

F.Y.B. Pharm SEM-II (CBCS)
Sub - APP-II

19/04/11

Q.P. Code :01223

[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. Draw a neat labelled diagram of a neuron.
 - ii. Explain the terms: a) Inspiratory capacity
b) Alveolar ventilation rate
 - iii. Name the cells of the anterior pituitary and their secretions.
 - iv. What is hypertrophy?
 - v. Comment on 'Pituitary dwarfism.'
 - vi. Discuss the structure of taste bud.
 - vii. Describe clinical symptoms of Parkinson's disease.
 - viii. Define: a) Respiratory acidosis
b) Respiratory alkalosis
- Q.1 (b) Answer the following : (4)
- i. Name the photo receptors and photo pigments.
 - ii. The two types of cholinergic receptors are _____ and _____.
 - iii. Give the function of alveoli.
 - iv. The posterior pituitary releases the hormones _____ and _____.
- Q.2 (a) Answer the following: (4)
- i. Discuss the causes of cell injury.
- OR
- i. Explain the mechanisms of Apoptosis.
- ii. Give the etiology of cancer. (4)
- OR
- ii. Discuss classification of tumors.
- Q.2 (b) Discuss the biological effects of (any one) : (4)
- i. Nuclear radiation
 - ii. U.V. radiation

Q.P. Code :01223

- Q.3** (a) Answer the following **(any two)** : (8)
- i. Describe the formation and function of cerebrospinal fluid.
 - ii. With the help of a diagram explain the structure of simple reflex arc.
 - iii. Discuss the phases of nerve action potential.
- (b) Write short note on **(any one)** : (4)
- i. Depression
 - ii. Alzheimer's disease
- Q.4** (a) Answer the following **(any two)** : (8)
- i. Explain physiology of respiration.
 - ii. Explain the structure of the bronchial tree. Draw a diagram of the same.
 - iii. Explain mechanism of voice production.
- Q.4** (b) Write a short note on **(any one)** : (4)
- i. Bronchitis
 - ii. Pneumonia
- Q.5** (a) Answer the following **(any two)** : (8)
- i. Explain calcium homeostasis.
 - ii. Describe the physiological effects of glucocorticoids and mineralocorticoids.
 - iii. How is blood glucose level regulated?
- Q.5** (b) Write a short note on **(any one)** : (4)
- i. Diabetes insipidus
 - ii. Grave's disease
- Q.6** (a) Answer the following **(any two)** : (8)
- i. Describe the structure of retina.
 - ii. Explain the functions of skin.
 - iii. Discuss the physiology of hearing.
- Q.6** (b) Answer the following **(any one)** : (4)
- i. Write a short note on autonomic ganglia.
 - ii. Give the effect of acetyl choline and adrenaline on:
 1. Eye
 2. Bronchi
 3. Heart
 4. Sweat gland

25/04/17

CBCS

Sem II

BC II

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Q.P. Code :02256

[Time: Three Hours]

[Marks:80]

Please check whether you have got the right question paper.

N.B: 1. All questions are compulsory.

- Q.1
- A. Why TCA cycle is called as amphibolic pathway? 01
 - B. Cyanide interacts directly with _____ of ETC 01
 - C. Define glycogenolysis 01
 - D. Give the precursor for biosynthesis of leukotrienes 01
 - E. Name one enzyme involved in salvage pathway 01
 - F. Name the drug which inhibits dihydrofolate reductase 01
 - G. Enlist the shuttles which transport reducing equivalent from cytosol to matrix 02
 - H. Define oxidative phosphorylation 02
 - I. State the role of hexose monophosphate pathway 02
 - J. Calculate the number of ATP formed in β -oxidation of stearic acid 02
 - K. Draw the structure of cholesterol 02
 - L. Name the enzyme, substrate and product formed in the rate-limiting step of fatty acid biosynthesis 02
 - M. Enlist the precursors for purine biosynthesis 02
- Q.2 A. Write the names and structures of substrate and products for the following enzyme catalyzed reaction: (any four) 08
- i. Pyruvate dehydrogenase
 - ii. Glucose -6-phosphatase
 - iii. β -ketoacyl ACP reductase
 - iv. Aspartate transcarbamoylase
 - v. Cyclooxygenase
- B. Give name of enzyme catalyzing the following conversion 04
- i. Malate to oxaloacetate
 - ii. Acetyl CoA to malanyl CoA
 - iii. Adenylosuccinate to AMP
 - iv. UTP to UDP glucose (activated glucose)
- Q.3 Explain glyoxylate shunt 03
- A. Write the three bypass reactions involved in reversal of glycolysis 03
 - B. Discuss the utilization of ketone bodies 02
 - C. Give the two general strategies for synthesis of glycerophospholipids 02
 - D. Discuss the formation of GMP from IMP 02
- Q.4
- A. Differentiate between substrate level phosphorylation and oxidative phosphorylation 03
 - B. Describe the biosynthesis of palmitate from malonyl ACP 03
 - C. Explain modulation of nucleotide biosynthesis by metotrexate and trimethoprin 02
 - D. Give the formation of 6-phosphogluconate from glucose -6-phosphate 02
 - E. Write the four reactions involved in β -oxidation of fatty acid 02

