



Daffodil International University
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Final Assessment, Summer 2021 @ DIU Blended Learning Center
Course Code: PHY113 (Day), Course Title: Basic Physics
Level & Term: L1T1 Section: Retake
Instructor: SSK

Answer all the questions

Marks: 40

1. (a) *How can you visually find out the electric field strength?* **4+4**
(b) *Explain the relation between electric field and electric flux.*

2. (a) *Explain the mechanism of electron movement through a conductor.* **5+3**
(b) *How many electrons are contained in 7C of charges? What is the total mass of these electrons?*

3. (a) *Find out the mathematical equation for the total current and voltage in an electrical loop* **4+4**
(b) *Explain the resistivity and conductivity of any material? What is the relation between them?*

4. (a) *What is the main advantage of electromagnet? Write down examples.* **4+4**
(b) *The resistance of a wire of length of 0.48 m and diameter of 0.12 mm is 15 ohm. Calculate the specific resistance of the material of the wire.*

5. (a) *What are the applications of Coulomb's law and Faraday's law?* **4+4**
(b) *How the charge can transfer from atmosphere to ground?*