

FINAL ANSWER KEY

Question Paper Code: 20/2020/OL
Category Code: 017/2019
Exam: Theatre Technician
Date of Test: 30-11-2020
Department: Kerala Medical education Service
Alphacode: A

Question1:-Where does spinal cord ends ?

- A:-T11 - T12
- B:-L1 - L2
- C:-T8 - T9
- D:-L5 - S1

Correct Answer:- Option-B

Question2:-Number of spinal nerves

- A:-30 pairs
- B:-31 pairs
- C:-35 pairs
- D:-40 pairs

Correct Answer:- Option-B

Question3:-Which structure is pierced during caudal anaesthesia ?

- A:-Sacroiliac ligament
- B:-Supraspinal ligament
- C:-Sacrococcygeal membrane
- D:-Interspinous ligament

Correct Answer:- Option-C

Question4:-Formula for determining the size of the Endotracheal tube

- A:- $(Age/4) + 4$
- B:- $(Age/2) + 2$
- C:- $(Age/2) + 2.5$
- D:- $(Age/2) + 4$

Correct Answer:- Question Cancelled

Question5:-Muscle relaxant undergoing break down through Hoffmann elimination is

- A:-Vecuronium
- B:-Atracurium
- C:-Rocuronium
- D:-Mivacurium

Correct Answer:- Option-B

Question6:-Remifentanyl is metabolized in the body by

- A:-Red cell nonspecific esterases
- B:-Pseudo cholinesterases
- C:-Anticholine esterases
- D:-By diffusion only

Correct Answer:- Option-A

Question7:-Shortest acting non-depolarizing muscle relaxant is

- A:-Pipcuronium
- B:-Succinyl choline
- C:-Cis-atracurium
- D:-Mivacurium

Correct Answer:- Option-D

Question8:-Most physiological Intravenous fluid is

- A:-Normal Saline
- B:-Dextrose normal saline
- C:-Isolyte-P
- D:-Ringer Lactate

Correct Answer:- Option-D

Question9:-10 ml of available KCl preparation (Potassium Chloride) contains

- A:-5 mEq Potassium
- B:-10 mEq Potassium
- C:-20 mEq Potassium
- D:-40 mEq Potassium

Correct Answer:- Option-C

Question10:- NaHCO_3 (Sodium bicarbonate) is used in all the following conditions except

- A:-Hypernatraemia
- B:-Metabolic acidosis
- C:-Hyperkalaemia
- D:-Tricyclic antidepressant toxicity

Correct Answer:- Option-A

Question11:-Amount of Oxygen each gram of Hemoglobin can carry is

- A:-6.5 ml
- B:-3.39 ml
- C:-5.2 ml
- D:-1.39 ml

Correct Answer:- Option-D

Question12:-The maximum volume of air that can be exhaled following a maximal inspiration is

- A:-Vital Capacity
- B:-Functional residual capacity
- C:-Closing capacity
- D:-Total lung capacity

Correct Answer:- Option-A

Question13:-Pulse oximetry is based on which law ?

- A:-Charles law
- B:-Beer Lambert law
- C:-Boyle's law
- D:-Coulomb's law

Correct Answer:- Option-B

Question14:-Which of the following endotracheal tube has resistance to kinking and compression and is indicated for use in the neck, neurological procedures ?

- A:-Red rubber tube
- B:-Cole's tube
- C:-RAE preformed tube
- D:-Spiral embedded armored tube

Correct Answer:- Option-D

Question15:-The term 'tare weight' is related to

- A:-Reservoir bag
- B:-Gas cylinder
- C:-Vaporizer
- D:-Breathing circuit

Correct Answer:- Option-B

Question16:-Sellick's maneuver is used to prevent

- A:-Alveolar collapse
 - B:-To reduce dead space
 - C:-To prevent aspiration of gastric contents
 - D:-To facilitate intubation
- Correct Answer:- Option-C

Question17:-All the following drug therapies should be continued before surgery (in pre-operative fasting period) except

- A:-Oral hypoglycemic
 - B:-Corticosteroid therapy
 - C:-Antihypertensive
 - D:-Aerosols-Bronchodilators
- Correct Answer:- Option-A

Question18:-Which of the following breathing circuit requires lowest amount of fresh gas flows ?

- A:-Mapleson D
 - B:-Mapleson A
 - C:-Mapleson C
 - D:-Mapleson F
- Correct Answer:-**Question Cancelled**

Question19:-Which of the following inhalational agent is degraded to a nephrotoxic end product (Compound A) by alkalies (Sodium Hydroxide or Barium Hydroxide) used in circle system ?

