B.Pharm. Sem -II CBCS. Ph.Cognosy -I

Q.P. Code :36440

[Time: Three Hours] [Marks:80]

Please check whether you have got the right question paper.

N.B:
1. All questions are compulsory.
2. Illustrate your answers with sketches and structures wherever necessary.
3. Answers to sub-questions must be written together.

Q.1 a) State whether true or false and justify all the statements with significant reasons or examples. 08

i) Talc is an example of plant origin crude drug.
ii) Stage micrometer is used in quantitative microscopy.
iii) Racemose inflorescence shows centrifugal arrangement of flower.
iv) Shinoda's test is used to distinguish between triterpenoids and steroids.
v) Indole acetic acid is an example of cytokinin.
vi) Rayon is a synthetic fibre.
vii) Ricinoleic acid is a saturated fatty acid.
viii) Urokinase is a fibrinolytic agent.

b) Answer the following: 12

i) Give merits and demerits of pharmacological classification of crude drug.
ii) Explain with suitable examples role of mountants and clearing agents in microscopy.
iii) Discuss starch as an ergastic cell content.
iv) Write a brief note on coumarins.
v) Give the different types of soils.
vi) Discuss kieselghur as mineral origin drug.

Q.2 i) Explain the status and significance of pharmacognosy in Unani and Chinese medicine. 04
ii) Write a note on dried latex, dried juices and dried extracts with examples. 04
iii) Write the source, preparation, constituents, chemical test and uses of Indian tragacanth. 04

Q.3 i) Differentiate between roots and rhizomes. Explain microscopical features of roots with suitable diagrams. 04
ii) Give classification of tannins with suitable examples, Write chemical test and important biological activities. 04
iii) Give complete pharmacognostic account of cod-liver oil and wheat germ oil. 04

Q.4 i) Write one example, important biological activity & structure of basic chemical nucleus for : 04
a) Amino alkaloid
b) Cyanogenetic glycoside
ii) Write a note on collection of crude drugs. 04
iii) Write a note on protein hydrolysates and thyroid hormones. 04

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Q.5	i)	Write a note on volatile oils.	04
	ii)	Write in brief about fibres which respond to millions test positive.	04
	iii)	Write biological source, chemical constituents and uses of Amla & Tulsi.	04
Q.6	i)	Write a note on hydathodes, waterpores and epidermal trichomes with suitable examples.	04
	ii)	a) Write source composition and applications of ricin.	02
		b) Write source chemical constituents and uses of 'punarnava.'	02
	iii)	Differentiate between fats and waxes, write a note on wax obtained from animal source.	04

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Biochemistry -II /Sem-II-CHOICE BASED 7/05/18

B. Pharm

Q.P. Code: 37319

(3 hours) Total Marks: 80

N.B.: **All** questions are compulsory

Q1

a) Enlist the precursors used for purine biosynthesis. 1
b) Name any one regulatory enzyme for TCA cycle. 1
c) Enlist the two enzymes present only in Glyoxylate pathway 1
d) Give any one shuttle system for transfer of reducing equivalents to mitochondria 1
e) Give examples of physiological uncouplers of ETC 1
f) Name the prostaglandin inhibitor drugs. 1
g) Give the step which is regulatedin cholesterol biosynthesis 2
h) Explain oxidative phosphorylation 2
i) Give the regulation of pyrimidine nucleotide biosynthesis 2
j) Enlist true ketone bodies with their structure 2
k) Give the significance of Pentose phosphate pathway 2
l) Calculate the total ATPs obtained in β- oxidation of palmitic acid 2
m) Define "Glycolysis" and give the ATP consumption in preparatory phase of Glycolysis 2

Q2 (a) Give the names and structures of substrate and product, coenzyme for the following enzyme catalysed reaction **(Any four)** 8

i) Thiokinase
ii) Pyruvate kinase
iii) Fumarase
iv) Lipoxygenase
v) OMP decarbxylase

