

**Human Physiology [P.G.]**

**[CBCS]**

**M.Sc. Fourth Semester End Examination-2024**

**[Regular & Supplementary Paper]**

**PAPER: PHY 402**

**Full Marks: 40**

**Time: 02 Hr**

*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.*

**[Use separate answer script for each unit]**

**Unit – 35**

**[Research Methodologies in Applied Physiology]**

**Marks 20**

1. Answer any two questions from the following: **2x2= 4**
  - a. Write any two important criteria of a “good research”.
  - b. Briefly discuss two sampling methods in research.
  - c. Write the significance of ICMR code of human ethics in research’
  - d. Write two important differences between research report and research article.

**(2)**

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

a. What is plagiarism? What are the ways by which a researcher can avoid plagiarism? Name a plagiarism-detection software.

1+2+1

b. Differentiate between basic and applied research with example.

4

c. Explain the inductive and deductive approach of research with example.

2+2

d. How research methods differ from research methodologies? Why is impact factor (IF) of a journal important?

3. Answer any one question from the following: **1x8= 8**

a. i) What are the five ethical principles adopted by CPCSEA for use of animals in scientific experiments?

ii) What do you mean by citation index? Give example. 5+3

b. i) What are the main objectives of conducting a systematic literature review (SLR)? What is IST?

ii) Discuss the advantages and disadvantages of sampling in a research. (3+1)+(2+2)

### Unit – 36

#### **[Industrial and Working Environmental physiology]**

**Marks 20**

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

a. How non-ionizing radiations affect human health?

**(3)**

b. How Hand-Arm-vibration syndrome occurs?

c. What is MPC of a substance?

d. What is meant by occupational stress?

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

a. What are ergonomic improvements? What are the three strategies of ergonomic improvements? 1+3

b. What are the ergonomical principle during sitting position at work station? 4

c. What are the strategies taken by the employer for an old age worker? 4

d. What are aesthetics? How it may be implemented in ergonomic design? 1+3

3. Answer any one question from the following: **1x8= 8**

a. What are the steps initiated by an employer upon submission of a work-station complaint? 8

b. Mention three areas that contribute satisfaction at work place. What are the methods of ergonomic job hazard analysis? 3+5

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