- A:-Halothane
 - B:-Isoflurane
 - C:-Nitrous oxide
 - D:-Sevoflurane
- Correct Answer:- Option-D

Question20:-Phenylephrine is classified under

- A:-Alpha 1 agonist
 - B:-Beta 1 agonist
 - C:-Alpha 2 agonist
 - D:-Beta 2 agonist
- Correct Answer:- Option-A

Question21:-Which of the following is not an amide group of local anaesthetics ?

- A:-Bupivacaine
 - B:-Chlorprocaine
 - C:-Lidocaine
 - D:-Mepivacaine
- Correct Answer:- Option-B

Question22:-Flumazenil is

- A:-An opioid
 - B:-A benzodiazepine
 - C:-An opioid antagonist
 - D:-A benzodiazepine antagonist
- Correct Answer:- Option-D

Question23:-As per the new "Nil by mouth" guidelines, clear fluid intake is allowed upto

- A:-2 hours before surgery
 - B:-5 hours before surgery
 - C:-6 hours before surgery
 - D:-45 minutes before surgery
- Correct Answer:- Option-A

Question24:-Which systemic symptoms are manifested first following local anaesthetic toxicity ?

- A:-Central Nervous System

- B:-Cardiovascular System
 - C:-Gastrointestinal System
 - D:-Urogenital System
- Correct Answer:- Option-A

Question25:-Which nerve distribution is not optimally anaesthetized following Interscalene brachial plexus block ?

- A:-Median
 - B:-Ulnar
 - C:-Radial
 - D:-Musculo cutaneous
- Correct Answer:- Option-B

Question26:-Winnie's "Three in one block" blocks all the three nerves except

- A:-Femoral
 - B:-Sciatic
 - C:-Obturator
 - D:-Lateral femoral cutaneous
- Correct Answer:- Option-B

Question27:-Normal Systemic Vascular Resistance (S.V.R.) is

- A:-50 - 150 dyn.S/cm5
 - B:-10 - 15 dyn.S/cm5
 - C:-200 - 250 dyn.S/cm5
 - D:-900 - 1500 dyn.S/cm5
- Correct Answer:- Option-D

Question28:-Majority of blood volume is distributed in the

- A:-Heart
 - B:-Pulmonary vessels
 - C:-Systemic arteries
 - D:-Systemic veins
- Correct Answer:- Option-D

Question29:-Amiodarone is an antiarrhythmic which acts by

- A:-Alpha and beta receptor blockade
 - B:-Sodium and Calcium channel blockade
 - C:-Potassium channel blockade
 - D:-Alpha, Beta receptors, Sodium and Calcium channels blockade
- Correct Answer:- Option-D

Question30:-Diaphragm is innervated by

- A:-C1, C2, C3 spinal nerves
 - B:-C3, C4, C5 spinal nerves
 - C:-T1, T2, T3 spinal nerves
 - D:-T3, T4, T5 spinal nerves
- Correct Answer:- Option-B

Question31:-Normal value of Partial pressure of Carbon dioxide in arterial blood ($P_a CO_2$) is

- A:-35 - 45 mm Hg
 - B:-20 - 25 mm Hg
 - C:-90 - 95 mm Hg
 - D:-50 - 60 mm Hg
- Correct Answer:- Option-A

Question32:-Crystals in the Ultrasound probe works on the principle of

- A:-Piezo electric effect
- B:-Raman effect

C:-Ohm's law

D:-Gay Lussac's law

Correct Answer:- Option-A

Question33:-Pregnant patient is desaturated relatively early during direct laryngoscopy after induction of general anaesthesia due to

A:-High vital capacity in pregnancy

B:-Decreased total capacity in pregnancy

C:-Increased residual volume in pregnancy

D:-Decreased functional residual capacity and increased metabolic rate in pregnancy

Correct Answer:- Option-D

Question34:-Normal Anion Gap acidosis is seen in

A:-Renal Tubular Acidosis

B:-Diabetic ketoacidosis

C:-Lactic Acidosis

D:-Methyl alcohol poisoning

Correct Answer:- Option-A

Question35:-Compression ventilation ratio in adult Basic Life Support algorithm is

A:-15 : 2

B:-30 : 2

C:-5 : 1

D:-3 : 1

Correct Answer:- Option-B

Question36:-The most reliable method for assessing the presence of endotracheal tube in trachea is

