

**JAMIA HAMDARD
DEPARTMENT OF PHYSIOTHERAPY
SCHOOL OF NURSING SCIENCES & ALLIED HEALTH**

**MPT 1st YEAR ANNUAL EXAMINATION, MAY 2023
EXERCISE PHYSIOLOGY / EXERCISE PHYSIOLOGY & SPORTS NUTRITION (THEORY)
PAPER CODE: MTC/M/N/S-168**

Time: 3 hours

Maximum Marks: 75

(Write your Roll No. on top of the paper immediately)

Note: (i) Attempt ALL questions (ii) Choices are mentioned wherever applicable (iii) Parts of a question must be answered together (iv) Draw diagrams wherever necessary (v) Give examples wherever necessary

SECTION- A

Attempt any TWO (2) out of the following questions:

2x15=30 marks

1. Discuss in detail the mechanisms of thermoregulation and exercise. What is the role of Hypothalamus in this mechanism?
2. Explain in detail the changes that occur in Respiratory system and Cardiovascular system during exercise.
3. Write a detailed note on Diabetes. Also describe exercise training in diabetes and its benefits on both types of diabetes.
4. What are the medical issues an athlete will come across due to the altitude? How will it affect his/hers sports performance.

SECTION - B

Attempt any THREE (3) out of the following questions:

3x10 = 30 marks

- 1 Explain the neural regulation of respiration. What are the changes that occur in respiration during exercise?
2. Discuss one laboratory and field method for assessing VO_2 max.
3. Discuss the synthesis, distribution and conversion of lactic acid in training.
4. What is the impact of exercise on ageing? Explain.
5. Write a note on sudden cardiac death in sports. How can we prevent it?

SECTION - B

Attempt any THREE (3) out of the following questions:

3x5 = 15 marks

1. Importance of exercise physiology in Physiotherapy
2. Carbohydrate Requirement & Glycemic Index
3. Write note on differences in muscular strength male and female.
4. What are the characteristics of slow twitch & fast twitch fibre?
5. Describe the location of the respiratory centres and the nervous regulation of respiration.
6. What do you understand by RQ in food? Write the RQ of protein and starch and relate it with the sports nutrition.
