

Rajiv Gandhi University of Health Sciences, Karnataka

Ph.D Entrance Examination – 06-Mar-2020

[Time: 90 Minutes]

[Max. Marks: 50 Marks]

FACULTY: PHARMACY
SUBJECT: PHARMACEUTICAL CHEMISTRY
PAPER – II
Q.P. CODE: P002

Your answers should be specific to the Questions asked.

Answer All The Questions

10 X 05 = 50 Marks

1. Explain the structure and stability of carbocations.
2. Discuss the therapeutic applications of Vitamin B1, Vitamin B2 and Folic acid.
3. With suitable examples, explain the mechanism of action of Alkylating agents and antimetabolites as antineoplastic agents.
4. Suggest the mechanism involved in Beckmann's rearrangements and Aldol condensation.
5. Discuss the concept of green chemistry with suitable examples.
6. Discuss the retro synthesis with suitable example in medicinal chemistry.
7. Enumerate the adrenal cortex hormones with their therapeutic applications.
8. Discuss the applications of microbial transformations with relevant examples.
9. Write the structure and therapeutic applications of mutual prodrug 'Amoxycillin and Clavulanic acid'.
10. Explain the concept of 'bioisosterism' and its applications in the drug discovery.

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