[This question paper contains 2 printed pages.]

Sr. No. of Question Paper: 1586 C Roll No.....

Unique Paper Code : 222206

Name of the Paper : PHHP - II (Physics Lab - II)

Name of the Course : B.Sc. (Hons.) Physics

Semester : II

Duration : 1 Hour

Maximum Marks : 20

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.

- 2. Attempt any twenty questions.
- 3. All question carry equal marks.
- 1. Where is the value of 'g' on the surface of the earth minimum and maximum?
- 2. At what height from the surface of the earth the acceleration due to gravity will be 2/3rd of its value on the surface of the earth?
- 3. What do you mean by point of suspension and point of oscillation of a compound pendulum?
- 4. Define radius of gyration. What are its units?
- 5. When will the time period of a compound pendulum be minimum and maximum?
- 6. What is the difference between bar and kater's pendulum?
- 7. Define spring constant and give its units.
- 8. What is the basic difference between static and dynamic method of determining the spring constant?
- 9. What should be the spring constant if two identical springs each of spring constant k are joined in series? How would the time period change?

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- 10. In the Melde's experiment, what types of waves are produced in the string?
- 11. State the three Laws of Vibration of a stretched string?
- 12. On which principle Carey-Foster Bridge works? How it is more useful than a meter bridge?
- 13. If specific resistance of a copper rod and a copper wire are determined would it be equal? What about their resistances?
- 14. Why is it not possible to get a perfect balance in De Sauty's bridge?
- 15. On what factors does the self inductance of a coil depend?
- 16. Why one places the scale at one meter from the mirror of the ballistic galvanometer?
- 17. Distinguish between a "dead beat" and "ballistic galvanometer"?
- 18. Define critical damping resistance for a B.G.
- 19. Name the various types of capacitors used in laboratory.
- 20. Why L is kept greater than CRQ in Anderson bridge? (Symbols have their usual meaning)
- 21. State Faradays Laws of electro magnetic induction.
- 22. On what factor does the mutual inductance of the two coils depend?
- 23. State the difference between an impedance and reactance in an a.c circuit containing L. C and R in series.
- 24. What is the relation of current and impedance in a series LCR circuit and parallel LCR circuit?
- 25. What do you understand by bandwidth in a series LCR circuit?