

2021

PHYSICS

[ Honours ]

(Practical)

PAPER – VIII

*Full Marks : 100**Time : 6 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 **one** of the following : 50 × 1

1. Draw the B-H loop of a specimen in the form of an anchor ring and estimate its Hysteresis loss  
(a) Give the theory of the experiment.  
(b) Draw the circuit diagram.  
(c) Before starting the experiment it is required to demagnetise the iron why ?  
25 + 20 + 5
2. Determine the Stefan's constant  
(a) Write down the theory  
(b) Sketch the required circuit diagram. 30 + 20

GROUP – B

*( Computer Programming )*Answer any **one** of the following : 20 × 1

3. Write a program in FORTRAN to find the sum of all prime numbers between 1 to 50.

*(Turn Over)*

( 2 )

4. Write a program in FORTRAN to add two  $3 \times 3$  matrix. 20

GROUP – C

5. PROJECT. 30

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