

UG Odd Semester (CBCS) Exam., December—2016

## PHARMACEUTICAL SCIENCE

( 7th Semester )

Course No. : BPH-703 (C)

[ Pharmaceutical Chemistry—VI  
( Medicinal Chemistry—III ) ]Full Marks : 75Pass Marks : 30

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*Answer **five** questions, taking **one** from each Unit

## UNIT—I

1. What do you mean by sulfa drugs? Discuss in detail about the SAR of sulfonamide derivatives. Write a short note on combination therapy of sulfonamides. Outline the synthetic scheme of the following (any two) :
- (a) Sulfadiazine
- (b) Sulfacetamide sodium
- (c) Sulfamethoxazole 2+5+2+(2×3)=15

2. Define the term antibiotics. Classify antibiotics based on their mechanism of action. Write down the nomenclature for penicillin derivatives. Outline the synthetic scheme for the preparation of chloramphenicol. 3+5+4+3=15

## UNIT—II

3. Classify alkylating agents as an antineoplastic agent. Write down the mechanism of action of alkylating agent. Outline the synthetic scheme for the preparation of any two antineoplastic drugs. 5+4+(3×2)=15
4. Write short notes on the following (any two) : 7½×2=15
- (a) Antiamoebic agents
- (b) Antitubercular drugs
- (c) Antifungal agents

## UNIT—III

5. Define anticoagulant. Write in short about heparin and oral anticoagulant. Outline the synthetic scheme of any one oral anticoagulant. 3+8+4=15

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6. Classify anthelmintics with suitable examples. Outline the synthetic scheme of any one anthelmintic agent. Write a note on diagnostic agent.  $5+4+6=15$

UNIT—IV

7. Classify amino acid with examples. Write a brief note on pharmaceutically important protein product.  $8+7=15$
8. What are the thyroid hormones present in human body? Discuss about the chemistry of thyroid hormones. Write down the mechanism of action and synthetic scheme of the following compounds :  $2+4+(1\frac{1}{2}+3)\times 2=15$
- (a) Phyroxine
- (b) Liothyronine

UNIT—V

9. Explain in detail about the mechanism of action of various classes of oral hypoglycemic agent. Outline the synthetic scheme of any two oral hypoglycemic agent.  $7+(4\times 2)=15$
10. Write down the chemistry and mechanism of action of insulin. Discuss about various insulin preparations.  $9+6=15$

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