

# VP & RPTP Science College-Vallabh Vidyanagar

T Y B.Sc. [Semester-V]

Subject-Physics US05CPHY06

Date: 09/10/2017 Monday Time: 11.00 am to 12.30 pm

Total Marks-25

## Q-1 Multiple Choice Questions: [One mark each]

03

- (i) Which telescope does not use primary mirror?  
(a) Newtonian Reflector (b) Cassegrainian  
(c) Coude (d) Galilean
- (ii) Roche lobes are associated with phenomenon of \_\_\_\_\_.  
(a) Mass transfer in binaries (b) Stellar luminosity  
(c) Stellar temperature (d) Stellar magnetic field
- (iii) The Sun according to H-R diagram falls in category of \_\_\_\_\_ stars.  
(a) main sequence (b) Dwarf  
(c) Cepheid variable (d) red giants



## Q-2 Answer the following questions in short [Attempt any two].

04

- (i) Define color index and heat index.  
(ii) How does coronagraph work?  
(iii) What is difference between optical double stars and true binaries?

Q-3 Explain difference between slit spectrograph and slit less spectrograph.

6

OR

Q-3 Discuss stellar parallax method for measurement of stellar distances.

6

Q-4 Write a note on 11 year Sunspot cycle.

6

OR

Q-4 Write a detailed note on Granules and super granules.

6

Q-5 Explain luminosity effect on stellar spectra.

6

OR

Q-5 Discuss mass transfer in close binary system.

6

*Extra*

14