

PROVISIONAL ANSWER KEY

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Question1:-The Greek Ambassador who visited the court of Chandragupta Maurya

A:-Megasthenese

B:-Fahien

C:-Marcopolo

D:-Ibun Batutta

Correct Answer:- Option-A

Question2:-The religious order introduced by Akbar

A:-Wahabi

B:-Mansabdari

C:-Din Ilahi

D:-Jaziya

Correct Answer:- Option-C

Question3:-Who introduced 'Saka era' in India ?

A:-Chandragupta

B:-Bindusara

C:-Rudradama

D:-Kanishka

Correct Answer:- Option-D

Question4:-Name the founder 'Servants of India Society'.

A:-Bal Gangadhar Tilak

B:-V.D. Savarkar

C:-Gopal Krishna Gokhale

D:-Motilal Nehru

Correct Answer:- Option-C

Question5:-The Partition of India was accepted on the basis of

A:-Cabinet Mission

B:-Mountbatten Plan

C:-Cripps Proposal

D:-Simon Commission

Correct Answer:- Option-B

Question6:-The historical Jewish copper plate was issued by

A:-Vikramaditya Varaguna

B:-Karunandadakan

C:-Bhaskara Ravi Varman

D:-Ayyan Atikal Tiruvatikal

Correct Answer:- Option-C

Question7:-The forced labour existed in Medieval Kerala

A:-Uzhiyam

B:-Vishti

C:-Kacham

D:-Swarupam

Correct Answer:- Option-A

Question8:-The first foreign traveler who referred to Matrilineal system existed in Kerala ?

A:-Ptolemy

B:-Rabbi Benjamin

C:-Al Biruni

D:-Friar Jordanus

Correct Answer:- Option-D

Question9:-The most important port of ancient Kerala

A:-Urayur

- B:-Maziris
- C:-Arikamedu
- D:-Kaveripatanam

Correct Answer:- Option-B

Question10:-The British parliament passed Indian Independence Act in

- A:-August 1947
- B:-June 1947
- C:-March 1947
- D:-July 1947

Correct Answer:- Option-D

Question11:-The founder of 'Samatwa Samajam'

- A:-Chattampi Swamikal
- B:-Vagbhatananda
- C:-Vaikunta Swami
- D:-Pandit Karuppan

Correct Answer:- Option-C

Question12:-Gandhiji described which incident as a 'Miracle of modern times' ?

- A:-Vaikom Satyagraha
- B:-Quit India Movement
- C:-Abstention Movement
- D:-Temple entry proclamation

Correct Answer:- Option-D

Question13:-Give the title of the book written by Brahmananda Sivayogi

- A:-Mokshapradipam
- B:-Yogakshema
- C:-Mitavadi
- D:-Vedadhikara Nirupanam

Correct Answer:- Option-A

Question14:-Who popularised the idea of interdining ?

- A:-C. Krishnan
- B:-Sahodaran Ayyappan
- C:-V.T. Bhattathiripad
- D:-Vakkom Moulavi

Correct Answer:- Option-B

Question15:-The volunteer captain of Guruvayur Satyagraha

- A:-Mannath Padmanabhan
- B:-K. Kelappan
- C:-P. Krishna Pillai
- D:-A.K. Gopalan

Correct Answer:- Option-D

Question16:-Which state becomes the first state to make voting compulsory in local bodies election ?

- A:-Rajasthan
- B:-Gujarat
- C:-Tamil Nadu
- D:-Maharashtra

Correct Answer:- Option-B

Question17:-The first country in the world to legalise same sex marriage

- A:-Newzealand
- B:-France
- C:-Ireland
- D:-Norway

Correct Answer:- Option-C

Question18:-The International Yoga Day is observed on

- A:-June 20
- B:-June 23
- C:-June 22
- D:-June 21

Correct Answer:- Option-D

Question19:-Name the Chairman of the `14^(th)` Finance Commission.

A:-Y.V. Reddy
B:-C. Rangarajan
C:-Ashok Bhushan
D:-Aravind Subramanian
Correct Answer:- Option-A

Question20:-Which Indian historian was selected for Japan's Fukuoka Prize 2015 ?