(b)Give the name of the enzyme catalysing the following conversion 4

i) β-Hydroxy acyl ACP from β-Ketoacyl ACP
ii) Carbamoyl asparate to Dihydroorotate
iii) Fructose 1, 6- bisphosphate to fructose 6- Phosphate
iv) L-methyl-malony-CoA to succinyl-CoA

Q3 (a) Explain payoff phase of glycolysis. 3
(b)Write reactions for oxidative phase of HMP pathway 3
(c) Explain the citrate shuttle involved in synthesis of fatty acids 2
(d) Give synthesis of phosphatidyl choline 2
(e) Explain the steps involved in synthesis of GMP from IMP 2

Q4. (a)Explain the complexes of ETC	3
(b) Write the activation and transport shuttle for beta oxidation of fatty acid	3
(c) Discuss the utilization of ketone bodies	2
(d) Explain glycogenesis	2
(e) Outline the reactions involved in formation of OMP from Dihydroortate	2
Q5 (a) Give the reactions involved in conversion of citrate to succinyl CoA	3
(b) Explain the β-oxidation of mono unsaturated fatty acids	3
(c) Explain proton motive force.	2
(d) Outline the steps involved in mevalonate pathway	2
(e) Explain synthesis of phosphoribosyl β-amine from ribose-5-phosphate	2
Q6 (a) Differentiate β-oxidation and biosynthesis of fatty acid	3
(b) Write three bypass reactions for reversal of glycolysis in gluconeogenesis	3
(c) Describe the Glycerol phosphate shuttle	2
(d) Give the synthesis of CTP from UMP	2
(e) Enlist drugs inhibiting nucleotide synthesis.	2

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F. Y. B Pharm , Sem II [CBCS] / EVS, Date: 16/5/1

Q. P. Code: 40355

Duration: 3 Hours Marks:80

(1) All questions are compulsory
(2) Draw diagrams wherever necessary
(3) Figures to the right indicate full marks

1) (i) "Ban on use of Plastic Bags" is example of which of 3Rs of control measures, define and justify 1
(ii) Define sustainable development 1
(iii) Give two examples of recycle 1
(iv) Define Eutrophication 1
(v) Enlist two fossil fuels 1
(vi) Enlist the chemicals produced in Photochemical Smog 1
(vi) Name two indoor air pollutants and their effects 2
(vii) Give the causes of Acid Rain 2
(vii) Explain the concept of Sanitary Landfills 2
(vii) State the need of Environmental Education 2
(viii) Explain Primary air pollutants with examples 2
(ix) Explain the term "Environmental Impact Assessment 2
(x) State the need for Environmental legislations in Indian Scenario 2

2) (i) What are the causes and methods for reducing Noise Pollution 4
(ii) Describe the function and power of Central Pollution Control Board 4

OR

(ii) Discuss the penalties and punishment under Environmental Protection Act
(iii) Explain the processes needed to transmit from unsustainable to sustainable development 4

3) (i) Explain with suitable diagram hydropower generation 4
(ii) Explain any two equipments used for purification of Air 4
(iii) Write a note on any two methods for sewage water treatment 4

OR

(iii)What are the causes and methods for treatment of E- pollution

4) (i) What do you mean by green building? What are its benefits? 4
(ii) What are food chains and food webs? Give examples and discuss their significance 4
(iii) Differentiate between renewable and non-renewable sources of energy & Justify wind energy as a source of renewable energy 4

OR

(iii) What are Carbon Credits. Explain the need and advantages of Carbon Credits

5) (i) Explain the four steps involved in Environmental Clearance 4
(ii) Write a note on techniques of disaster management with reference to Tsunami or Earthquake 4

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(iii) Describe the causes and effects of depleting nature of water resources in the environment 4

6) (i) Explain role of Technology in Environment and Health 4

(ii) Explain "Global Warming " causes ,effects and preventive measures 4

OR

(ii) Discuss vermicomposting as one of the methods of solid waste management

(iii) Write a detailed note on solar energy and solar cells as one of the method to generate solar power. 4

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F. Y. B Pharm, Sem II, CBCS - HPDSM, 17/5/18

