

MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER BSc. HEALTH SCIENCE DEGREE EXAMINATION - JULY 2023

SUBJECT: BHS-202 - ORGANIC CHEMISTRY - II

(MAKEUP)

Marks: 75

Duration: 180 mins.

1. Answer the following questions briefly.
- 1A) Account for the following: (2)
(i) pK_b of aniline is more than that of methylamine.
(ii) Ethylamine is soluble in water whereas aniline is not.
- 1B) What are the Properties of Elastomers? (2)
- 1C) Write the reaction when phenol is oxidized by $\text{Na}_2\text{Cr}_2\text{O}_7/\text{H}_2\text{SO}_4$. (2)
- 1D) Give the synthetic route convert from Phenol to Cyclohexanol. (2)
- 1E) What is gun cotton. How is it prepared? (2)
- 1F) Draw the open ring structure of fructose. (2)
- 1G) Explain Sandmeyer reaction. (2)
- 1H) What is TEL? How is it prepared? (2)
- 1I) What are the properties of electromagnetic radiation? (2)
- 1J) Why is chlorobenzene required drastic condition to react with NaOH? (2)
- 1K) Give a test to identify starch. (2)
- 1L) What are amino acids? Give an example. (2)
- 1M) Explain Million's test to identify proteins. (2)
- 1N) What is rayon? How is it obtained? (2)
- 2.. Answer the following questions.
- 2A) Give the preparation and properties of neoprene rubber. (3)
- 2B) Accomplish the following conversions:
i) Chlorobenzene to *p*-chloroaniline.
ii) Aniline to *p*-bromoaniline. (3)
- 2C) Draw the structure of maltose and lactose. (3)
- 2D) A triglyceride has a molecular weight of 900 and contains two double bonds. Calculate the (i) saponification number and (ii) iodine number. (3)
- 3.. Answer the following questions.
- 3A) Explain the following with an example for each:
i) Kolbe's reaction.
ii) Williamson ether synthesis. (5)
- 3B) Explain the preparation of Grignard reagent? (5)

