

FINAL ANSWER KEY

Question Paper Code:	67/2016/OL
Category Code:	084/2015
Exam:	Technical Assistant Xray
Medium of Question:	English
Date of Test	22-08-2016
Alphacode	A

Question1:-On the banks of which river the famous city of Kolkata situated ?

- A:-Indus
- B:-Hughly
- C:-Brahmaputra
- D:-Tapti

Correct Answer:- Option-B

Question2:-In which state of India, the Kakrapara project is located ?

- A:-Rajasthan
- B:-Punjab
- C:-Gujarat
- D:-Haryana

Correct Answer:- Option-C

Question3:-Which mountain ranges separate North India from the Deccan ?

- A:-Vindhya-Satpura
- B:-Himalayas
- C:-Anamudi
- D:-Siwalik

Correct Answer:- Option-A

Question4:-How many National Waterways are there in India ?

- A:-3
- B:-5
- C:-7
- D:-9

Correct Answer:- Option-D

Question5:-The Governor - General of India at the time of the foundation of Indian National Congress ?

- A:-Chelmsford
- B:-Dalhousie
- C:-Dufferin
- D:-Ripon

Correct Answer:- Option-C

Question6:-Which was the only session of Indian National Congress presided by Gandhi ?

- A:-Allahabad
- B:-Guwahati
- C:-Belgaum
- D:-Kakinada

Correct Answer:- Option-C

Question7:-Who was the first to describe the mutiny of 1857 as the first war of Indian Independence ?

- A:-Subash Chandra Bose
- B:-V.D. Savarkar
- C:-Romila Taper
- D:-Tharachand

Correct Answer:- Option-B

Question8:-The founder of Satya Shodhak Samaj ?

- A:-Atmaram Pandurang
- B:-Gopal Hari Deshmuk
- C:-M.G. Ranade
- D:-Jyotiba Phule

Correct Answer:- Option-D

Question9:-Who was the president of the Indian National Congress in the Gaya Session of 1922 ?

- A:-C.R. Das

B:-Motilal Nehru

C:-Gokhale

D:-Tilak

Correct Answer:- Option-A

Question10:-When was the historic temple entry proclamation made ?

A:-April 12, 1936

B:-November 12, 1936

C:-March 12, 1936

D:-June 12, 1936

Correct Answer:- Option-B

Question11:-Who took initiative to form Anthar Jana Samajam at Chettupuzha ?

A:-Sreedevi Kannampalli

B:-Uma Alampalli

C:-Kavumkkara Bhargavi

D:-Parvathy Nenminimangalam

Correct Answer:- Option-D

Question12:-Who is known as the father of Kerala Renaissance ?

A:-Kumaran Asan

B:-Sree Narayana Guru

C:-Chattampi Swamikal

D:-V.T. Bhattathiripad

Correct Answer:- Option-B

Question13:-Owner of Swadeshabhimani edited by K. Ramakrishna Pillai ?

A:-C.V. Kunjiraman

B:-K. Kelappan

C:-Dr. Palpu

D:-Vakkom Abdul Khadir Maulavi

Correct Answer:- Option-D

Question14:-The Savarna Jatha to support the Vaikom Satyagraha was organised by

A:-Mannath Padmanabhan

B:-T.K. Madhavan

C:-K. Kelappan

D:-Sahodaran Ayyappan

Correct Answer:- Option-A

Question15:-The Malayalee women who attended the International Womens' Conference held at Copenhagen in 1949 ?

A:-Kamala Nambeesan

B:-Ammu Swaminathan

C:-Arya Pallam

D:-Priyadutta Mullamangalath

Correct Answer:- Option-B

Question16:-Which day is observed as Human Rights Day ?

A:-December 10

B:-January 10

C:-March 10

D:-May 10

Correct Answer:- Option-A

Question17:-Operation Protective Edge is the name of which country's controversial military action launched on its neighbourhood ?

A:-Syria

B:-Jordan

C:-Iran

D:-Israel

Correct Answer:- Option-D

Question18:-Mutual Funds are regulated in India by which among the following ?

A:-RBI

B:-SEBI

C:-Stock Exchanges

D:-UTI

Correct Answer:- Option-B

Question19:-Who received the Golden Ball award for the best player of the FIFA World Cup 2014 ?

