

CBSE Class 12 Electronic Technology 2019 - Set 313

Question Paper

Conducted by the Central Board of Secondary Education (CBSE)



Time Allowed: 2.5 Hours

Maximum Marks: 50

General Instructions

- (i) This question paper contains 31 questions, out of which the candidate needs to attempt 23.
- (ii) The paper is divided into two sections.
- (iii) Section A: Answer any ten of Questions 1–12 (1 mark each), any five of Questions 13–19 (2 marks each), and any five of Questions 20–26 (3 marks each).
- (iv) Section B: Answer any three of Questions 27–31 (5 marks each).

Section A

Attempt any ten questions. Each question carries 1 mark.

1. Modulating frequency is

- | | |
|-----------------------------------|----------------------------------|
| (A) Higher than carrier frequency | (B) Lower than carrier frequency |
| (C) Equal to carrier frequency | (D) Can have any value |

2. In free space, the speed of electromagnetic waves is

- | | |
|---------------------------------|-----------------------------------|
| (A) 300 metres/second | (B) 3×10^4 metres/second |
| (C) 1×10 metres/second | (D) 3×10^8 metres/second |

3. VHF signals propagate through

- | | |
|--------------------------|-----------------|
| (A) Ionosphere | (B) Troposphere |
| (C) Surface of the earth | (D) Waveguide |

4. In a cellular mobile system, the shape of the cells is

- | | |
|--------------|-----------------|
| (A) Circular | (B) Hexagonal |
| (C) Pentagon | (D) Rectangular |

5. A geostationary satellite takes one round of its orbit in

- | | |
|------------------|-----------------------|
| (A) One hour | (B) Four hours |
| (C) Twelve hours | (D) Twenty-four hours |

6. The source of electrical power in a satellite system is

- | | |
|-------------------|----------------|
| (A) Battery Cells | (B) Generators |
| (C) Solar Panels | (D) Fuel Cells |

7. In mobile communication, we use 1G, 2G, 3G and 4G. Here G represents

- | | |
|----------------|-------------|
| (A) Government | (B) Global |
| (C) Generation | (D) Gateway |

8. Which of the following is *not* a mobile phone component ?

- | | |
|----------------|---------------------|
| (A) Speaker | (B) Dipole |
| (C) LCD Module | (D) Bandpass Filter |

9. Bluetooth technology is used in communication for

- | | |
|-------------------|--------------------|
| (A) Long distance | (B) Short distance |
| (C) Optical | (D) Scanning |

10. BGA technology is used for ICs where the number of pins are

- | | |
|--------|---------------|
| (A) 14 | (B) 16 |
| (C) 24 | (D) Very high |

11. The function of Central Processing Unit (CPU) is to

- (A) Check the field strength
(B) Scan the keyboard
(C) Control standby charging
(D) All of the above

12. An SMD station is used for

- (A) soldering
(B) de-soldering
(C) removing dry solder
(D) All of the above

Attempt any five questions. Each question carries 2 marks.

13. Define bandwidth of AM modulation system.

14. What are the limitations of sky wave propagation ?

15. Write any two applications of satellites.

16. Mention the different generations of mobile phones.

17. What is IMEI ?

18. What is BGA IC ?

19. Explain the function of 'Duplex Filter' in a mobile phone.

Attempt any five questions. Each question carries 3 marks.

20. Explain the need of modulation.

21. Explain how communication takes place through satellites.

22. Compare CDMA and GSM mobile services.

23. Write the signs of a virus-infected mobile phone. How can we avoid viruses ?

24. Write about working on SMD ICs.

25. Write the procedure to open your own mobile repair shop.

26. What are the various spare parts and accessories required in a mobile shop ?

Section B

Attempt any three questions. Each question carries 5 marks.

27. Explain the elements of cellular radio system and its advantages.

28. What is Telemetry ? What is VSAT technology ?

29. Explain about GPRS system and its applications.

30. Explain unlocking of mobile phone using codes and software.

31. To run a mobile repair shop, write the sources to procure tools, spare parts and accessories.

- End of Question Paper -