

Question Paper

Exam Date & Time: 03-Jul-2024 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER BSc. HEALTH SCIENCES DEGREE EXAMINATION - JUNE/JULY 2024

SUBJECT: BHS-202 - ORGANIC CHEMISTRY II
(OLD SCHEME)

Marks: 75

Duration: 180 mins.

Answer all the questions.

- 1A) Explain anomers with an example. (2)
- 1B) Write an explanatory note on starch. (2)
- 1C) What is acetate rayon? How is it prepared? (2)
- 1D) How do you distinguish the NMR spectrum of acetone and acetaldehyde? (2)
- 1E) How are proteins classified? Give examples. (2)
- 1F) How do you prepare aryl halide from diazonium salts? Write the reaction. (2)
- 1G) Give an example of unsaturated aromatic carboxylic acid and its reaction with LiAlH_4 . (2)
- 1H) Explain any two identification tests for proteins. (2)
- 1I) What is denaturation of proteins? (2)
- 1J) Why is benzyl chloride more reactive? (2)
- 1K) Explain the synthesis of natural rubber. (2)
- 1L) How do you prepare Dacron polymer? (2)
- 1M) Explain the following reactions: (2)
- (i) Reaction of phenol with NaOH
- (ii) Reaction phenol with acid chloride
- 1N) Explain Cannizaro reaction of aldehyde (2)
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- 2A) Draw the Haworth structure of β -glucose and β -fructose. (3)
- 2B) A triglyceride has a molecular weight 800 and contains four double bonds. Calculate the iodine number and saponification number. (atomic weight of iodine 127) (3)
- 2C) Discuss the preparation of primary, secondary and tertiary amines from alkyl halides. (3)
- 2D) Discuss the following reactions of aldehydes with (3)
- (i) HCN
- (ii) Grignard reagent
- (iii) Hydroxylamine

- 3A) Explain the NMR spectrum of ethanol and isopropanol. (5)
- 3B) Explain the following reaction for the synthesis of aldehydes and ketones (5)
- (i) Oxidation of alcohol
 - (ii) Catalytic dehydrogenation of alcohols

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