

PROVISIONAL ANSWER KEY

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Question1:-The Andaman Islands consist of how many small Islands ?

- A:-120
- B:-204
- C:-319
- D:-572

Correct Answer:- Option-B

Question2:-Iron-ore mine in Karnataka

- A:-Karimnaga
- B:-Bailadilla
- C:-Kadappa
- D:-Kudhrimukh

Correct Answer:- Option-D

Question3:-The year in which the first textile mill in Bombay was started ?

- A:-1814
- B:-1834
- C:-1853
- D:-1874

Correct Answer:- Option-C

Question4:-Jawahar Rozgar Yojana gave importance to

- A:-Rural development
- B:-Urban development
- C:-Social development
- D:-Formation of corporation

Correct Answer:- Option-A

Question5:-Commercial Capital of India

- A:-Chennai
- B:-Kolkatta
- C:-Delhi
- D:-Mumbai

Correct Answer:- Option-D

Question6:-The newspaper "common wheel" was edited by

- A:-Balgangadar Tilak
- B:-Mahatma Gandhi
- C:-Annie Besant
- D:-Gokhale

Correct Answer:- Option-C

Question7:-"Kudhai Kitmatgar" an army was formed by

- A:-Subash Chandra Bose
- B:-Khan Abdul Gaffer Khan
- C:-V.D. Savarkkar
- D:-Bhagath Singh

Correct Answer:- Option-B

Question8:-The Act of 1935 was a "Machine with strong break but no engine" says whom ?

- A:-Rabindranath Tagore
- B:-Rajendra Prasad
- C:-Arabind Gosh
- D:-Jawaharlal Nehru

Correct Answer:- Option-D

Question9:-The first coir village in Kerala

- A:-Kuttanad

B:-Cherthala

C:-Vaylar

D:-Punnapra

Correct Answer:- Option-C

Question10:-Anna Purna Scheme aims at providing food for

A:-Senior citizens

B:-Poor people

C:-Women

D:-Children

Correct Answer:- Option-A

Question11:-Mannathu Padmanabhan was honoured with which of the following title ?

A:-Kerala Gandhi

B:-Kerala Scott

C:-Kerala Isban

D:-Bharatha Kesari

Correct Answer:- Option-D

Question12:-"Political Father" of the Ezhavas

A:-Sree Narayana Guru

B:-Dr. Palpu

C:-Sahodaran Ayyappan

D:-Kumaranasan

Correct Answer:- Option-B

Question13:-"Sthree Vidhyaposhini" is the work of

A:-V.T. Battathiripad

B:-Kumara Guru

C:-Chattampi Swamikal

D:-Brahmananda Shivayogi

Correct Answer:- Option-D

Question14:-In 1917 Atmavidhya Sangam was organised due to the work of

A:-Ayyankali

B:-Shankaracharya

C:-Vakbatananda

D:-E.V. Ramaswami Naikar

Correct Answer:- Option-C

Question15:-Who fought against the evil custom of "Talikettu Kalyanam" in Kerala society ?

A:-Mannathu Padmanabhan

B:-Kittur Chennamma

C:-K. Kelappan

D:-Sree Narayana Guru

Correct Answer:- Option-D

Question16:-Which country defeated Newzeland in the finals of ICC World Cup 2015 ?

A:-West Indies

B:-South Africa

C:-Australia

D:-Srilanka

Correct Answer:- Option-C

Question17:-Which of the Indian State attained 100 % Implementation of "Pradhan Mantri Jan Dhan Yojana" ?

A:-Gujarat

B:-Meghalaya

C:-Kerala

D:-Rajasthan

Correct Answer:- Option-B

Question18:-RTE of 2009 provide education to the children between the age limit of

A:-6 and 14

B:-5 and 12

C:-5 and 15

D:-6 and 15

Correct Answer:- Option-A

Question19:-Vaylar award winner of 2014

A:-M.T. Vasudevan Nair

B:-P.V. Sakkaria

C:-K.R. Meera

D:-Benny Yamin

Correct Answer:- Option-C

Question20:-Present Speaker of Kerala Assembly

A:-Sri. P.P. Thankachan

B:-Sri. T.N. Pratapan

C:-Sri. Thomas Unniyadan

D:-Sri. N. Sakthan

Correct Answer:- Option-D

Question21:-Radioactivity was first described by

A:-Roentgen

B:-Becquerel

C:-Joseph Lister

D:-Khorana

Correct Answer:- Option-B

Question22:-Lymphatic drainage of anal canal is to

A:-Inguinal lymph nodes

B:-External iliac lymph nodes

C:-Internal iliac lymph nodes

D:-Para aortic lymph nodes

Correct Answer:- Option-A

Question23:-What is the main mode of heat transfer in rotating anode X-ray tube ?

