B.Tech. SEM -VI Bio Medical 2014 Course (CBCS): SUMMER - 2019 SUBJECT: INSTALLATION MAINTENANCE AND SERVICING

02.30 PM TO 05.30 PM Day Friday Time: Date 31/05/2019 Max. Marks: 60 S-2019-2776 N. B.: 1) All questions are **COMPULSORY**. 2) Figures to the right indicate FULL marks. 3) Assume suitable data, if necessary. **Q.1** Draw the structure for IMS and their functions in the hospital. (10)0.1 Give the outline of biomedical engineering department in the hospital. (05)What is biomedical engineering? What are the job opportunities for biomedical (05)engineer? 0.2 a) What is the role of application specialist in the hospital industry? (05)What are the relations of customer care engineer with company policies? (05)What are the essentials required for biomedical engineer in agency for medical **Q.2** a) (05)instruments? List the ICU instruments and mention major maintenance factors to be (05)considered for ICU equipments. **Q.3** List installation techniques and explain in detail. (10)OR What are the responsibilities for company and user during warranty period? 0.3 (10)State the importance of MMS in detail with comparison of manual record 0.4 (10)system in the hospital. OR Explain the installation process for radiological instruments. (05)Q.4 b) What are the various protocols required for biomedical equipments? (05)State minimum 10 points on various difficulties observed if preventive (10)Q.5 maintenance is not done regularly in the hospitals. OR What do you mean by overall maintenance in equipments? (05)Q.5 a) What is the importance of insurance in medical equipments? (05)Write the purpose of ISO certification in the hospitals. Explain in detail. (10)**Q.6** OR a) Is NABH certification compulsory for all type of hospitals? What are the types (05)**Q.6** of various compliances required? Write short notes on SOP. (05)b)

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