A:-Ranajit Guha
B:-Ramachandra Guha
C:-Romila Thapar
D:-Irfan Habib
Correct Answer:- Option-B

Question21:-Who invented CT scan ?

A:-Madam Curie
B:-W.C. Roentgen
C:-G.N. Hounsfield
D:-Isaac Newton
Correct Answer:- Option-C

Question22:-Which metal is commonly used as target in X-ray tubes ?

A:-Lead
B:-Cobalt
C:-Radium
D:-Tungsten
Correct Answer:- Option-D

Question23:-The recommended total filtration for a diagnostic unit of >70 Kvp is

A:-2.5 mm Al
B:-1.5 mm Al
C:-4.4 mm Al
D:-0.5 mm Al
Correct Answer:- Option-A

Question24:-What is NOT done by grids ?

A:-Remove scattered radiation
B:-Increase patient radiation
C:-Produce film with better contrast
D:-Decrease patient dose
Correct Answer:- Option-D

Question25:-As speed of intensifying screen increases, the exposure required

A:-Increases
B:-Decreases
C:-Will not change
D:-Doubles
Correct Answer:- Option-B

Question26:-Which chemical is commonly used as fixing agent ?

A:-Hydroquinone
B:-Sodium thio sulphate
C:-Sodium sulphite
D:-Potassium bromide
Correct Answer:- Option-B

Question27:-Safe light in dark rooms are

A:-Red & < 15 watts
B:-Yellow & < 15 watts
C:-Red & > 15 watts
D:-Yellow & > 15 watts
Correct Answer:- Option-A

Question28:-In an automatic processor which step is NOT required, when compared to manual processing

A:-Developing
B:-Fixing
C:-Rinsing
D:-Drying
Correct Answer:- Option-C

Question29:-The CT numbers of air and water are as follows

A:-+ 100, - 1000

B:-0, + 10

C:-+ 1000, + 10

D:-= 1000, 0

Correct Answer:- Option-D

Question30:-What is the pixel size in a CT scanner if FOV is 25 cm and matrix size is 512 & 512 ?

A:-0.5 mm

B:-0.1 mm

C:-5 mm

D:-10 mm

Correct Answer:- Option-A

Question31:-What is NOT a feature of mammography system ?

A:-Low Kvp technique

B:-High Kvp technique

C:-Molybdenum anode

D:-Small focal spot

Correct Answer:- Option-B

Question32:-Any radiological examination of lower abdomen and pelvis of woman of reproductive age should be conducted within _____ days from the onset of menstruation.

A:-6

B:-7

C:-15

D:-10

Correct Answer:- Option-D

Question33:-In radiography subject contrast is increased by all EXCEPT

A:-Low Kvp

B:-Contrast media

C:-Scattered radiation

D:-Collimation

Correct Answer:- Option-C

Question34:-How many carpal bones are there in hand and which one is more prone for avascular necrosis ?

A:-7, lunate

B:-10, capitate

C:-8, scaphoid

D:-6, pisiform

Correct Answer:- Option-C

Question35:-Swimmers view is taken for which region ?

A:-Cervico thoracic region

B:-Thoracolumbar region

C:-Shoulder

D:-Scapula

Correct Answer:- Option-A

Question36:-Which is the name of the view taken for visualisation of petrous temporal bone and IAM ?

A:-Strykers view

B:-Stenvers view

C:-Skyline view

D:-Townes view

Correct Answer:- Option-B

Question37:-In an IVU what is the name of the X-ray taken immediately after giving contrast ?

A:-Nephrogram

B:-Scout film

C:-KUB film

D:-Pyelogram

Correct Answer:- Option-A

Question38:-If a patient came for barium swallow and barium meal which investigation to be performed first ?

A:-Barium swallow

B:-Both together

C:-Barium meal

D:-Either of them

Correct Answer:- Option-C

Question39:-What is the atomic number of barium ?

A:-70

B:-65

C:-42

D:-56

Correct Answer:- Option-D

Question40:-In suspected perforation what is the contrast media used for evaluation of GIT ?

