

Online Examinations (Even Sem/Part-I/Part-II Examinations 2020 - 2021)

Course Name - –Fundamental of Radiology and Imaging Technology

Course Code - BPA405

* You can submit the form ONLY ONCE.

* Fill the following information for further process.

* Required

1. Email *

2. Name of the Student *

3. Enter Full Student Code *

4. Enter Roll No *

5. Enter Registration No *

6. Enter Course Code *

7. Enter Course Name *

8. *

Mark only one oval.

- Diploma in Pharmacy
- Bachelor of Pharmacy
- B.TECH.(CSE)
- B.TECH.(ECE)
- BCA
- B.SC.(CS)
- B.SC.(BT)
- B.SC.(ANCS)
- B.SC.(HN)
- B.Sc.(MM)
- B.A.(MW)
- BBA
- [B.COM](#)
- B.A.(JMC)
- BBA(HM)
- BBA(LLB)
- B.OPTOMETRY
- B.SC.(MB)
- B.SC.(MLT)
- B.SC.(MRIT)
- B.SC.(PA)
- LLB
- [B.SC\(IT\)-AI](#)
- B.SC.(MSJ)
- Bachelor of Physiotherapy
- B.SC.(AM)
- Dip.CSE
- Dip.ECE
- [DIP.EE](#)
- DIP.CE

- [DIP.ME](#)
- PGDHM
- MBA
- M.SC.(BT)
- M.TECH(CSE)
- LLM
- M.A.(JMC)
- M.A.(ENG)
- M.SC.(MATH)
- M.SC.(MB)
- MCA
- M.SC.(MSJ)
- M.SC.(AM)
- M.SC.CS)
- M.SC.(ANCS)
- M.SC.(MM)
- B.A.(Eng)

Answer all the questions. Each question carry one mark.

9. 1. For X-rays to travel

Mark only one oval.

- No medium required
- Presence of water
- Presence of oxygen
- None

10. 2. Soft X-ray have the tube voltage of

Mark only one oval.

- 0-10 kV
- 20-60 kV
- 150-400 kV
- 400-3000 kV

11. 3. Hard X-rays have tube voltage of

Mark only one oval.

- Accelerated light photons
- High speed electrons
- Low speed electrons
- None

12. 4. The quantity of X-ray received at given point is dependent on

Mark only one oval.

- kVp
- mA
- mAs
- Size of the focal spot

13. 5. The amount of the kinetic energy utilized in production of X-rays are

Mark only one oval.

- Less than 1%
- Less than 40%
- Less than 90%
- Less than 99%

14. 6. The filters used in diagnostic X-ray tubes are made up of

Mark only one oval.

- Aluminium
- Copper
- Tin
- Lead

15. 7. Compound filter is made up of

Mark only one oval.

- Copper and aluminium
- Copper and lead
- Lead and aluminium
- Aluminium and tin

16. 8. Efficiency of the X-ray production in rotating anode tube is

Mark only one oval.

0.01

0.05

0.1

0.2

17. 9. Inherent filtration in X-ray tube is 0.5-1 mm of

Mark only one oval.

Lead equivalent

Nickel equivalent

Aluminium equivalent

None

18. 10. The size of actual focal spot as compare to effective focal spot is

Mark only one oval.

Larger

Smaller

Equal

None

19. 11. Tungsten is the ideal material for anode because it has

Mark only one oval.

- High atomic number (74)
- High melting point (3370° C)
- High specific heat and high thermal conductivity
- All

20. 12. The “Heel effect” is

Mark only one oval.

- Higher on cathode side than anode side
- Higher on anode side than cathode side
- Equal on both on cathode and anode side
- All

21. 13. Anode “Heel effect can be used

Mark only one oval.

- Thicker parts of the body towards cathode
- Thicker parts of the body towards anode
- No effect
- All

22. 14. X-ray beam when fall on the body, act as

Mark only one oval.

