



Knowledge Resource & Relay Centre (KRRC)

 AIKTC/KRRC/SoP/ACKN/QUES/²⁰¹⁹⁻²⁰~~2018-19~~/

Date: _____

School: SoP-CBCSBranch: SoPSEM: I
 To,
 Exam Controller,
 AIKTC, New Panvel.

Dear Sir/Madam,

 Received with thanks the following ^(CATKT) Semester/Periodic question papers from your exam cell:

Sr. No.	Subject Name	Subject Code	Format		No. of Copies
			SC	HC	
1	General Chemistry	BPH_C_101_T		—	—
2	Dispensing and Community Pharmacy	BPH_C_102_T		✓	02
3	APP-1	BPH_C_103_T		✓	02
4	Biochemistry - I	BPH_C_104_T		✓	02
5	Communication Skills and Ethics (NUES)	BPH_C_105_T		—	—

Note: SC – Softcopy, HC - Hardcopy

 (Shaheen Ansari)
 Librarian, AIKTC

sem - I CBCS 18/12/19

[Time: - 3 Hours]

[Marks: 80]

- Please check whether you have got the right question paper
- N.B. (1) All questions are compulsory
(2) Figures to the right indicate full marks.

1. a) Give the classification of various routes of administration 2
- b) Explain the terms Compounding and Dispensing 2
- c) Describe Bulk dispensing of proprietary medicines 2
- d) Calculate the amount of drug X required to make 50 ml of paediatric solution given that each 5ml of the solution has dose for a 5 year old child. (Adult dose of drug X is 2mg) 2
- e) "Shake well before use" should be printed on Emulsion labels. Justify 2
- f) During preparation of suppositories overheating of cocoa butter should be avoided, Give reason 2
- g) Differentiate between Tablet triturates and Pills 2
- h) How to overcome the incompatibility of immiscibility 2
- i) Enlist any four principles of Pharmaceutical care 2
- j) What are OTC medications give two examples 2
2. a) Discuss in detail the merits and demerits of any two routes of administration 4
- b) Give container closure system and labelling instructions for
 - i) Liniments 4
 - ii) Mouthwashes 4
- c) Explain the tests for Identifying Emulsion type 4
3. a) Write a note on pricing and recording of prescriptions 4
- b) Explain in detail various gelling agents 4
- OR
- Write a note on compounding and dispensing of pastes
- c) Discuss the compounding of Effervescent granules 4
4. a) Discuss about suspending agents from natural source 4
- OR
- Classify solutions. Describe in brief any TWO solutions for use in oral cavity
- b) Comment on the following prescription 4

Arachis oil 50 ml
Peppermint oil 1 ml
Double strength
chloroform water 100 ml
Purified water q.s..... 200 ml

Send 50 ml Label: 5 ml daily
- c) Explain in detail responsibilities of a community pharmacist 4
5. a) Define health and give the significance of health promotion 4
- b) Discussion outcomes of patient counselling 4
- c) Write a note of professional ethics of a pharmacist 4

6. a) Send 150 ml of a 1 in 25 potassium permanganate solution and state the labelling directions to prepare 2 litres of a 1 in 4000 solution 4

OR

How much (ml) of a 17%w/v concentration of Benzalkonium chloride should be used in preparing 300ml of stock solution such that 15ml diluted to 1 L will yield 1:5000 solution

- b) Comment 4

Hyoscine hydrobromide 400 µg

Lactoseq.s.

Send 4 powder packets.

Label: One powder packet to be taken daily with water

- c) i) Give the causative agent, mode of transmission and prevention of any two Communicable diseases 2
- ii) What is a balanced diet and name any two deficiency disorders 2



Paper / Subject Code: 66303 / Anatomy, Physiology & Pathophysiology -I

sem - I CB CS 16/12/19

(3 HOURS)

[Total Marks: 80]

- N.B.: 1) All questions are compulsory
 2) Figures to the right indicate full marks
 3) Draw neat, labeled diagrams wherever necessary.

Q 1 a) Answer the following

16

- i) Define positive feedback mechanism of homeostasis.
- ii) What is pinocytosis.
- iii) Give location and function of Areolar connective tissue.
- iv) Enlist the components of lymphatic system.
- v) Give role of: a) Prothrombinase (b) Erythropoietin.
- vi) Enlist the cardinal signs of Inflammation.
- vii) Define hypersensitivity reactions and enlist the types of the same.
- viii) Write the classification of muscles.

B Answer the following

04

- i) Enlist any two examples body fluids.
- ii) Deficiency of which nutrients cause megaloblastic anemia.
- iii) Enlist clotting factors involved in blood coagulation via intrinsic pathway.
- iv) Holding a book with stretched hand in steady position is _____ type of contraction.

