C 81763 (Pages : 2) Name.....

Reg. No.....03

FIRST YEAR B.P.E. DEGREE EXAMINATION, APRIL 2015

Physical Education

Paper II—GENERAL SCIENCE

(2010 Admissions)

Time : Three Hours Maximum : 75 Marks

Answer any **five** *questions of which* **three** *questions should be from Part A and* **two** *questions from Part B including* **Question 8** *which is* **compulsory.**

Part A

I. Explain the knowledge of mechanics to a physical educator. (1 × 15 = 15 marks)

II. Explain the following :

(a) Conductors and Non-conductors.

(b) Conjugate acid-base pair.

(c) Principles of projectiles.

(3 × 5 = 15 marks)

III. Differentiate the following :

(a) Osmosis and Diffusion.

(b) Monosaccharides and Disaccharides.

(c) Reflection and Refraction.

(3 × 5 = 15 marks)

IV. Explain in brief :

(a) Air pollution.

(b) Kinetics and Kinematics.

(c) Mechanism of sound transmission.

(3 × 5 = 15 marks)

V. (i) Explain why a long jumper takes a run up before the take-off.

(ii) Explain the terms gravity and centre of gravity.

(iii) Explain why a certain degree of release is treated as "optimum angle of release" in projectile motion.

(3 × 5 = 15 marks)

Turn over

Part B

VI. Explain Pollution and the major causes and methods of control. (1 × 15 = 15 marks)

VII. Give a chemical or computational formula for the following terms :

(a) (i) Amino acids.

(ii) Soap.

(iii) A metal.

(iv) A salt.

(v) An acid.

(5 × 1 = 5 marks)

(b) (i) A Base.

(ii) A non-metal.

(iii) A metalloid.

(iv) A compound.

(v) An element.

(5 × 1 = 5 marks)

(c) (i) An atom.

(ii) A molecule.

(iii) Kinetic energy.

(iv) Potential energy.

(v) Force.

(5 × 1 = 5 marks)

VIII. Write short notes on any *five* :

(i) Radiation.

(ii) Uses of concave mirrors.

(iii) Combustion.

(iv) Momentum.

(v) Force.

(vi) Energy.

(vii) Angular motion.

(viii) Equilibrium.

(5 × 3 = 15 marks)