



**NAVACHANA  
UNIVERSITY**  
a UGC recognized University

**School:** School of Science  
**Program/s:** MSc Life Science  
**Year:** 2<sup>nd</sup> **Semester:** 3<sup>rd</sup>  
**Examination:** End Semester Examination  
**Examination year:** December - 2021

**Course Code:** LS244 **Course Name:** Biochemical basis of disease  
**Date:** 06/12/2021  
**Time:** 08:30 am to 10:30 am

**Total Marks:** 40  
**Total Pages:** 2

**Instructions:**

- All questions are compulsory
- Draw diagram wherever required.
- \*COs=Course Outcome mapping, # BTL=Bloom's Taxonomy Level mapping

Q. No.	Details	Marks	COs *	BTL#
Q.1	<p><b>A) Choose the correct options (5)</b></p> <p>1. The hormone thought to depress appetite is: a) Adrenaline b) Leptin c) Relaxin d) Resistin</p> <p>2. If you have crohn's disease, you may be short on? a) Vitamin B12 b) Vitamin A c) Both a and b d) None of the above</p> <p>3. All of the following are risk factors for atherosclerosis except: a) Increased waist hip ratio b) Hyperhomocysteinemia c) Decreased fibrinogen levels d) Decreased HDL levels</p> <p>4. Albumin is the most important protein in blood serum. It is produced by _____ a) Heart b) Lungs c) Liver d) Endocrine glands</p> <p>5. Which of the following are the characteristic features of type 1 diabetes mellitus? a) Type 1 diabetes is caused by an absolute deficiency of insulin. b) Type 1 diabetes is associated with the autoimmune destruction of beta cells. c) Patients with type 1 diabetes present with diabetic ketoacidosis d) All of the above</p>	10	CO1 , CO2 , CO3 , CO4	BT1, BT2, BT3

	<p><b>B) State the following statement is true or false and provide justification for both the cases (5)</b></p> <ol style="list-style-type: none"> <li>1. Medical diagnosis of obesity is based on a BMI cut off point of 30.</li> <li>2. Symptoms of crohn's disease can include rectal bleeding.</li> <li>3. Stoppage of flow of blood may result in death of affected tissues, known as Blockage.</li> <li>4. Symptoms of kwashiorkor includes loss of appetite.</li> <li>5. Late-stage chronic liver disease is called fatty liver disease.</li> </ol>			
Q.2	<p><b>Answer the questions in brief (2*5=10)</b></p> <ol style="list-style-type: none"> <li>1. State the difference between Kwashiorkar and Marasmus condition.</li> <li>2. Explain the clinical association between obesity and Hypertension (state 2 points)</li> <li>3. Mention the complications of diabetes.</li> <li>4. Explain the role of macrophages residing in the intestine.</li> <li>5. Give examples of water soluble vitamins and any one deficiency disease associated with them.</li> </ol>	10	CO1 , CO2 , CO3 , CO4	BT1BT 2, BT3,
Q.3	<p><b>Answer the questions in details any 4 (4* 4=16)</b></p> <ol style="list-style-type: none"> <li>1. What is ROS and mention its contribution in any life style disease.</li> <li>2. Elaborate and explain cancer and its types.</li> <li>3. Write a note on pathophysiology of IBD.</li> <li>4. Explain the positive feedback mechanism associated with generation of atherosclerotic plaques.</li> <li>5. Write down the genetic factors leading to obesity.</li> <li>6. Explain any disease condition, symptoms and pathophysiology associated with any of fat soluble vitamin of your interest.</li> </ol>	16	CO1 , CO2 , CO3 , CO4	BT1, 2, 3
Q.4	<p><b>Think and comment on A and B conditions (2*2=4)</b></p> <ol style="list-style-type: none"> <li>A. Consider how you might personally prevent cancer in your life. Consider your family history and lifestyle.</li> <li>B. Compare and contrast the following two situations. What potential causes of disease do you think either or both persons would have? Mr. Kapoor lives in Mumbai, India and Mr. Singh lives in rural area of Punjab. Mr. Kapoor commutes to work via an automobile for about 1½ hours to a high-rise building, whereas Mr. Singh works outdoors much of the time managing his wheat farm.</li> </ol>	4	CO1 , CO2 , CO3 , CO4	BT 1, 2 and 3

\*\*\*\*\*End of Question Paper\*\*\*\*\*