



JAJ-1612030701070300 Seat No. _____

M. P. M. (Sem. VII) (CBCS) Examination

November – 2019

Pharmaceutical Chemistry - VIII

(Medicinal Chemistry - III)

Time : 3 Hours]

[Total Marks : 80

Instructions :

- (1) Attempt three questions from each section. - Questions 1 and 5 are compulsory.
- (2) Figure to the right indicates full marks for the respective question.

SECTION - I

- | | | |
|----------|---|-----------|
| 1 | Answer the following questions. (Any SEVEN) | 14 |
| | (1) Explain the term QSAR. | |
| | (2) Give synthesis of chlorambucil. | |
| | (3) Explain life cycle of malarial parasite. | |
| | (4) Give synthesis of albendazole. | |
| | (5) Give synthesis of clotrimazole. | |
| | (6) Why Vit. B6 should be given as a supplement with INH in T.B.? | |
| | (7) Give SAR of antibiotic which contains 12 to 14 containing large lactone ring. | |
| | (8) Give synthesis of antibiotic which cause gray baby syndrome due to toxicity. | |
| | (9) Differentiate: Penicillin and cephalosporin. | |
| | (10) Give synthesis of sulphacetamide. | |
| 2 | (1) Explain structure activity relationship of antibiotic which contains 4 linealy fused ring system. | 7 |
| | (2) Give SAR of antibiotic which is isolated from Cephalosporium acremonium. | 6 |

- 3 (1) Give classification and mechanism of action of sulphonamides. 7
 (2) Give an informative note on anti-TB drugs. 6
- 4 (1) "Free Wilson Mathematical model of QSAR" and give application of QSAR in drug design. 7
 (2) Explain about methods of Lead Discovery. 6

SECTION - II

- 5 Answer the following questions: (Any TWO) 14
 (1) Explain SAR of chemotherapeutic agent which inhibit DNA gyrase or Topoisomerase.
 (2) What is β -lactam antibiotic? Classify it with suitable examples. Give classification of penicillin.
 (3) Give classification and mechanism of action of anti-neoplastic agents.
- 6 (1) Give causative agents for malaria. Explain SAR of Quinolines. 7
 (2) Match A with B : 6
- | | |
|--------------------------|---------------|
| A | B |
| Mycobacterium leprae | Cephalosporin |
| Micromonospora purpurea | Tobramycin |
| Dihydrothiazine ring | Leprosy |
| Streptomyces tenebrarius | Gentamycin |
- 7 (1) Write a note on De novo Drug Design. 7
 (2) Write a brief note on Combinatorial chemistry and parallel synthesis. 6
- 8 Answer the following.
 (1) Explain SAR of aminoglycosides and sulphonamides. 7
 (2) Explain stereochemistry and chemical degradation of penicillin. 6