

2023

B.Sc. (Honours)

B.Sc. First Semester End Examination - 2023

PHYSICS

PAPER - SEC-1T

Full Marks : 20

Time : 1 hours

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Group - A**

**Answer any five questions** **5×2=10**

1. (a) What is loading effect? 2
- (b) How does phase difference between two waves measured by CRO? 2
- (c) What are the advantages of electronic Voltmeter? 2
- (d) How does time base signal is generated by CRO? 2
- (e) Write down any two specifications of AC millivoltmeter. 2

*(Turn Over)*

( 2 )

- (f) Draw block diagram of amplifier-rectifier type of AC millivoltmeter. 2
- (g) Write down difference between analog and digital voltmeter. 2
- (h) How can we measure voltage and current by digital multimeter? 2

**Group - B**

**Answer any two questions :**

**2×5=10**

2. (a) How does rms responding voltmeter works?  
(b) How does frequency measured by Lissa Jour figure in CRO? 3+2
3. Write down the working process of digital voltmeter with block diagram. 3+2
4. (a) Draw block diagram of CRO.  
(b) How does electrostatic focusing of electron beam done in CRO? 2+3
5. What is magnetic deflection sensitivity?  
Find the expression of magnetic deflection in CRO. 1+4