

22BP45

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Name:

Reg. No:

FOURTH YEAR B.P.E. (INTEGRATED) DEGREE EXAMINATIONS, APRIL 2026

(Regular/Supplementary/Improvement)

CC15UBPE4T21 / CC19UBPE4T21 – HEALTH AND FITNESS MANAGEMENT

(2015 Admission onwards)

Time: Three Hours

Maximum: 75 Marks

Part A

Answer any **one** question. The question carries 15 marks.

1. Evaluate the nutritional needs of different age groups and how dietary requirements change across the lifespan.
2. Discuss the principles and key factors involved in designing an effective exercise program for different populations.

(1 × 15 = 15 Marks)

Part B

Answer **all** questions. Each question carries 5 marks.

Explain the following:

3. Lifestyle diseases
4. Functional training
5. Strength Training Equipments.

(3 × 5 = 15 Marks)

Part C

Answer **all** questions. Each question carries 5 marks.

Explain the following:

6. Ergonomics and its impact on occupational health.
7. Procurement of fitness equipment.
8. Role of vitamins and minerals in body functions.

(3 × 5 = 15 Marks)

Part D

Answer **all** questions. Each question carries 1 mark.

Fill in the blanks:

9. _____ is the primary source of energy for the body.
10. Resistance training is effective for building _____ and muscle mass.
11. High Blood Pressure is also known as _____.
12. The ability of the body to resist and recover from illness is known as _____.
13. _____ training helps improve movement patterns used in daily activities.

(5 × 1 = 5 Marks)

Part E

Answer **all** questions. Each question carries 1 mark.

State True or False:

14. BMR (Basal Metabolic Rate) refers to the number of calories burned while at rest.
15. Occupational health is only concerned with preventing workplace injuries.
16. Drinking more water than necessary increases energy levels.
17. Machines are better than free weights for building strength.
18. Fats should be completely removed from a healthy diet.

(5 × 1 = 5 Marks)

Part F

Answer **all** questions. Each question carries 1 mark.

Answer in one word:

19. What is the process by which the body converts food into energy?
20. What is the term for overall well-being, including physical, mental, and social aspects?
21. What type of fitness is influenced by relationships and support systems?
22. Which mineral is essential for muscle function and hydration?
23. What is the unit of power that represents work done over time?
24. What is a visual representation of a balanced diet?
25. What is the science of food and its relationship to health called?
26. Which organ is responsible for detoxifying harmful substances?
27. What is the external factor that affects fitness by altering air quality and temperature?
28. What relaxation technique focuses on breathing and mindfulness?

(10 × 1 = 10 Marks)

Part G

Answer **all** questions. Each question carries 1 mark.

Match the following:

- | | | |
|------------------------|---|--|
| 29. Glycogen | - | A. Bone health |
| 30. Hypertrophy | - | B. Stored form of glucose |
| 31. Anaerobic exercise | - | C. Nutrient responsible for oxygen transport |
| 32. Iron | - | D. Short bursts of high-intensity activity |
| 33. Isometric exercise | - | E. Muscle growth due to resistance training |
| 34. Vitamin D | - | F. Training method involving no movement |
| 35. ATP | - | G. Recommended daily water intake |
| 36. Hydration | - | H. Energy currency of the body |
| 37. Metabolism | - | I. Breakdown and synthesis of nutrients |
| 38. Fiber | - | J. Helps digestion but is not absorbed |

(10 × 1 = 10 Marks)
