



**ANJUMAN-I-ISLAM'S  
KALSEKAR TECHNICAL CAMPUS, NEW PANVEL**

Approved by: All India Council for Technical Education, Council of Architects, Pharmacy Council of India, New Delhi,  
Recognized by: Directorate of Technical Education, Govt. of Maharashtra, Affiliated to: University of Mumbai.

- SCHOOL OF ENGINEERING & TECHNOLOGY  
 SCHOOL OF PHARMACY  
 SCHOOL OF ARCHITECTURE

**QUESTION PAPER PERIODIC TEST**

CLASS :- Third Year B. Pharm

SEM:- VI

SCHEME:- PCI Syllabus

SUBJECT:- Medicinal Chemistry -III

DATE:- 20/3/2023

DURATION:- 60 mins

MARKS:- 30

**Q.01: MCQs**

	M	CO
a) Which enzyme is the target for the quinolone antibacterial agents? a) Topoisomerases    b) Kinases    c) Proteases    d) Transpeptidases	1	2
b) PG is a 7-year-old girl. Laboratory tests confirmed a diagnosis of human granulocytic anaplasmosis due to black legged tick when she was playing in wooded areas of her backyard. First line therapy for anaplasmosis is Doxycycline. Predict the side effect for the treatment and its remedy. a) Chelation, Dairy products should be avoided    b) Phototoxicity, Sunscreen should be applied c) Tooth staining, administer in small doses    d) Kidney damage, drink plenty of water	1	4,6
c) Poor water solubility of chloramphenicol is overcome by conversion to its _____ salt a) Stearate    b) Palmitate    c) Hemisuccinoyl ester    d) Phosphate ester	1	3
d) Which of the following Antiprotozoal drug interferes with mitochondrial transfer a) Metronidazole    b) Atovaquone    c) Iodoquinol    d) Diloxanide furoate	1	2
e) The antibiotic isolated from Streptomyces Venezuelae is a) Lincomycin    b) Chloramphenicol    c) Cindamycin    d) Streptomycin	1	1
f) Which of the following Anthelmintic class acts by inhibiting tubulin polymerization, a) Ivermectin    b) Diethylcarbamazine    c) Mebendazole    d) Oxamniquine	1	1
g) The following chemical moiety is very important for anthelmintic activity in oxamniquine structure a) Hydroxyethyl    b) Hydroxymethyl    c) Formaldehyde    d) Acetone	1	3
h) Primary schizonts are developed to secondary schizonts through the merozoites except a) P. vivax    b) P. falciparum    c) P. malariae    d) P. ovale	1	2
i) The following toxicity can be observed in fluroquinolones due to presence of fluorine group at 6 & 8 position. a) Nephrotoxicity    b) Photosensitivity    c) Cardiac failure    d) Hypoglycaemia	1	4
j) Quinine has absolute configuration as a) 3R:4S:8S:9R    b) 3R:4S:8R:9S    c) 3S:4R:8R:9S    d) 3S:4S:8R:9R	1	3

**Q.02: Long answers (Any one)**

a) Explain Etiology of malaria. Comment on targets of 4-Aminoquinolines. Describe chloroquine in detail.	10	2,3
b) Give Classification, MOA and structural features of fluroquinolone drugs	10	2,3

**Q.03: Short Answers (Any two)**

a) Explain the metabolism of benzimidazole and diethylcarbamazine	5	4
b) Write synthetic scheme for the following drugs (Any 1) 1. Mebendazole    2. Ciprofloxacin    3. Chloramphenicol	5	5
c) What are macrolide antibiotics? Explain specific esters and salt forms of erythromycin in detail.	5	3





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**T.Y. B. PHARM. (SEMESTER VI)  
FIRST SESSIONAL THEORY EXAMINATION (2022 - 2023)**

