

2019
CLASS - IX
ELECTRONICS & HARDWARE (Vocational)

Total marks : 50

Time : 2 hours

General instructions :

- i) Approximately 15 minutes is allotted to read the question paper and revise the answers.
- ii) All questions are compulsory except Q. nos.18 to 23 where general option is given.
- iii) The question paper consists of 23 questions.
- iv) Marks allocated to every question are indicated against it.

N.B: Check that all pages of the question paper are complete as indicated on the top left side.

1. **Choose the correct answer from the given alternatives:** **10x1=1**
- i. What is the unit of current?
(a) Watt (b) Volt
(c) Ampere (d) Ohm
 - ii. Watt meter is an instrument to measure
(a) Electric Voltage (b) Electric Current
(c) Electric Energy (d) Electric power
 - iii. The circuit in which current flows through vacuum, gas or semiconductor is called as
(a) transistor (b) electronic circuit
(c) transformer (d) capacitor
 - iv. Which of the following is not a specification of transformer?
(a) Circuit (b) Frequency
(c) Voltage (d) Ampere
 - v. The head of a hammer is made of
(a) steel (b) silicon steel
(c) cast steel (d) iron
 - vi. How is Ammeter connected in the circuit?
(a) In parallel (b) In series
(c) At two terminals (d) At single terminal
 - vii. Which of the following method is used when the information is received from the sender through a letter?
(a) Listening (b) Reading
(c) Speaking (d) Writing
 - viii. Grooming is associated with
(a) neat and clean appearance (b) self management
(c) understanding self (d) confidence building
 - ix. It is a short range wireless communication technology.
(a) GPS (b) Wi-Fi
(c) Internet (d) Bluetooth
 - x. Which of the following is an example of renewable resources?
(a) Coal (b) Petroleum
(c) Solar energy (d) Fossil fuels

Answer the following questions in one word or one sentence:

- 2. Write any two non conventional methods of electricity generation. 1
- 3. What is electric current? 1
- 4. What type of switch is used in bathrooms? 1
- 5. What is a capacitor? 1
- 6. What does LED stand for? 1
- 7. Name any two parts of a transistor. 1
- 8. Mention any two types of electrical measuring instruments. 1
- 9. Write any two types of hammer. 1

Answer the following questions in 20-50 words:

- 10. Mention any two instruments for measurement of electrical quantities and write their symbols. 1+1=2
- 11. What is Diac? Write any one application of Diac. 1+1=2
- 12. If $10\ \Omega$ resistance 'R' is connected to 20 volt supply 'V', find the value of current 'I'. 2
- 13. Find the equivalent resistance, if two resistance of $50\ \Omega$ each are connected in parallel. 2
- 14. Distinguish between step-up and step-down transformer. 2
- 15. What is Neon Tester? Write one use of Neon Tester. 1+1=2
- 16. Mention any two benefits of entrepreneurship. 2
- 17. Write any two advantages of digital meter. 2

Answer any four from the following questions in 60-100 words:

- 18. Explain any four sources of electricity. 4
- 19. Explain a series circuit with the help of a diagram. 2+2=4
- 20. What is a transformer? Explain briefly the construction of a transformer. 1+3= 4
- 21. What is resistor? State any three functions of a resistor. 1+3=4
- 22. Write four applications and two advantages of multimeter. 4
- 23. Explain any four self management skills. 4
