

QUESTIONS FOR THE PHYSICS PRACTICAL EXAMINATION

(Any one question as per allotted)

1. Using the spectrometer, measure the angle of the given prism and angle of minimum deviation. Hence calculate the refractive index of the material of the prism.
2. Adjust the grating for normal incidence method using the spectrometer. Assuming the number of lines per meter of the grating, determine the wavelength of green, blue and yellow lines of mercury spectrum.
3. Using a meter bridge, find the resistance of a given wire (take at least 5 readings) and hence determine the specific resistance of the material of the wire.
4. Compare the e.m.f s of the given two primary cells using potentiometer. (Take at least 6 readings.)
5. Determine the value of the horizontal component of magnetic induction of the earth's magnetic field, using the tangent galvanometer(Take at least 4 readings)
6. Determine the frequency of a.c. using sonometer(Take 4 readings)
7. (1) By doing a suitable experiment, draw the forward bias characteristic curve of junction diode and determine the forward resistance. (2) By performing an experiment, draw the characteristics curve of the given Zener diode and determine its breakdown voltage,
8. Construct a suitable circuit with the given NPN transistor in CE mode. Draw the input characteristics and output characteristics curves. Find the input impedance and output impedance.
9. Construct a suitable circuit with the given NPN transistor in CE mode. Draw the output characteristics and transfer characteristics curves. Find the output impedance and current gain.
- 10.Using IC 741, construct (1) an Inverting amplifier and (2) summing amplifier study their performance.
- 11.Using IC 741, construct (1) a non-inverting amplifier and (2) summing amplifier study their performance.
- 12.Using appropriate ICs study the truth tables of logic circuits OR, AND, NOT, NOR, NAND, EX-OR