

- Q.25 Explain SMPS in detail.
- Q.26 Write a note on PMS.
- Q.27 Explain 3 phase power supply with suitable diagram
- Q.28 Define star connection with diagram and equation.
- Q.29 Explain auto transformer.
- Q.30 Explain Radiation safety instrumentation.
- Q.31 Define micro shock hazards of medical instruments.
- Q.32 Define Electrical accidents inside hospitals.
- Q.33 Write a note on Earthing and its role in healthcare.
- Q.34 How stabilizer is installed in hospital, write all steps.
- Q.35 Write five applications of transformer.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 What is transformer. Explain its working principle and construction with suitable diagram.
- Q.37 Write a note on ECG Machine with suitable diagram. Explain main points about ECG machine maintenance.
- Q.38 Explain maintenance and services of Oxygen cylinder and blood flow meters.

No. of Printed Pages : 4
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183254

5th Sem / Medical Electronics
Subject:- Medical Equipments maintenance System (MEMS)

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Types of cables used in maintenance of medical equipment are:
- a) Flexible
 - b) Current carrying
 - c) capacity
 - d) All of these
- Q.2 Part of SMPS is:
- a) Output filter coil
 - b) FET
 - c) Diode
 - d) MOSFET
- Q.3 Input voltage specification of UPS system is
- a) 10 micro farad
 - b) regulation $\pm 3\%$
 - c) 5 micro farad
 - d) none of these
- Q.4 Input ripple of SMPS is
- a) nil
 - b) neutral
 - c) High
 - d) low

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183254

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183254

Q.5 Full form of UPS is

- a) Unwanted power supply
- b) Unrecognized power supply
- c) Uninterrupted power supply
- d) None

Q.6 DC stands for

- a) do code
- b) Direct current
- c) do co
- d) none

Q.7 Type of connectors are

- a) BNC
- b) Audio
- c) RJ45
- d) all

Q.8 SFU stands for

- a) Sight for universe
- b) seem fuse unit
- c) Switch fuse unit
- d) none

Q.9 Automatic switching off function is accomplished in MCB by

- a) Really
- b) Relay
- c) Bimetallic strip
- d) switch

Q.10 Most suitable device for high frequency inversion in SMPS is

- a) MOSFET
- b) BJT
- c) GTO
- d) IGBT

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 What is Earthing.

Q.12 Define Grounding.

Q.13 MCCB stands for.

Q.14 Write name of two mode of power supply.

Q.15 Define UPS.

Q.16 Define AMC

Q.17 Define transformer.

Q.18 Write symbol for delta connection.

Q.19 What is Range of power line interference.

Q.20 Define pulse oximeter.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Write precautions required while installing any medical equipment.

Q.22 Write a note on various types of cables.

Q.23 Write a note on various types of connectors.

Q.24 Explain glass and ceramic Fuses with suitable diagram.