

## Physics Full Syllabus Test

VIII (ICSE)

Full Marks : 80

Time : 2 hrs.

### SECTION – A

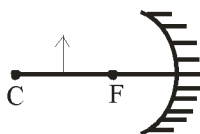
(Compulsory)

1. Write true or false for each statement and correct the false statements. (5 × 2)
  - (a) Boiling takes place at all temperature.
  - (b) The S.I. unit of relative density  $\text{km/m}^3$ .
  - (c) The S.I. unit of moment of force is joule.
  - (d) Cubical expansion co-efficient of a material is less than the linear expansion coefficient.
  - (e) Concave mirror always produce virtual image.
2. Fill in the blanks: (10 × 1)
  - (a) Evaporation is a \_\_\_\_\_ phenomenon.
  - (b)  $1 \text{ gm/cc} = \text{_____ kg/lit.}$
  - (c) Pressure inside a liquid increases with \_\_\_\_\_ in depth.
  - (d) A compressed spring possess \_\_\_\_\_ energy.
  - (e) A concave mirror produce a virtual image when the object is placed between \_\_\_\_\_ and \_\_\_\_\_.
  - (f) Energy possessed by a moving object is \_\_\_\_\_ energy.
  - (g) The fastest mode of heat transfer is \_\_\_\_\_.
  - (h) A concave mirror produces real magnified image when the object is placed between \_\_\_\_\_ and \_\_\_\_\_.

### SECTION – B

(Answer any six questions)

3.
  - (a) Name the unit in which you pay the cost of your electricity bill. How is it related to joule? 2
  - (b) What is an electric fuse? State its purpose in the household electric circuit. 2
  - (c) A body of mass 5 kg is moving with a speed of 20 m/s. Calculate the kinetic energy of it. 2
  - (d) Complete the ray diagram and also write down the nature of the image. 2+2



4.
  - (a) State two safety measures that you will observe in thunderstorm. 2
  - (b) How is a tall building protected from damage due to lightning? 2
  - (c) What is lightning conductor? How does it work? 2+2
  - (d) How will you use a gold leaf electroscope to find out whether the charge on a charged body is positive or negative? 2
5.
  - (a) What is an electric meter? Where is it fixed in our house? 2+2
  - (b) One day the meter reading is found to be 7643 units while the next day, it was 7657 units. What is the consumption of electricity in a day? 3
  - (c) If an appliance of power P watt is used for time t hour. How much electrical energy is consumed in kwh? 3
6.
  - (a) Why is the loudness of sound heard by a plucked wire increased when mounted on a sound board? 3
  - (b) State three factors on which loudness of sound heard by a listener depends. 3
  - (c) Define: (i) loudness (ii) pitch (iii) quality (iv) frequency. 4

|     |       |                                                                                                                                                                     |   |
|-----|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 7.  | (a)   | Water is heated from $0^{\circ}\text{C}$ to $4^{\circ}\text{C}$ . Will it expand?                                                                                   | 2 |
|     | (b)   | What is boiling?                                                                                                                                                    | 2 |
|     | (c)   | What do you understand by thermal expansion of a substance?                                                                                                         | 2 |
|     | (d)   | Give two examples of the substances which expand on heating.                                                                                                        | 2 |
|     | (e)   | Why the telephone wires break in winter?                                                                                                                            | 2 |
| 8.  | (a)   | Name the kind of mirror used to obtain                                                                                                                              | 4 |
|     | (i)   | a real and enlarged image                                                                                                                                           |   |
|     | (ii)  | a virtual and enlarged image                                                                                                                                        |   |
|     | (iii) | a real and diminished image                                                                                                                                         |   |
|     | (iv)  | a virtual and diminished image                                                                                                                                      |   |
|     | (b)   | State two use of convex mirror.                                                                                                                                     | 2 |
|     | (c)   | State two use of concave mirror.                                                                                                                                    | 2 |
|     | (d)   | How can a concave mirror be used to obtain a virtual image of an object?                                                                                            | 2 |
| 9.  | (a)   | Define 1 joule of energy.                                                                                                                                           | 2 |
|     | (b)   | What are the two kinds of mechanical energy?                                                                                                                        | 2 |
|     | (c)   | State two factors on which the kinetic energy of moving body depends.                                                                                               | 2 |
|     | (d)   | If the velocity becomes double then find the kinetic energy will becomes how much times?                                                                            | 2 |
|     | (e)   | Two bodies of same masses are placed at height $h$ and $2h$ . Compare their gravitational potential energy.                                                         | 2 |
| 10. | (a)   | Describe the process of condensation with examples.                                                                                                                 | 3 |
|     | (b)   | The mass of an empty density bottle is 30 gm, it is 75 gm when filled completely with water and 65 gm when filled completely with a liquid. Find density of liquid. | 4 |
|     | (c)   | Find the thrust required to exert a pressure of 50000 Pa on an area of $0.05\text{ m}^2$ ?                                                                          | 3 |

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