic b) Eclipsing d) None of the above c) Trapezium (7) About 90% of the cosmic rays nuclei are..... Electrons b) Protons a) b) Neutrons d) Deuterons (8) The Star cloud of the milky way lies in the constellation sagnitarius. Smallest Biggest b) a) c) Brightest d) Darkest (10)Q-2 Attempt any Five questions in short. (a) Write the comparison between the refractive telescope and reflective telescope. (b) What is radiometric magnitude? – Define it. (c) Explain in short- "Plages and Filaments." (d) Explain faculae in short. (e) Explain in short- "Optical double stars"

		Q. P. Science C	
	(f)	Explain "Binary stars" in brief.	
	(g)	What are cosmic rays?	
	(h)	Write names of the three main parts of the galaxy.	
Q-3		Define- telescope; Explain Refracting telescope in detail.	08
		OR	
Q-3		Write detail notes on:1. Hubble Space Telescope, 2. Photographic photometry	08
Q-4		Explain chromospheres in detail.	08
		OR	
Q-4		What are prominences? Discuss sun spot type prominences in detail.	08
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Q-5		Write the detail classification of binary stars.	08
		OR	0.0
Q-5		Derive Mass- Luminously relation.	08
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Q-6		What is galaxy? Discuss the general structure and schematic representation.	08
0(OR Discuss Cosmie rous in datail	08
Q-6		Discuss-Cosmic rays in detail.	00

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