This question paper contains 2 printed pages.]

Your Roll No. .....

1225

B.Sc. (Hons.)/II A

PHYSICS – Paper XV

(Physics Lab – II)

Time : 45 Minutes **Maximum Marks : 15**

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

Answer **all** questions.
Each question carries **1** mark.

1. What do you understand by damping correction in a galvanometer ?

2. The charge sensitivity of a ballistic galvanometer of time period 0.1 sec is 0.01 μC/cm. What will be the deflection produced when a current of 0.1 μA passes through it ?

3. What do you understand by critical damping resistance of a moving coil galvanometer ?

4. What is the nature of the mirror in the lamp and scale arrangement used for measuring deflection in a ballistic galvanometer ?

5. On what factors does the self inductance of a coil depend ?

6. Will the mutual inductance of a pair of coils change if the primary and secondary coils are interchanged ? Why ?

7. Why does the temperature of the disc attain steady value and not keep rising in Lee's experiment ?

8. How is the resistance coil in a resistance box made induction free ?

9. What is the function of head phone in an a.c. bridge ?

10. Why are there two vernier scales placed diametrically opposite to each other in a spectrometer ?

11. What is the function of collimator in a spectrometer ?

12. Which phenomenon is responsible for dispersion in a grating ?

13. Distinguish between prism and grating spectra.

14. If monochromatic light in Newton's Ring experiment is replaced by white light, how will the fringe pattern be affected ?

15. Can we determine the thermal conductivity of a good conductor by Lee's method ? Explain.