A:-Conduction

B:-Convection

C:-Radiation

D:-All the above

Correct Answer:- Option-C

Question24:-The plane that divides the body into right and left halves

A:-Median sagittal plane

B:-Coronal plane

C:-Axial plane

D:-Mid-axillary plane

Correct Answer:- Option-A

Question25:-Half-life of Cobalt-60 is

A:-6.26 years

B:-5.67 years

C:-5.26 years

D:-6.67 years

Correct Answer:- Option-C

Question26:-Most common histopathology in head and neck carcinoma is

A:-Squamous cell carcinoma

B:-Adenocarcinoma

C:-Lymphoma

D:-Melanoma

Correct Answer:- Option-A

Question27:-Lymphatics from tonsil drain into

A:-Mediastinal lymph nodes

B:-Jugulodigastric lymph nodes

C:-Submental lymph nodes

D:- Lower deep cervical lymph nodes

Correct Answer:- Option-B

Question28:-The original phosphor used in X-ray intensifying screen is

A:-`CuWO_(4)`

B:-`CaSO_(4)`

C:-CsI``

D:-`TiO_(2)`

Correct Answer:- Option-A

Question29:-Most common histopathology of carcinoma breast is

- A:-Adenocarcinoma
 - B:-Infiltrating duct carcinoma
 - C:-Lobular carcinoma
 - D:-Squamous cell carcinoma
- Correct Answer:- Option-B

Question30:-In which projection, is the central ray incident on the position aspect and emerges from the anterior aspect of the body ?

- A:-Posteroanterior projection
 - B:-Anteroposterior projection
 - C:-Lateral projection
 - D:-Oblique projection
- Correct Answer:- Option-A

Question31:-Orthopantomogram is taken to rule out lesion in

- A:-Mandible
 - B:-Maxilla
 - C:-Facial bone
 - D:-Skull
- Correct Answer:- Option-A

Question32:-Length of esophagus is

- A:-10 cm
 - B:-15 cm
 - C:-25 cm
 - D:-40 cm
- Correct Answer:- Option-C

Question33:-The process by which electrons are emitted from a X-ray cathode filament

- A:-Ionization
 - B:-Photoconduction
 - C:-Thermo luminescence
 - D:-Thermionic emission
- Correct Answer:- Option-D

Question34:-Superficial X-ray therapy include X-rays of potentials ranging from

- A:-5 to 50 kilovolt
 - B:-50 to 150 kilovolt
 - C:-100 to 150 kilovolt
 - D:-150 to 300 kilovolt
- Correct Answer:- Option-B

Question35:-PET scan is

- A:-Positive Emission Tomography
 - B:-Positron Emission Tomography
 - C:-Pulsatile Emission Tomography
 - D:-None of the above
- Correct Answer:- Option-B

Question36:-The bed of stomach is NOT formed by _____ normally.

- A:-Left Kidney
 - B:-Left suprarenal gland
 - C:-Splenic vein
 - D:-Tail of pancreas
- Correct Answer:- Option-A

Question37:-Unity film speed is

- A:-`Gy⁽⁻¹⁾`
 - B:-`R⁽⁻¹⁾`
 - C:-`mS⁽⁻¹⁾`
 - D:-`S⁽⁻¹⁾`
- Correct Answer:- Option-B

Question38:-Maximum dose region in Cobalt-60 teletherapy lies at _____ cm from the surface.

- A:-0.1 cm
- B:-1 cm
- C:-5 cm

D:-0.5 cm

Correct Answer:- Option-D

Question39:-The ability to demonstrate closely placed structures in the subject as separate entities in the image is

A:-Resolution

B:-Brightness

C:-Contrast

D:-None

Correct Answer:- Option-A

Question40:-In Cobalt-60 machine, which ray is used for external beam radiotherapy ?