- A:-Miroslav Klose
- B:-Karim Bensema
- C:-Angel D'Maria
- D:-Lionel Messi

Correct Answer:- Option-D

Question20:-With which game is Davis Cup associated ?

- A:-Football
- B:-Cricket
- C:-Tennis
- D:-Hockey

Correct Answer:- Option-C

Question21:-Which of the following is not an x-ray interaction with the atoms of absorbing medium ?

- A:-Photo Electric Effect
- B:-Bremsstrahlung
- C:-Pair Production
- D:-Compton Effect

Correct Answer:- Option-B

Question22:-The target material used in General purpose Radiography x-ray machine is

- A:-Tungsten
- B:-Copper
- C:-Stainless Steel
- D:-Aluminum

Correct Answer:- Option-A

Question23:-The tilting of anode of a x-ray tube with respect to incident electron axis is

- A:-Line Focus Principle
- B:-Anode heel effect
- C:-Duane Hunt Principle
- D:-None of the above

Correct Answer:- Option-A

Question24:-The vertical plane passing longitudinally through the human body, divides the body into right and left halves is termed as

- A:-Transverse plane
- B:-Coronal plane
- C:-Medial plane
- D:-None of the above

Correct Answer:- Option-C

Question25:-The SI unit of electric current is

- A:-Ampere
- B:-Coulomb
- C:-Farad
- D:-Ohm

Correct Answer:- Option-A

Question26:-The power loss in a transformer can occur due to

- A:-Eddy current
- B:-Core loss
- C:-Leakage of flux
- D:-All of the above

Correct Answer:- Option-D

Question27:-Anode of a rotating anode x-ray tube is rotating with the help of

- A:-Induction motor
- B:-DC motor
- C:-Battery
- D:-None of the above

Correct Answer:- Option-A

Question28:-The base of an x-ray film is made of

- A:-Gadolinium
- B:-Gelatin
- C:-Silver

D:-Polyester

Correct Answer:- Option-D

Question29:-The active ingredient in emulsion of a Radiographic film is

A:-Silver halide

B:-Cellulose triacetate

C:-Rare earth materials

D:-Sodium Sulphite

Correct Answer:- Option-A

Question30:-X-ray tube rating charts includes

A:-Radiographic rating chart

B:-Anode cooling chart

C:-Housing cooling chart

D:-All of the above

Correct Answer:- Option-D

Question31:-The Radiographic grid was first designed by

A:-Bucky

B:-Roentgen

C:-Coolidge

D:-Faraday

Correct Answer:- Option-A

Question32:-Waters view is used for the examination of

A:-Ankle

B:-Skull

C:-Maxillary sinuses

D:-Foot

Correct Answer:- Option-C

Question33:-The annual equivalent radiation dose limit for radiation workers in India is

A:-1 mSv

B:-20 mSv

C:-100 mSv

D:-0.1 mSv

Correct Answer:- Option-B

Question34:-The deposition of metallic silver in a radiographic film without exposure to radiation results

A:-Artifacts

B:-Fog

C:-Latitude

D:-Gamma

Correct Answer:- Option-B

Question35:-Which of the following component is not connected with the secondary coil of high tension transformer of x-ray generator circuits ?

A:-X-ray tube

B:-Rectifier

C:-mA meter

D:-KVp meter

Correct Answer:- Option-D

Question36:-The relative ability of radiographic emulsion to respond to x-ray or light is

A:-Speed

B:-Latitude

C:-Optical density

D:-Contrast

Correct Answer:- Option-A

Question37:-Myelogram was the gold standard for the diagnosis of disease of

A:-Neural canal

B:-Kidney

C:-Heart

D:-Orbit

Correct Answer:- Option-A

Question38:-Which of the following is a common cause of x-ray tube failure ?

A:-Extremely high voltage

B:-Burnt out filament

C:-Anode Melting

D:-All of the above

Correct Answer:- Option-D

Question39:-The advantage of CT over MRI is

A:-Lack of artifacts from adjacent bones

B:-Multiplane capabilities

C:-Fine bone details

D:-Soft tissue contrast

Correct Answer:- Option-C

Question40:-Molybdenum and rhodium targets are used in _____ x-ray tubes.

