

B. Pharm, sem-V (CBSEs)

SUB - OC III

09/11/

Dec 2016

QP CODE : 499601

(3 Hours)

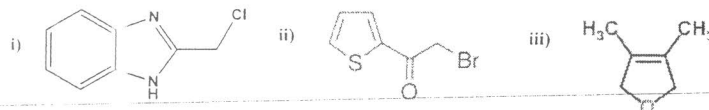
N.B.: 1. All Questions are compulsory

Total Marks: 70

2. Figures to right indicate full marks

Q1. A. Give the IUPAC nomenclature of the following compounds.

(03)



B. Explain conrotatory motion with a molecular orbital diagram.

(02)

C. Justify: Pyrrole is reactive than benzene towards electrophilic aromatic substitution.

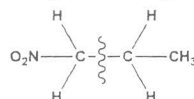
(02)

D. Draw the chair conformation of 5 α -cholestane. Also mark the chiral centres.

(02)

E. Generate the most stable synthon from the given Target molecule and justify.

(02)



F. Write the reaction for hydrolysis of 3 β , 6 β - diacetoxy-5 α -cholestane.

(02)

G. Write any one reaction catalyzed by zeolite H-USY

(01)

H. Explain why thermal [2+2] cycloaddition of alkenes is difficult.

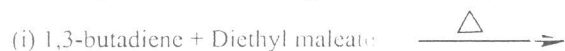
(01)

Q2. A. Explain the mechanism for (a) Hantzsch pyridine synthesis (b) Hinsberg synthesis

(04)

B. Complete the following reactions and predict the stereochemistry of products formed.

(04)



C. Explain enantioselective catalysis with suitable example.

(03)

Q3. A. Give mechanism for the following reactions (any two):

(04)

(i) Fischer Indole synthesis (ii) Skraup Synthesis (iii) Paal Knorr synthesis of furan

B. Design the retrosynthetic scheme and synthesis for sulfadiazine

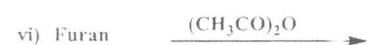
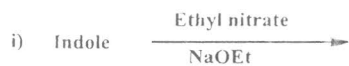
(04)

C. Explain the classical and catalytic route for Caprolactam synthesis

(03)

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Q4. A. Complete the reactions (any Six) (06)



Q.4 B. Which position does nucleophilic substitution reaction occur in pyridine. Justify. (02)

C. Discuss the photochemical cyclization of 2,4-hexadiene using all possible stereoisomers. (03)

Q5. A. Answer the following questions with suitable justification (08)

(i) 5β -cholestane-3-one on bromination gives which product?

(ii) Cholestan-3 β ,5 α ,6 α -triol forms which dicathylate?

iii) Electrophilic substitution of isoquinoline takes place at 5th and 8th position

iv) Imidazole is more basic than pyrrole

B. Draw resonating structures for i) Pyrrole, ii) Isoquinoline, iii) Imidazole (03)

Q6. A. Complete the following transformations (any four): (04)

i) Barbituric acid to pyrimidine

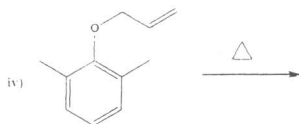
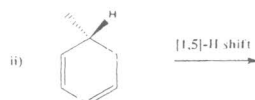
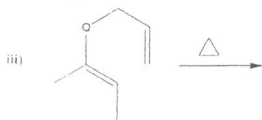
ii) Benzil to 2,4,5-triphenylimidazole

iii) Pyridine to 2-chloropyridine

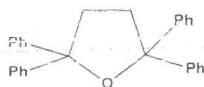
iv) Indole to 2,3-dihydroindole

v) Pyrrole to Pyrrole-2-carboxylic acid

B. Predict the products for the following reactions with mechanism (04)



C. Predict the economical retrosynthetic and synthetic pathway for the given target molecule (03)



8. Pharm, sem - v (CBSE)
SUB - cosmetology

15/11/16

Dec 2016

QP Code :499702

(3 Hours)

[Total Marks :70

- N.B. : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.

