

International Islamic University Chittagong Civil Engineering Department	
Final Examination , Autumn -2022	Program: B.Sc. Engg. (Civil)
Course Code: PHY-1206	Course Title: physics sessional
Time: 2hours 30 minutes.	Full Marks: 50

Answer the one experiment from the following experiments. Figures in the right margin indicate marks.

- 1) To determine the modulus of rigidity of a wire by the method of oscillation (Dynamic method). 40
- 2) To determine the spring constant and effective mass of a given spiral spring and hence to calculate the rigidity modulus of the material of the spring. 40
- 3) To determine the moment of inertia of a fly wheel about its axis of rotation. 40
- 4) To determine the value of g, acceleration due to gravity, by means of a compound pendulum. 40
- 5) Determination of unknown resistance of the material of a wire by a meter bridge. 40
- 6) Determination of specific resistance of the material of a wire by a meter bridge. 40
- 7) Viva 10

International Islamic University Chittagong
Civil Engineering Department

Quiz Examination, Autumn -2022

Program: B.Sc. Engg. (Civil)

Course Code: **PHY-1206**

Course Title: **physics sessional**

Time: 45 minutes

Full marks -30

Answer the following all question. Each question carries equal marks.

- 1) Define the spring constant.
- 2) What is the effective mass of the spring?
- 3) Discuss the modulus of rigidity.
- 4) Write the principle of Wheatstone bridge.
- 5) What is the moment of inertia?
- 6) What is the unit of moment of inertia?
- 7) Does the period of oscillation depend on the amplitude of oscillation of the cylinder?
- 8) Write the time period equation of compound pendulum.
- 9) Define acceleration due to gravity.
- 10) Discuss the specific resistance.