

**K. J. Somaiya Institute of Technology, Sion, Mumbai-22**  
(Autonomous College Affiliated to University of Mumbai)

Nov – Dec 2024
Program: B. Tech Scheme I
Regular Examination: SY Semester: VII
Course Code: HAIMLC701 and Course Name: AI&ML in Healthcare
Date of Exam: 3/12/24
Duration: 02.5 Hours
Max. Marks: 60

**Instructions:**

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any <b>two</b> questions out of three: (05 marks each)	10		
a)	Explain the importance of ML in Personalized Medicine.		CO1	U
b)	Explain the tasks in Data mining.		CO2	U
c)	Explain Drug discovery in Machine learning in healthcare use cases.		CO3	U
Q 2	Solve any <b>two</b> questions out of three: (05 marks each)	10		
a)	Explain any two applications of NLP in healthcare.		CO4	U
b)	Explain Intelligent Data Exchange in brief.		CO5	U
c)	Explain PICO framework in brief.		CO6	U
Q.3	Solve any <b>two</b> questions out of three. (10 marks each)	20		
a)	Explain working of multi classifier decision fusion and analyze it for Detection of Skin cancer as Malignant or Benign.		CO2	Ap
b)	Which hyperparameter tuning search method is better? Justify it with the detail explanation.		CO3	Ap
c)	Explain Clinical NLP Resources and Tools for AIML Healthcare.		CO4	U
Q.4	Solve any <b>two</b> questions out of three. (10 marks each)	20		
a)	Explain Low level and High level NLP components in AIML Healthcare.		CO4	U
b)	Define and explain the structure of multi-population evolutionary		CO2	U



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	algorithm models.		
c)	Apply evidence-based medicine to solve a clinical problem.	CO6	Ap

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