Q. P. Code : 36095

Time : 3 hrs **Marks : 80**

Q1 (a) Classify hospitals. 2

(b) Nursing department and hospital pharmacist together play an important role in drug distribution in hospitals. Justify. 2

(c) Describe in brief the preparation of hospital formulary. 2

(d) Elaborate on the role of ward pharmacist in prevention of medication errors. 2

(e) Enlist factors causing medication errors 2

(f) What are the components of TPN? 2

(g) Give classification of different methods for sterilisation of surgical products. 2

(h) State advantages and disadvantages of buying an existing store. 2

(i) Elaborate on importance of purchasing policies in a drug store. 2

(j) State importance of insurance for a drug store. 2

Q.2 (a) Discuss the procedure to be followed for ordering ward stock items of the controlled substances from the Pharmacy department in hospital. 4

(b) Describe objectives and functions of PTC. 4

(c) What are the legal requirements to be satisfied for wholesale of drugs? 4

Q.3 (a) comment on Handling of Radiopharmaceuticals 2

(b) Discuss in detail sterilization of surgical dressings 4

(c) Write note on sales promotion in retail drug store 4

(d) Explain systematic want book method of inventory control. 2

Q.4 (a) Elaborate on preparation and implementation of budget for hospital pharmacy 2

(b) Define hospital formulary write its advantages and limitations 4

(c) Give functions of wholesalers 4

OR

Explain salient features of sole proprietorship 4

(d) Elaborate on role of pharmacist in prevention of frauds in retail drug store 2

Q. 5. (a) Write about charge plate system of dispensing drugs to in-patients. 2

(b) Give composition of PTC. 2

(c) List advantages and write about the functions of CSSR. 4

(d) Explain open to buy budget system and EOQ method of inventory control for the drug store. 4

OR

(d) State importance of inventory control. Elaborate on ABC method of inventory control. 4

Q.6 (a) Explain the organisational structure of hospital pharmacy department. 4

(b) Comment on the use of card board boxes as packaging material for sterilization. 2

OR

(b) Write about the use of metal drums as packaging material for sterilization. 2

(c) Compare direct and indirect channels of drug distribution to consumers. 2

(d) Write a short note on use computers in drug store. 4

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F.Y. B Pharmacy, Sem II CBCS, APP. II
Date: 3/5/18

Q.P. Code :01222

[Time: Three Hours] [Marks:80]

Please check whether you have got the right question paper.

N.B:
1. All question are compulsory.
2. Figure to the right indicate full marks.
3. Draw neat, labelled diagrams wherever necessary.

Q.1 (a) Answer the following: (16)

i. Write down the effect of sympathetic and parasympathetic nervous system on the heart and eyes.
ii. Give the functions of : a) Pharynx b) Alveoli
iii. Enlist the hormones secreted by thyroid gland with functions.
iv. What is cellular atrophy?
v. Give the cardinal symptoms of Graves' disease.
vi. Comment on auditory ossicle.
vii. Define emphysema & bronchitis.
viii. Match the following:

Disease	Pathological event
1. Alzheimers disease	a. Degeneration of dopaminergic neurons
2. Parkinson's disease	b. Imbalance between excitatory & inhibitor neurotransmitter
3. Depression	c. Deposition of B-amyloid plaque
4. Epilepsy	d. Low serotonin level

(b) Answer the following: (4)

i. _____ hormone is responsible to decrease blood calcium level.
ii. Myelin sheath around CNS axons is formed & maintained by _____ neuroglial cells.
iii. What is rhodopsin?
iv. State true or false:
Inspiratory Capacity is the maximum volume of air which can be moved into and out of the lungs.

Q.2 (a) Answer the following:

i. Differentiate between apoptosis & necrosis. (4)

OR

i. Discuss the causes of cells injury.

ii. Discuss the pathogenesis of cancer. (4)

OR

ii. Explain the phenomenon of metastasis.

(b) Write down the biological effects of **(any one)** (4)

1. Nuclear radiation 2. X-ray radiation