

U.G. 5th Semester Examination-2021

PHYSICS

(Programme)

Course Code: PHY-G-SEC-T-03

Physics Workshop Skill

Full Marks: 40

Time: $2\frac{1}{2}$ Hours

Group A

1. Answer any **five** question:

5×2=10

- a) What do you understand by metal casting?
- b) Define Horsepower? How it is related to watt?
- c) What are various parameter of design of welded joint?
- d) Write down some use of Digital Multimeter.
- e) Find out the least constant of a screw gauge having 100 divisions in a circular scale. The circular scale traverses 0.5 mm in one full rotation.
- f) What are the differences between alloy and composites?
- g) What is bench vice?

Group B

2. Answer any **two** questions.

2×5=10

a) What do you understand by an electrical relay? What are its different parts? Write down its operation.

1+2+2

b) What is Sextant? What is its principle? Explain the theory to measure the height of a building using sextant.

1+1+3

c) What do you understand by drilling? Explain the different types of drilling mechanism.

1+4

d) Explain the operation of a Zener Diode as a voltage regulator.

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Group C

3. Answer any **two** questions.

2×10=20

a) (i) What is CRO? Draw the block diagram of a CRO with its different components.

(ii) Explain the function of sweep generator.

(iii) Find out an expression of electrostatic deflection sensitivity of cathode ray tube.

1+2+2+5

b) (i) Explain the different types of PCB board.

(ii) What are the different steps to make a funnel using metal sheet.

(iii) Write down some application of laser beam welding.

4+4+2

c) (i) Write short notes on- Continuous Casting and Resistance welding.

(ii) Explain how you will measure the volume of a cylindrical beaker using a slide calliper.

4+4+2

d) (i) What is a Gear?

(ii) Explain the different types of gear system.

(iii) What are the hazards involved in soldering of electrical circuit?

2+5+3