

B.TECH. SEM -VII BIO MEDICAL 2014 COURSE (CBCS) :
WINTER - 2017
SUBJECT : ADVANCED MEDICAL INSTRUMENTATION

Day : **Wednesday**
Date : **17/01/2018**

W-2017-2327

Time : **02.30 PM TO 05.30 PM**
Max. Marks : **60**

N. B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagram **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

Q. 1 Explain the types of monitoring equipments used in ICU of the hospital. **(10)**

OR

- a) Write a note on "Surgical Drills". **(06)**
- b) Describe the working principle of Bilirubin meter. **(04)**

Q. 2 What are the different types of ocular implants? Explain any one in detail. **(10)**

OR

- a) Define Retina and also explain the use of retinal implants. **(06)**
- b) List various application of implantable pumps. **(04)**

Q. 3 Describe angiography and angioplasty. **(10)**

OR

- a) With block diagram explain the working of Holter equipment. **(06)**
- b) List the steps involved in OPCAB surgery. **(04)**

Q. 4 With neat schematic diagram explain the components of an anesthesia machine. **(10)**

OR

- a) Define urodynamic. Also explain different types of urodynamic test. **(06)**
- b) Write short note on CO₂ monitor. **(04)**

Q. 5 List various blood glucose sensor and explain any one sensor in detail. **(10)**

OR

- a) What is creatinine? Explain it with constructional detail. **(06)**
- b) Explain the fabrication steps for designing of blood glucose sensor. **(04)**

Q. 6 What is laparoscopy? Explain the procedure for laparoscopy. **(10)**

OR

- a) Describe the procedure for perimetry test. **(06)**
- b) Write a short note on 'Tonometry'. **(04)**

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