

School of Engineering & Technology

School of Pharmacy

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|---|---------------------------------------|-------------------|-----------------|--|
| AIKTC/KRRC/SoP/ACK | N/QUES/2017-18/ | Date: | 31/12/18 | |
| School: SoP-CBCS | Branch: SoP | SEM: | Ш | |
| | | | | |
| To, | | | | |
| Exam Controller, | | | | |
| AIKTC, New Panvel. | | | | |
| | | | | |
| Dear Sir/Madam, | кт | | | |
| Received with thanks the fo | ollowing Semester/Periodic que | stion papers from | your exam cell: | |

| Sr. | Subject Name | Subject Code | For | mat | No. of |
|-----|---|--------------|-----|----------|--------|
| No. | | | SC | HC | Copies |
| 1 | APP - II | BPH_C_201_T | | / | 02 |
| 2 | Biochemistry – II | BPH_C_202_T | | / | 02 |
| 3 | Pharmacognosy – I | BPH_C_203_T | | / | 02 |
| 4 | Hospital Pharmacy and Drug Store Management | BPH_C_204_T | | / | 02 |
| 5 | Environmental Science | BPH_C_205_T | | V | 02 |
| | | | | | |
| | | | | | |
| | | | | | |

Note: SC - Softcopy, HC - Hardcopy

(Shaheen Ansari)

Librarian, AIKTC

Paper / Subject Code: 65801 / Anatomy, Physiology & Pathophysiology -II

SEM-II CBCS

Q.P. CODE: 38121

| (Time: 3 Hours) (Total marks: 80) | |
|---|------|
| N.B.: (1) All questions are compulsory | |
| (2) Figures to right indicate full marks | |
| Q 1 A. Answer the following: | 16 M |
| i) Enlist the vital centers located in medulla oblangata. | |
| ii) Enumerate the cells and secretions of pancreatic islets. | |
| iii) Define: a) Vital capacity b) Tidal volume | |
| iv) What is cerebral hypoxia? | |
| v) Write a note on iris. | |
| vi) Give the symptoms of myxoedema. | |
| vii) Define cell injury. | |
| viii) Enlist the causes of COPD | |
| Q 1 B. Answer the following: | 4 M |
| i) Name the auditory ossicles. | |
| ii) enzyme is responsible for degradation of adrenaline. | |
| iii) What is saltatory conduction of nerve impulse. | |
| iv) Give the functions of nose. | |
| | |
| Q 2 A. Answer any two of the following | 8 M |
| i) Elaborate on types of cellular adaptations. | |
| ii) Differentiate between apoptosis and necrosis. | |
| Q 2 B. Answer any one of the following | 4 M |
| i) Give an account on carcinogenesis. | |
| ii) Discuss different carcinogens. | |
| Q 2 C. Answer any one of the following: | 4 M |
| i) Explain the harmful effects of X rays. | |
| ii) Give the biological effects of nuclear radiation. | |
| | |
| Q 3 A. Answer any two of the following: | 8 M |
| i) Give the functions of hypothalamus. | |
| ii) Draw a well labeled diagram of cerebrum. Add a note on blood brain barrier. | |

Paper / Subject Code: 65801 / Anatomy, Physiology & Pathophysiology -II

Q.P. CODE: 38121

| iii) Describe the neuroglia of the CNS. | |
|--|-----|
| Q 3 B. Write a short on any one of the following: | 4 M |
| i) Parkinson's disease | |
| ii) Schizophrenia | |
| | |
| Q 4 A. Answer <u>any two</u> of the following: | 8 M |
| i) Describe the structure of larynx. | |
| ii) Explain the control and regulation of respiration. | |
| iii) Discuss the mechanism of respiration. | |
| Q 4 B. Write a short note on <u>any one</u> of the following: | 4 M |
| i) Asthma | |
| ii) Emphysema | |
| | 7 |
| Q 5 A. Answer <u>any two</u> of the following: | 8 M |
| i) Explain formation, storage and release of thyroid hormones. | |
| ii) Write a note on renin, angiotensin and aldosterone system. | |
| iii) What are the different trophic hormones? Explain their physiological actions. | |
| Q 5 Answer any one of the following: | 4 M |
| i) Differentiate between type I and type II diabetes mellitus. | |
| ii) Discuss the pathophysiology of Cushing's syndrome. | |
| | |
| Q 6 A. Answer any two of the following: | 8 M |
| i) Discuss in detail accessory structure of eyes. | |
| ii) Explain physiology of equilibrium. | |
| iii) What are the functions of skin? | |
| Q 6 B. Answer any one of the following: | 4 M |
| i) Discuss neurotransmitters and receptors autonomic nervous system. | |
| ii) Compare and contrast between adrenergic and cholinergic system. | |



