

**(Abstract)**

M.Sc. Physics with Computational and Nanoscience specialization Programme (CBCSS-OBE) -in Affiliated Colleges-Modified Model Question paper of the course " MSPHN04C19 : Research Methodology & Experimental Techniques in the IV semester syllabus- Approved - Implemented with effect from 2023 admission

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**ACADEMIC C SECTION**

ACAD C/ACAD C5/20907/2023

Dated: 15.03.2025

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Read:-1. U.O. No. Acad C/ C5/20907/2023 dtd: 17.10.2023 and 23.08.2024

2. EXC I/ASO EXC I-II/35123/2024 dtd: 31/12/2024

3. E-mail dtd: 15/01/2025 from Chairperson BoS in Physics (PG), forwarding modified model question paper

4. Minutes of the meeting of the Standing Committee of Academic council held on 05/03/2025

5. The Orders of Vice Chancellor in file of even No. dated 14.3.2025

**ORDER**

1.The Scheme, Syllabus, Pattern of Question Papers and Model question papers of M.Sc. Physics with Computational and Nano Science specialization programme under CBCSS (In Outcome Based Education system) was approved and implemented in Affiliated Colleges w.e.f. 2023 admission vide paper read (1) above.

2.Meanwhile, the Examination Branch, vide paper read (2) sought clarification on the discrepancy in the marks distribution seen in the scheme and that of the model question paper of the Course: MSPHN04C19 "Research Methodology & Experimental Techniques" in the IV semester Syllabus of the aforementioned programme

3. Subsequently, as ordered, clarification was sought from the Chairperson BoS Physics (PG) in this matter

4.The Chairperson, BoS in Physics (PG) vide paper read 3 intimated that, in the Scheme & Syllabus, the marks for ESE are correctly written as 30 but in the model question paper it is erroneously written as '60' marks and he submitted the model question paper after rectifying the error pointed out by the Examination Branch.

5.The Vice Chancellor, after considering the matter ordered to place the defect rectified Model question paper, before the Standing committee of Academic Council.

6.The Standing Committee of Academic Council held on 05/03/2025 vide paper read (4) considered the matter and recommended to approve the modified model question paper of the course, "MSPHN04C19: Research Methodology & Experimental Techniques"

7.The Vice Chancellor after considering the recommendation of the Standing Committee of the Academic Council and in exercise of the powers of the Academic Council conferred under Section 11(1) of the Chapter III of Kannur University Act 1996, **approved the modified Model question paper of the course "MSPHN04C19: Research Methodology & Experimental Techniques, in the IV semester syllabus of M.Sc Physics with computational and Nano science**

**specialization Programme in Affiliated colleges of the University with effect from 2023 admission, subject to reporting to the Academic Council.**

8.The modified model question paper of the course, "MSPHN04C19: Research Methodology & Experimental Techniques" is appended with this U.O. and uploaded in the University website (www.kannuruniversity.ac.in).

9.The U.O read as paper (1) above stands modified to this extent.

Orders are issued accordingly.

Sd/-

**Bindu K P G**

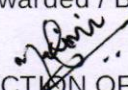
**DEPUTY REGISTRAR (ACADEMIC)**

For REGISTRAR

To: 1) EX CI Section  
2) The Principals of Affiliated Colleges Offering M.Sc.Physics with Computational and Nanoscience specialization programme

Copy To: 1. Controller of Examinations (Through PA )  
2. EG-1/EX C1/AR-I/AR-II / JR -II(Exam Branch)  
3. PS to VC/PA to R  
4. Chairperson, BoS in Physics (PG)  
5. DR/AR (Acad)  
6. Computer Programmer  
7. IT Cell (for uploading on the website)  
8. SF/DF/FC

Forwarded / By Order

  
SECTION OFFICER

KV

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Fourth Semester

**MSc. Physics with Computational & Nano Science specialization  
Degree Examination**

**MSPHN04C19: Research Methodology & Experimental Techniques**

**Time: 1.5 Hours**

**Max. Marks: 30**

**Section A**

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

1. Mention the important characteristics of scientific research.
2. Give an account of any three sources of research ideas.
3. "Correlation does not imply causality". Do you agree with this statement? Justify.
4. Define h-Index. Illustrate with an example.
5. What is the difference between the "guest authorship" and "ghost authorship"?

**Section B**

**(Answer any 2. Each one carries 6 Marks)**

6. What are the different factors to be considered while selecting a research topic?
7. Describe the commonly accepted elements of the scientific method.
8. Briefly discuss the various academic search engines.
9. Write a note on "intellectual property rights".

**Section C**

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

10. Define Hypothesis and discuss the various classification of hypothesis. What are the sources and characteristics of a good hypothesis?
11. What do you mean by "literature review"? What are the important sources of literature? Explain the components and framework of a literature review.
12. Define "plagiarism". Discuss various methods to avoid plagiarism. Illustrate each with suitable example.