

2022

**HUMAN PHYSIOLOGY**

[P.G.]

**(M.Sc. Fourth Semester End Examination-2022)**

**PAPER-PHY402**

**Full Marks: 40**

**Time: 02 Hrs**

*The figures in the right hand margin indicate marks  
Candidates are required to give their answers in their own words as  
far as practicable  
Illustrate the answers wherever necessary*

**UNIT – 35**

**(Research Methodology in applied physiology)**

1. Answer any two questions from the following: **2x2= 4**
  - a) What are meant by quasi-experiments? 2
  - b) Write down two sampling methods in research. 2
  - c) What is meant by plagiarism? 2
  - d) What is hypothesis? How does it differ from theory? 1+1
  
2. Answer any two questions from the following: **2x4 = 8**
  - a) What causes sampling error? Is there any chance that your sampling error could be zero? 3+1
  - b) What is research ethics? Mention the role of ICMR in it. 2+2

(2)

- c) What are the properties of a good research? 4
- d) Write down the style and steps in drafting a research report. 4

**3. Answer any one questions of the following: 1x8 = 8**

- a) i) What are the various steps of a research process?  
ii) Schematically explain the process of sampling design. 4+4
- b) i) What are the five main ethical principles adopted by CPCSEA for use of animal in scientific experiments?  
ii) What are the significance of impact factor of a journal?  
5+3

**UNIT – 36**

**(Industrial and working environmental Physiology)**

**1. Answer any two questions from the following: 2x2= 4**

- a) What is the significance of safety in industry? 2
- b) Explain with an example, how does seat designing affect performance of an individual? 1+1
- c) What should be the major designing aspects for a class – E PPE for head? 2
- d) State the age related factors of human being that inhibit working condition. 2

**2. Answer any two questions from the following: 2x4 = 8**

- a) Describe in brief with suitable diagram the ergonomical design of a computer table.

(3)

- b) Explain with example how environmental factors affect performance of an individual?
- c) Write short note on importance of shift work.
- d) Mention the various types of fire with the remedy to safeguard against them.

**3. Answer any one questions of the following: 1x8 = 8**

- a) i) Write a brief note on size and layout as a component of physical environment.  
ii) Explain how hypothalamus helps in the process of heat gaining 4+4
- b) Describe the design of instrumental display of any health care organization. Why inspections of instruments are required? 4+4

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