

Total Pages : 5

Roll. No. :

Examination Session June-2022

(Fourth Semester)

MCH-609

M.Sc. CHEMISTRY (MSCCH)

[Drugs and Pharmaceuticals - II]

Time : 2 Hours]

[Max. Marks : 40

Note : This paper is of Forty (40) marks divided into two (02) Section A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION—A

(Long-Answer-Type Questions)

Note : Section 'A' contains five (05) long-answer-type questions

of Ten (10) marks each. Learners are required to answer

any two (02) questions only. $2 \times 10 = 20$

1. (a) What is the importance of the carbonic anhydrase ?

Explain the carbonic anhydrase inhibition.

(b) What is a choligenic receptors ? Explain it briefly.

2. Write short notes on any two :

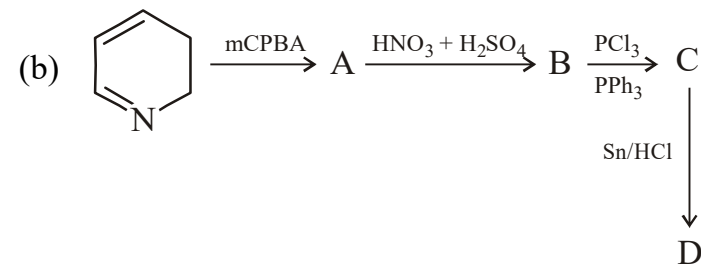
(a) Sodium Channels

(b) Potassium Channels

(c) Calcium Channels

3. What are DNA intercalating agents ? Explain the

mechanism of action.



7. How quantitatively and qualitatively HPLC chromatography useful for the drug analysis ?

8. Explain any two of the following :

(a) What is the importance of proton pump ? Explain the proton pump inhibition.

(b) Explain the calcium channel blockers.

(c) Write the structure of captopril. Give the synthesis mechanism of captopril.

4. (a) What is Genetic engineering ? Explain the Genetic engineering in briefly.
- (b) What are H_1 receptor anatagonists ? Give two examples and their structures.
5. How the NMR and UV spectroscopy useful for the drug analysis ?

SECTION—B

(Short-Answer-Type Questions)

Note : Section 'B' contains eight (08) short-answer-type questions of Five (05) marks each. Learners are required to answer any four (04) questions only. $4 \times 5 = 20$

1. Attempt any two of the following :
- (a) Synthesis of (S) Ibuprofen
- (b) Synthesis of (S) Naproxen
- (c) Synthesis of (S) Propanolol

4. (a) What is Genetic engineering ? Explain the Genetic engineering in briefly.
- (b) What are H_1 receptor anatagonists ? Give two examples and their structures.
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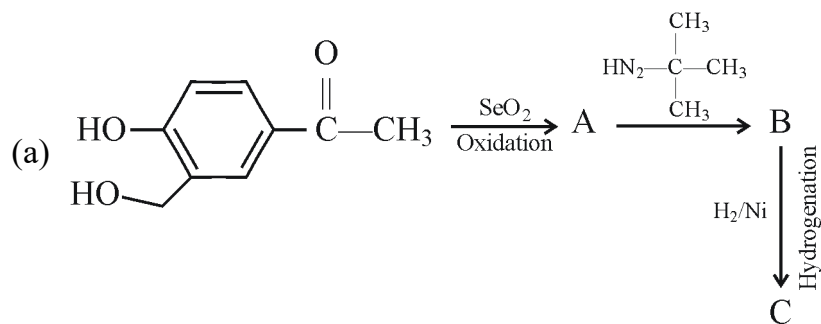
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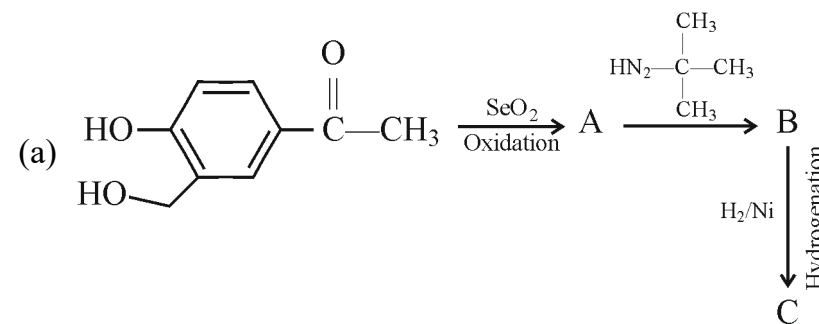
2. Write short on the following :
 - (a) DNA-Polymerase inhibitors
 - (b) History of fermentation
3. What is Chiraldrug ? Explain its Importance.
4. Attempt any two of the following :
 - (a) What is the enzyme inhibition ?
 - (b) Write short note on β -Lactam antibiotics.
 - (c) What are the vaccines ? Explain its importance.
5. Write a short note on classification of nervous system.
6. Complete the following reactions :



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(4)

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