A:-CT machines

B:-Angiography machines

C:-Mammography

D:-Dental x-rays

Correct Answer:- Option-C

Question41:-Movement unsharpness in radiographs are due to

A:-Heart beat

B:-The pulse

C:-Peristalsis

D:-All of the above

Correct Answer:- Option-D

Question42:-Empty urinary Bladder require before

A:-Pelvic Ultrasound

B:-CT of Pelvis

C:-Hysterosalpingography

D:-All of the above

Correct Answer:- Option-C

Question43:-Computed Tomography (CT) machines with two x-ray tubes, two rows of detector, one gantry and one patient table is

A:-Multislice CT machines

B:-Electron Beam CT

C:-Spiral CT

D:-Dual Source CT

Correct Answer:- Option-D

Question44:-The upper border of sternum is

A:-Supra sternal notch

B:-Acromion

C:-Xiphi sternum

D:-None of the above

Correct Answer:- Option-A

Question45:-The blood flow in the circulatory system can be studied using

A:-Doppler techniques

B:-Nuclear magnetic resonance techniques

C:-Tomography techniques

D:-Scintigraphy

Correct Answer:- Option-A

Question46:-The only movable bone in the skull is

A:-Frontal bone

B:-Nasal bone

C:-Mandible

D:-Temporal bone

Correct Answer:- Option-C

Question47:-Most of the Limb Joints are

A:-Synovial joints

B:-Fibrous joints

C:-Cartilaginous joints

D:-None of the above

Correct Answer:- Option-A

Question48:-The lordotic AP projection of chest is use full for evaluating

- A:-The carina
- B:-Pleural effusion
- C:-An apical lesion
- D:-All of the above

Correct Answer:- Option-C

Question49:-The metacarpal bones are

- A:-Four in numbers
- B:-Five in numbers
- C:-Fourteen in numbers
- D:-Two in numbers

Correct Answer:- Option-B

Question50:-A normal red blood cell has a life span of

- A:-365 days
- B:-1 day
- C:-24 days
- D:-120 days

Correct Answer:- Option-D

Question51:-Which of the following is not an endocrine gland ?

- A:-Pituitary
- B:-Adrenalls
- C:-Pancreas
- D:-Spleen

Correct Answer:- Option-D

Question52:-Bending of knee joint is

- A:-Flexion
- B:-Extension
- C:-Abduction
- D:-Pronation

Correct Answer:- Option-A

Question53:-The patella or knee cap is a

- A:-Long bones
- B:-Flat bones
- C:-Sesamoid bone
- D:-Irregular bones

Correct Answer:- Option-C

Question54:-Length of adult human spinal cord is around

- A:-10 cm
- B:-15 cm
- C:-45 cm
- D:-75 cm

Correct Answer:- Option-C

Question55:-Blood volume of average adult human being is

- A:-5 Liters
- B:-1 Liter
- C:-10 Liters
- D:-20 Liters

Correct Answer:- Option-A

Question56:-Pleura is the membrane covering

- A:-Lung
- B:-Heart
- C:-Brain
- D:-None of the above

Correct Answer:- Option-A

Question57:-True statement regarding the radiography of cervical spine is

- A:-No tube angulations required in the AP view
- B:-The tube is angled 5 to 10 degree cephaled
- C:-A short focus to film distance required for lateral projection
- D:-None of the above

Correct Answer:- Option-B

Question58:-Which of the following isotope is not used for permanent implant in brachytherapy ?

- A:-Gold 198
- B:-Iodine 125
- C:-Palladium 103
- D:-Cesium 137

Correct Answer:- Option-D

Question59:-Cobalt 60 radioactive isotope has a half life of

- A:-74 days
- B:-1620 years
- C:-30 years
- D:-5.6 years

Correct Answer:- Option-D

Question60:-Which of the following is a beam modifying device used in Radiotherapy ?

- A:-Phantom
- B:-Wedges
- C:-Breast Board
- D:-Thermoplastic masks

Correct Answer:- Option-B

Question61:-Which of the following radiation detectors cannot be used in automatic exposure control (Photo timers) in an x-ray generator system ?

