

VITTHALBHAI PATEL & R.P.T.P. SCIENCE COLLEGE
VALLABH VIDYANAGAR



B.Sc.-Semester VI

PHYSICS

US06CPHY02

(Atomic - Molecular Physics, Energy Science and Earth Science)

Date:11 -03 -2014

Time:03-30 to 05:00pm

Maximum Mark:30

Instruction: (1) Attempt all the questions

(2) Figures on right hand side indicates full mark of that question.

Q-1 Short Questions (answer any three) 06

- (i) What is Emission Spectra ?
- (ii) State Ritz Combination principle.
- (iii) Clarify the concept of Rigid rotator.
- (iv) Give the difference between Raman spectra and Fluorescence spectra.
- (v) Give the composition of core region of the earth.
- (vi) Define Seismograph.

Q-2 Discuss Bohr's theory for the spectrum of Hydrogen atom. 08

OR

Q-2 Write a note on 'Stern and Gerlach experiment' in detail. 08

Q-3 Give an explanation of Rotational spectra using Rigid rotator's concept. 08

OR

Q-3 Narrate experimental arrangement to obtain Raman spectra. 08

Q-4 What is Plate tectonics?-Discuss classification of different plates. 08

OR

Q-4 What is Earth quake?- Discuss how to determine the Epicenter and the Focus of earth quake. 08

