



**CRAWFORD UNIVERSITY**  
**FAITH CITY, IGBESA, OGUN STATE**  
**2021/2022 RAIN SEMESTER EXAMINATIONS**  
**COLLEGE: NATURAL AND APPLIED SCIENCES**  
**DEPARTMENT: BIOLOGICAL SCIENCES**  
**PROGRAMME: BIOCHEMISTRY**  
**COURSE CODE: BCH 212**  
**COURSE TITLE: METABOLISM OF CARBOHYDRATE COURSE UNIT: 2**  
**INSTRUCTION: ANSWER ANY FOUR QUESTIONS**  
**TIME ALLOWED: 2HRS**

- (1). Describe the glycolytic pathway. Illustrate with a well-labelled diagram. *(15mrks)*
- (2). Describe the reactions of the Citric Acid Cycle. Illustrate with the aid of a suitable diagram. *(15mrks)*
- (3a). Discuss the importance of the glyoxylate cycle in plants. *(9mrks)*
- (b) Calculate the overall energy generated in the complete oxidation of glucose. *(6 mrks)*
- (4a). Discuss extensively, the digestion and absorption of Carbohydrate. *(10mrks)*
- (b). Write briefly on ONE named inborn errors of carbohydrate metabolism. *(5mrks)*
- (5). Discuss fully, one of the control points of regulation of the glycolytic pathway in mammals. Illustrate with the appropriate diagram. *(15mrks)*
- (6a). Describe the reactions of the Pentose Phosphate pathway. Illustrate with the appropriate pathway. *(13mrks)*
- (b). List two significances of this pathway. *(2mrks)*