CBSE Class 12 Electronic Technology 2016 - Set 313

Question Paper

Conducted by the Central Board of Secondary Education (CBSE)

Time Allowed: 2.5 Hours **Maximum Marks: 50**

General Instructions

(i) The question paper contains 33 questions in four sections.

(ii) Section A: Attempt any thirteen of Questions 1–15, carrying 1 mark each. Select the correct answer.

(iii) Section B: Attempt any five of Questions 16–22, carrying 2 marks each.

(iv) Section C: Attempt any four of Questions 23–28, carrying 3 marks each.

(v) Section D: Attempt any three of Questions 29–33, carrying 5 marks each.

Section A

Attempt any thirteen questions. Each question carries one mark. Select the correct answer.

1. The VHF range of Radio Frequency is :

(A) (3-30) MHz
(B) (30-300) MHz
(C) (3-30) GHz
(D) (30-300) GHz

2. Space wave propogate through :

(A) Ionosphere
(B) Troposphere
(C) Around the surface of earth
(D) Waveguide

3. In amplitude modulation, the amplitude of carrier varies in accordance to signal's :

(A) amplitude
(B) frequency
(C) phase
(D) all of the above

4. In satellite communication, command signals control :

(A) signal strength
(B) signal frequency
(C) satellite position
(D) all of the above

5. In satellite, the Uplink Frequencies are :

(A) higher than downlink
(B) equal
(C) lower than downlink
(D) can have any value

6. In Telemetery, the signals can be transmitted through :

(A) wireless
(B) satellite
(C) cable/wire
(D) all of the above

7. Telemetery is used where place of data monitoring is :

(A) hazardous
(B) difficult to reach
(C) difficult physical conditions
(D) all of the above

8. Frequency band used for cellular mobile communication is :

(A) (300-3000) MHz
(B) (820-890) MHz
(C) (3-30) MHz
(D) (3-30) GHz

9. Which Multiplexing can be combined ?

(A) TDMA & FDMA
(B) FDMA & CDMA
(C) CDMA & TDMA
(D) All the above

10. In cellular Base Master System, the number of cells under one cluster is :

(A) 10
(B) Multiples of two
(C) 5
(D) any number depending on band width

11. A SMD station is used to :

(A) Solder
(B) Desolder
(C) Remove Dry Solder
(D) All the above

12. Out of the following, what is not required for mobile repair ?

(A) SMD station
(B) Soldering station
(C) Hot Air Gun
(D) Pattern Generator

13. In a mobile phone, during one call, the frequency :

(A) remains same.
(B) changes only when both parties change cell location.
(C) changes if any of the party changes cell location.
(D) continuously changes.

14. The difference between BGA and other ICs are :

(A) always VLSI
(B) packaging is different
(C) have very large number of pins
(D) all of the above

15. Cellular Radio system has the advantage of :

(A) Re-use of Frequencies
(B) Less Transmitting Power
(C) Low Interference
(D) All of the above

Section B

Attempt any five questions. Each question carries two marks.

16. Draw the Block Diagram of a communication system to represent its elements.

17. Explain any type of modulation with waveform and expression.

18. In reference to space wave propagation, explain reflection and 'line of sight'.

19. Explain 'Earth Station' in reference to satellite communication.

20. Explain 'TDMA' in brief.

OR

20. Explain 'CDMA' in brief.

21. What are the controls in a SMD workstation.

22. State the use of 'Mobile Testing Board'.

OR

22. State the use of 'BGA IC Kit'.

Section C

Attempt any four questions. Each question carries three marks.

23. Classify Noise and state its source of generation.

24. State why do we need a Regulation Act for use of Radio Frequencies ?

25. Explain in brief VSAT Technology.

26. Explain the need of 'Multiplexing' and list different types of multiplexing.

27. Explain any **one** in brief :

(i) Blue Tooth Technology

(ii) Wi - Fi

(iii) SIM Card

28. List the steps of 'Formatting' a mobile phone.

OR

28. Unlocking a mobile phone using codes.

Section D

Attempt any three questions. Each question carries five marks.

29. Explain in brief Digital Data Transmission.

30. Give an overview of satellite system.

OR

30. Give an overview of Telemetery.

31. Describe in brief the working of Base and Master System for Mobile Communication.

32. Explain the function of display unit in a mobile phone.

33. To be a successful mobile repair technician, what steps you need to take ?

- End of Question Paper -