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PA—53—2024

FACULTY OF SCIENCE

B.Sc. (Second Year) (Fourth Semester) EXAMINATION

MARCH/APRIL, 2024

(New Pattern)

PHYSICS

Paper—IX

(Basic Electronics)

(Thursday, 18-04-2024)

Time : 2.00 p.m. to 4.00 p.m.

Time—2 Hours

Maximum Marks—40

N.B. :— All questions are compulsory.

1. Give the analysis of common emitter amplifier to determine current gain, voltage gain, power gain, input impedance and output resistance. 15

Or

- (a) Describe theory, working and characteristics of light emitting diode. 8
- (b) Give the types of extrinsic semiconductor. 7

P.T.O.

2. What are the types of sinusoidal oscillators ? Describe Hartley Oscillator.

15

Or

(a) Explain inverting amplifier.

8

(b) Draw the block diagram of OP-Amp and discuss it.

7

3. Write short notes on (any two) :

10

(a) Varactor diode

(b) Common base connection

(c) Slew rate

(d) Oscillatory circuit.