RollNo.

ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. /B.Tech / B. Arch (Full Time) - END SEMESTER EXAMINATIONS, April/May 2024

Biomedical Engineering
6th Semester
BM5002 MEDICAL INFORMATICS
(Regulation2019)

Max.Marks: 100

Time:3hrs

CO1	To discuss about health informatics and different ICT applications in medicine
CO2	To explain the function of Hospital Information Systems.
CO3	To appreciate and adopt medical standards
CO4	Understand the virtual reality tools.
CO5	Understand the concept and need of different information systems.

BL – Bloom's Taxonomy Levels
(L1-Remembering, L2-Understanding, L3-Applying, L4-Analysing, L5-Evaluating, L6-Creating)

PART- A(10x2=20Marks)
(Answer all Questions)

Q.No	Questions	Marks	CO	BL
1	Why should the health professional learn about medical informatics?	2	1	2
2	List few high level languages used to design information system	2	1	2
3	What is the goal of IEEE11073?	2	2	1
4	Give the mission of HL7.	2	2	1
5	In which format the audio files will be stored?	2	3	1
6	Brief about Data mining	2	3	2
7	What is clinical informatics?	2	4	2
8	Mention about the education and training program under health informatics.	2	4	1
9	Mention the advantages of t surgical simulation.	2	5	1
10	Write short note on telemedicine	2	5	1

PART- B(5x 13=65Marks)
(Restrict to a maximum of 2 subdivisions)

Q.No	Questions	Marks	CO	BL
11 (a) (i)	Who does the health informatics serve? Explain	7	1	2
(ii)	Explain the structure of Medical Informatics	6		
	OR			
11 (b)	Discuss the advantage and disadvantage of implementing hospital information system in hospitals.	13	1	2
12 (a) (i)	Discuss JCAHO	7	2	2
(ii)	Discuss about HIPAA.	6	2	2
	OR			
12 (b) (i)	Discuss about JCIA	6	2	2

Q.No	Questions	Marks	CO	BL
(ii)	Describe about DICOM	7	2	2
13 (a)	With necessary diagram built a data acquisition system for signal processing.	13	3	2
	OR			
13 (b)	Discuss about medical data formats.			
14 (a)	Describe about different data base for genomics.	13	3	2
		13	4	2
	OR			
14 (b)	Describe the benefits and risk associated with genome project with suitable examples.	13	4	2
15 (a) (i)	Discuss about the components of virtual reality and its application in medicine	13	5	2
	OR			
15 (b) (i)	Discuss about medical expert system.			
(ii)	In which way the simulation software help the medical professionals explain with examples.	7	5	2
		6	5	2

PART- C(1x 15=15Marks)
(Q.No.16 is compulsory)

Q.No	Questions	Marks	CO	BL
16.	What are the required components for the design of smart or virtual hospital ? Explain with neat diagram	15	5	3