- A:-Thermoluminescent detector
- B:-Photo multiplier detector
- C:-Ionization detector
- D:-Solid state detector

Correct Answer:- Option-A

Question62:-CT number for air is

- A:-0
- B:-1000
- C:-1000
- D:-1

Correct Answer:- Option-B

Question63:-The degree of blackening of Radiographic of film is described by

- A:-Optical density
- B:-Film sensitivity
- C:-Film speed
- D:-Gamma

Correct Answer:- Option-A

Question64:-True statement regarding plain abdominal radiography is

- A:-A short exposure time is unnecessary
- B:-The lower border of cassette should be positioned at the level of pubis symphysis
- C:-Injection of air via nasogastric tube helps in diagnosis of perforation
- D:-All of the above

Correct Answer:- Option-C

Question65:-The Gadolinium-diethyltriamine penta acetic acid (Gd-DTPA) is a

- A:-Contrast medium used in Magnetic Resonance Imaging
- B:-Contrast media used for CT imaging
- C:-Contrast media used in Fluoroscopy
- D:-Emulsion used in x-ray films

Correct Answer:- Option-A

Question66:-Which of the following is not a Magnetic Resonance Imaging Parameter ?

- A:-Spin Density
- B:-Electron Density
- C:-T2 Relaxation Time
- D:-T1 Relaxation Time

Correct Answer:- Option-B

Question67:-The inherent filtration in an x-ray tube ranges from

- A:-0.5 to 1 mm Al.
- B:-.001 to .01 mm lead

C:-.05 to 1 m lead

D:-2 to 4 mm Al

Correct Answer:- Option-A

Question68:-The added filter used for the radiography of body part of uneven thickness is

A:-Heavy metal filters

B:-Inherent filtration

C:-Wedge filter

D:-None of the above

Correct Answer:- Option-C

Question69:-The magnitude of scattered radiation during radiography depends on

A:-Energy of x-ray

B:-Field size

C:-Thickness of patient

D:-All of the above

Correct Answer:- Option-D

Question70:-Grid ratio is the

A:-Ratio of the height of the lead strips to the width of the inter space material

B:-Number of lead strip lines per centimeter

C:-Ratio exposure with grid and without grid

D:-Ratio of contrast with and without grid

Correct Answer:- Option-A

Question71:-Which of the following is a method of scatter reduction in radiography other than using grid ?

A:-Use of collimator

B:-Scanning slit

C:-Air gap method

D:-All of the above

Correct Answer:- Option-D

Question72:-In spiral CT scanners

A:-No ring detectors

B:-Stationary x-ray tube

C:-Patient table stationary

D:-Patient table moving during scanning process

Correct Answer:- Option-D

Question73:-A radiation detector not suitable for the use in CT scanner is

A:-Sodium Iodine Detector

B:-Bismuth Germanate Detector

C:-Fricke Detector

D:-Cadmium Tungstate

Correct Answer:- Option-C

Question74:-Main advantage of fourth generation CT scanner is

A:-Less patient dose

B:-Elimination of ring artifact

C:-Less scattered radiation

D:-All of the above

Correct Answer:- Option-B

Question75:-Quantum mottle is due to

A:-Statistical fluctuation in the number of x-rays emitted from x-ray tube

B:-Patient motion

C:-Absorption of radiation by high density material

D:-Heterogeneous x-ray spectrum

Correct Answer:- Option-A

Question76:-CT number of dense bone is

A:-+100

B:-+1000

C:-+55

D:-+35

Correct Answer:- Option-B

Question77:-Ring of stationary detectors were introduced in

A:-First generation CT scanners

B:-Second generation CT scanners

C:-Third generation CT scanners

D:-Fourth generation CT scanners

Correct Answer:- Option-D

Question78:-Auto transformer works on the principle of

A:-Self induction

B:-Mutual induction

C:-Ohms law

D:-Joules law

Correct Answer:- Option-A

Question79:-Radioactivity first discovered by

A:-William Conrad Roentgen

B:-Madam Curie

C:-Henry Becquerel

D:-Charles Rutherford

Correct Answer:- Option-C

Question80:-X-rays were discovered in the year

A:-1985

B:-1895

C:-1589

D:-1986

Correct Answer:- Option-B

Question81:-Use of intensifying screen results

A:-Lower patient dose

B:-Increase radiographic contrast

C:-All of the above

D:-None of the above

Correct Answer:- Option-C

Question82:-In a rotating anode x-ray tube the anode having an Area "A" is tilted to an angle of 10 degree. Then the effective focal area will be

A:- $A \sin 10$

B:- $A \times 20$

C:- $A - 20$

D:- $A \cos 20$

Correct Answer:- Option-A

Question83:- _____ is a double emulsion film ?

