Q.26 Write a note on acid base balance in body.

Q.27 Explain Microscopic method of blood cell counting.

Q.28 Write a short note on optical filters used in analytical instrumentation.

Q.29 Explain Monochromator and its classifications.

Q.30 Write a note on Photo-Diode.

Q.31 Explain Beer-Lambert Law.

Q.32 Write a note on Autoclave Sterilization.

Q.33 Explain significance of PH W.r.t Blood

Q.34 Discuss the differences between Prism and Diffraction Grating.

Q.35 Explain Electrophoresis.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Discuss Principle, construction & working of Photo-colorimeter with diagram.

Q.37 Explain Flame Photometer in details with diagram.

Q.38 Explain Spectro-Photometer in details with diagram.

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4th Sem / Medical Electronics
Subject:- Medical Laboratory Instruments / Analy Inst. (BM)

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Blood is which type of tissue
a) Epithelial b) Connective
c) Nervous d) None of the above

Q.2 PH range of healthy body blood is
a) 4-6 b) 7.35 -7.45
c) 5.25 - 6.25 d) None of the above

Q.3 Which of the following Hormone directly regulate glucose level
a) Progesterone b) FSH
c) TSH d) Insulin

Q.4 Which of the following is not an laboratory equipment
a) Flame Photometer b) PH Meter
c) Colorimeter d) None of the above

Q.5 Colorimeters are used in applications where great accuracy is required.
a) True b) False
c) Can't say d) None of the above

Q.6 Which of the following is a source used in spectroscopy

a) LASER
b) Tungsten lamp
c) Sodium Vapour lamp
d) Tube light

Q.7 Which of the following is the formula for pH calculation?

a) log10[H+] b) -log10[H+]
c) log2[H+] d) -log2[H+]

Q.8 Which of the detectors is used to detect light intensities which are very weak

a) Photomultiplier tube
b) Photovoltaic cell
c) Photomissive tubes
d) Photo reflector

Q.9 Beer Lambert's law gives the relation between which of the following

a) Reflected radiation and concentration
b) Scattered radiation and concentration
c) Energy absorption and concentration
d) Energy absorption and reflected radiation

Q.10 In photometers, the readings of the specimen are initially obtained in the form of which of the following parameters?

a) Transmittance b) Absorption
c) Wavelengths d) Volume

SECTION-B

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

Q.11 Expand LPG

Q.12 Electrode

Q.13 Sterilization

Q.14 Expand PMT

Q.15 What is Conductance

Q.16 Expand RCF

Q.17 What is Transmittance?

Q.18 What is Monochromator

Q.19 Define PH

Q.20 Expand TLC

SECTION-C

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

Q.21 Explain construction and working of centrifuge machine with diagram.

Q.22 Write a short note on Diffraction Grating

Q.23 Explain optical method of blood cell counting.

Q.24 Explain various light sources used in analytical instrumentation.

Q.25 Write a note on Atomizer with diagram.