Subject: **PHARMACOLOGY-III**  
Marks: 30

Date: **20-03-2023**

**ALL QUESTIONS ARE COMPULSORY**

Q. N	QUESTIONS	MARKS	CO
1.	<b>MULTIPLE CHOICE QUESTIONS.</b>		
1.	<b>Caspofungin, a Echinocandins act by:</b> A. Inhibiting synthesis of $\beta$ -1, 3-glucan B. Inhibiting synthesis of microtubules C. Reducing affinity for ergosterol D. All of the above		
2.	<b>Quinine is :</b> A. Inhibitor of plasmoidal DHFRase B. Erythrocytic schizonticide C. Aaainst gametocytes and hypnozoites D. None of the above		
3.	<b>Which one of the following is sesquiterpine lactone endoperoxide:</b> A. Sulfamethopyrazin B. Pyrimethamine C. Artemether D. Proguanil		
4.	<b>Pyrazinoic acid is active metabolite of:</b> A. Rifampicine B. Prothionamide C. Para-aminosalicylic acid D. Pyrazinamide	10M	1,3, 4
5.	<b>Which of the following is efficient anti-tubercular and anti-leprotic drug:</b> A. Ethambutol B. Streptomycin C. Rifampicin D. None of the above		
6.	<b>All aminoglycosides exhibits:</b> A. Ototoxicity and nephrotoxicity B. Neurotoxicity and hepatotoxicity C. Cardiotoxicity D. Meningitis and epilepsy		





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7.	<b><i>Erythromycin acts by:</i></b> A. Combining with 50S ribosome subunits and interferes with translocation. B. Inhibiting bacterial protein synthesis by interfering with t-RNA. C. Inhibiting $\beta$ -lactamase D. Counterfeiting for D-alanine in the bacterial cell wall		
8.	<b><i>Tetracyclines develops resistance by:</i></b> A. Inhibition of Pump in and stimulation of out mechanism B. Protection of ribosomal binding site C. Activation of inactivating enzyme D. All of the above		
9.	<b><i>Chloramphenicol causes</i></b> A. Gray baby syndrome B. Bone marrow depression C. Hypersensitive reactions D. All of the above		
10.	<b><i>Erythromycin leads to development of ..... at high dose.</i></b> A. Hearing loss B. Epigastric pain C. Hypersensitive reactions D. All of the above		
<b>II.</b>	<b>LONG ANSWER QUESTIONS (ATTEMPT ANY ONE)</b>		
a.	Discuss sources, mechanism of action, adverse effects and uses of chloramphenicol <b>OR</b> Classify antifungal agent with examples. Write mechanism of action, therapeutic uses and adverse effects of amphotericin-B.	<b>10M</b>	<b>1,3,4</b>
<b>III.</b>	<b>SHORT ANSWER QUESTIONS (ATTEMPT ANY TWO)</b>		
a.	Classify anti-tubercular drugs. Explain mechanism of action of isoniazide and rifampicin.	<b>10M</b>	<b>1,3,4</b>
b.	Discuss mechanism of action and development of resistance of chloroquine and proguanil.		
c.	How tetracycline causes discoloration of teeth and developed resistant.		

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REV:00	QUESTION PAPER PERIODIC TEST	EXM-04(a)
CLASS:- Third Year B.Pharm		SEM:- VI
SCHEME:- PCI Syllabus		
SUBJECT:-Biopharmaceutics and Pharmacokinetics		DATE:- 21/03/2023
DURATION:- 60 mins		MARKS:- 30
<b>Q.01:</b>		<b>Marks</b> <b>CO</b>
a) According to Biopharmaceutics Classification System (BCS), Class II drugs have a. Low solubility /High permeability      b. High solubility /Low permeability c. High solubility/High permeability      d. Low solubility /Low permeability		1
b) What is the equation of bioavailable fraction? a. Bioavailable dose/Administered dose      b. Administered dose/Bioavailable dose c. 1/Bioavailable dose      d. 1/Administered dose		1
c) USP Apparatus 5 is a. Flow-through- cell      b. Paddle over disk c. Reciprocating cylinder      d. Cylinder apparatus		1
d) The comparison of bioavailability between two dosage forms. a. Bioavailability      b. Bioequivalence c. Biopharmaceutics      d. Biological		1
e) What is the equation for clearance? a. Plasma drug concentration/elimination rate      b. 1 / Plasma drug concentration c. Elimination rate / plasma drug concentration      d. 1 / Elimination rate		1
f) How do you calculate the rate of excretion by kidneys? a. Rate of filtration – the rate of secretion – Rate of absorption b. Rate of filtration + rate of secretion + Rate of absorption c. Rate of filtration + rate of secretion – Rate of absorption d. Rate of filtration – the rate of secretion + Rate of absorption		1
g) _____ is not used to estimate GFR to determine renal function. a. Creatinine      b. Inulin c. Mannitol      d. Glucose		1
h) Which drug cannot be filtered through glomerulus? a. Unbound drug      b. Free drug c. Below mol. wt. 300Da.      d. Plasmaprotein bound drug		1
i) What is the equation for bioavailability? a. $[AUC]_{test} D_{std} r_{test} / [AUC]_{std} D_{test} r_{std}$ b. $[AUC]_{test} D_{test} r_{std} / [AUC]_{std} D_{std} r_{test}$ c. $[AUC]_{std} D_{std} r_{test} / [AUC]_{test} D_{test} r_{std}$ d. $1 / [AUC]_{std} D_{test} r_{std}$		1
j) Which of the following is the pharmacodynamics method of studying bioavailability? a. Acute pharmacologic response      b. Plasma-level time studies c. Urinary excretion studies      d. Stool excretion studies		1
<b>Q.02 : Long answers (Any one)</b>		
a) Define Bioavailability. Write in detail methods of measurement of Bioavailability.		10
b) Explain in brief different non per oral extra vascular routes of administration.		10
<b>Q.03: Short Answers (Any two)</b>		
a) What is Renal Clearance? Explain any three factors affecting renal clearance.		5
b) Elaborate on different pharmaceutical formulation related parameters affecting drug absorption		5
c) Write a short note on- (any one) A. IVIVC B. Bioequivalence and types of bioequivalence		5

