

Enrollment No. _____



NAVVRACHANA UNIVERSITY
a UGC recognized University

School: School of Science
Program/s: Master of Science
Year: 2nd **Semester:** 3rd
Examination: End Semester examination
Examination year: December - 2022

Course Code: 1S244 **Course Name:** Biochemical basis of disease
Date: 08/12/2022
Time: 11:30 AM to 01:30 PM

Total Marks: 40
Total Pages: 02

Q. No.	Details	Marks	COs*	BTL [#]
Q.1	A. Choose the correct answer.	12 M	CO1 CO2 CO3 CO4 CO5	BTL1 BTL2 BTL3
	1. The causes of _____ is believed to be exaggerated from nutrient deficiency. a. Anorexia nervosa b. Crohn's disease c. HIV-AIDS d. all of the above			
	2. _____ inhibit viral assembly in the treatment of HIV-AIDS a. fusion inhibitors b. protease inhibitors c. nucleoside reverse transcriptase inhibitors d. None of the above			
	3. _____ is/are the prime cell populations target by HIV a. CD4+ cells only b. CCR5 + cells only c. both a and b d. None of the above			
	4. _____ excellerates the production of foetal hemoglobin in patients of sickle cell anemia a. blood transfusion b. hydroxy urea c. vitamin C and zinc d. All of the above			
	5. _____ protein oxidation/oxidative damage is believed to be one of the key trigger of atherosclerotic plaque formation a. p-selectin b. Apob c. ICAM d. None of the abve			
	5. _____ is an example of proto-oncogene. a. akt b. erbA c. BRCA1 d. none of the above			
	7. The first discovered oncogene was _____ a. p53 b. raf c. src d. none of the above			

<p>8. The first human oncogene identified in gene transfer assays was ____</p> <p>a. ras c. bcl2</p> <p>b. rasH d. c-myc</p> <p>9. Oncogene proteins may act as ____</p> <p>a. growth factors c. intra-cellular signalling molecules</p> <p>b. growth factor receptors d. All of the above</p> <p>10. ____ are the representatives of tumor suppressor genes.</p> <p>a. p53 c. smad4</p> <p>b. Rb d. All of the above</p> <p>11. ____ not the key cellular characteristic of a cancer cell</p> <p>a. decreased cytoplasmic volume c. demarcated tissue boundary</p> <p>b. large nucleus d. none of the above</p> <p>12. Cholera toxin chiefly alters ____ cell signalling pathway</p> <p>a. Wnt/b-catenin c. JNK-STAT</p> <p>b. EGF-b d. None of the above</p>			
<p>Q-2 Provide short answers Any six</p> <ol style="list-style-type: none"> Provide key differences between anorexia nervosa and anorexia bulimia What are foam cells? how they are formed? What are oncogenes? Explain their role in cancer development with an example. What are the primary target cell populations of HIV? What are primary and secondary immune deficiency disorders? Define central and peripheral tolerance of immune system. Provide key differences between a normal cell and a cancerous cell. Explain the term contact inhibition using an example. 	12 M	CO1 CO2 CO3 CO4 CO5	BTL1 BTL2 BTL3
<p>Q-3 Provide detailed answers. Any four</p> <ol style="list-style-type: none"> Explain mechanism of action of cholera toxin. How formation of fatty streak starts? Explain role of various cells and inflammatory markers. Explain the role of tumor suppressor genes and proto-oncogenes in the development of cancer. Define malnutrition. Provide key impacts on human physiology. Provide symptoms, etiology, prognosis and treatment of Crohn's disease. Explain various therapeutics available for the treatment of sickle-cell anemia, with more emphasis on CRISPR/Cas9. 	16 M	CO1 CO2 CO3 CO4 CO5	BTL1 BTL2 BTL3

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