A:-Chest expansion on ventilation

B:-Pulse oximetry

C:-Auscultation with stethoscope

D:-Quantitative continuous wave form capnography

Correct Answer:- Option-D

Question37:-Cardioversion with synchronized electrical energy is done in all except

A:-Ventricular Fibrillation

B:-Ventricular Tachycardia with Pulse

C:-Unstable Supraventricular Tachycardia

D:-Unstable Atrial Fibrillation

Correct Answer:- Option-A

Question38:-The drug used in Asystole and Pulseless Electrical Activity is

A:-Amiodarone

B:-Adenosine

C:-Vasopressin

D:-Adrenaline

Correct Answer:- Option-D

Question39:-Compression ventilation ratio in a new born is

A:-15 : 2

B:-3 : 1

C:-5 : 1

D:-30 : 2

Correct Answer:- Option-B

Question40:-Most cardiostable induction agent is

A:-Ketamine

B:-Propofol

C:-Thiopentone sodium

D:-Etomidate

Correct Answer:- Option-D

Question41:-Which drug causes rigidity of chest on rapid administration in large doses ?

- A:-Fentanyl
- B:-Morphine
- C:-Pethidine
- D:-Ketamine

Correct Answer:- Option-A

Question42:-Dose of heparin for anticoagulation before going to cardiopulmonary bypass in On pump cardiac surgeries

- A:-300 mg/Kg body weight
- B:-3 mg/Kg body weight
- C:-30 IU/Kg body weight
- D:-10 IU/Kg body weight

Correct Answer:- Option-B

Question43:-How Intra Aortic Balloon Counter Pulsation (IABP) is protective for myocardium ?

- A:-Increases preload
- B:-Reduces contractility
- C:-Improves coronary perfusion and reduces afterload
- D:-Increases afterload

Correct Answer:- Option-C

Question44:-How long smoking should be discontinued before elective surgeries to reduce peri operative pulmonary complications ?

- A:-1 - 2 weeks
- B:-6 - 8 weeks
- C:-2 - 3 weeks
- D:-10 - 12 weeks

Correct Answer:- Option-B

Question45:-Which is the most commonly used double lumen bronchial tube nowadays ?

- A:-Combitube
- B:-Carlen's
- C:-White
- D:-Robert-Shaw

Correct Answer:- Option-D

Question46:-Cerebral blood flow remains nearly constant between Mean Arterial Pressure of

- A:-10 - 100 mmHg
- B:-100 - 200 mmHg
- C:-60 - 160 mmHg
- D:-160 - 260 mmHg

Correct Answer:- Option-C

Question47:-Venous air embolism during neurosurgery can occur when

- A:-Blood pressure is high
- B:-Partial pressure of carbon dioxide is high
- C:-The wound is below the level of heart
- D:-The pressure within the open vein is sub-atmospheric

Correct Answer:- Option-D

Question48:-Rate of correction of sodium in severe hyponatraemia is

- A:-0.5 - 1 mEq/L/hour and not more than 10 mEq/L/Day
- B:-1 - 2 mEq/L/hour and not more than 18 mEq/L/Day
- C:-1 mEq/L/Day
- D:-20 mEq/L maximum in a day irrespective of rate of infusion

Correct Answer:- Option-A

Question49:-Which is the most important buffer system in Extra cellular fluid compartment ?

A:-Phosphate – Phosphoric acid

B:-Oxidised haemoglobin – reduced haemoglobin

C:-Proteins

D:-Bicarbonate – Carbonic acid

Correct Answer:- Option-D

Question50:-Lithotomy position is required for all of the following except

A:-Assisted Conception

B:-Laparoscopic tubectomy

C:-Endometrial tubal ligation

D:-Cervical Biopsy

Correct Answer:- Option-B

Question51:-All of the following agents should be avoided in a patient with Malignant Hyperthermia except

A:-Sevoflurane

B:-Isoflurane

C:-Succinylcholine

D:-Vecuronium

Correct Answer:- Option-D

Question52:-The following is the process that kills spores

A:-Disinfection

B:-Sterilization

C:-Decontamination

D:-Sanitize

Correct Answer:- Option-B

Question53:-The PIN safety system is designed for which purpose ?