A:-Mammographic film

B:-Duplicating film

C:-Subtraction film

D:-Dental film

Correct Answer:- Option-D

Question84:-Which of the following is not used as a phosphor in the intensifying screens used for radiography ?

A:-Calcium tungstate

B:-Zinc sulphide

C:-Gadolinium

D:-Aluminum

Correct Answer:- Option-D

Question85:-The speed of intensifying screen is affected by

A:-Phosphor composition

B:-Crystal size

C:-Presence of reflective layer

D:-All of the above

Correct Answer:- Option-D

Question86:- _____ is not an ingredient of developing solution.

A:-Hydroquinone

B:-Sodium Carbonate

C:-Potassium bromide

D:-Hypo

Correct Answer:- Option-D

Question87:-Chrome alum is used as a _____ in fixer solution.

- A:-Fixing agent
- B:-Preservative
- C:-Hardener
- D:-Acid medium

Correct Answer:- Option-C

Question88:-Which of the following is not a reason for the fog formation in x-ray films ?

- A:-Exposure to light
- B:-Exposure to x-rays or radionuclide
- C:-Outdated film
- D:-Static electricity due to friction between film and other objects

Correct Answer:- Option-D

Question89:-Streaking in x-ray film caused by the following

- A:-Bending of film
- B:-Failure to agitate the film in developer
- C:-Water droplets on the surface of film
- D:-Formation of air bubbles in the developer

Correct Answer:- Option-B

Question90:-For female patients of reproductive age non urgent abdomen and pelvic radiographs should be taken

- A:-Within 10 days following menstrual period
- B:-10 to 20 days interval following menstrual period
- C:-20 to 30 days interval following menstrual period
- D:-There is no such restriction

Correct Answer:- Option-A

Question91:-Reason for unsharpness in a radiographic image is

- A:-Movement
- B:-Focal spot size
- C:-Use of screen
- D:-All of the above

Correct Answer:- Option-D

Question92:-Unequal magnification of different portions of same object in a radiograph is called

- A:-Crossover
- B:-Distortion
- C:-Unsharpness
- D:-Fog

Correct Answer:- Option-B

Question93:-Most important factor for radiographic contrast is

- A:-KVp
- B:-mA
- C:-mAs
- D:-Focus to film distance

Correct Answer:- Option-A

Question94:-Anal atresia in Neonates can be diagnosed by

- A:-Lateral decubitus view
- B:-AP supine
- C:-Invertogram
- D:-Abdomen AP erect

Correct Answer:- Option-C

Question95:-Delineation of contour and cavity of uterus and tubal patency and can be established by

- A:-Nephrotomography
- B:-Hysterosalpingography (HSG)
- C:-KUB examination
- D:-None of the above

Correct Answer:- Option-B

Question96:-Small lesions and mucosal lining are more clearly visible in _____ radiography.

- A:-Single contrast method
- B:-Double contrast method
- C:-No contrast
- D:-None of the above

Correct Answer:- Option-B

Question97:-The radiographic examination of choice to demonstrate the whole of the small bowel from duodenal flexure to ileocecal valve is

A:-Barium Meal Follow through

B:-Hyptonic Dudenography

C:-Conventional barium meal

D:-None of the above

Correct Answer:- Option-A

Question98:-The radiographic investigation of lacrimal system is

A:-Arthography

B:-Cholangiography

C:-Sialography

D:-Dacryocystography

Correct Answer:- Option-D

Question99:-The photo conductor used in Xeroradiography is

A:-Amorphous Selenium

B:-Sodium Iodine

C:-Calcium Tungstate

D:-Molybdenum

Correct Answer:- Option-A

Question100:-Which of the following substance produces Piezo Electric Effect ?

A:-Quartz

B:-Gadolinium Oxy Sulphide

C:-Sodium Iodide (Thalium Activated Crystals)

D:-Sodium Chloride

Correct Answer:- Option-A