

Sem - VIII (Rev) Biomedical Instrumentation - III

59: 1st Half-Exam.-11 min-a-(c).

Con. 3056-11.

(REVISED COURSE)

Biom

30/5/11

RK-3582

(3 Hours)

[ Total Marks : 100

- N. B. : (1) Question No. 1 is **compulsory**.  
(2) Attempt any **four** questions out of remaining **six** questions.  
(3) Assume **suitable** data wherever **necessary**.

1. (a) What are the different types of fibrillations ? 5  
(b) Write advantages of Ultrasonic Diathermy. 5  
(c) Explain using suitable diagram any one type of Laser. 5  
(d) Explain the basic working principle of surgical Diathermy. 5
  2. (a) What are DC defibrillator ? Explain modes of operation and electrodes used. 10  
(b) Write a note on Implantable Defibrillator and Defibrillator analyzer. 10
  3. (a) Explain operating modes, leads and electrodes as well as Power supply sources for pacemakers. 10  
(b) Explain using suitable circuit diagram temperature in hemodialysis machine. 10
  4. (a) Draw the circuit diagram of discharging of capacitor in INST mode. 10  
(b) Explain using circuit diagram COAG mode of operation in ESU. 10
  5. (a) Discuss in brief 'Heart Rate Variability'. 10  
(b) Write a note on 'Circus Motion Theory'. 10
  6. (a) What is Nerve and Muscle stimulator ? Discuss in brief different physiotherapy equipments. 10  
(b) Discuss safety aspects in electronic surgical units. 10
  7. (a) What is basic principle of Dialysis ? Discuss different types of Dialyzer membrane. 10  
(b) Classify the different types of Lasers and explain in brief Laser Delivery Systems. 10
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