

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Sixth Semester

Biomedical Engineering

BM3651-Fundamentals of Healthcare Analytics

Regulations - 2021

Duration : 3 Hrs

Maximum : 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Give some real life examples of probability.	UN	1	2
2.	Enumerate the steps involved in the statistical analysis process.	UN	1	2
3.	Give the specification of homogeneity test.	UN	2	2
4.	Differentiate between hypothesis and null hypothesis.	RE	2	2
5.	Write short note on regression analysis?	RE	3	2
6.	Describe correlation model.	RE	3	2
7.	What is the purpose of a Meta-analysis in research?	UN	4	2
8.	What type of data is used in a Meta-analysis?	RE	4	2
9.	Define epidemiological studies.	UN	5	2
10.	List out the applications of epidemiology in community health.	UN	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Explain in detail about probability, likelihood and odds.	UN	1	13
	Or			
	b Illustrate the relationship between computers in bio statistical analysis.	UN	1	13
12.	a Explain the statistical parameters p-values.	UN	2	13
	Or			
	b Write the methods of statistical hypothesis testing.	UN	2	13
13.	a Illustrate the difference between regression and correlation model.	AP	3	13
	Or			
	b Compute a program for regression equation.	AP	3	13

14.	a	Explain the purpose and procedures of a Meta-analysis?	AP	4	13
		Or			
	b	How to do a variance test in R?	AP	4	13
15.	a	Describe case study on respiratory data.	AN	2	13
		Or			
	b	Describe case study on ECG data.	AN	5	13

*PART - C (Marks 1*15 = 15)*

<i>Q.No</i>		<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	Define probability distribution and list out the types.	AN	1	15
		Or			
	b	Describe case study on big data in healthcare analytics.	AN	5	15