A:-Barium sulphate

B:-Gastrograffin

C:-Urograffin

D:-Water

Correct Answer:- Option-B

Question41:-Which is NOT a part of small bowel ?

A:-Duodenum

B:-Ileum

C:-Jejunum

D:-Stomach

Correct Answer:- Option-D

Question42:-Barium enema includes investigation of

A:-Oesophagus

B:-Small bowel

C:-Large bowel

D:-Stomach

Correct Answer:- Option-C

Question43:-Paranasal sinuses includes all EXCEPT

A:-Mastoid

B:-Frontal

C:-Maxillary

D:-Sphenoid

Correct Answer:- Option-A

Question44:-Caldwell view is

A:-PA with 15 degree caudal angulation

B:-AP with 15 degree caudal angulation

C:-Lateral

D:-Lateral oblique

Correct Answer:- Option-A

Question45:-The continued emission of light from a substance even after cessation of exposure is known as

A:-Luminescence

B:-Fluorescence

C:-Phosphorescence

D:-None of the above

Correct Answer:- Option-C

Question46:-All of the following given below are properties of X-rays EXCEPT one

A:-Highly penetrating and invisible

B:-Can be focused by lens

C:-Electrically neutral

D:-Liberate minute amounts of heat on passing through matter

Correct Answer:- Option-B

Question47:-The exposure rate of X-ray beam may be altered by all EXCEPT

A:-Tube current

B:-Tube potential

C:-Distance

D:-None of the above

Correct Answer:- Option-D

Question48:-The most prevalent material used in TLD badge is

A:-Sodium

B:-Lithium

C:-Aluminium

D:-Cadmium

Correct Answer:- Option-B

Question49:-Maximum sensitivity of human foetus occur during _____ day of gestation.

A:-60 – 80

B:-11 – 41

C:-71 – 91

D:-90 – 125

Correct Answer:- Option-B

Question50:-The thickness of protective apron in fluoroscopy is

A:-1 mm lead equivalent

B:-1.5 mm lead equivalent

C:-0.5 mm lead equivalent

D:-0.75 mm lead equivalent

Correct Answer:- Option-C

Question51:-Importance factors that reduce patient exposure during radiography includes all EXCEPT

A:-Low Kvp

B:-Beam filtration

C:-Beam collimation

D:-High speed film screen system

Correct Answer:- Option-A

Question52:-X-ray receptors in a CR (Computer Radiography) system contains

A:-Silver bromide

B:-Calcium tungstate

C:-Zinc cadmium sulphide

D:-Europium doped barium fluoro halide

Correct Answer:- Option-D

Question53:-The advantages of CR system are all EXCEPT

A:-Better image quality

B:-Faster and better post processing

C:-Cassette less department

D:-Significant reduction in exposure

Correct Answer:- Option-C

Question54:-Super conducting magnets are EXCEPT

A:-Super cooled

B:-Weight 5-10 tons

C:-Magnetic field always on

D:-High SNR and homogeneity

Correct Answer:- Option-C

Question55:-The stray magnetic field outside the bore of magnetic is called

A:-Shimming

B:-Precession

C:-Resonance

D:-Fringe field

Correct Answer:- Option-D

Question56:-The precessional frequency of hydrogen for field strength 1.5 Tesla is

A:-21.3 MHz

B:-42.6 MHz

C:-6.39 MHz

D:-63.9 MHz

Correct Answer:- Option-D

Question57:-In T_1 weighted images parameters are

A:-Short TR and short TE

B:-Short TR and long TE

C:-Long TE and long TR

D:-Long TR and short TE

Correct Answer:- Option-A

Question58:-The technology used in DR (Digital Radiography) are all EXCEPT

A:-Photo stimulated phosphor based system

- B:-Charged couple device
 - C:-FPD - Amorphous silicon based
 - D:-FPD - Amorphous selenium based
- Correct Answer:- Option-A

Question59:-The CT artefacts produced due to heterogeneous X-ray beam are called

- A:-Motion artefacts
- B:-Beam hardening artefacts
- C:-Streak artefacts
- D:-Ring artefacts

Correct Answer:- Option-B

Question60:-The input fluorescent screen in newer image intensifier is made up of

- A:-Calcium tungstate
- B:-Cesium iodide
- C:-Cadmium sulphate
- D:-Zinc sulphate

Correct Answer:- Option-B

Question61:-In an image intensifier if the flux gain is 50 and minification is 80, what is brightness gain ?

