Reg. No. : | | | | | | | | | | | | |

Question Paper Code: UE108

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2024

Professional Elective

21ADV108 – HEALTH CARE ANALYSIS

(Regulations 2021)

Duration: Three hours | Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1.	What are the advantages of structured data in healthcare?	CO1-U	
2.	What are standardized code sets?	CO1-U	
3.	Explain Predictive Analytics in Healthcare	CO1-U	
4.	Write an example of the Bayes Theorem in healthcare?	CO1-U	
5.	What are the fundamental components of IoT?	CO1-U	
6.	How many types of cloud databases are there?	CO1-U	
7.	What are the two main types of deep learning?	CO1-U	
8.	What are the applications of NLP?	CO1-U	
9.	How do you calculate predicted mortality?	CO1-U	
10.	Why is visual analysis important in healthcare?	CO1-U	

PART – B (5 x 16= 80 Marks)

11.	(a)	Discuss the role of dictionaries in handling healthcare datasets in Python .	CO1-U	(16)
		Or		
	(b)	Determine whether the question involves calculating probabilities, making predictions, updating beliefs based on new evidence, or solving a problem using Bayes' theorem.	CO1-U	(16)
12.	(a)	Explore how different data structures (lists, tuples, dictionaries, etc.) are used in health care analytics.	CO1-U	(16)
		Or		

	(b)	Explain the benefits of artificial intelligence in managing technology	CO1-U	(16)
13.	(a)	What are the main components of the IoT architecture?	CO1-U	(16)
		Or		
	(b)	How can IoT benefit the healthcare industry?	CO1-U	(16)
14.	(a)	Discuss the different types of deep learning architectures, such as convolutional neural networks (CNNs), recurrent neural networks (RNNs), and deep belief networks (DBNs) with real time examples.	CO2-App	(16)
		Or		
	(b)	Apply the basic architecture of an RNN, including recurrent connections and hidden states with real time examples.	CO2-App	(16)
15.	(a)	Explain the role of machine learning algorithms in mortality prediction.	CO1-U	(16)
		Or		
	(b)	Explore the role of research and development (R&D) in fostering emerging technologies.	CO1-U	(16)