Part III – Vocational Subjects
(Engineering and Technology Area)

ELECTRONIC EQUIPMENTS
(Tamil and English Versions)

Instructions:
1. Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.
2. Use Black or Blue ink to write and underline and pencil to draw diagrams.

PART - I
(Marks: 30)

Note: Answer all the questions.

I. (A) Choose the correct option.

1. \(\text{NOT gate} (\text{NOT gate})\) is also called an \(\text{______} \) gate.

   (a) Rectifier  (b) Inverter  (c) Convertor  (d) Modulator

   [Turn over]
2. The process of superimposing signal on carrier wave is called ________.
   (a) De-Modulation  (b) Modem  
   (c) Modulation     (d) Pulse Modulation

3. The simplest radio receiver is the ________.
   (a) Crystal     (b) A.M.  
   (c) F.M.       (d) Communication

4. The Bandwidth of A.M. Radio Receiver is ________.
   (a) 5 kHz  (b) 20 kHz  
   (c) 10 kHz  (d) 100 kHz

5. The electron ray moving from left to right and right to left is called as ________.
   (a) Horizontal Scanning  (b) Vertical Scanning  
   (c) Interlaced Scanning (d) Sequential Scanning
6. A sawtooth wave of ________ is needed for vertical scanning.
   (a) 50 Hz  (b) 75 Hz  (c) 625 Hz  (d) 15625 Hz
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   (a) 50 Hz  (b) 75 Hz  (c) 625 Hz  (d) 15625 Hz

7. DVD the colour of laser beam is ________.
   (a) Blue  (b) Violet  (c) Orange  (d) Red
   DVD the colour of laser beam is ________.
   (a) Blue  (b) Violet  (c) Orange  (d) Red

8. The phone which is called as a world phone is ________.
   (a) CS  (b) CDMA  (c) GSM  (d) TDMA
   The phone which is called as a world phone is ________.
   (a) CS  (b) CDMA  (c) GSM  (d) TDMA

9. Satellite cell phone is shortly named as ________.
   (a) Sat phone  (b) Cell phone  (c) Mobile phone  (d) Walkie-talkie
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10. The ALU and the CU of a computer system are jointly known as the ________.
   (a) Arithmetic and Logical Unit
   (b) Control Unit
   (c) Central Processing Unit
   (d) Storage Unit

11. A plotter (Plotter) is ________ device similar to printer.
   (a) Input
   (b) Output
   (c) Data
   (d) Telephone

12. Microwave equipment can be used ________ both analog and digital microwave signals.
   (a) Sending
   (b) Transferred
   (c) Transmit
   (d) Link

13. Radar is a ________ detection system.
   (a) Object
   (b) Wave
   (c) Water
   (d) Metal
14. _______ wave below 3.5 Hz occurs in deep sleep occur independent of activity.
   (a) Theta  (b) Beta  
   (c) Alpha  (d) X-Rays

15. _______ - Electroencephalogram (EEG) is used to convert _______ activity into electrical waves.
   (a) Heart  (b) Brain  
   (c) Lungs  (d) Neuronal

16. State two series symbols for logic gates.

17. What is called directional property of Antenna?

18. Which Antenna is mounted on the earth surface?


20. What is Pre-Amplifier?

21. What is image frequency?
22. What is meant by Acquadacoating?

23. What is meant by Aspect ratio?


25. By which the CD can be made?

26. How many minimum number of speakers are used in a home theatre?

27. By which we get the calls of a cell phone?

28. State any two input devices.

29. State two types of satellites.

30. Say any two of the diagonalize equipment.

**PART - II**

Answer any ten questions in five lines each.

31. Define AND gate.

32. Define Flip - Flop.

33. Give a few words about modem.
34. What are the functions of F.M. detector?

35. What is called Fading in Radio Receivers?

36. Define Interlaced Scanning.

37. What is the function of gramophone Tone Arm?

38. Write short notes on memory card.

39. What is the main function of the Control Unit?

40. State any two output devices.

41. State any two applications of RADAR.

42. What are the uses of Communication Satellite?

PART - III

Answer any five questions in about one page each. Draw diagrams wherever necessary.

43. Explain:
   (a) Astable Multivibrator.
   (b) Monostable Multivibrator.

44. Explain the amplitude modulation with waveform.
45. विद्युत प्रणाली विज्ञानीय किल्ले प्रकार के साहित्य अनुसार विवरण करें।
   Draw and explain the block diagram of TRF Receiver.

46. CD-कंडल द्रुतस्वरूपनम् जोड़ना की सिद्धांत।
   How is the CD made?

47. कारकी के हास्यवगन्धक कथा।
   Explain the characteristic of computer.

48. तीव्रतमक त्रिप्रकार चूंकि प्रकीर्ण प्रकीर्ण की सिद्धांत।
   Explain about Microwave Transmission and Reception.

49. ज्यां विहक दर्पण प्रकार का।
   Write about the operation of CT Scan.

पाँची - IV / PART - IV

IV. दक्षिणम तिसरी भूस्थलीय विश्लेषण जनसंख्या प्रकार के विभाजन अनुसार विवरण विवरण विवरण विवरण विवरण।
   4x20=80
   Answer any four questions in about two pages each. Draw diagrams wherever necessary.

50. ओपरेटियर गेट के दो हीरो दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें।
   Explain the functions of any three Logic gates with neat diagram.

51. प्रॉप-पुल एम्मरानील (Push - Pull Amplifier) निरंतर अवस्था की सिद्धांत।
   Draw and explain the Push - Pull Amplifier.

52. सिंधुपाल द्वारा बांध कक्षा विकास प्रविधि की।
   Draw and explain the working of Picture Tube.

53. शीतक - प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक दर्पण प्रकाशक।
   Draw the black - white T.V. Receiver Block diagram with waveforms.

54. ओपरेटियर गेट के दो हीरो दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें दर्पणें।
   Give details of cell phone frequency.

55. कुल कारकी के हास्यवगन्धक शीतक दर्पण प्रकाशक दर्पण प्रकाशक की सिद्धांत।
   Explain the basic computer operation with block diagram.

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