Q.2. a) Answer Any TWO of the following

08

- i) Write a short note on Life Cycle of RBC.
- ii) Classify White Blood Cells (WBCs). Name the respective conditions in which Neutrophil and Eosinophil count increases.
- iii) Describe Hemostasis and explain the process of platelet plug coagulation in detail.

b) Write a short note on Any ONE of the following

04

- i) Hemolytic Disease of newborn.
- ii) Thrombocytopenia and leucopenia.

Q.3. a) Answer Any TWO of the following

08

- i) Describe sliding filament mechanism of skeletal muscle contraction.
- ii) Describe in detail Neuromuscular Junction.
- iii) Distinguish between skeletal muscle and smooth muscle.

b) Answer Any ONE of the following 04

- i) Write a note on energy metabolism in skeletal muscle.
- ii) Draw a neat, labeled diagram showing organization of skeletal muscle

Q.4. a) Answer any ONE of the following 04

- i) Enlist primary and secondary lymphatic organs and discuss their functions.
- ii) Discuss anatomy and functions of spleen.

b) Write a note on ANY ONE of the following 04

- i) Rheumatoid arthritis.
- ii) Myasthenia Gravis.

c) Answer any ONE of the following 04

- i) Draw a neat labeled diagram of Stratified squamous epithelium, discuss their location and functions.
- ii) Write a short note on Extracellular Matrix of connective tissue.

Q 5 a) Answer any ONE of the following 04

- i) Write a detail account on passive transport mechanism across membrane.
- ii) Draw a neat labeled diagram of fluid mosaic model of cell membrane.

b) Answer any ONE of the following 04

- i) Explain various types of skeletal muscle contraction with suitable examples.
- ii) Explain the process of smooth muscle contraction.

c) Answer any ONE of the following 04

- i) Compare and Contrast between Acute and Chronic type of Inflammation.
- ii) Discuss the process of chemotaxis.

Q 6 a) Answer any TWO of the following 08

- i) Explain the concept of ABO blood grouping system and add a note on Rh factor.
- ii) Explain in detail about anaphylaxis.
- iii) Write a note on cell mediated immunity.

b) Answer any ONE of the following 04

- i) Discuss the outcomes of acute and chronic inflammation.
- ii) Discuss various vascular changes during inflammation.

SEM-I CBCS 20/12/19

(3 hours)

Total Marks: 80

N.B.: All questions are compulsory

- Q. 1 a) Draw the structure of α -D galactose using Haworth projection formula 1
 b) Draw the structure of D-xylose using Fischer projection formula 1
 c) Give the name and three letter code for sulphur containing amino acid 1
 d) What is catabolism? 1
 e) Define Vitamin 1
 f) Give two examples of storage polysaccharide 1
 g) Name the pyrimidine nitrogenous bases 1
 h) Give the name and structure of coenzyme of Vitamin B₁ 1
 i) Differentiate between α -anomer and β -anomer 1
 j) Draw the structure of lecithin 1
 k) Draw the structure of dTMP 1
 l) Deficiency of Vitamin-A leads to _____ 1
 m) Give the name and structure of amino acids containing amide linkage 2
 n) Enlist the functions of protein 2
 o) Give the name and structure of 18:2($\Delta^9, 12$) 2
 p) Explain epimers with suitable example 2
- Q. 2 a) Explain the secondary structure of proteins 3
 b) Explain FADH₂ as energy carrier 3
 c) Discuss the biochemical role of Vitamin B₁ 3
 d) Differentiate between nucleoside and nucleotide 2
 e) Give the role of bile salt in digestion and absorption of lipids. 1
- Q. 3 a) Write a note on Starch 3
 b) Explain the double helix structure of DNA 3
 c) Write a note on biochemical role of Vitamin-D 3
 d) Explain the terms Entropy and Enthalpy 2
 e) Comment on conversion of glucose to energy in RBCs 1
- Q. 4a) Classify amino acids based on their structures with examples (No structures required) 3
 b) Write a note on sphingophospholipids 3
 c) Give the structure and significance of Vitamin-B₉ 3
 d) Discuss the biochemical role of Vitamin-B₅ or Vitamin- B₂ 2
 e) State the first law of thermodynamics 1
- Q. 5 a) Write a note on Vitamin- B₆ or Vitamin- B₁₂ 3
 b) What are disaccharides? Explain inversion of sucrose 3
 c) Write a note on Ascorbic acid or Vitamin- B₇ 3
 d) Draw the structure of Arachidonic acid 2
 e) Give the salient features of digestion of protein 1
- Q. 6 a) Give an account on higher order packaging of DNA 3
 b) Write a short note on Vitamin-E or Vitamin-K 3
 c) How is standard free energy change related to equilibrium constant? 2
 d) Differentiate between fats and oils 2
 e) Define Acid value and Iodine value 2