1. (a) Give the regulatory requirements for manufacture of eye makeup products. 2
(b) Elaborate on bleach products for the skin. 3
(c) Enumerate various nail speciality products. 2
(d) Suggests a formula for a hair grooming preparation. 2
(e) What are ideal properties of after shave products. Explain with two examples. 3
(f) Write a note on mouth washes. 3
 2. (a) Enlist various sensitivity testing done for cosmetics. Write in brief on any one test. 4
(b) Discuss the problems associated with moisturizing lotions and suggest remedies for the same. 3
- OR**
- (c) Compare and contrast between cold cream and vanishing cream. 3
(c) Describe in detail formulation of antilice shampoo. 4
 3. (a) Explain with examples raw materials used in lather shaving cream. 4
(b) Give an account of colours used in eye makeup products and write a formula for liquid eye liner. 3
(c) Write short notes on (any one):- 4
 - (i) Processing of plant materials used in cosmetics
 - (ii) Water as raw material for cosmetics
 4. (a) Give an account of manufacturing of compact face powder. 3
- OR**
- Discuss the formulation and evaluation of foundation cream.
 - (b) Give the classification of hair colours and explain any one class. 4
(c) Discuss the large scale manufacturing of medicated tooth paste. 4
 5. (a) Write a note on depilatories 3
(b) Answer any two:- 4
 - (i) Mixtures of colours used in lipsticks
 - (ii) Explain payoff test for lipstick
 - (iii) Write the steps in manufacturing of lipsticks.
 - (c) What are the sources of microbial contamination and enumerate the remedial measures. 4
 6. (a) What are the factors to be considered while formulating baby toileteries 3
- OR**
- Discuss various insect repellent formulations.
 - (b) What are the ideal attributes of nail lacquers and write on two evaluation tests to be performed on nail lacquers. 4
(c) Classify sunscreens. Explain the various evaluation test for sunscreens. 4

B.Pharm, sem-V (CBSE)

21/11/20

Dec 2016

Q.P. Code : 499800

SUB - PB
Pharm - Biotech

(3 Hours)

[Total Marks : 70

- N.B. 1) All questions are compulsory.
2) Figures to the right indicate full marks.

1. (a) Give the names of any two approved biotech-derived product. 01
(b) Name any two subunit vaccines with organism involved. 02
(c) Give the Tree of biotechnology. 01
(d) Define fermentation and name the organism used for production of penicillin. 01
(e) Write the thermocyclic pattern of PCR. 01
(f) Define Biosensor and enlist any two enzyme used for Biosensor. 02
(g) What do you mean by ELISA? 01
(h) Write the application of single cell protein. 02
(i) Draw neat labelled diagram of antibody. 02
(j) What do you mean by attenuation? 01
(k) Explain factor affecting on pathogenicity. 01
2. (a) Explain enzyme used in r-DNA technology and explain any one. 03
(b) Write a note on c-DNA library OR gene library (with its flow chart). 03
(c) What do you mean by vector? Enlist their type and explain any one. 03
(d) Comment on RIA and write the application of it. 02
3. (a) Draw a neat labelled diagram of fermentor. 03
(b) Give the classification of vaccine and explain subunit vaccine. 04
(c) Explain in detail clonal selection theory. 04
- OR
- (c) Write the application and flow chart of monoclonal antibody production. 04
4. (a) Classify Immobilization and explain any two in detail. 04
(b) Differentiate between two types of polio vaccine. 03
(c) What do you mean by stem cell culture? Write its importance in biotechnology. 04
5. (a) What are the types of Hypersensitivity explain any one in details. 04
- OR
- (a) Distinguish between Active and passive immunity. 04
(b) Elaborate on DNA sequencing (any one method). 04
(c) Write in details fermentation process of penicillin production. 03
6. (a) Write a short note on Diphtheria toxoid. 04
(b) Comment on recombinant vaccine. 04
- OR
- (b) Write a short note on Biosensor 04
(c) Differentiate batch fermentation process and continuous fermentation process. 03

B.Pharm, SEM - V (CBCGS)

25/11

Q. P. Code : 499900

SUB - Pharmacology - II

Dec 2016

(3 Hours)

[Total Marks : 70

N.B. : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.

1. a) Answer the following :- 12
- i) Enlist the first line drugs used in treatment of TB.
 - ii) Penicillin and Amino glycoside antibiotics in combination exhibit synergistic action, justify.
 - iii) Enlist the clinical uses of Immuno-suppressants.
 - iv) Classify insulin preparations.
 - v) Name the drug used in "Emergency Contraception" and give its mechanism of action.
 - vi) Give two examples of Tissue Plasminogen Activator. Justify their use after stroke
- b) Match the following :- 3
- | | |
|------------------|---------------------|
| i) Carbenicillin | a) Anti-fungal |
| ii) Carbimazole | b) Anti-Platelet |
| iii) Clopidogrel | c) Anti-Pseudomonas |
| | d) Thyrotoxicosis |
2. a) Answer any two of the following :- 8
- i) Classify anti-microbials on mechanism of action. Write a note on rational use of antibiotics.
 - ii) Enlist the anti-metabolites used in Cancer. Write a note on Methotrexate.
 - iii) Illustrate targets of anti malarial drugs. Elaborate on mechanism of action, side effects and uses of chloroquine.

