STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086. (For candidates admitted during the academic year 2008-09 & thereafter)

SUBJECT CODE: PH/ME/CS24

B.Sc. DEGREE EXAMINATION APRIL 2011 BRANCH III - PHYSICS SECOND SEMESTER

COURSE: MAJOR - ELECTIVE

PAPER : COMMUNICATION SYSTEMS

TIME : 3 HOURS MAX. MARKS : 100

 $SECTION - A (10 \times 3 = 30)$

Answer All the Questions:

- 1. Define Amplitude modulation.
- 2. What is pulse width?
- 3. Define Electromagnetic Wave.
- 4. What is Ionosphere?
- 5. Explain the principle of radar in brief.
- 6. What is Klystron?
- 7. Define Optical Fibre.
- 8. What is (LAN)?
- 9. Define LCD.
- 10. What is networking?

SECTION - B

Answer any Five questions:

(5x 6=30)

- 11. Write note on frequency modulation.
- 12. Mention some features of ground waves.
- 13. Give some applications of radar.
- 14. Write note on Types of fibers.
- 15. Discuss sources of fibre loss. Discuss any two in detail.
- 16. Explain working of Klystron oscillator.
- 17. Give a brief description about Mobile communication.

SECTION - C

Answer any Two questions:

 $(2 \times 20 = 40)$

- 18. a. Explain amplitude modulation.
 - b. Obtain expression for amplitude modulated wave.
- 19. Give the block diagram and explain the optical fibre communication systems.
- 20. a. Derive Radar range equation.
 - b. Explain Radar System with block diagram.
- 21. Write short note on a) Sky waves
- b) Doppler radar
- c) Structure of optical fibre
- d) Communication satellite
