

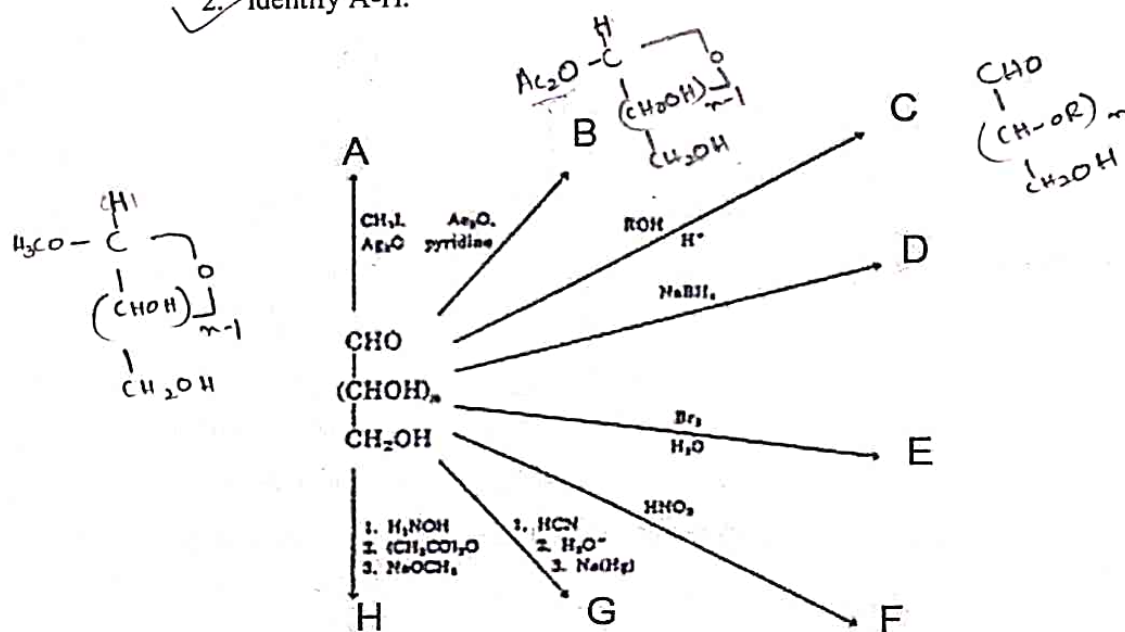


**Indian Association for the Cultivation of Science**  
(Deemed to be University under *de novo* Category)  
Master's/Integrated Master's-PhD Program/Integrated Bachelor's-Master's  
Program/PhD Course  
Mid-Semester Examination-Spring 2023

**Subject: Biochemistry Genetics and Evolution**  
**Full Marks: 25**

**Subject Code(s): BIS 1201**  
**Time Allotted: 2 h**

- ✓ 1. How many epimers are possible for D Glucose. Write all the epimers of D Glucose. 3
- ✓ 2. Identify A-H. 4



- ✓ 3. Which one has the reducing property between Maltose and Sucrose and why? 3
- ✓ 4. Why Glucosamine is prescribed for arthritis? Explain with proper logic. 3
- ✓ 5. What is the significance of conversion of Glucose to Glucose 6 Phosphate in Glycolysis. 2
- ✓ 6. Give an example where a single sugar or sugar derivative incorporation in a polysaccharide can change the physiology of the human being. 2
- ✓ 7. Why Krebs cycle is also termed as TCA cycle, explain with structure. 2

- ✓ 8. Identify the three-carbon containing compound which is generated in Fructose metabolism not in Glucose metabolism. 2
- ✓ 9. Krebs Cycle occurs only in mitochondria is this statement right or wrong? Justify 2
- ✓ 10. Among alpha and beta anomer of D Glucose, which one is more stable and why? 2