

Total No. of Questions : 5]

SEAT No. :

PF-12138

[Total No. of Pages : 2

[6648]-865

S.Y. M.B.A.

SE-PHM-16 : HEALTHCARE ANALYTICS
(2024 Pattern) (Semester - IV)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All Questions are compulsory.
- 2) Each Question has an internal option.
- 3) Your answer should be specific and to the point.

Q1) Attempt any 5 :

[5 × 2 = 10]

- a) Define Healthcare Analytics.
- b) State any two objectives of Healthcare Analytics
- c) What are standardized code sets in healthcare systems?
- d) Define Clinical Prediction Models.
- e) What is Privacy-Preserving Data Publishing?
- f) Define Temporal Data Mining.
- g) What is the R environment?
- h) State any two features of R programming language.

Q2) Attempt any Two of the following :

[2 × 5 = 10]

- a) Explain the evolution and need of Healthcare Analytics in modern healthcare systems.
- b) Discuss various data preprocessing and visualization techniques used in healthcare analytics.
- c) Explain the importance of privacy and ethical considerations in healthcare data analytics.

Q3) Attempt any One of the following :

[1 × 10 = 10]

- a) Explain the fundamentals of R programming environment. Explain the importance of R in healthcare analytics.
- b) Discuss different data structures used in R. What are the advantages of using appropriate data structures in healthcare analytics?

P.T.O.

Q4) Attempt any One of the following :

[1 × 10 = 10]

- a) Explain the concept of Linear Regression in predictive healthcare analytics. Give suitable healthcare-related examples.
- b) Design a computerized system to maintain the daily records of in patients of a cardiac ward in a hospital. (Draw simple flow charts or tables)

Q5) Attempt any One of the following :

[1 × 10 = 10]

- a) With suitable examples, discuss the role of predictive healthcare analytics in improving medical care systems.
- b) What is Logistic Regression? Explain its importance in healthcare analytics. Explain the applications of Logistic Regression in healthcare classification problems with suitable examples.