IMRAN SHEIKH <imranaiktc@gmail.com>

Correction in :1P00132 - F.Y. B. of Pharmacy QP CODE : 38121

1 message

University of Mumbai <support@muapps.in> Reply-To: University of Mumbai <support@muapps.in> To: imranaiktc@gmail.com

Mon, Nov 12, 2018 at 3:05 PM



University of Mumbai

Correction in: 1P00132 - F.Y. B. of Pharmacy (Sem II)(Choice Based) / 65801 - Anatomy, Physiology and

Pathophysiology - II. QP CODE: 38121

Q. 2 A: Answer any one for 4 mks

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Q.P. Code: 37318

(3 hours)

Total Marks: 80

N.B.: All questions are compulsory

| O.1 (a) | ATP are formed when two moles of glucose are consumed in glycol | ysis.1 |
|----------------|--|-----------|
| | two names of chemical uncouplers of oxidative phosphorylation. | - 1 |
| | glycogenolysis. | 1 |
| | precursors of pyrimidine synthesis. | 1 |
| | the two enzymes of glyoxalate cycle which are not present in vertebrates. | 2 |
| | he components of ETC | 2 |
| | four major substrates for Gluconeogenesis. | 2 |
| | ate number of ATP formed on β-oxidation of Oleic acid | 2 |
| | he two pathways employed for synthesis of eicosanoids. | 2 |
| | ames of two enzymes involved in the elongation of fatty acid chain. | 2 |
| | names of enzymes responsible for conversion of IMP to AMP | 2 |
| | n name of an antifungal drug and the enzyme which is inhibited by the | drug in |
| | l synthesis. | 2 |
| O. 2 (a) G | ive the names and structures of substrate and product, coenzyme for the for | ollowing |
| | talysed reaction (Any four): | 8 |
| | Citrate synthase | |
| | Glucose-6-phosphate dehydrogenase | |
| | Δ^3 , Δ^2 enoyl CoA isomerase | |
| | Enoyl ACP hydratase | |
| | Orotidylic acid decarboxylase | |
| | ame of the enzyme catalysing the following conversion: | 4 |
| | rumarate to malate | |
| | Fructose-6-phosphate to fructose 1,6- bisphosphate | |
| | Xanthosine monophosphate to GMP | |
| | Pyruvate to oxaloacetate. | |
| | | |
| Q. 3 (a) W | rite reactions for conversion of α-ketoglutarate to fumarate in Kreb cycle al | ong with |
| structures, | enzymes, coenzymes. Also indicate whether reaction is reversible or irre | versible. |
| | | 3 |
| (b) Discus | s Glycogenesis | 3 |
| (c) What is | s ketogenesis? Give structures of the important products formed in the proc | ess. 2 |
| (d) Write r | eactions & enzymes involved for conversion of arachidonate to PGH ₂ | 2 |
| | e reaction with enzyme for IMP synthesis from Aminoimidazole carb | oxamide |
| ribosyl-5-p | phosphate. | 2 |

Paper / Subject Code: 65802 / Biochemistry-II

Q.P. Code: 37318

| Q. 4 (a) Explain schematically reactions of ETC. | 3 |
|--|-------|
| (b) Give series of reactions for conversion of Acetyl-CoA to 3-ketoacyl enzyme in | n the |
| biosynthesis of fatty acids | 3 |
| (c) Write structures of reactants and products for the reaction catalyzed by transaldolase | 2 |
| (d) Write a note on Carnitine carrier system. | 2 |
| (e) What is Salvage pathway? How it is different from de Novo synthesis of nucleotide | 2 |
| Q. 5 (a) Discuss Glyoxylate cycle | 3 |
| (b) Explain β-oxidation of myristic acid along with names of all enzymes, coenzymes & | z co- |
| factor involved in it. | 3 |
| (c) Define Oxidative phosphorylation. Indicate sites of oxidative phosphorylation in ETC | .2 |
| (d) Give reaction catalyzed by HMG CoA synthase. | 2 |
| (e) Indicate name of enzyme involved and reaction for formation of orotic acid : | from |
| dihydroorotic acid. | 2 |
| | |
| Q. 6 (a) Discuss Malate- aspartate shuttle. | 3 |
| (b) How will you convert Squalene to cholesterol indicate reactions for it. | 3 |
| (c) Give reaction to depict splitting phase in Glycolysis. | 2 |
| (d) Depict the synthesis of Leukotriene A ₄ from arachidonate. | 2 |
| (e) Give the name of drug which inhibits HMG CoA reductase and thymidylate synthase. | 2 |

Page 2 of 2

Paper / Subject Code: 65803 / Pharmacognocy-I

SEM-II CBCS 07/12/2018

Q.P. Code: 04551

[Time: 3 Hours]

Please check whether you have got the right question paper.

