

# Government General Degree College, Chapra

Internal Assessment- 5<sup>th</sup> Semester, 2021-22

Physics- General

Paper: PHY-G-DSE-T-01

Total Marks: 15

Time: 45 minutes

## Answer 15 marks only:

1. What is an ideal current source? 2
2. What is an ideal voltage source? 2
3. What is Thevenin's theorem? What is Norton's theorem? 3+3
4. Using a resistive Wheatstone bridge network ( $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$ ) find out the Thevenin's resistance ( $R_{Th}$ ). 5
5. Are the Thevenin's theorem and Norton's theorem applicable to ac networks? 1
6. What do you mean by 'short-circuit'? 2
7. What are the precautions to be taken in using practical voltage and current sources? 2