

**M.Sc. PHYSICS**  
**FOURTH SEMESTER**  
**ELECTRONICS & COMMUNICATION TECHNOLOGY**  
**MSP-403 B**

(Use separate answer scripts for Objective & Descriptive)

Duration: 3 hrs.

Full Marks: 70

( PART-A : Objective )

Time: 20 min.

Marks: 20

*Choose the correct answer from the following:*

*1×20=20*

1. Klystron is a microwave:
  - a. oscillator
  - b. amplifier
  - c. switch
  - d. none of the above
2. Which one of the following is a crossed field device?
  - a. Magnetron
  - b. Klystron
  - c. TWT
  - d. TRAPATT
3.  $\Pi$ -mode is supported in:
  - a. Magnetron
  - b. Klystron
  - c. TWT
  - d. both a) and b)
4. RADAR uses:
  - a. antenna
  - b. duplexer
  - c. both a) and b)
  - d. none of the above
5. Electrons in Reflex Klystron are captured at repeller end by:
  - a. buncher cavity
  - b. catcher cavity
  - c. resonant cavity
  - d. none of the above
6. Signals coming back from RADAR target is known as:
  - a. echoes
  - b. reflected signal
  - c. pulse
  - d. transmitted signal
7. A graph which shows the distribution of field strength or power strength of EM wave at all points which are equal distance from antenna is called:
  - a. radiation resistance
  - b. radiation pattern
  - c. beamwidth
  - d. major lobe
8. The process in which electron drops to lower level in an entirely random way is:
  - a. spontaneous emission
  - b. stimulated emission
  - c. both a) and b)
  - d. none of the above
9. Luminescence where excitation arises from the absorption of photons is called:
  - a. electroluminescence
  - b. photoluminescence
  - c. cathodoluminescence
  - d. both a) and b)
10. Light source for optical fibre is:
  - a. LED
  - b. LASER
  - c. Both a) and b)
  - d. None of the above

