

B.A. / B.Sc. SEMESTER 4 EXAMINATION, 2020
FAKIR CHAND COLLEGE CENTRE (551)

INSTRUCTIONS FOR CANDIDATES

READ ALL THE INSTRUCTIONS CAREFULLY BEFORE WRITING ANSWERS

1. Total **TIME OF EXAMINATION: 2 HOURS**
2. **Question Paper Comprises Of Two Separate Questions – Theoretical (40 Marks) And Internal Examination (10 Marks). Candidates Must Have To Answer All The Two Separately And Finally Have To Prepare A Single pdf File By Scanning All The Papers Clearly And Serially (According To Page Numbers).**
3. **ATTACH ANYONE PREVIOUS SEMESTER ADMIT CARD** As The Last Page Of The pdf File
4. Use Only **WHITE PLAIN A4 PAPERS** For Writing Answers
5. Use **ONLY BLACK INK** For Writing Your Answers
6. Give **A TOP PAGE** With Clear Mention Of University **REGISTRATION NO. AND UNIVERSITY ROLL NO.** Of Anyone Previous Semester
7. **GIVE PAGE NO.** At The Top Right/Middle Of Each Page
8. Give **AT LEAST 1CM MARGINS** In All The Four Sides Of Each Page

2020
B.A. /B.Sc. Semester 4 Examination
University of Calcutta
CHEMISTRY – HONOURS
THEORETICAL
Paper : SEC-B
F.M. 40

FAKIR CHAND COLLEGE CENTRE(551)

1. **Answer ANY FIFTEEN questions:**

2x15

- a) Draw the structure of most active isomer of Benzenhexachloride?
- b) What happens when benzene is subjected to react with chlorine in presence of UV rays?
- c) Write the full name of DDT.
- d) Write the chemical equation of the preparation of DDT.
- e) Write the name of two organophosphate pesticides.
- f) Write the chemical equation for the formation of Parathion.
- g) Draw the structure of Chloranil.
- h) Write the chemical equation for the preparation of Chloranil.
- i) Write two examples of anilide group containing pesticides.
- j) How would you prepare Butachlor from Alachlor?
- k) Write two uses of DDT
- l) Write two uses of Parathion.
- m) How would you prepare Malathion from dithoic acid?
- n) Write chemical name of Parathion.
- o) How will activity be changed if $-\text{CCl}_3$ group of DDT is replaced by $-(\text{CH}_3)_3$ group?
- p) How does DDT function as an insecticide?
- q) Draw the structure of Carbofuran.
- r) Write the mode of action of Butachlor.

Answer ANY TWO questions from Question Nos. 2 to 4.

- | | |
|---|---|
| 2. a) Write uses of Malathion. | 2 |
| b) Briefly explain the mode of action of Malathion | 3 |
| 3. a) Explain the mode of action of Carbofuran. | 3 |
| b) How would you prepare Alachlor? | 2 |
| 4. a) Write structure-activity relationship of Gammexane. | 3 |
| b) Write the chemical name of Alachlor. | 2 |

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CHEMISTRY – HONOURS
INTERNAL EXAMINATION
Paper : SEC-B
F.M. 10

FAKIR CHAND COLLEGE CENTRE(551)

Answer all the questions. Choose the correct option in each case and report (no need to write the answer in sentence): **1x10**

- a) DDT is a pesticide of
i) Organochlorine ii) Organophosphate iii) Anilide iv) Carbamate
- b) Lindane is the
i) α - isomer ii) β - isomer iii) γ – isomer iv) none of these
- c) Toxic effect of DDT is due to
i) benzene ring ii) $-\text{CCl}_3$ group iii) $-\text{chlorobenzene}$ group iv) none of these
- d) Malathion is
i) Organochlorine ii) Organophosphate iii) Anilide iv) Carbamate
- e) Parathion is
i) Organochlorine ii) Organophosphate iii) Anilide iv) Carbamate
- f) Pesticide which contains quinone ring is
i) Chloranil ii) DDT iii) Gammexane iv) Alachlore
- g) Alachlor mainly used as
i) herbicide ii) antifungal iii) insecticide iv) none of these
- h) Butachlor mainly used as
i) herbicide ii) antifungal iii) insecticide iv) none of these
- i) Malathion is detoxified by
i) heat ii) UV iii) carboxyesterases iv) none of these
- j) Parathion may be rendered nontoxic by application of
i) alkaline solution ii) acidic solution iii) heat iv) all of them