A:-To prevent the gas hose from one gas to be connected to another

B:-To prevent the backflow of gases from one cylinder to another

C:-The prevent the placement of gas tanks onto the wrong yolk

D:-To allow the quick connection/release of gas hose to the machine

Correct Answer:- Option-C

Question54:-The Piped gas pressure should be

A:-20-25 psig

B:-30-35 psig

C:-40-45 psig

D:-50-55 psig

Correct Answer:- Option-D

Question55:-All of the following are characteristics of modern day vaporizers except

A:-Agent specific

B:-Variable bypass

C:-Temperature compensated

D:-In circuit

Correct Answer:- Option-D

Question56:-An effective anesthesia breathing system has

A:-Large reservoir

B:-Low resistance

C:-Low dead space

D:-All of the above

Correct Answer:- Option-D

Question57:-Which of the following is NOT indicative of an exhausted CO₂ absorbent ?

A:-Change in color of the granules

B:-Increase in temperature of the granules

C:-Moisture in the circuit

D:-Increased inspired CO_2

Correct Answer:- Option-B

Question58:-Which of the following ventilator modes requires patient to initiate a respiratory cycle ?

A:-Volume Control

B:-Pressure Support

C:-Pressure Control

D:-PEEP Mode

Correct Answer:- Option-B

Question59:-Function of PEEP is

A:-It prevents alveolar collapse hence improves Oxygenation

B:-It prevents backflow of ventilator gases through vaporizer

C:-It prevents breathing circuit gases through the CO_2 absorber

D:-Increases the airway resistance and decreases pulmonary compliance

Correct Answer:- Option-A

Question60:-A leak in oxygen flow tube may be identified with the help of

A:-Positive pressure leak test

B:-Oxygen Analyzer

C:-Negative pressure leak test

D:-All of the above

Correct Answer:- Option-C

Question61:-AHA Blood Pressure cuff recommendations for adult size is

A:-17-25 cm

B:-24-32 cm

C:-32-42 cm

D:-42-48 cm

Correct Answer:- Option-B

Question62:-The most reliable site for monitoring core temperature is

A:-Skin

B:-Oral

C:-Rectal

D:-Esophagus

Correct Answer:- Option-D

Question63:-An elevation in the baseline of CO_2 monitoring can be due to

A:-A faulty valve on the ventilator

B:-Inadequate inspiratory flow

C:-Exhausted CO_2 absorbent

D:-All of the above

Correct Answer:- Option-D

Question64:-Medications not commonly used in infusion pumps include

A:-Vasopressors

B:-Thiopentone Sodium

C:-Muscle relaxants

D:-Heparin

Correct Answer:- Option-B

Question65:-Optimum dose of defibrillation in a monophasic manual external defibrillator is

A:-Device specific

B:-120 J

C:-200 J

D:-360 J

Correct Answer:- Option-D

Question66:-Anaphylaxis can typically present as

A:-Hypotension and bronchospasm

B:-Hypotension and fever

C:-Hypertension and bronchospasm

D:-Hypertension and fever

Correct Answer:- Option-A

Question67:-Pin index of Nitrous Oxide

A:-2,5

B:-1, 5

C:-3, 5

D:-2, 6

Correct Answer:- Option-C

Question68:-The Breathing circuit of choice for Spontaneous Ventilation is

A:-Mapleson A

B:-Mapleson B

C:-Mapleson D

D:-Mapleson E

Correct Answer:- Option-A

Question69:-Which of the following device provides fixed performance oxygen therapy ?

A:-Nasal cannula

B:-Venturi Mask

C:-T piece

D:-Edenbug Mask

Correct Answer:- Option-B

Question70:-Sellick's Maneuver is used to prevent

A:-Alveolar Collapse

B:-Laryngospasm

C:-Aspiration

D:-Bronchospasm

Correct Answer:- Option-C

Question71:-Position with least Vital Capacity in patients under General anesthesia

A:-Trendelenburg

B:-Reverse Trendelenburg

C:-Lateral

D:-Prone

Correct Answer:- Option-A

Question72:-Most common complication of a central venous catheter is

A:-Thrombosis

B:-Pneumothorax

C:-Catheter related infections

D:-Bleeding

Correct Answer:- Option-C

Question73:-During General Anesthesia, Shivering is abolished by the suppression of

A:-Cerebral cortex

B:-Medulla

C:-Hypothalamus

D:-Thalamus

Correct Answer:- Option-C

Question74:-The % of Thiopentone used for induction is

A:-0.5%

B:-1%

C:-1.5%

D:-2.5%

Correct Answer:- Option-D

Question75:-Hepatitis is commonly an adverse effect of constant exposure to

A:-Enflurane

B:-Halothane

C:-Methoxyflurane

D:-Isoflurane

Correct Answer:- Option-B

Question76:-Which of the following induction agent is suitable for day care surgery ?