- Reflected
- Absorbed
- Transmitted
- All

23. 15. The photoelectric absorption involves

Mark only one oval.

- Incident X-ray photons has more energy than binding energy of K-shell electron
- Involve tightly bound electron
- K-shell
- All

24. 16. Photoelectric interaction results in excellent quality image due to

Mark only one oval.

- P.E absorption does not produce scattered radiation
- Enhances natural tissue contrast
- Both
- None

25. 17. Compton scattering involve

Mark only one oval.

- Moderate energy strikes outer shell electron
- Energy of scattered photon is increased
- Energy of scattered photon is increased
- All

26. 18. Pair production occur, if energy is of

Mark only one oval.

- e^- & e^+
- e^- & e^-
- e^+ & e^+
- Both e^- & e^+ & e^- & e^-

27. 19. Mass density of bone is

Mark only one oval.

- 1850 kg/m
- 320 kg/m
- 910 kg/m
- 1000 kg/m

28. 20. Most of the time the speed of the modern X-ray tubes is

Mark only one oval.

- 3000 rpm
- 3500 rpm
- 4000 rpm
- None

29. 21. The heat generated in the anode of the X-ray tube is

Mark only one oval.

- Less than 1%
- Less than 30%
- Less than 75%
- Less than 99%

30. 22. Early causes of X-ray tube failure are

Mark only one oval.

- Overheating
- Mechanical damage of filament/glass envelope
- Electric failure
- Any

31. 23. The X-ray tube said to be “gassy” when

Mark only one oval.

- Filament has burnt out
- Presence of the gas molecule
- Pitting of the anode
- None

32. 24. “Gassy tube” is diagnosed by any one of the following

Mark only one oval.

- No exposure
- mA meter does not move
- mA meter shows fluctuation
- mA meter shows full deflection during exposure

33. 25. In X-ray tube, the increase in filament current, the tube current

Mark only one oval.

- Increases
- Equal
- Decreases
- None

34. 26. Anode in rotating anode X-ray tube is made-up of

Mark only one oval.

- Tungsten nickel alloy
- Tungsten rhenium alloy
- Nickel tin alloy
- Tungsten aluminium alloy

35. 27. Pin hole diameter of focal spot in X-ray tube is

Mark only one oval.

- 0.003 mm
- 0.006 mm
- 0.009 mm
- 0.012 m m

36. 28. In rotating anode tube, heat produced in target, contribute to incident energy equal to

Mark only one oval.

- 0.7
- 0.8
- 0.9
- 1

37. 29. Filament in X-ray tube emits electron by process

Mark only one oval.

- Space charge effect
- Thermionic emission
- oth
- None

38. 30. The current in X-ray tube range between

Mark only one oval.

- 1-100 mA
- 1- 300 mA
- 1-500 mA
- 1-1000 mA

39. 31. Modern X-ray tubes used in diagnostic radiology has

Mark only one oval.

- Vacuum
- Helium gas
- Carbon dioxide
- None

40. 32. In modern X-ray tube, the amount of electrons utilized in producing X-rays are

Mark only one oval.

0.99

0.5

0.1

0.01

41. 33. The envelope in modern X-ray vacuum tube is made up of

Mark only one oval.

Borosilicate glass envelope

Metal envelope

Lead envelope

None

42. 34. Rating of the X-ray tube is directly proportional to

Mark only one oval.

kVp

Size of the focus

Rotation of the tube

All

43. 35. During fluoroscopy, the X-ray tube operates at

Mark only one oval.

- Less than 5 mA
- 10-15 mA
- 25-35 mA
- Above 60 mA

44. 36. X-ray tube output is increased most strongly by increasing the

Mark only one oval.

- Voltage across the tube (kVp)
- Anode diameter
- Atomic number of the target
- Filtration

45. 37. X-ray tubes are surrounded by _____ to absorb unwanted radiation

Mark only one oval.

- Lead
- Glass
- Aluminium
- Oil

46. 38. Which of the following are the ionizing radiation

Mark only one oval.

