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M.Sc. (Ist Semester) Examination, 2020

CHEMISTRY

(Medicinal Chemistry)

Time Allowed : Three Hours

Maximum Marks : 70

SECTION - A

(Objective Type Questions)

Note : Attempt any ten questions. Each question carries
one mark. **10×1=10**

Q. 1. Fill in the blanks :

- (i) Self thermo regulated system are called as
_____.
- (ii) Azothiopurine is an _____ drug.
- (iii) Cefixime is an _____ drug.

(2)

(iv) Primaquine is an _____ drug.

(v) Iodine was a topical _____.

Choose the correct answer :

(vi) Which of the following is the greenest
solvent ?

- (a) Formaldehyde
(b) Benzene
(c) Ethanol
(d) Water

(vii) An example of green chemistry is ?

- (a) Recycled carpet
(b) Bio plastics
(c) A sublimation reaction
(d) All above

(3)

(viii) Dactinomycin is an :

- (a) Anti cancer
- (b) Antibiotic
- (c) Anti fungal
- (d) Antimalarials

(ix) Dapsone is an :

- (a) Anti-pyretic drug
- (b) Anti-bacterial drug
- (c) Anti-neoplastic drug
- (d) None

(x) First antibiotic discovered was :

- (a) Tetracycline
- (b) Amoxycillin
- (c) Penicillin
- (d) Diclofenac sodium

(4)

(xi) The drug which is effective in the treatment of malaria :

- (a) Quinine
- (b) Aspirin
- (c) Paracetamol
- (d) Equanil

(xii) SAR means context of drug activity :

- (a) Severe antibiotic research
- (b) Structure and antibiotic research
- (c) Structure activity relationship
- (d) None

SECTION - B

(Very Short Answer Type Questions)

Note : Attempt any five questions. Each question carries

2 marks.

5×2=10

(5)

- Q. 2.** (i) What is the meaning of atom economy ?
- (ii) What is green chemistry and why is it important ?
- (iii) What are the major sources of antibacterials ?
- (iv) What are antmalarial drugs ?
- (v) What are antihelminthic agents ?
- (vi) Give the classification of diuretics.
- (vii) What are the physico-chemical parameters ?

SECTION - C

(Short Answer Type Questions)

Note : Attempt any five questions. Each question carries 4 marks. **5×4=20**

- Q. 3.** (i) Write the mechanism of the Wittig reaction.
- (ii) Write the synthesis of ciprofloxacin.

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(6)

- (iii) What are anti-neoplastic agents ? Classify them.
- (iv) What are antibiotics ? Give the classification with examples.
- (v) Write the structure of Benzoic acid derivatives.
- (vi) Write the structure and preparation of Ibuprofen.
- (vii) Write about free wilson analysis.

SECTION - D

(Essay Type Questions)

Note : Attempt any three questions. Each question carries 10 marks. **3×10=30**

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(7)

- Q. 4.** (i) Write the structure, synthesis and mode of action of aspirin.
- (ii) Describe use of antibiotic in treatment of cancer.
- (iii) What is the penicillin ? Mention the various type of antibiotic that belong to penicillin group ?
- (iv) What is the relationship between chemical structure and biological activity ? Explain SAR with examples.

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