



BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – MBA(HM)-2022
Course Name – Health Care Analytics
Course Code - MBAHM405
(Semester IV)

Full Marks : 60

Time: 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

- Choose the correct alternative from the following :
- (i) Which type of data is commonly analyzed in healthcare?
 - a) Social media posts

b) Patient medical records

c) Retail sales data

- d) Weather forecasts
- (ii) How is data commonly collected in healthcare settings?
 - a) Telepathy

b) Electronic health records (EHRs)

c) Newspaper articles

- d) Social media posts
- (iii) Select a common challenge associated with healthcare data analysis.
 - a) Unlimited resources

b) Data privacy concerns

- c) Lack of expertise in baking
- d) Lack of patient data
- (iv) Which test assesses the goodness-of-fit in categorical data?
 - a) Chi-Square test

b) t-Test

c) Correlation analysis

- d) Analysis of Variance (ANOVA)
- (v) In a study involving multiple independent groups, which statistical test is utilized to compare means across them?
 - a) t-Test

b) Analysis of Variance (ANOVA)

c) Chi-Square test

- d) Correlation analysis
- (vi) In healthcare interventions, which approach is commonly used to assess cost relative to benefits?
 - a) Cost Effectiveness Analysis

- b) t-Test
- c) Analysis of Variance (ANOVA)
- d) Chi-Square test
- (vii) Identify the correct statement from the following options that accurately describes Business Intelligence.
 - a) BI convert raw data into meaningful information
- b) BI has a direct impact on organization's strategic, tactical and operational business
- c) BI tools perform data analysis and create reports, summaries, dashboards, maps,
- d) All of these

(viii)	Select the framework which is commonly used for in healthcare.	or quality/performance measurement		
(ix)		b) HIPAA (Health Insurance Portability ar Accountability Act) d) HITECH (Health Information Technolog Economic and Clinical Health) for data visualization.		
	a) ggplot2	b) dplyr		
(x)	c) tidyr Select the primary statistical test for examining t categorical variables.	d) readr he relationship between two		
(xi)	 a) Chi-Square test c) Analysis of Variance (ANOVA) Select the statistical method used to estimate pathe data follows a specific distribution. 	b) t-Test d) Correlation analysis arameters of a statistical model when		
(xii)	a) Maximum Likelihood Testc) t-TestDecide when a Chi-Square test is typically emplo	b) Correlation analysis d) Chi-Square test byed.		
(xiii)	 a) To assess the correlation between variables c) To determine association between categorical variables Select the technique employed to model the im healthcare service utilization. 	 b) To examine variance between groups d) To compare means of more than two groups pact of geographic factors on 		
(xiv)	a) Geographic Information Systems (GIS)c) Linear RegressionIdentify what systems medicine aims to achieve various components of health and disease.	b) Trends Analysisd) Exponential Smoothingby incorporating interactions between		
	a) Comprehensive understanding of disease mechanismsc) Reduction of complexity in disease	b) Isolation of individual factors contrib to diseasesd) Limitation of data integration	uting	
· 	modeling Identify how systems medicine utilizes genotypi			
(xv)	a) By integrating them into predictive models c) By using only one type of data	b) By ignoring their relationship d) By summarizing their complexity		
	Grou	n-B		
	(Short Answer Ty	-	3 x 5=15	
h	ifferentiate between tactical BI and strategic BI, he ealthcare management.		(3)	
3. Ex	plain the importance of data visualization in hea That is the overview of the data mining process?	ittncare analytics and decision-making.	(3) (3)	
5. III	ustrate what sentiment analysis entails and provealthcare data analysis.		(3)	
	iscuss about Big Data in the context of healthcardealthcare analytics.		(3)	
OR Discuss the Overview-Overwhelm framework and its significance in healthcare analytics. (3)				
	Gro u (Long Answer Ty		5 x 6=30	

5 x 6=30

graphs, and charts

To. Explain the fole of data mining in improving patient care and dutcomes.	9. Illustrate some output protocols utilized in data mining. (5)	7. Describe the role of analytics in supporting a data-driven learning healthcare system. (5)	8. 9. 10. 11.	Write about common forecasting challenges encountered in healthcare trends analysis. Illustrate some output protocols utilized in data mining. Explain the role of data mining in improving patient care and outcomes.	(5)
11. Evaluate the scope of systems medicine.	1. Evaluate the scope of systems medicine.	1. Evaluate the scope of systems medicine. (5) (5) (5) (5)	.2.	OR	
	To. Explain the fole of data mining in improving patient care and outcomes.	9. Illustrate some output protocols utilized in data mining. 10. Explain the role of data mining in improving patient care and outcomes. (5)			•