[Marks:80

| | | 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. | - |
| | | 3) Allswers to sub questions must be written together. | |
| Q. 1 | l (a) | State whether True/False and justify all the following statements, giving suitable examples:- | 8 |
| | | i) Acacia is an example of mineral origin crude drug. | |
| | | ii) Glycerol is used as a clearing agent in microscopic examinations. | |
| | | iii) Starch grains are produced in mitochondria. | |
| | | iv) Saponification test is used to differentiate between fixed and volatile oils. | |
| | | v) Coppicing method is used fer collection of root-based crude drugs. | |
| | | vi) Cotton is a sclerenchymatous fibre. | |
| | | vii) Guar gum is a pathological product. | |
| | | viii) Abrin is used for protein digestion. | |
| | (b) | Answer the following :- | 12 |
| | | i) Give merits and demerits of taxonomical method of classification of crude drugs. | |
| | | Enlist the chemo microscopic of reagents used in examination of seed-based drugs. | |
| | | iii) Differentiate between bark and wood. Give suitable examples. | |
| | | iv) Write a note on coumarins. | |
| | | v) Give two examples of natural pest control agents, with their biological source. | |
| | | vi) Write a note on keiselguhr. | |
| Q. 2 | | Explain the status and significance of pharmacognosy in Ayurveda and aroma therapy. With the help of suitable labelled diagrams, explain the salient histological features of a typical leaf based drug. | 4 |
| | iii) | What are oils? Give the source, preparation constituents and uses of castor oil. | 4 |
| 2. 3 | | Giving suitable examples, write a note on simple fruits. | 4 |
| | | What are tannins? Give complete classification of tannins with suitable examples, | 4 |
| | | chemical tests and their applications. | |
| | iii) | Give complete pharmacognostic account of a gum of microbial origin. | 4 |
| 2. 4 | i) | Give one example, important biological activity and basic chemical nucleus for : | 4 |
| | | a) Purine or pyridine-piperidine type alkaloids | |
| | | b) Anthquinone or cyanogenetic glycosides. | |
| | | Discuss the factors affecting cultivation of crude drugs. | 4 |
| | 1111 | Give source prepatration and uses of 'hromelain' and 'casein' | 4 |

Paper / Subject Code: 65803 / Pharmacognocy-I

Q.P. Code: 04551

2

| Q. 5 i) With suitable examples, give complete chemical classification of triterpenoids. | | 4 |
|--|------|------|
| ii) Write a note on any one protein fibre. | 648 | 4 |
| iii) Give biological source, chemical constituents and uses of 'Shatavari' and 'Kalmegh' | | 4 |
| g attached to a | | |
| Q. 6 i) Write a note on unorganized drugs. | | 4 |
| ii) a) Give the source and uses of serratiopeptidase | | * |
| b) Give source, constituents and uses of amla. | | est. |
| iii) Give complete pharmacognostic account of any two oils of animal origin. | * :- | 4 |

12/7/2018

Gmail - Correction in QP Code: 4551



IMRAN SHEIKH <imranaiktc@gmail.com>

Correction in QP Code: 4551

1 message

University of Mumbai <support@muapps.in>
Reply-To: University of Mumbai <support@muapps.in>
To: imranaiktc@gmail.com

Fri, Dec 7, 2018 at 3:23 PM



University of Mumbai

Correction in 1P00132 - F.Y. BACHELOR OF PHARMACY (Choice Base) SEMESTER - II / 65803 - Pharmacognosy-I. QP Code: 4551

Read as Q.5.1. With suitable examples, write a note on steroids and triterpenoids. instead of Q.5.1. With suitable examples , give complete classification of triterpenoids

gustea of this

Q. 5.1. write a note on Steroids and triterpenoids

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67/12/18

Paper / Subject Code: 65804 / Hospital Pharmacy & Drug Store Management

SEM-DI CBCS

Q. P. Code: 36097

| | Time: 3 hrs | Marks: 80 |
|-----|---|---------------|
| Q.1 | (a) Give organisational structure of hospital. List any two functions of hospital. | 2 |
| | (b) Comment on hospital outpatient pharmaceutical services. | 2 |
| | (c) Define hospital formulary. Enlist its advantages. | 2 |
| | (d) Comment on medication errors in hospital. | 2 |
| | (e) Write note on 'Drug utilization review'. | 2 |
| | (f) Describe the steps in manufacture of large volume parenteral in hospital. | 2 |
| | (g) Define sterilisation. List factors affecting growth of microorganisms. | 2 |
| | (h) State advantages and disadvantages of starting a new drug store. | 2 |
| | (i) What are the points to be considered for formulating buying policies? | 2 |
| | (j) Elaborate on role of pharmacist in avoiding frauds in a drug store. | 2 |
| Q.2 | (a) Discuss in detail the control procedures for dispensing of controlled substances | . 4 |
| | (b) Elaborate on the role of PTC in Drug safety. | 4 |
| | (c) Elaborate on the requirements to be fulfilled by a person to start wholesale or re- | etail sale of |
| | drugs. | 4 |
| Q.3 | (a) Write note on Radiopharmaceuticals | 2 |
| | (b) Elaborate on sterilization of mattresses and utensils | 4 |
| | (c) Discuss role of window display in sales promotion of retail drug store | 4 |
| | (d) Write advantages of Systematic Want Book method over want book | 2 |
| Q.4 | (a) Describe the role of pharmacist in preparation and implementation of budget for | · hospital |
| | pharmacy | 2 |
| | (b) How is Hospital formulary prepared? Enlist the contents of HF. | 4 |
| | (c) Explain services rendered by wholesaler to retailers | 4 |
| | OR | * |
| | Enlist different forms of business organizations and explain any one in detail. | 4 |
| | (d) Enlist different insurance policies. Give the significance of the insurances. | 2 |
| | | |