- Alpha radiation
- Beta radiation
- Gamma radiation
- All

47. 39. Alpha particles is a helium that contain

Mark only one oval.

- Two protons and two neutrons
- Two protons and one neutrons
- One protons and two neutrons
- One protons and one neutrons

48. 40. Beta particle is

Mark only one oval.

- Electron emitted from nucleus of a radioactive atom
- Electron emitted from nucleus of an atom
- Both Electron emitted from nucleus of a radioactive atom & Electron emitted from nucleus of an atom
- None

49. 41. Which of the following is highly ionizing radiation with very short range in matter?

Mark only one oval.

- Alpha particle
- Beta particle
- X-rays
- None

50. 42. Which of the following are called photons?

Mark only one oval.

- X-ray
- Gamma ray
- Alpha ray
- Both X-ray & Gamma ray

51. 43. X-rays are emitted

Mark only one oval.

- From electrons cloud of an atom that has stimulated artificially
- From inside the electrons of an radioactive atom
- Both From electrons cloud of an atom that has stimulated artificially & From inside the electrons of an radioactive atom
- None

52. 44. Flux gain is

Mark only one oval.

- Number of output light photon divided by number of input X-ray photons
- Number of output light photons multiplied by number of input X-ray photons
- Number of output light photons plus number of input X-ray photons
- Number of output light photons number of input X-ray photons

53. 45. Magnification mode results in

Mark only one oval.

- Better spatial resolution
- Better contrast resolution
- Higher patient dose
- All

54. 46. Intensity of radiation depends on

Mark only one oval.

- Quality and quantity of X-ray photon
- Quality of X-ray photon
- Quantity of X-ray photon
- All

55. 47. Quality of radiation depends on

Mark only one oval.

- mAs
- kVp
- Sec
- Both mAs & kVp

56. 48. Function of the grid to

Mark only one oval.

- Absorb scatter radiation
- Transmit all primary radiation
- Both Absorb scatter radiation & Transmit all primary radiation
- None

57. 49. The effective device to reduce the scattered radiation is

Mark only one oval.

- Grid
- Glass tube
- Diaphragm
- Cone

58. 50. Parallel grid is commonly used with

Mark only one oval.

- Mobile units in the wards
- Conventional radiography units
- Both Mobile units in the wards & Conventional radiography units
- None

59. 51. Grid lines appear on radiograph with

Mark only one oval.

- Stationary grid
- Moving grid
- Both
- None

60. 52. Disadvantages of the moving are grid

Mark only one oval.

- Synchronism
- Vibration to set up in X-ray tube
- Requires approximately 15% more radiation to the patient
- All

61. 53. With high grid ratio, the exposure dose to the patient is

Mark only one oval.

- Increased
- Decreased
- Unaffected
- None

62. 54. Air gap technique is used to

Mark only one oval.

- Reduce scattered radiation
- Magnification radiography
- Image sharpness deteriorates
- All

63. 55. The function of the cone in skull radiography is

Mark only one oval.

- To limit the field of the radiation
- To reduce the exposure
- To increase the life of the X-ray tube
- All

64. 56. Grid ratio is the

Mark only one oval.

- Height of lead strip by distance between them
- Distance between lead strips by height
- Height of the lead strip multiplied by the distance
- None

65. 57. The bucky factor _____ with increasing kVp.

Mark only one oval.

- Increases
- Decreases
- Halves
- Quarter

66. 58. As the bucky factor increases, patient dose _____ proportionately

Mark only one oval.

- Decreases
- Increases
- Halves
- No effect

67. 59. High ratio grids are used for _____ examination.

Mark only one oval.

- Low kVp
- High kVp
- Both
- None

68. 60. High frequency generator has

Mark only one oval.

- High tube current with short exposure
- More efficient
- Ripple factor is minimum
- All

This content is neither created nor endorsed by Google.

Google Forms