

T.Y.B.Sc CBSGS sem V Drugs and Dyes QP code : 21.10.15 (2 ½ Hours) Total marks : 75

N.B. : 1) All questions are compulsory.

2) Figures to the right indicates full marks.

1. a) Explain the following:

5

i) ED 50

ii) Therapeutic index

iii) Drug potency

iv) Pharmacodynamic agent

v) Pharmacopeia

OR

a) i) Write down classification of drug on the basis of therapeutic index. Give one example of each.

3

ii) Explain : 1) Misbranded drug 2) adulterated drug

2

Answer any two of the following:

b) i) Give the synthesis of Methylphenidate.

3

ii) Write the structure and therapeutic use of phenytoin.

2

c) i) Give the synthesis of paracetamol. Write its therapeutic use.

3

ii) Define : analgesic.

2

d) i) define :- generic name, brand name, LD<sub>50</sub>

3

ii) Write the structure and therapeutic use of trimethadione.

2

e) i) Write down different types of dosage forms.

3

ii) Discuss advantages of oral route of drug administration.

2

2. a) What are the causes of inflammation ? Give the synthesis of Aceclofenac.

5

OR

a) How does histamine release in our body? Give the synthesis of cetirizine.

5



Answer **any two** of the following:

b) Discuss the causes of Angina pectoris. Write synthesis of Furosemide.

c) Define : i) Bronchodilators ii) Mucolytes

Write the synthesis of Salbutamol.

d) Give any two symptoms of Diabetes. Discuss the types of diabetes.

e) Explain : i) Diuretics ii) vasodialators .

Discuss the mode of action of Diphenhydramine.

3. a) Explain the properties of good dye.

**OR**

a) Explain the following classes of dye with one suitable example

i) Diphenyl methane dyes ii) mono azo dyes

Answer **any two** of the following:

b) i) Write a note on mordant dyes with example.

ii) Classify dye on the basis of application :

1) Methyl violet 2) Alizarin

c) Write the structure and classify following dye on the basis of chemical constitution:

i) Napthol Yellow S ii) Indigo caramine

d) i) Write a structure of Napthol AS.

ii) Write a note on Mordant dye.

e) Write a note on Natural dyes.

4. a) i) Explain the following terms: i) Lake ii) Toner

ii) Write uses of optical pigments.

**OR**

a) Discuss the following dyes with suitable example:



- i) Food colour      ii) Dyes used as Indicator and Analytical reagent

Answer **any two** of the following:

b) Define the Optical brighteners and write a note on classification of it. 5

c) i) Define the terms : 1) Hypsochromic shift 2) Bathochromic shift 2

ii) Explain : p- Aminoazobenzene is yellow in alkaline medium but turns violet in acidic medium. 3

d) Write a note on Witts theory. 5

e) Write a note on : i) Medicinal dyes ii) Laser dyes 5

5. Answer any THREE of the following.

a) Fill in the blanks: 5

i) Diabetes is caused due to lack of.....

( insulin, glycogen, somastasin, tramadol)

ii) Aspirin is an ..... drug.

( antidiabetics, antipyretic, antihistamine, none of these)

iii) Parkinsons disease causes due to lack of .....

( vitamin A, vitamin B, dopamine , none of these)

iv) Asthama is treated by using .....

( bronchodialators, expectorants , mucolytes, all of these)

v) A severe pain in chest is termed as .....

( angina pectoris, myocardia, pulmonary infraction , none of these)

b) i) Write the synthesis of Levodopa. 3

ii) Explain : 1) Spurious drugs ii) Systematic Name 2

c) i) Classify CNS drugs on the basis of pharmacological action . 3

ii) Give any two requirements of an ideal drug 2



d) Match the following:

A

B

i) N

Acid dyes

ii) K

Vat dye (normal temperature)

iii) S

Direct dye

iv) D

Vat dye (cold temperature)

v) 4G

Dark yellow

e) Explain the colour of ortho and para benzoquinone on the basis of valance bond theory.

f) i) Classify the dye on the basis of application and draw the structure : Orange II

ii) Write a note on cosmetic dyes.