



Continuous Marks Activity

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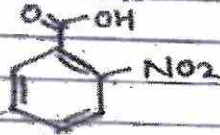
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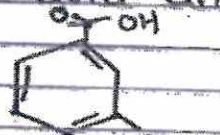
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Year - 5th Sem. - III
Subject - PCP II
Assignment

Draw the Structure of ortho, meta, para Nitro Benzoic acid and discuss relative acidity



Strong Inductive effect &

Resonance effect



Only Inductive effect



Weak Inductive Strong Resonance effect

- - NO₂ observe - I effect and - R effect

i) Inductive effect :-

Lesser the distance between the substituents lesser stronger is the inductive effect
Order :- ortho > meta > para

ii) Resonance effect :-

Which is observed maximum at ortho & para position
The order of acidic strength of ortho, meta and para nitrobenzoic acid

9/11

05/05





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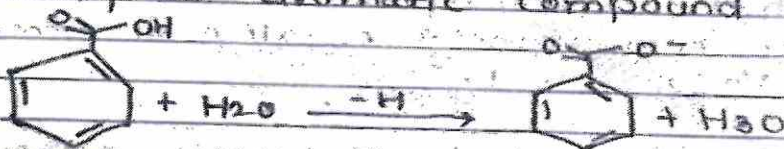
Year - 5th / Sem. - III

Subject - POC II

Open Book Test

Draw the resonating structure involve in acidity and basicity

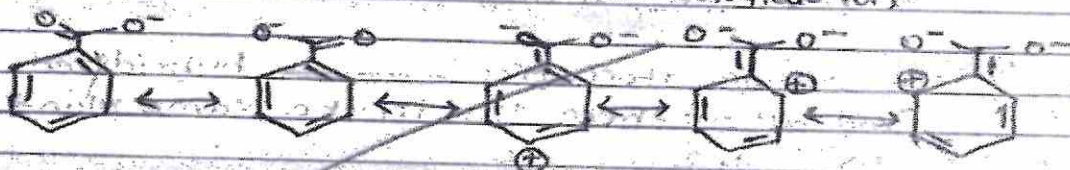
i) Acidity of aromatic compound



Benzoic acid

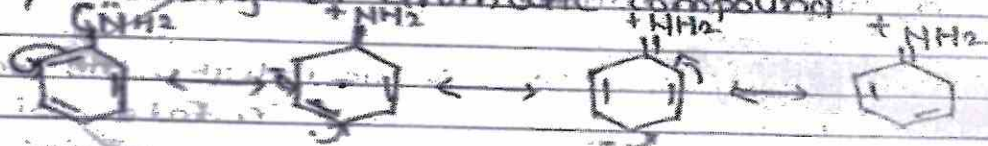
Benzoate ion

Carboxylate ion

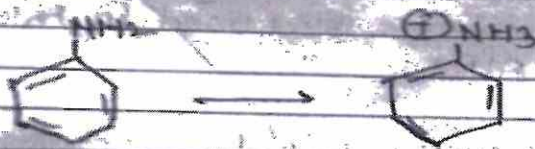


Resonating Structure of Benzoic acid

ii) Basicity of aromatic compound



Resonance effect (+R) in aniline



Aromatic amines are base

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Year - 5th Sem. - III
Subject - POC II
Quiz

1. _____ can be used for Friedel-Crafts alkylation

→ D) Both A and C

2) Which of the following represents the best reagent (a) for the electrophilic nitration of benzene?

→ d) H_2SO_4, HNO_3

3) Which of the following statements is incorrect for aromatic compounds?

→ B) Have $4n + 2 \pi$ - electrons

4) The carbon atom are _____ hybridized in benzene and all of them lie in the same plane

→ B) sp^2

5) The procedure of determining iodine value is called as

→ a) Wijs method

6) High percherat - Meissl value indicates the presence of a higher amount _____ in fats / oils

→ B) Butyric acid

7) Following are the Lewis acid used in halogenation reaction

→ A) $AlCl_3$ C) AlF_3

8) correct order of reactivity in Friedel-Crafts alkylation of benzene is _____

→ B) $R_F > R_{Cl} > R_{Br} > R_I$

9) Phenol is also known as

→ A) carbolic acid D) Both A) and B)

10) Enzyme responsible for hydrolysis of fats is?

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Year - 5th Sem - III

Subject - Pharmaceutical Microbiology

Assignment

Define Sterilization comment on moist heat Sterilization.

i) In microbiology, Sterilization can be defined as the complete removal of all forms of microorganisms, both vegetative, and spore forms, from a surface or an object.

ii) Sterilization is carried out by various physical and chemical methods such that it eliminates around 10^6 log colony-forming unit.

iii) Sterilization is done to avoid the growth of microorganisms which may grow on the surface of an object if left without killing the germs.

• Moist-Heat Sterilization:-

i) It is one of the best methods of Sterilization moist heat Sterilization is done with the help of an instrument called an autoclave.

ii) An autoclave works on the principle of producing steam under pressure.

iii) Thus moist Heat Sterilization is also known as Steam Sterilization.

iv) The water is boiled in an autoclave at $121-134^\circ\text{C}$ at a pressure of 15psi.

v) This leads to coagulation of proteins in the micro-organisms, and they are effectively killed.

vi) The process is effective in Sterilizing a variety of materials including surgical instruments and laboratory equipment.

vii) It is widely used method in laboratories and healthcare setting due to its





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Year - 5th Sem. - III

Subject - Pharmaceutical Microbiology
Open Book Test

1. Explain Spoilage type of Open Book Test Spoilage with example.

→ It refers to a form of substandard or process of spoiling, especially the deterioration of food and other perishable goods.

