

- Q.6 How X-rays are generated?
 Q.7 Define photon flux.
 Q.8 Tell about roentgen rays.
 Q.9 Interpret the term ionizing radiations.
 Q.10 List the source of lights used in photochemistry.

SECTION-B

- Note:** Short answer type questions. Attempt any six questions out of eight questions. (6x5=30)
- Q.11 Differentiate between X-ray and fluoroscopy.
 Q.12 List the essential properties of X-rays.
 Q.13 Discuss the type of fluorescent materials used in fluoroscopy screen.
 Q.14 Describe the principle of photochemistry.
 Q.15 Summarize the various physical/radiation quantities used in Diagnostic Radiology.
 Q.16 Outline the basic principles of ionization chamber.
 Q.17 How is HVL measured?
 Q.18 List the factors affecting the fixer replenishment of fixer.

SECTION-C

- Note:** Long answer type questions. Attempt any one questions out of two questions. (1x10=10)
- Q.19 Explain the principle and working of G.M. Counter.
 Q.20 Describe principal of fluorescence, materials and accessories used in fluorescent screens.

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Level 4 / 2nd. Sem. / DVOC
Medical Imaging Tech.
Subject : Physics & Technology in Imaging

Time : 2 Hrs.

M.M. : 50

SECTION-A

Note: Very short answer type questions. All questions are compulsory (10x1=10)

- Q.1 The fluoroscope was invented by
 a) Alexander bell b) Hollis potter
 c) Jan Marconi d) Thomas Edison
- Q.2 Atoms with unstable nuclei are said to be _____
 a) Non-radioactive b) Radioactive
 c) Partially radioactive d) None
- Q.3 In x-ray imaging, noise is determined by
 a) Number of x-rays hitting the detector
 b) Tissue contrast
 c) Amount of scatter hitting the detector
 d) Energy of X-rays hitting the detector
- Q.4 Ultrasound is a _____
 a) Electromagnetic radiation
 b) Gravitational radiation
 c) Particle Radiation
 d) Acoustic Radiation
- Q.5 Fluoroscopy normally requires a tube current of
 a) 0.1-1.0mA b) 1-5mA
 c) 5-10 mA d) 10-100 mA