A:-Alpha ray

B:-Beta ray

C:-Gamma ray

D:-Protons

Correct Answer:- Option-C

Question41:-Lymphatics of breast drain into

A:-Posterior intercostal lymph node

B:-Axillary lymph node

C:-Internal mammary lymph node

D:-All of the above

Correct Answer:- Option-D

Question42:-Contrast is more with screen film combination than direct X-ray exposure because

A:-X-ray to light conversion efficiency is more

B:-X-ray absorption efficiency is more

C:-Screen is more sensitive to high energy radiation

D:-Screen is more sensitive to low energy radiation

Correct Answer:- Option-C

Question43:-Most common histopathology in cancer cervix is

A:-Squamous cell carcinoma

B:-Adenocarcinoma

C:-Lymphoma

D:-Melanoma

Correct Answer:- Option-A

Question44:-Geometric unsharpness can be reduced by

A:-Reducing focal spot size

B:-Increasing object-image distance

C:-Decreasing focus-image distance

D:-Using tube with large focal spot size

Correct Answer:- Option-A

Question45:-IMRT refers to

A:-Intensive Modulated Radiotherapy

B:-Intensity Modulated Radiotherapy

C:-Image Modulated Radiotherapy

D:-None of the above

Correct Answer:- Option-B

Question46:-Most vascular part of bone is

A:-Epiphysis

B:-Metaphysis

C:-Diaphysis

D:-Epiphyseal cartilage

Correct Answer:- Option-B

Question47:-` (cd//m2)/(mR//sec) ` is

A:-Brightness gain

B:-Minification gain

C:-Conversion factor

D:-Flux gain

Correct Answer:- Option-C

Question48:-Which interaction of X-rays is the basis of radiographic contrast between bone and soft tissues ?

A:-Photoelectric effect

B:-Contrast scattering

C:-Compton scattering

D:-Pair production

Correct Answer:- Option-A

Question49:-The name of invisible image formed as a result of exposure to radiation which later becomes visible during photographic development

A:-Latent image

B:-Photographic image

C:-Fog

D:-Fixing

Correct Answer:- Option-A

Question50:-In conventional radiation therapy, daily fraction dose given will be

A:-1 to 1.5 Gy

B:-1.8 to 2 Gy

C:-2 to 2.8 Gy

D:-None of the above

Correct Answer:- Option-B

Question51:-_____ is the beam modifying device used for tilt of isodose curves from normal position.

A:-Wedge

B:-Diaphragm

C:-Collimator

D:-Cerrobend blocks

Correct Answer:- Option-A

Question52:-Lymphatics from uterus drain to all except

A:-External iliac lymph nodes

B:-Internal iliac lymph nodes

C:-Inguinal lymph nodes

D:-Mesenteric lymph nodes

Correct Answer:- Option-D

Question53:-Inherent filtration of X-ray tube is equivalent to

A:-<0.5 mm Al

B:-0.5-1 mm Al

C:-1.5 mm Al

D:-2.5 mm Al

Correct Answer:- Option-B

Question54:-_____ is the cheapest and most commonly used imaging modality in the initial staging of Hodgkin's disease.

A:-CT scan

B:-MRI scan

C:-Ultrasonogram

D:-PET scan

Correct Answer:- Option-A

Question55:-Which of the following layers of the film contain silver halide crystals ?

A:-Super coat

B:-Base

C:-Adhesive layer

D:-Emulsion

Correct Answer:- Option-D

Question56:-Ammonium Triphosphate is used as

A:-Developing agent

B:-Buffer

C:-Hardener

D:-Fixing agent

Correct Answer:- Option-D

Question57:-_____ is a tissue equivalent material placed close to skin surface.

A:-Orfit shell

B:-Bolus

C:-Vaclock

D:-Cone

Correct Answer:- Option-B

Question58:-Cancer cervix staging following is

- A:-TNM staging
- B:-GTNM staging
- C:-FIGO staging
- D:-None of the above

Correct Answer:- Option-C

Question59:-The concentration of detectable hydrogen nuclei in a biological tissue is termed as

- A:-Spin density
- B:-Electron density
- C:-Spin echo
- D:-Gyromagnetic ratio

Correct Answer:- Option-A

Question60:-Safe light used in dark room is related to film sensitive region of visible light as

- A:-Low intensity
- B:-Low volt
- C:-Low frequency
- D:-Low wavelength

Correct Answer:- Option-C

Question61:-The ability of X-ray film or film-screen combination system to define an edge is

- A:-Resolution
- B:-Sharpness
- C:-Speed
- D:-Radiographic mottle

Correct Answer:- Option-B

Question62:-Commonest site from which nasopharyngeal carcinoma arises is

- A:-Torus tubaris
- B:-Fossa of Rossemuller
- C:-Posterior pharyngeal wall
- D:-Basisphenoid

