ENVIRONMENTAL SCIENCES

BOOKS RECOMMENDED :

1 E.P. Odum: Fundamentals of Ecology , Saunders (3rd Edition)

2 Subhramanyam and Sambhamurthi : Ecology

3 K.C. Agarwal : Fundamentals of Environmental Biology, Nidhi Publishers, Bikaner.

4 V.Verma : Plant Ecology (4th Edition) Emkay Publishers.

5 Paul Colinvaux : Ecology 2, John Wiley and Sons.

6 P.D.Sharma: Ecology and Environment, Rastogi Publications, Meerut.

7 श्रीवास्तव एवं राव, पर्यावरण और पारिस्थितिकी, वसुन्धरा प्रकाषन, गोरखपुर ।

8 भाटिया कोहली एवं स्वरूप : पर्यावरण जैविकी के विभिन्न आयाम, रमेष बुक डिपो, जयपुर

PRACTICAL :

9 J. Pandey and M.S.Sharma : Environmental Science: Practical and Field Manual, Yash Publications, Bikaner.

PHYSICS

COURSE CURRICULAM

Paper-code	Paper-Max. Marks	Nomenclature	Lect-ures	Dura-tion of Exam	Min. Marks
First Year					
1161	I	Mechanics of Particles, Rigid bodies and Continuous Media	60 hrs	3hrs	18
1162	II	Oscillations, Waves and Acoustics	60 hrs	3 hrs	18
1163	III	Electricity and Magnetism	60 hrs	3 hrs	18
1164	IV	Practical	120 hrs	6 hrs	27

Each theory paper in the annual examination shall have three sections.

Section A shall contain one compulsory question of 5 marks having 10 parts. Two parts shall be set from each unit. The candidate is required to answer each part in about 20 words.

Section B shall contain five compulsory questions of

5 marks each with internal choice .One question wi
internal choice will be set from each unit .The answ
may be given in approximately 250 words.

Section C shall contain four descriptive questio
covering all units and candidate has to answer a
two questions of ten marks each. The answer may
given in approximately 500 words. There can be tw
parts the question from this section.

FIRST YEAR, T.D.C., SCIENCE
2007-2008

PAPER-I
MECHANICS OF PARTICLES, RIGID BODIES AND CONTINUOUS MEDIA

UNIT – I

aws of motion, conservation of energy and omentum, transformation equations for rotating ame, centripetal and Coriolis accelerations, Coriolis orce, Coriolis force due to earth's rotation – xperimental demonstration by Focualt pendulum.

Motion under a central force, conservation of angular momentum, Kepler's laws.

UNIT – II

Fields and potential, gravitational field and potential due to spherical bodies, Gauss's and Poisson's equations, gravitational self energy.

Two body problem, reduced mass, scattering and scattering cross sections, illustrations, Rutherford scattering by hard spheres, centre of mass and laboratory reference frames, binary stars.

UNIT – III

System of particles, centre of mass, calculation of centre of mass of regular bodies, angular momentum, equations of motion, conservation theorems for energy,