Question Bank (G scheme)

Name of subject: BIOMEDICAL INSTRUMENTATION

Subject code : 17666 **Unit Test : II**

Semester : VI **Course : IS**

Chapter 4 Life support equipments - 16 marks

3 Marks

1. Compare internal and external pacemaker (any three points) .
2. State the functions of the following : (i) pacemaker (ii) defibrillator (iii) dialysis machine
3. List the functions of the kidney.
4. What do you mean by defibrillation ? State any two technical specifications of a dc defibrillator.

4 Marks

5. State the need of dialysis machine and draw a neat block diagram. State any two specifications of dialysis machine.
6. Classify the various pacing modes in a pacemaker. Explain any one of them.
7. Explain the working of a dc defibrillator with a neat diagram and waveform.
8. Explain the working of an internal pacemaker with a neat block diagram.
9. Explain briefly the working of a dialysis machine with a neat block diagram.

Chapter 5 Imaging systems - 18 marks

3 Marks

10. List any six technical specifications of an X-ray machine.
11. Explain the B-scanning mode in ultrasonography.
12. State any three applications of ultrasonography.
13. Draw a neat boock diagram of a CAT scanner. State any one application of CAT scanner.
14. List any six technical specifications of computerized axial tomography.

4 Marks

15. Explain the principle of CT scan. Compare its method of visualization with conventional x-ray methods.
16. Explain the working of an X-ray machine with a neat block diagram.
17. With the help of a diagram, explain the working of an image intensifier .
18. Describe M- scan mode in ultrasonography. State any two applications of ultrasonography.

19. Explain the working of ultrasonography with a neat block diagram.
20. Compare X-ray and ultrasonography.
21. Give reason why prolonged exposure to X rays is hazardous as compared to ultrasonography. State any two applications of X rays.

Chapter 6 Laboratory equipment and patient safety - 8 marks

3 Marks

22. Compare microshock and macroshock.
23. Write the meaning of leakage current. State any two methods to reduce leakage current.
24. State an application each of : (i) deionizer (ii)autoclave (iii) incubator.

4 Marks

25. List any four effects of leakage current that occur with increasing current intensity on human body.
26. Describe any eight precautions to be taken to minimize electric shock hazards.
27. State the principle of operation of centrifuge. Also state any two applications of centrifuge in medical applications.