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SB—90—2022

FACULTY OF SCIENCE

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

MAY/JUNE, 2022

(Old Pattern)

PHYSICS

Paper-IX

(Basic Electronics)

(Wednesday, 15-06-2022)

Time : 2.00 p.m. to 4.30 p.m.

Time— 2.30 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) Illustrate your answers with suitably labelled diagrams wherever necessary.

1. What are h -parameters ? Explain analysis of common emitter amplifier.

15

Or

(a) Explain regulated power supply and give its need.

8

(b) Explain Zener diode voltage regulator.

7

2. What are the types of sinusoidal oscillations ? Explain in detail phase shift oscillator.

15

Or

(a) Explain schematic symbol of operational amplifier.

8

(b) Explain non-inverting amplifier.

7

P.T.O.

3. Attempt any *two* of the four :

10

- (a) Series feedback voltage regulator.
- (b) Faithful amplification
- (c) Input offset voltage
- (d) Hartley oscillator.