



ANJUMAN-I-ISLAM'S

**AIKTC KALSEKAR TECHNICAL CAMPUS**

INNOVATIVE TEACHING · EXUBERANT LEARNING

School of Architecture

School of Engineering & Technology

School of Pharmacy

*Knowledge Resource & Relay Centre (KRRC)*

AIKTC/KRRC/SoP/ACKN/QUES/2017-18/

Date: 31/12/18

School: SoP-CBSGS

Branch: SoP

SEM: III

To,  
Exam Controller,  
AIKTC, New Panvel.

Dear Sir/Madam,

Received with thanks the following <sup>ATKT</sup> ~~Semester~~/Periodic question papers from your exam cell:

Sr. No.	Subject Name	Subject Code	Format		No. of Copies
			SC	HC	
1	Organic Chemistry-I				
2	Biochemistry-II			✓	02
3	Dispensing Pharmacy				
4	Pharm. Engg.				
5	APP-III				
6	Pharm. Math.				

Note: SC – Softcopy, HC - Hardcopy

(Shaheen Ansari)  
Librarian, AIKTC

SEM-III CBSGS  
12/12/2018

QP Code : 27947

(3 hours)

Total Marks: 70

N.B.: All questions are compulsory

1. Answer the following
  - a) Draw the structure of GMP 1
  - b) Enlist the components of ETC 1
  - c) Name the shuttle which transports reducing equivalent from cytosol to mitochondrial matrix 1
  - d) Give the net ATP yield after oxidation of palmitic acid 1
  - e) Name the stop codon 1
  - f) Name two drugs which inhibits HMG CoA reductase 2
  - g) Give two roles of Pentose phosphate pathway 2
  - h) Name two drugs inhibiting protein synthesis 2
  - i) Calculate total ATPs formed when two molecules of acetyl CoA are consumed in TCA cycle 2
  - j) Name two drugs inhibiting DNA replication 2
  
2. a) Give the names and structures of the substrate and product for the following enzymatic reactions (any 2) 4
  - i) pyruvate dehydrogenase complex
  - ii) Xanthine oxidase
  - iii)  $\beta$ - Ketoacyl ACP reductase
- b) Write structures of given substrate and product with name of the enzyme catalysing the reaction (any 2) 4
  - i) oxaloacetate to phosphoenolpyruvate
  - ii) adenylosuccinate to AMP
  - iii) Acetoacetyl CoA to HMG CoA
- c) Draw schematic representation of DNA replication in prokaryotic cell 3
  
3. a) Describe *de novo* synthesis of CTP 4
- b) Discuss post transcriptional modification in eukaryotes 4
- c) Give the significance of telomeres and telomerase inhibitors 3
  
4. a) Distinguish between oxidative and substrate level phosphorylation 4
- b) Differentiate between prokaryotic and eukaryotic translation 4
- c) Explain Sanger dideoxy method for DNA sequencing 3
  
5. a) Write a note on glycogenolysis 4
- b) Explain the energy generation phase of glycolysis 4
- c) Differentiate biosynthesis and  $\beta$ - oxidation of fatty acid 3
  
6. a) Write a note on Salvage pathway and give it significance 3
- b) Compare biosynthesis with chemical synthesis of peptides 3
- c) Give steps for synthesis of mevalonate 3
- d) Describe role of proteases and peptidases 2