C 45599

Name......................................

Reg. No.................................

FIRST YEAR B.P.E. DEGREE EXAMINATION, SEPTEMBER/OCTOBER 2013

Physical Education

Paper II—GENERAL SCIENCE

Time : Three Hours

Maximum : 75 Marks

Answer any **five** *questions of which 3 questions should be from Part A and* **two** *questions from Part B including* **Question 8** *which is* **compulsory**.

Part A

I. Explain the recent contributions of science of the field of Physical education, games and sports.

$(1 \times 15 = 15$ marks)

II. (i) Explain compounds and Mixtures.

(ii) Explain mass and weight.

(iii) Explain e.m.f. and p.d.

$(3 \times 5 = 15$ marks)

III. (i) Explain linear and angular motion.

(ii) Differentiate potential energy and kinetic energy.

(iii) Differentiate Heat and temperature.

$(3 \times 5 = 15$ marks)

IV. Explain the following :—

1 Water pollution.

2 Distance and Displacement.

3 Use of sharing mirror with the help of a diagram.

$(3 \times 5 = 15$ marks)

V. (i) Explain the implications of Newton's third law of motion in sports.

(ii) Explain critical angle with the help of a diagram.

(iii) Explain the functions of proteins.

$(3 \times 5 = 15$ marks)

Part B

VI. Explain the need for a knowledge of Organic Chemistry in Physical education.

$(1 \times 15 = 15$ marks)

Turn over

VII. Define the following :—

(a) 1 Vectors.

2 Distance.

3 Speed.

4 Acceleration.

5 Pitch.

(5 × 1 = 5 marks)

(b) 1 Scalars.

2 Displacement.

3 Velocity.

4 Loudness.

5 Amplitude.

(5 × 1 = 5 marks)

(c) 1 Range.

2 Time of Flight.

3 Angle of release.

4 Momentum.

5 Force.

(5 × 1 = 5 marks)

VIII. Answer any *five* questions in brief :

1 Total Internal Reflection.

2 Magnets.

3 Radiation.

4 Centripetal force and centrifugal force.

5 General motion.

6 Chromosomes.

7 RH factor.

8 Blood groups.

(5 × 3 = 15 marks)