- A:-4000
- B:-130
- C:-30
- D:-1.6

Correct Answer:- Option-A

Question62:-If height of lead stripes is 2 mm and the distance between lead stripes is 0.25 mm, what is the grid ratio ?

- A:-0.5
- B:-8
- C:-10
- D:-4

Correct Answer:- Option-B

Question63:-Hip joint is a ____ type of joint.

- A:-Saddle
- B:-Hinge
- C:-Ball and socket
- D:-Gliding

Correct Answer:- Option-C

Question64:-What among the following is a malignant bone tumour ?

- A:-Osteochondroma
- B:-Enchondroma
- C:-Chondroblastoma
- D:-Osteosarcoma

Correct Answer:- Option-D

Question65:-The type of pathological calcification seen in normal tissues is

- A:-Dystrophic calcification
- B:-Neoplastic calcification
- C:-Heterotrophic calcification
- D:-Metastatic calcification

Correct Answer:- Option-D

Question66:-Heart is covered by

- A:-Peritoneum
- B:-Pleura
- C:-Pericardium
- D:-Synovium

Correct Answer:- Option-C

Question67:-How many lobes are there in right lung ?

- A:-4
- B:-3
- C:-2
- D:-5

Correct Answer:- Option-B

Question68:-Intra cavitory radiation is used in the treatment of which cancer ?

- A:-Cervix
- B:-Thyroid
- C:-Lung
- D:-Brain

Correct Answer:- Option-A

Question69:-Occupation effective dose equivalent dose for whole body is

- A:-5 msv/year
- B:-50 msv/year
- C:-15 msv/year
- D:-50 msv/year

Correct Answer:- Option-B

Question70:-Half life of Cobalt-60 is

- A:-6 years
- B:-5.26 years
- C:-7 years
- D:-4 years

Correct Answer:- Option-B

Question71:-Craniospinal radiation is given in which condition ?

- A:-Carcinoma colon
- B:-Carcinoma lung
- C:-Carcinoma lung
- D:-Medulloblastoma

Correct Answer:- Option-D

Question72:-Dmax of Cobalt-60 is

- A:-1 cm
- B:-2 cm
- C:-5 cm
- D:-0.5 cm

Correct Answer:- Option-D

Question73:-Radio resistant phase of cell cycle

- A:-S
- B:-`G_(1)`
- C:-M
- D:-`G_(0)`

Correct Answer:- Option-A

Question74:-Spinal cord tolerance dose

- A:-45GY
- B:-40GY
- C:-50GY
- D:-55GY

Correct Answer:- Option-A

Question75:-Mantle field is used in the treatment of which disease ?

- A:-Carcinoma lung
- B:-Carcinoma prostate
- C:-Lymphoma
- D:-Hepatocellular carcinoma

Correct Answer:- Option-C

Question76:-Among the following which is used in the treatment of prostatic malignancy ?

- A:-Cobalt - 60
- B:-Iodine - 130
- C:-Cesium - 131
- D:-Technetium - 99

Correct Answer:- Option-C

Question77:-Which radioactive material is used in the treatment of carcinoma thyroid and what is its half life ?

- A:-Iodine - 131; 8.02 days
- B:-Cobalt - 60; 120 days
- C:-Technetium - 99; 62 days
- D:-Cesium - 131; 15 days

Correct Answer:- Option-A

Question78:-Which technology is used in Linear accelerator to accelerate electrons ?

- A:-Laser
- B:-Electric current
- C:-Magnet
- D:-Microwave

Correct Answer:- Option-D

Question79:-What percentage of X-ray beam is contributed by characteristic radiation ?

- A:-30 - 48
- B:-10 - 28
- C:-8 - 15
- D:-55 - 65

Correct Answer:- Option-B

Question80:-Which is the type of interaction between X-rays and matter that do not produce ionisation ?

