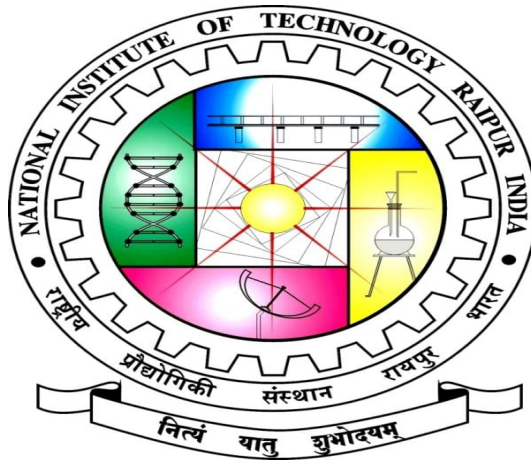


# ASSIGNMENT-5

## BIO MEDICAL ENGINEERING

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Section :-"A"(BME)

Topic :- Emerging technologies in Health Care

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**Technology** in healthcare over the years had modified the techniques of diagnosis and treatment of patients. Out of all benefited sectors from technology adoption, healthcare is perhaps the most important one. Accordingly it enhanced the quality of life over time, and it has saved many lives. The technological development in the healthcare is shaping the world to a better future.

## **1 Blockchain**

Blockchain is a decentralized node network that stores the data. Data are conserved on networks rather than a central database, improving stability and showing its proneness to be hacked. Health Information Exchange is a time-consuming and repetitive process that leads to high health industry costs, solved using this technology. According to BIS Research reports has revealed that application of blockchain in healthcare could save more than 100 billion dollars per year in costs related to IT, operations, and health data breaches by 2025.

## **2 3D Bioprinting**

3D bioprinting in healthcare enables the creation of living tissues to study and evaluate the molecular basis of diseases by testing the printed models. It mainly helps in the study of terminal diseases such as cancer and tumor.

### **3 Cloud Computing**

Cloud Computing helps in analyzing and organizing a patient's data. It also raises the patient's participation in decision-making and gives him control of his health. The stats and data from top hospitals of the globe are sent to research centers to analyze health indexes, common diseases, causative agents, etc.

### **4 Telehealth**

Telemedicine is making a positive contribution to healthcare during the pandemic. Health care experts can diagnose and treat patients virtually. It can lower healthcare expenses, increase efficiency and earnings and provide patients with better access to healthcare services.

### **5 Artificial Intelligence(AI)**

AI in healthcare offers vast opportunities for promising patient care. While doctors or physicians make the final call on diagnosis and treatment, AI models can gather and process large amounts of image data to offer an additional viewpoint of sorts, which can be especially useful for hard-to-read scans. AI applications can organize patient intake and scheduling as well as billing.