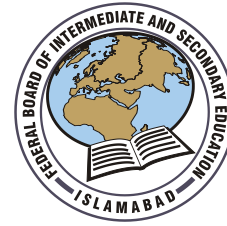


Version No.			

ROLL NUMBER						



0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

Sign. of Candidate \_\_\_\_\_

Sign. of Invigilator \_\_\_\_\_

**Basics of HVACR SSC–II**  
**SECTION – A (Marks 06)**  
**Time allowed: 10 Minutes**

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. **Do not use lead pencil.**

**Q.1 Fill the relevant bubble for each part. All parts carry one mark.**

- 1) Flow of electrical charge carriers, usually electrons is known as:
 

(a) Voltage <input type="radio"/>	(c) Resistance <input type="radio"/>
(b) Current <input type="radio"/>	(d) Neutron <input type="radio"/>
- 2) Measure of the opposition to flow of electrons in an electrical circuit is known as:
 

(a) Voltage <input type="radio"/>	(c) Resistance <input type="radio"/>
(b) Current <input type="radio"/>	(d) Conductance <input type="radio"/>
- 3) A device that stores electrical energy in an electric field is known as:
 

(a) Capacitor <input type="radio"/>	(c) Insulator <input type="radio"/>
(b) Semiconductor <input type="radio"/>	(d) Conductor <input type="radio"/>
- 4) The temperature of air measured by a thermometer freely exposed to the air is known as:
 

(a) Dry bulb <input type="radio"/>	(c) Wet bulb <input type="radio"/>
(b) Dew Point <input type="radio"/>	(d) Relative Humidity <input type="radio"/>
- 5) Mass of water vapour in a unit mass of moist air, usually expressed as grams of vapour per kilogram of air is known as:
 

(a) Relative Humidity <input type="radio"/>	(c) Specific Volume <input type="radio"/>
(b) Enthalpy <input type="radio"/>	(d) Specific humidity <input type="radio"/>
- 6) The number of cubic meters occupied by one kilogram of a particular substance is known as:
 

(a) Relative Humidity <input type="radio"/>	(c) Specific Volume <input type="radio"/>
(b) Enthalpy <input type="radio"/>	(d) Specific humidity <input type="radio"/>



## Federal Board SSC-II Examination Basics of HVACR

Time allowed: 2.00 hours

Total Marks: 24

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Note: Answer any seven parts from Section 'B' and attempt any two questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

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### SECTION – B (Marks 14)

**Q.2** Attempt any **SEVEN** parts from the following. All parts carry equal marks. Be brief and to the point.  
**(7 x 2 = 14)**

- i. Define electricity.
- ii. What is the difference between electrical and electronics?
- iii. What is a semi-conductor?
- iv. Describe circuits and its types.
- v. Enlist different types of accessories used in HVACR system.
- vi. Define psychrometry.
- vii. What is a psychrometric chart?
- viii. Define air distribution system.
- ix. Write down the importance of water distribution system.
- x. Define thermal insulation.

### SECTION – C (Marks 10)

**Note:** Attempt any **TWO** questions. All questions carry equal marks.

**(2 x 5 = 10)**

**Q.3** Explain the importance of pumps and valves.

**Q.4** Write a detailed note on psychrometric properties of air.

**Q.5** Explain air leak testing techniques in ducts.