- A:-Pair production
- B:-Photoelectric effect
- C:-Coherent scattering
- D:-Compton scattering

Correct Answer:- Option-C

Question81:-Among the following, which is NOT the end product of photoelectric effect ?

- A:-Photo electron
- B:-Characteristic radiation
- C:-Positive ion
- D:-Proton

Correct Answer:- Option-D

Question82:-One gray is ____ rads.

- A:-1000
- B:-10000
- C:-10
- D:-100

Correct Answer:- Option-D

Question83:-Permanent sterility for men occur at what range of exposure to radiation ?

- A:-9 - 10 GY
- B:-10 - 15 GY
- C:-5 - 8 GY
- D:-15 - 20 GY

Correct Answer:- Option-A

Question84:-To provide adequate radiation protection what should be the thickness of the wall of X-ray room ?

- A:-25 cm brick with plaster
- B:-15 cm brick with plaster
- C:-10 cm concrete
- D:-4 mm lead equivalent

Correct Answer:- Option-A

Question85:-All of the following are MR angiography techniques EXCEPT

- A:-Time of flight
- B:-Diffusion
- C:-Phase contrast
- D:-Contrast enhanced MRI

Correct Answer:- Option-B

Question86:-MCU is an investigation for visualisation of

- A:-Uterus and fallopian tubes
- B:-Bladder and urethra
- C:-Oesophagus
- D:-Kidneys and ureter

Correct Answer:- Option-B

Question87:-In double contrast barium enema when will be introduced air

- A:-When barium column reaches rectum
- B:-When barium column reaches hepatic flexure
- C:-When barium column reaches splenic flexure
- D:-When barium column reaches ascending colon

Correct Answer:- Option-C

Question88:-All of the following are on ionic contrast media EXCEPT

A:-Iopamidol

B:-Iohexol

C:-Urograffin

D:-Iopromide

Correct Answer:- Option-C

Question89:-What is the effective radiation dose to adult from a CT scan head ?

A:-2 msv

B:-4 msv

C:-0.2 msv

D:-6 msv

Correct Answer:- Option-A

Question90:-Grid controlled X-ray tubes means

A:-Hooded anode

B:-Rotating anode

C:-Target other than tungsten

D:- 3^{rd} electrode

Correct Answer:- Option-D

Question91:-Effective energy of an X-ray beam is

A:-E max

B:-E max divided by 2

C:-E max divided by 3

D:-E max divided by 2.3

Correct Answer:- Option-C

Question92:-The energy of the characteristic X-ray produced depends on

A:-Effective energy of the X-ray beam

B:-Kvp

C:-mas

D:-Atomic number of the target

Correct Answer:- Option-D

Question93:-Heavy metal filter (k edge filter) is

A:-Gadolinium

B:-Iodine

C:-Copper

D:-Barium

Correct Answer:- Option-A

Question94:-Unit of dose equivalent is

A:-Sv

B:-Gy

C:-Roentgen

D:-J/kg

Correct Answer:- Option-B

Question95:-The average life of a radioactive material is

A:- $0.693/T$

B:- $0.693/T \cdot 1/2$

C:- $1.44 T \cdot 1/2$

D:- $1.44/T \cdot 1/2$

Correct Answer:- Option-C

Question96:-Amorphous selenium is a

A:-Photo conductor

B:-Photocathode

C:-Semiconductor

D:-Thermoluminescent material

Correct Answer:- Option-A

Question97:-What is ball catcher (Norgaard projection) view ?

A:-Hand lateral

B:-Wrist lateral

C:-Hand AP

D:-Posterior oblique view of both hands

Correct Answer:- Option-D

Question98:-One of the interactions of ultrasound with matter - reflection depends on

A:-Frequency of sound

B:-Viscosity of the conducting medium

C:-Relaxation time of the medium

D:-Acoustic impedance of the tissue

Correct Answer:- Option-D

Question99:-Reducing agent used in developer is

A:-Sodium thiosulfate

B:-Hydroquinone

C:-Sodium hydroxide

D:-Sodium carbonate

Correct Answer:- Option-B

Question100:-Skyline view is for visualisation of what structure

A:-Patella

B:-Scapula

C:-Scaphoid

D:-Lunate

Correct Answer:- Option-A