(FOR THE CANDIDATES ADMITTED DURING THE ACADEMIC YEAR 2023 ONLY)

SUBJECT CODE 23 PPS 2E3

REG.NO.

N.G.M. COLLEGE (AUTONOMOUS): POLLACHI

END-OF-SEMESTER EXAMINATIONS: MAY – 2024

M.Sc. Physics **MAXIMUM MARKS: 75**

SEMESTER : II **TIME : 3 HOURS**

ELECTRONIC COMMUNICATION AND CYBER SECURITY

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS. (K1)

1. The lower values of Noise figure (NF) and noise factor (*F*) indicating _____of amplifier or a radio receiver.
   (a) better performance (b) low performance
   (c) destruction (d) above b and c options are correct.
2. Decrease in signal strength due to energy losses is called _____.
   (a) Distortion (b) Interference (c) Attenuation (d) Noise.
3. Device that generates high power electromagnetic wave is _____
   (a) Magnet. (b) Magnetron (c) Electrometer (d) Botnet
4. _____ is a destructive program. It usually pretends as computer games or application software.
   (a) Trojan Horse (b) Spam (c) Electronic email (d) Crack ware
5. _____ demanding money to prevent a threatened attack.
   (a) Ransomware (b) Spam (c) Identity Theft (d) Firewalls

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES. (K2)

6. Define the term frequency modulation.
7. List the types of modulation.
8. Radar is an acronym of what?.
9. Define the term ‘worm’ in computers.
10. What are known as Firewalls?

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SECTION – B (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

11. a) Describe Noise figure (NF) and noise factor (*F*) and their importance in electronics.

(OR)

b) Compare Amplitude Modulation and Frequency Modulation.

12. a) Describe Pulse Position Modulation.

(OR)

b) Write a note on Delta Modulation.

13. a) Explain the basic principle of Radar, with appropriate block diagram.

(OR)

b) Describe the working of colour TV transmitter.

14. a) Explain the following

i) Authentication
ii) Authorization

(OR)

b) What is root kit? What are it's used?

15. a) Give note on computer virus and its symptoms.

(OR)

b) What is ethical hacking? What are the rules to be adopted? .

SECTION – C (5 X 8 = 40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

16. a) Explain the frequency modulation with necessary diagrams.

(OR)

b) Describe the working Superheterodyne AM Receiver with diagram.

17. a) Classify various types of modulations with diagrammatic representation and explain.

(OR)

b) Explain the Pulse Code Modulation process with necessary block diagram.

18. a) Explain the construction and working of multicavity Klystron.

(OR)

b) Explain the working of Colour TV receiver with block diagram.

19. a) What are the roles of Virus and Worms in Computers? Explain

(OR)

b) What is password? Discuss about Password ManagementSystem.

20. a) Explain Firewall and Intrusion detection and prevention systems.

(OR)

b) What is Cyber Crime? What are the various types of Cycer crime activities? Explain. .

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