

MEDICAL INFORMATICS

UNIT - I

Introduction- Hospital management and information system: functional area- pre-requisites- integrated hospital information systems- health information system- and disaster management plan

UNIT - II

Artificial intelligence- expert systems- materials and methods- computer based patient Records- computer assisted medical education

UNIT - III

Hospital Management and Information systems- structure and functions- computer assisted patient education- computer assisted patient surgery

UNIT - IV

Three-dimensional imaging: limitations of endoscopy and imaging- benefits of virtual endoscopy- materials and methods- limitations- applications- merits and demerits- surgical simulation- virtual environment

UNIT - V

Tele-medicine- needs- materials and methods- Internet tele-medicine- controversial issues- reliability- cost-analysis- applications- tele-surgery- the Internet

Reference Books

1. Mohan Bansal, *Medical Informatics- a primer*, Tata McGraw-Hill, 2003.
2. Charles P. Friedman, Jeremy C. (EDT) Wyatt, *Evaluation Methods in Medical Informatics*- Springer Verlag, 1997.
3. Hsinnchun Chen, *Medical Informatics: Knowledge Management And Data Mining in Biomedicine*, Springer, 2005.
4. F. T. De Dombal, *Medical Informatics: The Essentials*, Butterworth-Heinemann, 1996.