TURN OVER

- Q.5
- A. Describe the energy generation phase of glycolysis 03
 - B. Explain β -oxidation of polyunsaturated fatty acid 03
 - C. Outline the steps involved in conversion of acetyl CoA to mevalonate 02
 - D. Explain proton motive force 02
 - E. discuss the regulation for De NOVO biosynthesis of purine nucleotide 02
- Q.6
- A. Give the reactions involved in conversion of citrate to succinyl CoA 03
 - B. Explain glycogenesis 03
 - C. Explain the significance of salvage pathway 02
 - D. Mention the drugs inhibiting synthesis of prostaglandin 02
 - E. Give the synthesis of UTP from OMP 02

02/05/17

SEM-II CBCS

Pharm-Nosy-1

Q.P. Code : 04550

[Time : 3 Hours]

[Marks : 80]

Please check whether you have got the right question paper.

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

1. (a) State whether true or false and justify all the statements with significant reasons or examples: **8**
 - i) Agar is an example of plant origin crude drug.
 - ii) Chlor-zinc Iodine solution is used for identification of lignified tissues.
 - iii) Calcium carbonate is an ergastic cell content.
 - iv) Fehling's reagent is used to differentiate between carbohydrates and lipids.
 - v) Coppicing method is used for collection of leaf-based crude drugs.
 - vi) Silk is a protein fiber.
 - vii) Agar is pathological product.
 - viii) Lectins are used for protein digestion.
- (b) Answer the following : **12**
 - i) Give merits and demerits of morphological classification of crude drug.
 - ii) Enlist four examples each of chemomicroscopic reagents.
 - iii) Differentiate between gums and mucilages.
 - iv) Write a brief note on lignans.
 - v) What is mutation and hybridization? Give suitable examples.
 - vi) Write a note on chalk.
2. (i) Explain the status & significance of pharmacognosy in Homeopathy & aroma therapy. **4**
- (ii) With the help of suitable labelled diagrams, explain the salient histological features of stem & root-based drugs.
- (iii) What are Fats? Explain the source, preparation, constituents and use of Shea butter.
3. (i) Give detailed classification of different types of inflorescence. **4**
- (ii) What is resin? Classify resin and resin combinations with suitable examples and their applications. **4**
- (iii) Give complete pharmacognostic account of gum which is an organized drug. **4**

TURN OVER

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4. (i) Write one example, important biological activity and structure of basic chemical nucleus for : 4
a) Pyridine-piperidine / Indole Alkaloid
b) Flavonoid / Isothiocyanate Glycoside
- (ii) Write a note on drying and storage of DONO. 4
- (iii) Write a note on proteolytic enzymes obtained from plant source. 4
5. (i) Write a note on tannins and polyphenolic compounds. 4
- (ii) Write source, preparation chemistry and commercial utility of "Cottons". 4
- (iii) Write biological source, chemical constituents and uses of Karela and Tinospora. 4
6. (i) Write in detail about subterranean stem modification. 4
- (ii) a) Write names of marketed formulations containing serratiopeptidase and their applications. 2
b) Give source, constituents and uses of neem. 2
- (iii) Give a brief account of rice bran oil and wheat germ oil. 4
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TURN OVER

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
 2. Figures to right indicate full marks.
 3. Draw a neat labelled diagram wherever applicable.