Correct Answer:- Option-B

Question63:-Radiation source used in HDR brachytherapy

- A:- ^{226}Ra
- B:- ^{60}Co
- C:- ^{137}Cs
- D:- ^{199}Ir

Correct Answer:- Option-D

Question64:-The process by which exposed silver halide crystals are converted to metallic silver is called

- A:-Development
- B:-Fixing
- C:-Rinsing
- D:-Drying

Correct Answer:- Option-A

Question65:-The speed of intensifying screen increases with all the following except

- A:-Large crystal size
- B:-Thick phosphor layer
- C:-Reflective layer
- D:-Absorptive layer

Correct Answer:- Option-D

Question66:-Film fog is caused by

- A:-Increased development of exposed silver halide crystals
- B:-Reduced development of exposed silver halide crystals
- C:-Development of unexposed silver halide crystals
- D:-Removal of unexposed silver halide crystals

Correct Answer:- Option-C

Question67:-Translate-rotate tube technology with multiple detectors is used in

- A:-Fourth generation CT scan
- B:-Third generation CT scan
- C:-First generation CT scan
- D:-Second generation CT scan

Correct Answer:- Option-D

Question68:-Typical effective dose with a chest X-ray postero-anterior view is

- A:-0.02 millisievert
- B:-2 millisievert
- C:-10 millisievert
- D:-100 millisievert

Correct Answer:- Option-A

Question69:-Uterus and fallopian tubes are assessed by

- A:-Micturating cystourethrography
- B:-Intravenous urethrography
- C:-Hysterosalpingography
- D:-Myelography

Correct Answer:- Option-C

Question70:-Sialogram is used to study

- A:-Salivary glands
- B:-Spinal cord
- C:-Small intestine
- D:-Blood vessel

Correct Answer:- Option-A

Question71:-Which of the following is an ionic contrast medium ?

- A:-Iopamidol
- B:-Iohexol
- C:-Iopromide
- D:-Ioxaglate

Correct Answer:- Option-D

Question72:-Which is NOT true regarding mammography ?

- A:-The generator must be able to maintain a very accurate Kvp in the range of 25-35 Kvp
- B:-The X-ray tube has certain special design features, including a beryllium window and a molybdenum target
- C:-Focal spot is very large
- D:-The tube filter is 0.03 mm of molybdenum or 0.5 aluminium equivalent to absorb X-rays below the optimum Kvp range

Correct Answer:- Option-C

Question73:-Stenver's view is used to assess

- A:-Sella
- B:-Mandible
- C:-Greater tuberosity of humerus
- D:-Petrous temporal bone

Correct Answer:- Option-D

Question74:-Xiphisternal joint is at the level of

- A:- 6th thoracic vertebra
- B:- 9th thoracic vertebra
- C:- 1st lumbar vertebra
- D:- 3rd lumbar vertebra

Correct Answer:- Option-B

Question75:-Lordotic view is used to demonstrate

- A:-Exaggerated lumbar lordosis
- B:-Para nasal sinuses
- C:-Lung apices
- D:-Middle lobe collapse

Correct Answer:- Option-D

Question76:-In a postero-anterior view (PA view) of chest

- A:-Cardiac shadow is magnified
- B:-Scapula is projected over upper lobes
- C:-Appears more diffusely opaque if overpenetrated
- D:-Is adequate if 8-10 posterior ribs are seen above diaphragm

Correct Answer:- Option-D

Question77:-The activator commonly used with rare earth phosphor gadolinium oxysulphide is

- A:-Terbium
- B:-Lanthanum

C:-Niobium

D:-Thulium

Correct Answer:- Option-A

Question78:-Enteroclysis is used in the evaluation of

A:-Hepatobiliary system

B:-Fallopian tubes

C:-Small bowel

D:-Thecal sac

Correct Answer:- Option-C

Question79:-SI unit of dose equivalent is

A:-Roentgens

B:-Gray

C:-Rad

D:-Sievert

Correct Answer:- Option-D

Question80:-Which of the following is NOT a deterministic effect of radiation ?