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REV:00	<b>QUESTION PAPER THEORY SESSIONAL II</b>	EXM-04(a)
CLASS :- Final Year B.Pharm		SEM:- VI
SCHEME:- CBCS R 2019		
SUBJECT:- HERBAL DRUG TECHNOLOGY		DATE:- 21/03/23
DURATION:- 60 mins		MARKS:- 30

- Note: 1. All questions are compulsory.  
2. Draw structures and diagrams wherever applicable.

**Q.01 Answer all the questions [MCQs] ( 1 x 10)**

- |  | Marks | CO |
|--|-------|----|
| 1. Oil obtained from rhizomes of this plant used in hair tonic preparation<br>a. Onion plant b. Tea tree c. Citrus Tree d. Jatamansi   | 10    | 4  |
| 2. The Creams which clean skin and removes dirt, dust, micro organism, sweat and make-up<br>a) Soap<br>b) Vanishing Cream<br>c) Cleansing Cream<br>d) Cold Cream                             |       |    |
| 3. Saffron's crocin is responsible for following color<br>a. Brick red b. Green c. yellow - orange d. Purple shade   |       |    |
| 4. The source of Bixin is<br>a. Annatto b. Onion c. Lemon d. Carrot  |       |    |
| 5. <i>Melaleuca alternifolia</i> drug oil popularly is used as<br>a. Skin protective agent b. Oral hygiene c. Eye care cosmetics d. Skin coloration  |       |    |
| 6. Stevia plant is known for which important property?<br>a. Natural colorant b. Natural binder c. Disintegrating property d. Natural sweetener  |       |    |
| 7. Natural source of Galactomannan is<br>a. Gelatin b. Mentha species c. Orange d. Guar gum  |       |    |
| 8. Vanillin is a constituent of .....<br>a. Stevia plant b. Honey c. Vanilla pods d. Cardamom  |       |    |
| 9. In the case of evaluation of pesticide content MRL is<br>a. Minimum reduction in pesticide load b. Minimum ratio limit<br>c. Maximum residue level d. Maximum residue limit               |       |    |
| 10. Following is important evaluation parameter for toxicity determination of herbal Drugs<br>a. Solubility determination b. Determination of aflatoxin c. Foaming Index d. Extractive value |       |    |



<b>Q.02: Attempt any ONE (10 Marks)</b>			
a.	Discuss any two-oil containing drug as skin care product.	10	4
b.	Discuss Tea Tree oil and Citrus peel as skin care agents with respect to source, constituent, application and marketed product.	10	
<b>Q.03: Attempt any TWO (5 x 2 = 10 Marks)</b>			
a	Write note on natural colorants	5	4.5
b	Write note on stability testing of herbal drugs.	5	
c	Discuss novel dosage form phytosomes with its advantages.	5	

