

Note :—

1. Part 'A' may be attempted in first 5 pages of Answer Sheet.
भाग 'क' के सभी उत्तर, उत्तर-पुस्तिका के प्रथम पांच पृष्ठों में ही करने हैं।
2. Part 'B' may be attempted in rest of the Sheets of Answer Sheet.
भाग 'ख' के उत्तर, उत्तर-पुस्तिका के अगले शेष पृष्ठों में लिखिये।
3. Answers may be given in English or Hindi.
प्रश्नों के उत्तर अंग्रेजी अथवा हिन्दी में दीजिये।

PART - A

1. Answer any ten questions.

(10 x 2 = 20)

- (a) What are advantages of measuring systems?
- (b) What is photovoltaic cell?
- (c) Define pressure.
- (d) What is thermistor?
- (e) What is strain?
- (f) Convert 25°C in °F.
- (f) Name any two temperature measuring devices.
- (g) Define Force.
- (h) Pyrometers are used for which purpose?
- (I) What kind of thermometers can be used to measure the temperature of Sun?
- (j) What do you understand by lead wire?
- (k) Define gauge factor.
- (I) What is load cell?
- (m) What are thermocouples?

2. Answer any five questions.

(5 x 4 = 20)

- (a) What are servomotors? How do they work?
- (b) What are the advantages and limitations of optical pyrometers?
- (c) What is the principle of working of pressure spring thermometers?

- (d) What is the basic principle of ultrasonic flow meter?
- (e) How is pressure cells constructed? What are its applications?
- (f) What are resistance thermometers? Where are they used?
- (g) What is a Bourdon pressure gauge? How do they work?

PART - B

Answer any three questions.

(20 x 3 = 60)

- 3. What are optical transducers and tachogenerators? Write short note on them. (20)
- 4. Write about various types of strain gauge. (20)
- 5. What are the methods for measuring speed? Write about devices used for this purpose. (20)
- 6. Explain the working of ultrasonic flowmeter. (20)
- 7. What are the sources of error in a gauge? How are they compensated? (20)

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