

 $1\frac{1}{2}$  hours

Full Marks: 30

1. Answer all the following:

 $1 \times 5 = 5$ 

- (a) 10<sup>-15</sup> is known as ......
- (b) What is the S.I unit of "Amount of Substance".
- (c) Bronze is alloy of which materials.
- (d) What is the full form of CRO.
- (e) Zener diode operates in which biasing?

2. Answer any five of the following:

 $2 \times 5 = 10$ 

- (a) Define pitch and leadt count of screw gauge.
- (b) Define the term vernier constant.
- (c) What do you mean by precession and accuracy?
- (d) What is the basic function of Lathe machine.
- (e) What do you mean by alloys.
- (f) Define the process of welding.
- (g) Write the applications of a bench vice.
- (h) Define regulated power supply.
- (i) Write briefly about use of a transformer.
- (j) Define prime movers.

3. Answer *any three* of the following:

 $3 \times 5 = 15$ 

- (a) Determine the process of calculating vernier constant of a vernier scale.
- (b) Define the working of vernier slide caliper.

- (c) Write down the working procedure of a screw gauge.
- (d) Write short note on Lathe machine.
- (e) Explain the preocess of filing a workpiece.
- (f) Describe the working of an electron gun in a CRO.