

**2021**  
**CLASS – IX (Phase I)**  
**ELECTRONICS & HARDWARE (Vocational)**

Total marks : 25

Time : 1 hour

**General instructions :**

- i) *Approximately 8 minutes is allotted to read the question paper and revise the answers.*
- ii) *All questions are compulsory except Q. nos.10 to 12 where general option is given.*
- iii) *The question paper consists of 12 questions.*
- iv) *Marks allocated to every question are indicated against it.*

**N.B:** *Check to ensure 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: 5x1=5**

- i. Which of the following methods is used to receive information from the sender through a letter
  - (a) listening
  - (b) speaking
  - (c) reading
  - (d) writing
- ii. Which of the following is a quality of a self-confident person?
  - (a) patience
  - (b) self belief
  - (c) passion
  - (d) intelligence
- iii. What is the SI unit of electric current?
  - (a) ohm
  - (b) ampere
  - (c) watt
  - (d) volt
- iv. How many terminals does a transistor have?
  - (a) one
  - (b) two
  - (c) three
  - (d) four
- v. What is the sign of a frequency meter?
  - (a) A
  - (b) Hz
  - (c) V
  - (d) %

**Answer the following questions in one word or one sentence:**

- 2. What is visual communication? 1
- 3. State ohms law. 1
- 4. What is diode? 1
- 5. Name any two electrical measuring instruments. 1

**Answer the following questions in 20-50 words:**

- 6. What is self management? Write any two self management skills. 1+1=2
- 7. 10 lamps are connected in series. Each lamp has 5v. Find the total voltage. 2
- 8. Draw the symbol of PNP and NPN transistor. 2
- 9. State any two advantages of multimeter. 2

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

- 10. Explain Kirchhoff Voltage Law with the help of diagram. 4
- 11. Explain the principle of a transformer with the help of a diagram. 4
- 12. Write any four electrical hand tools and their uses. 4

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