

**2021**  
**B.A./B.Sc. Semester VI Honours Examination**  
**University of Calcutta**  
**CHEMISTRY**  
**Paper DSE-A3**  
**PRACTICAL**  
**F.M. 30**

**FAKIR CHAND COLLEGE CENTRE (551)**

*[Use A4 pages and black ink only for writing answers. Write Roll number and Registration number at the top and page number at the bottom of each page. Scan the current admit card and upload in a single pdf file along with the answer script]*

1. What is biodiesel? How would prepare biodiesel from vegetable oil in green method? 2 + 8
2. Answer all the questions: 2x10=20
- a) What is meant by photo-reduction? Give one example.
  - b) Write two examples of green solvents.
  - c) What is the role of thiamine hydrochloride in the synthesis of benzoin?
  - d) Give one example of three component coupling reaction.
  - e) Why bromination of *trans*-stilbene using HBr / H<sub>2</sub>O<sub>2</sub> is called green synthesis?
  - f) Give one example of addition reaction where atom economy of the reaction is 100%.
  - g) Write the mechanism of oxidative coupling reaction of  $\beta$ -naphthol.
  - h) Write the Chemicals used to convert aniline to acetanilide under green process. Why it is better than conventional method?
  - i) What is meant by green solvent?
  - j) Identify A and B of the following reactions:

