

Reg.No. \_\_\_\_\_



# Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)  
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

## End Semester Examination – Nov/Dec – 2016

Code : **14BT2039**  
Sub. Name : **Vaccine Biotechnology**

Semester : **2016-17 ODD**  
Duration : **3hrs**  
Max. marks : **100**

### ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	What are viral vaccines?	CO1	2
	b.	Explain the importance of Salk and Sabin vaccines	CO1	12
	c.	Give an account on the hazards associated with immunization	CO3	6
(OR)				
2.	a.	Enumerate on various types of adjuvants used in vaccine preparation	CO2	12
	b.	Write short notes on human papilloma vaccine	CO1	8
3.	a.	What is injected in a vaccination with a DNA vaccine?	CO2	2
	b.	How does this vaccine stimulate an immune response and protect against the virus?.	CO2	12
	c.	Discuss its merits and demerits	CO2	6
(OR)				
4.	a.	Elaborate the production of cancer vaccine using r DNA technology	CO2	10
	b.	Plants are used for generating vaccine- Explain with suitable examples	CO2	10
5.	a.	How recombinant DNA technology is employed for the production of multivalent vaccine against Shigella	CO2	10
	b.	Explain polyvalent vaccines with suitable examples	CO1	10
(OR)				
6.	a.	Give a detailed account on any three bacterial vaccines	CO1	20
7.	a.	Explain how viral vaccines are genetically engineered to eliminate the emerging viruses with suitable examples	CO2	10
	b.	Briefly explain the production of anthrax and rota virus vaccine	CO2	5+5
(OR)				
8.	a.	Give an account on national immunization programme	CO3	12
	b.	Write short notes on peptide vaccine	CO1	8
<b><u>Compulsory:</u></b>				
9.	a.	What are combination vaccines?.	CO1	2
	b.	Enlist the properties of combination vaccines with appropriate examples	CO2	10
	c.	Write the potential advantages and disadvantages of combination vaccines	CO1	8

ALL THE BEST