- It is referred as change in physical and chemical properties of pharmaceutical and drug products in such a way that they are not suitable for use.

Types of Spoilage

Microbial Spoilage

- Infection induced by contaminated pharmaceutical products.

- Physico-chemical spoilage.

- observable effect of microbial attack.

- Ingredient susceptible to microbial attack.

- Ingredient susceptible to microbial attack.

a) Therapeutic agents

b) Preservatives & disinfectants.

c) Sweetening, flavouring & colouring agent

eg:- microbial spoilage occurs when bacteria, yeast, or molds multiply and alter the

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Year - 5th Sem. - III

Subject - Pharmaceutical microbiology

Quiz

MCQ's :-

- 1) Viruses can be cultivated in - living cells.
- 2) The viruses that live as parasites on bacteria are - Bacteriophages.
- 3) A virus is made up of - protein coat & nucleic acid
- 4) The viral envelope is made up of - lipids & Proteins.
- 5) The protein coat of viruses that enclose the genetic material is called - capsid
- 6) What is a fully formed infectious viral particle called?
The protein coat of viruses that enclose the genetic material is called - capsid
- 7) Which of the following is the genome of virus? DNA or RNA
- 8) yeast is - unicellular
- 9) All fungi are - Parasites
- 10) fungal sex organ is known as - Gametangia
- 11) The cell wall of fungi is composed of - Chitin
- 12) Mycology is the study of - fungi
- 13) unicellular fungi is - yeast
- 14) Multicellular fungi is - molds.

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Year - Final
Subject - Instrumental Method of Analysis
Assignment

Q.1 Define chromatography & give classification

→ Definatⁿ: Chromatography is physical method of separation in which component to be separated are distributed betⁿ 2 phases. one of which is stationary phase & other is mobile phase move through in definite direction.

or

It may be define as method of separation a mixture of component into individual component through equilibrium betⁿ mobile & stationary phase.

* Classificatⁿ:

I) According to mobile phase:
i) liquid chromatography.
ii) Gas chromatography.

ii) According to packing of stationary phase.
i) Thin layer chromatography.
ii) Paper chromatography.
iii) Column chromatography.

iii) According to force of separation:
i) Gel filtration.
ii) Ion exchange.
iii) Adsorptⁿ.
iv) Affinity.

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Year: First Sem. - VII

Subject: Instrumental method of Analysis

Open Book Test

Q-1 what is electrophoresis and enlist its types.

Electrophoresis is physical method of analysis based on migration of electrically charged proteins, colloids, molecules, and other particles dissolved in an electrolyte solution in direction of electrode bearing the opposite polarity with an electric current is passed through it.

The electrophoretic mobility is the rate of movement in meter per second of charged particles under the action of electric field of 1 volt meter per second and is expressed in square meter. Volt second.

* Types -

- i) Paper electrophoresis.
- ii) Gel electrophoresis.
- iii) capillary electrophoresis.

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Year - First Y. Sem. - III
Subject - Instrumental method of Analysis
Quiz

1. UV Spectroscopy is working on which phenomenon.
A) Absorption
B) Elution
C) A and B
D) None of this.
→ A) Absorption.

2. Ultraviolet Spectroscopy wavelength is?
A) 200 nm - 300 nm
B) 200 nm - 400 nm
C) 400 nm - 1800 nm
D) All of the above
→ B) 200 nm - 400 nm.

3. Which compound is increase UV absorption.
A) Auxochrome
B) Chromophore
C) Inorganic compound
D) All of above.
→ D) All of above.

4. Nujol means.
A) Polymers.
B) crude oil
C) Mineral oil
D) volatile oil
→ C) Mineral oil.

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Year - final, Sem - III

Subject - Pharmacy practice
Assignment

* Vital Items: -

- shortage may cause havoc & stop the work in hospital / ward.
- They are stocked adequately.

* Essential Items: -

- reasonable risk can be taken
- They should sufficiently stocked

* Desirable Items: -

- non-availability does not stop work because they can easily purchased from market
- ~~non~~ - They may be stocked very ^{low} or not stocked

3) Economic order quantity (EOQ)

- Economic order quantity is the technique of ordering material whenever stock reaches reorder points.

- includes ordering cost
- includes carrying cost
- cost incurred
- insurance cost

Three method used in EOQ
1) tabular 2) Graphical
3) Algebraic method

$$EOQ = \sqrt{\frac{2ab}{C_5}}$$

4) Lead time: -

- lead time is sum of supply delay & reordering delay.
- lead time is applicable deterioration duration to calculate lead demand safety stock
- As far possible efforts decrease lead time for effective inventory control.

5) Buffer's stock

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Need following factor

- lead time
- Natural of Item
- availability of substitutes
- Re-order
- stock out cost

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Year - first / Sem. - VII
Subject - pharmacy practice
Open Book Test

2) explain control of investigational use of drug.

All investigational drug should be registered with the pharmacy & therapeutic committee.

This may be accomplished by a letter from the principal investigator, which provides the following information

- > New drug number
- Generic Name
- Manufacturer
- Chemical Name
- Proprietary name
- General chemistry
- Pharmacology
- Toxicology
- Dose range
- Method of Administration
- Indication
- Therapeutic use

These forms are usually titled:

1) Physician's data sheet on investigational drug

2) Nurse's data sheet on investigational drug

3) Pharmacist's data sheet on investigational drug

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