

Reg. No.



**MANIPAL INSTITUTE OF TECHNOLOGY**

MANIPAL

(A constituent unit of MAHE, Manipal)

**II SEM M. Tech (Medical Informatics) END SEMESTER EXAMINATIONS MAY /JUNE 2023**

**SUBJECT: Health Information System (BME 5102)**

**Monday May 29, 2023; Time 9.30am-12.30pm**

**TIME: 3 HOURS**

**MAX. MARKS: 50**

**Instructions to Candidates:**

- 1. Answer ALL questions.**
- 2. Draw labeled diagram wherever necessary**

Q No.	Question	Marks
1A	Illustrate and explain in detail the different steps involved in the development and implementation of Electronic Medical Records.	4
1B	Explain Health Information Exchange. How is it beneficial to its stakeholders?	3
1C.	Describe the V-Model in SDLC.	3
2A.	Examine the HIPAA standards and their application in data security and protection.	3
2B	Describe the Process of Acquiring an Information System.	3
2C.	Explain the challenges and risks of mHealth adoption.	4
3A.	What is the significance of the Internet of Things (IoT)? What technologies have enabled IoT?	5
3B.	Demonstrate a framework for improving the implementation of mobile health specific to disease screening and treatment.	5
4A.	What is a clinical data warehouse and what are its key features? Justify the role of clinical data warehouses as an effective tool to create intelligence in disease management.	5

4B	Explain about Personal Data Protection Bill, 2019 enacted by the Parliament of India.	5
5A	What is consumer health informatics? Summarize the technology integration required in consumer health informatics.	4
5B	Discuss the steps for EHR implementation.	3
5C	What is HL7?	3