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- b) **Answer any one of the following :-** 3
- Write a short note on Zidovudine.
 - Write a short note on topical anti fungal agents.
3. a) **Answer any two of the following :-** 8
- Classify oral Hypo glycaemic agents. Write a note on Biguanides
 - What are the abnormalities of Thyroid function. Give an account on drugs used in hyperthyroidism.
 - What is the hormonal control of bone mineral homeostasis. Explain the role of bisphosphonates in treatment of osteoporosis.
- b) **Write short note on any one :-** 3
- Oxytocin
 - DPP-IV Inhibitors
4. a) **Answer any two of the following :-** 8
- Discuss the pharmacology of Folic acid.
 - Enlist Platelet inhibitors. Discuss the Pharmacology of Aspirin.
 - Give a detailed account on Iron preparations.
- b) **Write a short note on any one :-** 3
- Vitamin K
 - Streptokinase
5. a) **Answer any two of the following :-** 8
- Classify anti amoebic drugs. Give an account on mixed amoebicidal agents.
 - Classify Anti-viral agents. Write a note on protease inhibitors.
 - Classify Anthelmintics. Write a note on Mechanism of action, side effects and Uses of Albendazole.
- b) **Write short note on any one :-** 3
- Sulphonamides
 - Chloramphenicol

6. a) **Answer any two of the following :-** 8
- i) Classify Immunomodulators with Examples. Enlist the clinical applications of Immunomodulators.
 - ii) Give a detailed account on use of Glucocorticoids as Immuno suppressants.
 - iii) Write a note on effect of insulin on carbohydrate, fat and protein metabolism.
- b) **Write short note on any one :-** 3
- i) Extended spectrum penicillins
 - ii) Amphotericin B
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B Pharm, Sem V [CBS45]
SUB - Pharm. Management

29/11/16

Dec 2016

QP Code : 500001

(3 Hours)

[Total Marks : 70

- N. B. :** (1) Question No. 1 is **compulsory**.
(2) Attempt any **five** questions from remaining **six** questions.
(3) Attempt in all six questions.

1. Answer the following
- | | |
|--|---|
| (a) Define Dog products. | 1 |
| (b) Explain two pharma marketing is different from FMCG marketing. | 2 |
| (c) Explain Generics, Branded Generics and Brands with example. | 2 |
| (d) Enlist any two product promotion tools used by medical representatives. | 1 |
| (e) Define Management. | 1 |
| (f) Give any example of a Patented Pharmaceutical product along with its indication in Indian pharmaceutical market. | 1 |
| (g) How Phase IV of clinical trial is important with respect to marketing of Pharmaceutical product. | 2 |
| (h) What are the contents of Brand Plan? | 1 |
| (i) Define Segmentation. | 1 |
| (j) What is the importance of C & F agent. | 1 |
| (k) What are the do's and don'ts (two points for each) in resume writing. | 2 |
2. (a) Explain component of Profit and Loss Account. 4
(b) Explain positioning with a example from pharmaceutical industry. 4
(c) Explain Market share and growth with a suitable example of OTC product or FMCG product. 3
3. (a) Explain the concept of Six sigma. 4
(b) Give schematic representation of distributions channel of pharmaceutical product and enlist one role of each. 4
(c) How Geographic and Behavioural segmentation impact marketing? 3
4. (a) Give a Brand plan for a pharmaceutical product of your choice. 4
(b) What is DPCO? Explain its role and its impact on brand promotion? 4
(c) Explain how medical representative is involved in multitasking? 3

[TURN OVER

5. (a) How SWOT analysis helps in pharmaceutical product promotion? Explain. 4
- (b) Write a note on Quality Management with respect to FDA regulation and approvals. 4
- (c) Enlist career option for B. Pharm graduate in Indian pharmaceutical industry. 3
6. (a) Explain the Porter's 5 force model. 4
- (b) Enlist any three companies with its two major brands in any two therapy segment of your choice. 4
- (c) Explain PLC using a suitable pharmaceutical product example. 3
7. (a) Solve the case study.
Fixed dose combinations were widely prescribed by doctors till February 2016. In March 2016 fixed dose combination were banned by Government.
- (i) Is the ban on fixed dose combination rationale? Give suitable example to justify. 2
- (ii) What will be the strategy that you would recommend to overcome the loss? 2
- (b) How packaging is important in pharmaceutical product promotion? 4
- (c) Enlist and write in brief about different components of health care industry. 3
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