



K25P 0949

Reg. No. :

Name :

IV Semester M.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular)
Examination, April 2025
(2023 Admission)
PHYSICS
MSPHY04C19 : Research Methodology and Scientific Writing

Time : 1½ Hours

Max. Marks : 30

SECTION – A

Answer **any 3. Each one** carries **3** marks.

1. What is meant by scientific method ?
2. Define a hypothesis and what are the different types of hypothesis ?
3. Define the h-index and its significance in evaluating research impact.
4. Define plagiarism and its implications in research.
5. What is LaTeX and why is it used in academic writing ?

(3×3=9)

SECTION – B

Answer **any 2. Each one** carries **6** marks.

6. Explain the importance of literature review in research.
7. Discuss the differences between journal article, review paper and short communication.
8. What are some tools available for checking plagiarism ? Discuss their importance.
9. Discuss how to create tables in LaTeX. Provide an example.

(2×6=12)

SECTION – C

Answer **any 1. Each one** carries **9** marks.

10. Examine the significance of experimental design in research methodology.
11. Critically evaluate the significance of journal impact factors and other metrics in assessing research quality.
12. Describe how to use research paper templates in LaTeX and their benefits. **(1×9=9)**