Paper / Subject Code: 65804 / Hospital Pharmacy & Drug Store Management

Q. P. Code: 36097

| Q. 5. | (a) Write about drug basket method of dispensing to in -patients. | 2 |
|-------|--|---|
| | (b) Write a short note on composition of PTC. | 2 |
| | (c) Write a short note on advantages and functions of CSSR. | 4 |
| | (d) Explain VED and EOQ method of inventory control for the drug store. | 4 |
| | OR | |
| | (d) State importance of inventory control. Elaborate on open to buy budgeting method of inventory control. | 4 |
| Q.6 | (a) Explain the hospital pharmacy department organisational chart. | 4 |
| | (b) Explain about the use of paper as packaging material for sterilization. | 2 |
| | OR | |
| | (b) Write about use of metal drums as packaging material for sterilization. | 2 |
| | (c) Enlist different factors influencing drug distribution channels. | 2 |
| | (d) Comment on use of computers in drug store. | 4 |
| | ************ | |
| | | |

Paper / Subject Code: 65805 / Environmental Science

SEM-IL CBCS 26/11/2018

Q. P. Code: 40354

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) Define 'Pollution'. | 1 |
|---|---------|
| (ii) Define 3 R's of control measures. | 1 |
| (iii) Give two examples of Recycle | 1 |
| (iv) Define Noise Pollution. | 1 |
| (v) Give a schematic representation of Carbon Cycle | 2 |
| (vi) Name two outdoor air pollutants and their effects. | 2 |
| (vii) Define Biological Oxygen Demand. State its significance | 2 |
| (viii) What are the major consequences of deforestation | 2 |
| (ix) State the Importance of Environmental legislations. | 2 |
| (x) Compare the conventional sources of energies against hydropower as a renewable source | 2 |
| (xi) Explain the concept of Municipal Solid Waste. | 2 |
| (xii) Enlist the devices used for control of Air Pollution | 2 |
| 2.(i) What are solar cells. With a neat labelled sketch, explain the principle and working of Photo V | oltaic/ |
| Cell. | 4 |
| (ii) Explain the structure and functions of MoEF. | 4 |
| OR | |
| (ii) Discuss the penalties and punishment under Environmental Protection Act | |
| (iii) Enlist and explain the four stages of disaster management. | 4 |
| 3.(i) Describe ecological pyramids. Explain with examples why some of these pyramids | |
| are upright while others are inverted in different ecosystems. | 4 |
| (ii) What is wind energy and explain the working of wind turbine | 4 |
| (iii) Give an account of Indoor Air Pollution | 4 |
| OR | |
| (iii) Write a note on Carbon Credits | |
| 1.(i) Discuss causes, effects and methods of treatment of Electronic Pollution | 4 |
| (ii) Give the roles and duties of Central Pollution Control Board | 4 |
| (iii) Describe Ganga action plan | |
| OR | |
| (iii) Explain "Taj Mahal" as a case study in environmental legislation | 4 |
| i. (i) Explain the causes, effects and any one control measure of Solid Waste Management | 4 |
| (ii) What is Geothermal energy and explain energy generation using the same | 4 |
| (iii) Discuss the major environment Impact of deforestation | 4 |
| OR | |
| iii) Being a responsible citizen how we can conserve natural resources. Explain with examples | 4 |

Paper / Subject Code: 65805 / Environmental Science

Q. P. Code: 40354

| 6. (i) What is EIA. How are the projects under EIA | classified. Give a | schematic repres | sentation of | | |
|--|--------------------|------------------|--------------|---|--|
| · Environmental Clearance Process. | | | | 4 | |
| (ii) Explain "Ozone layer depletion" causes, eff | ects and preventiv | e measures. | | 4 | |
| * * | OR | | | | |
| (ii) Discuss the role of technology in environment | t and health | | | | |
| (iii) What are Green Buildings. State the merits a | | een Buildings | | 4 | |