

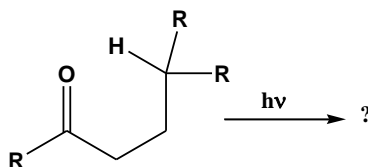
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PG (NEW) CBCS
M.Sc. Semester-IV Examination, 2020
CHEMISTRY
 PAPER: CEM 402
ADVANCED ORGANIC CHEMISTRY-III

Full Marks: 40**Time: 2 Hours**

Answer any one question from the following (within 250 words): 40X1=40

1. Discuss the anti-oxidant property of vitamin C and K in our body. Write the structure of thiamine.
2. Describe the mechanism of conversion from pyruvate to acetyl co-A. What is nucleoside?
3. Describe the function of thiamine in pentose phosphate path. What are antibiotics?
4. Discuss the elementary structure of DNA. Differentiate between gram positive and gram negative bacteria.
5. Describe the Jablonski diagram . Discuss the mechanism of Norrish Type –I reaction reaction.
6. Why electrophilic aromatic substitution occurs at α -position in pyridine? Write the product and discuss about the mechanism of following reaction,



7. What is di-pi methane rearrangement? Write down a) Hantzsch synthesis of pyridines and b) synthesis of furan from 1,4-diketone.
8. Synthesise pyrroles using retro synthetic analysis process. Describe the preparation of penicillin-G.
9. Describe Fisher indole synthesis. Discuss the structure of “FAD”.
10. Describe the chemical properties of ascorbic acid. Write names of fat soluble vitamins. Discuss about the structure of NADP+.
11. Discuss the function of vitamin C in the conversion of dopamine to norepinephrine. What are Cephalosporins?
12. Discuss the mechanism of Norrish Type –II reaction.
