Centre for Biomedical Engineering Major 2009 (BML710)

Date 30.04.2010 M.marks,50

Q1. Give short reasons for the below

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- a, Why hydrogen peroxide is used as precursor gas in plasma sterilization.
- b, What are the causes of contamination in a clean room.
- c, During iontophoresis, for efficient transport of a +ively charged drug, the reservoir must be kept under anode/cathode
 - d, What properties of lactides make them useful for short/long term devices e, What is the function of HEPA filter.
 - f, Give three steps involved in phagocytosis
 - g, Give the characteristic properties of Sutures
 - h what is fibrinloysis.
 - 1. Define tacticity.
 - J. Why polyurethanes are used as heart valves
- Q2. Explain briefly any five of the following. 12.5
 - a, Give the application of poly lactides in DDS.
 - b, What is site specific DDS. Elaborate giving an example.
 - c, How is air velocity maintained in a clean room and what is its significance.
 - d, What is the application of Ziegler Natta catalysts for biomedical applications...
 - e How are acrylates useful as biomaterial
 - f. Mode of action of Eto sterilization and its disadvantages.
 - Q3. Explain the following

17.5

- a. What are the various pathways involved in transdermal drug delivery? How the various physical and chemical enhancers help in drug penetration. 3 + 7.5
 - c. How the rate of drug release is modulated in osmotic pump technology and how it is different from feedback regulated DDS 5+2
- Q4. Explain the following

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- a, Role of QC, QA and PA in GMP regulation
- b, Various records and their keeping
- c, Misbranding labeling and storage integrity
- d, GMP requirement of warehouse storage