A:-Skin erythema

B:-Sterility

C:-Carcinogenesis

D:-Fetal abnormality

Correct Answer:- Option-C

Question81:-Radiation worker's exposure is limited to an annual effective dose equivalent of

A:-5 mSv

B:-15 mSv

C:-50 mSv

D:-100 mSv

Correct Answer:- Option-C

Question82:-Primary radiation barrier materials used include

A:-Concrete

B:-Lead

C:-Steel

D:-Any of the above

Correct Answer:- Option-D

Question83:-Personal monitoring devices include all EXCEPT

A:-Geiger Muller counter

B:-Film badges

C:-TLD badges

D:-Pocket dosimeters

Correct Answer:- Option-A

Question84:-X-ray radiation monitoring instruments include all EXCEPT

A:-Ionization chamber

B:-Geiger Counter

C:-Neutron rem counter

D:-Photographic film

Correct Answer:- Option-C

Question85:-Therapeutic range of electrons is given by depth of ____ depth dose.

A:-70%

B:-90%

C:-80%

D:-85%

Correct Answer:- Option-B

Question86:-Field shaping is done by all EXCEPT

A:-Custom blocking

B:-Wedge filters

C:-Independent jaws

D:-Multi leaf collimators

Correct Answer:- Option-B

Question87:-In linear accelerator, photon beam passes from the source till the exit from gantry head in the order

A:-Primary collimator → ion chamber → filter → MLC

- B:-Primary collimator → filter → ion chamber → MLC
 - C:-Primary collimator → MLC → filter → ion chamber
 - D:-Filter → primary collimator → MLC → ion chamber
- Correct Answer:- Option-B

Question88:-Gating is a newer technique used in the treatment of

- A:-Ca rectum
- B:-Ca tongue
- C:-Ca lung
- D:-Ca ovary

Correct Answer:- Option-C

Question89:-Electronic Portal Imaging Device (EPID) in radiotherapy is used for

- A:-Treatment planning
- B:-Treatment verification
- C:-CT simulation
- D:-Conversional simulation

Correct Answer:- Option-B

Question90:-All head and neck malignancies have the same nodal staging in TNM system except in _____ cancer.

- A:-Buccal mucosa
- B:-Oropharynx
- C:-Tongue
- D:-Nasopharynx

Correct Answer:- Option-D

Question91:-Radiation reactions in head and neck radiation include all EXCEPT

- A:-Mucositis
- B:-Skin pigmentation
- C:-Bleeding per vaginum
- D:-Dry mouth

Correct Answer:- Option-C

Question92:-Total external beam radiation dose given in the treatment of cancer cervix stage III is

- A:-25 Gy
- B:-35 Gy
- C:-45 Gy
- D:-65 Gy

Correct Answer:- Option-C

Question93:-Which is the oncologic emergency treated with radiation ?

- A:-Tumour lysis syndrome
- B:-Superior venacaval obstruction
- C:-Polymyositis
- D:-None of the above

Correct Answer:- Option-B

Question94:-Post mastectomy radiation is given by

- A:-4 field box technique
- B:-Tangential fields
- C:-Lateral parallel pair
- D:-None of the above

Correct Answer:- Option-B

Question95:-Radiation treatment is given for the following non-malignant brain condition

- A:-Astrocytoma
- B:-Encephalitis
- C:-Glioblastoma
- D:-Craniopharyngioma

Correct Answer:- Option-D

Question96:-The following radiation fields are used in the treatment of lymphoma EXCEPT

- A:-Mantle field
- B:-Inverted Y field
- C:-Dog leg field
- D:-Pencil beam field

Correct Answer:- Option-D

Question97:-Craniospinal irradiation is primarily used in the treatment of

- A:-Craniopharyngioma
- B:-Vertebral metastasis
- C:-Medulloblastoma
- D:-Multiple myeloma

Correct Answer:- Option-C

Question98:-Scalp hair loss occurs in the following conditions EXCEPT

- A:-Cranial irradiation
- B:-Chemotherapy
- C:-Both 1 & 2
- D:-Pelvic irradiation

Correct Answer:- Option-D

Question99:-Multiple punched-out lesions in skull X-ray is characteristically seen in

- A:-Non-Hodgkin's lymphoma
- B:-Hodgkin's disease
- C:-Soft tissue sarcoma
- D:-Multiple Myeloma

Correct Answer:- Option-D

Question100:-The phenomenon in which light continues to emit for sometime even after the radiation exposure has ended is called

- A:-Fluorescence
- B:-Quantum mottle
- C:-Phosphorescence
- D:-None

Correct Answer:- Option-C