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REV:00	<b>QUESTION PAPER PERIDIC TEST</b>	EXM-06(B)
CLASS:- TY		SEM:- 6 <sup>th</sup> Sem
SCHEME:- R-CBCS		
SUBJECT:- Pharmaceutical Biotechnology		DATE:- 23/03/2023
DURATION:- 60 mins		MARKS:- 30

**Q1. MCQ'S (Each 1 marks)**

- Enzymes are \_\_\_\_\_ (Micro-molecules/ Macromolecules/ Biomolecules)
- Site directed mutagenesis are \_\_\_\_\_ induced (Naturally / forcedly / Artificially)
- Which of the following is not a correct sentence about protein engineering
  - (It is the study of structure of proteins/ It is the study of amino acid sequence/ It is the study of nucleotide sequence./ It is the study of function of proteins)
- Select the wrong statement about plasmids? (It is extra chromosomal/ It is double stranded/ its replication depends upon host cell/ It is closed and circular DNA)
- Shelf life of Whole human blood is (3 days/ 5 years./ 3 months/ 21 days)
- Loop Fermenter is a type of (Mechanically stirred fermenter/ Forced convection fermenter/ Pneumatic fermenter /Tray fermenter)
- Micro-organisms used for the vitamin B12 fermentation. (Penicillium chrysogenum / Aspergillus niger/ Pseudomonas denitrificans/ Saccharomyces cerevisiae)
- When viral genome integrates into the bacterial genome it is known as (temperate phage/ prophage / bacteriophage/ Episome)
- Enzyme used to join Target DNA and Vector DNA is \_\_\_\_\_ (Restriction endonuclease/ Ligase/ Polymerase/ Lipase)
- Diphtheria Vaccine is (Killed vaccine/ Live attenuated vaccine./ Toxoid vaccine/ Recombinant DNA vaccine)

Q.01 Attempt any 1: ( 10 Marks)		Marks	CO
a)	Enlist the types of fermenter and explain any one in detail. Explain the production of Vitamin B12 by fermentation		
b)	Describe Plasmid and its type and add a note on Trasposomes		
Q.02 Attempt any 2: (05 Marks)			
a)	Define Mutation, explain different Mutants.		
b)	Comment on Processing and Storage of whole human blood		
c)	Describe the design of large scale Fermenter and production of penicillin		





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REV:00	<b>QUESTION PAPER SESSIONAL EXAM-02</b>	
CLASS :- Third Year B. Pharm	SEM:- VI	
SCHEME:- PCI Syllabus		
SUBJECT:- Pharmaceutical Quality Assurance	DATE:- 23-03-23	
DURATION:- 60 mins	MARKS:- 30	
<b>Q.01:</b>	Mark	CO
a) .....simply designates, that something is wrong or not good enough. a. SOP    b. Quality Audit    c. Complaint    d. Quality Review	1	1
b) Adverse reaction Complaint is due to a. allergic reactions                                      c. any other untoward reaction b. fatal reaction or nearly fatal reaction       d. All of the above	1	1
c) Which is correct in relation of time period for investigation after receipt of complaints a. Product quality complaints- 10 days       c. Adverse reaction complaints- 5 days b. Medical complaint- 3 days                    d. All of the above		1
d) Defects which can be life threatening & require the company to take immediate action a. Critical defects    b. Major defects    c. Minor defects    d. All of the above	1	1
e) MFR stands for a. Master Formula Report    c. Main Formula Record b. Master Form Recorder    d. Master Formula Record	1	1
f) ..... is a part of validation a. Qualification    c. Quantitation b. both   d. GMP	1	1
g) Which is type of Qualification a. Performance Qualification    c. Installation Qualification b. Operational Qualification    d. All of the above	1	1
h) Powder glass test involves titration using a. starch    c. iodine b. sulphuric acid as the titrant                                   d. nitric acid	1	1
i) .....audits is also known as Self-Audit. a. External    c. Internal b. regulatory   d. All of the above	1	1
j) No test facility may claim GLP compliance if it does not comply with the full array of a. the GLP rules   c. the GCP rules b. the GMP rules   d. All of the above	1	1
<b>Q.02 : Long answers (Any one)</b>		
a) Discuss MFR.	10	2
b) Explain protocol and conduct of Non clinical Laboratory study.	10	2
<b>Q.03 : Short Answers (Any two)</b>		
a) Explain Powder glass test.	5	1
b) How will you perform pH meter calibration.	5	2
c) Describe Quality Audit.	5	2