

S.No. 8823

16 SCCPE 3

(For candidates admitted from 2016–2017 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

**Part III— Physical Education, Health Education and
Sports — Major**

EXERCISE PHYSIOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL the questions.

1. Define Physical fitness
2. Define Sports Medicine
3. Define Metabolism
4. Write the meaning of ADP?
5. Define Muscle Hyperplasia.
6. Define Slow oxidative fibre.
7. Write the meaning of heart rate?
8. Define Stroke Volume

9. Define Diffusion.

10. Define Pulmonary Respiration.

PART B — ($5 \times 5 = 25$)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain the Physiological basis of warm up exercises.

Or

(b) Explain the aim and scope of exercise physiology.

12. (a) Explain the ATP-CP energy system in detail.

Or

(b) Correlate nutrition and energy in detail.

13. (a) Explain the types of muscle fibres.

Or

(b) Discuss the properties of skeletal muscle.

14. (a) Compare and contrast stroke volume before and after exercise.

Or

(b) Describe the systolic and diastolic blood pressure.

15. (a) Describe the respiratory muscles training in detail.

Or

(b) Explain ventilation at rest and during exercise in detail.

PART C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. Explain in detail the role of conditioning and training in gaining fitness in detail.

17. Discuss the aerobic energy system in detail.

18. Explain the structure of skeletal muscle and types of muscle contraction in detail.

19. Draw a labelled diagram of Heart and discuss the cardiac output in response to physical activity in detail.

20. Draw a labelled diagram of Lungs and explain the mechanics of breathing in detail.