

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 : 14BI2025
Sub. Name : MICROARRAY TECHNOLOGY AND
STATISTICAL ANALYSIS

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.	Pen down the steps involved in preprocessing and normalization of gene expression data sets of different diseases.	CO2	2 0
(OR)				
2.	a.	Name the databases used for submitting microarray experiment sets.	CO1	3
	b.	Write a note on microarray gene expression data bases	CO1	1 7
3.	a.	Discuss in detail the steps involved in image analysis of microarray expression data	CO2	2 0
(OR)				
4.	a.	Pen down the steps involved in western blotting	CO1	4
	b.	Outline the steps involved in cDNA chip synthesis	CO1	1 6
5.	a.	Mention the methods involved in between array normalization using box plot.	CO2	2 0
(OR)				
6.	a.	Discuss the steps involved in WITH-IN array normalization.	CO2	1 6
	b.	Sketch the graphical representation for LOWESS normalization.	CO3	4
7.	a.	Define Bootstrap analysis	CO3	3
	b.	Sketch the steps involved in statistical analysis of gene expression data after normalization.	CO3	1 7
(OR)				
8.	a.	What is Wilcoxon rank test?	CO3	3
	b.	Write a detail note on the statistical method used for breast cancer patients expression data before and after treatment	CO3	1 7
<u>Compulsory:</u>				
9.	a.	Define microarray	CO1	4
	b.	Briefly describe the steps involved in making of microarray	CO1	1 6

ALL THE BEST