- A.1 a) Define Hospitals and classify hospitals 02
- b) Elaborate on 'Drug distribution systems in hospitals.' 02
- c) Explain suitable method used for addition and deletion of drugs from hospital formulary. 02
- d) Explain infection control policies in hospital. 02
- e) Comment on 'Drug utilization review.' 02
- f) State importance of sterilization of hospital supplies. 02
- g) Enlist components of TPN. 02
- h) Enlist different traits required to be a successful entrepreneur. 02
- i) Comment on 'Importance of purchasing policies in inventory control'. 02
- j) Elaborate on role of pharmacist in avoiding frauds in drug store. 02
- Q.2 a) Discuss the role of pharmacist in exercising control on ward stock items related to control substances. 04
- b) Explain on 'Role of PTC in drug safety.' 04
- c) Elaborate on legal aspects and licenses for drug store unit. 04
- Q.3 a) Comment on 'Labeling of drug products for safe use of drugs in hospitals.' 02
- b) Write a note on sterilization of needles and catheters. 04
- c) Discuss various methods of sales promotion 04
- d) Elaborate on specific functions of purchasing. 02

- Q.4 a) Explain the role of hospital pharmacist in the preparation and implementation of budget for hospital pharmacy. 02
- b) Define hospital formulary and comment on selection of drugs and publication of hospital formulary. 04
- c) Write a short note on 'Entrepreneurship.' 04

OR

Write short note on 'Partnership'. 04

- d) Describe various insurance policies used for drug store. 02

- Q.5 a) Explain role of pharmacist in designing drug distribution system for in patients. 02

- b) State importance of PTC. Give composition of PTC. 02

- c) Enlist objective of CSSR. Describe role of hospital pharmacist in functioning of CSSR. 04

- d) Describe ABC and VED analysis of inventory control. 04

OR

Explain functions of purchasing for drug store. 04

- Q.6 a) Define Hospital pharmacy. Elaborate on different pharmaceutical services rendered to the patient. 04

- b) Enlist different packaging materials used for sterilization. Elaborate on any one. 02

OR

Write a note on 'Intravenous additives'. 02

- c) Comment on channels of distribution for pharmaceuticals. 02

- d) Explain importance of computers in efficient running of drug store. 04

Date : 12/5/17
Sub: Environmental science

Course: CBES
First half 2017

Q.P Code: 02742

[Time: Three Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B:
1. All Questions are compulsory.
 2. Draw neat diagram wherever necessary.
 3. Figure to the right indicate full marks.

- Q.1a. Define 1 Dobson unit. 01
b. Define Ecology. 01
c. What is sanitary landfill. 01
d. 'Carrying your fabric bag to market' is example of which of 3 Rs of control measures, define and justify. 01
e. Define troposphere 01
f. Explain the difference between species, population and community. 02
g. Give two examples each of sources of renewable and non-renewable energy. 02
h. Name two indoor air pollutants and their effects. 02
i. State the need for environmental legislation in Indian scenario. 02
j. What is the role of technology with reference to environment. 02
k. illustrate disaster management cycle. 02
l. Enlist merits and demerits of wind turbines. 03
- Q.2a. Explain causes, effects and preventive measure of 'Ozone layer depletion.' 04
b. With a neat labelled diagram explain the principle and working of Photovoltaic cell. 04
- OR**
- b. With a neat labelled diagram explain the principle and working of flat plate collector. 04
c. With a neat labelled diagram explain working of hydropower generators. 04
- Q.3a. Enumerate on the sources and effects of noise pollution. 04
b. Give the functions of Ministry of Environment and forest (MoEF). 04
c. Enumerate on indoor air pollutants and their effects. 04
- OR**
- c. Describe Carbon credit. What are its advantages? 04
- Q.4a. Enumerate on any two methods for control of air pollution. 04
b. Explain any two approaches used for primary treatment and prevention of water pollution. 04
c. With a neat labelled sketch explain Rotating Biological Contactor. 04
- OR**
- c. Explain the concept of Global Warming along with the enhanced Green House Effect. 04

(P.T.O)

- Q.5 a. What do you mean by green building? What are its benefits. 04
b. With a neat labelled diagram discuss Flash Steam Plants. 04
c. Explain food chains & food webs. Give their significance. 04

OR

- c. What do you mean by sustainable development? What are the major measures to attain sustainability. 04

- Q.6 a. Discuss major environmental impact of deforestation 04
b. What adverse effects can solid waste cause? How can the solid waste be managed by vermicomposting. 04
c. Discuss penalties and punishment under Environment Protection Act. 04

OR

- c. Discuss the procedure for Environmental Clearance. 04