A:-Diazepam

B:-Ketamine

C:-Propofol

D:-Thiopentone Sodium

Correct Answer:- Option-C

Question77:-Rate of Chest Compression in CPR is

A:-60-70/mt

B:-80-90/mt

C:-90-95/mt

D:-100-120/mt

Correct Answer:- Option-D

Question78:-Mechanism of Action of Local Anesthetics

A:- K^+ Channel inhibition

B:- Na^+ channel inhibition

C:- Na^+ channel Activation

D:- Ca^{++} channel inhibition

Correct Answer:- Option-B

Question79:-Concentration of Lignocaine for Spinal Anaesthesia

A:-5%

B:-3%

C:-2%

D:-1%

Correct Answer:- Option-A

Question80:-Pneumothorax is a complication of

A:-Epidural block

B:-Brachial plexus block

C:-Axillary block

D:-Subarachnoid block

Correct Answer:- Option-B

Question81:-In Spinal Anaesthesia which fibres are first blocked by local anaesthetic ?

A:-Sympathetic

B:-Para sympathetic

C:-Sensory

D:-Motor

Correct Answer:- Option-A

Question82:-The granule size of sodalime in canister is

- A:-6-8 mesh
- B:-4-8 mesh
- C:-8-10 mesh
- D:-4-6 mesh

Correct Answer:- Option-B

Question83:-The ideal BIS value which prevents awareness under anesthesia is

- A:-<40
- B:-40-60
- C:-60-70
- D:-70-80

Correct Answer:- Option-B

Question84:-Pulse oximeter works on the principle of

- A:-Absorption of infrared rays
- B:-Absorption of ultraviolet rays
- C:-Beer Lamberts law
- D:-Guytons law

Correct Answer:- Option-C

Question85:-ASA classification is done for

- A:-Pain score
- B:-Awareness score
- C:-Health status of patient
- D:-Airway score

Correct Answer:- Option-C

Question86:-Muscle relaxant of choice in Renal failure

- A:-Pancuronium
- B:-Vecuronium
- C:-Atracurium
- D:-Ketamine

Correct Answer:- Option-C

Question87:-Spinal Cord ends at which level in adults ?

- A:-L3-L4
- B:-L1-L2
- C:-L4-L5
- D:-L5-L6

Correct Answer:- Option-B

Question88:-ASA Standard Monitoring includes all except

- A:-Pulse Oximeter
- B:-NIBP
- C:-IBP
- D:-ECG

Correct Answer:- Option-C

Question89:-Amount of K⁺ in Ringer Lactate in mEq/L

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

Correct Answer:- Option-C

Question90:-Most cardiotoxic local anesthetic is

- A:-Ligenocaine

- B:-Bupivacaine
- C:-Levo Bupivacaine
- D:-Ropivacaine

Correct Answer:- Option-B

Question91:-The only Local anesthetic consistently causing vasoconstriction is

- A:-Prilocaine
- B:-Cocaine
- C:-Chlorprocaine
- D:-Tetracaine

Correct Answer:- Option-B

Question92:-Shortest acting local anesthetic is

- A:-Procaine
- B:-Lidocaine
- C:-Bupivacaine
- D:-Tetracaine

Correct Answer:- Option-A

Question93:-Which of the following is not a direct Vasodilator ?

- A:-Nitroprusside
- B:-Nicardipine
- C:-Nitroglycerin
- D:-Hydralazine

Correct Answer:-Question Cancelled

Question94:-The most common peri operative neuropathy involves which nerve ?

- A:-Ulnar
- B:-Median
- C:-Radial
- D:-Brachial

Correct Answer:- Option-A

Question95:-Which skin preparation has the highest residual activity ?

- A:-Chlorhexidine
- B:-Isopropyl Alcohol
- C:-Antibacterial soap
- D:-Iodine containing solutions

Correct Answer:- Option-A

Question96:-The hazards associated with the use of dessicated absorbent includes

- A:-Carbon monoxide formation
- B:-Compound A formation with sevoflurane
- C:-Fire within the canister
- D:-All of the above

Correct Answer:- Option-D

Question97:-An E type cylinder of oxygen has a pressure reading of 1200 psi prior to transport. How long will the O_2 supply last with a flow of 8 L/min ?

- A:-42 min
- B:-68 min
- C:-52 min
- D:-72 min

Correct Answer:- Option-A

Question98:-Scavenging system consist of all except

- A:-Gas collection assembly
- B:-Transfer tubing

C:-Fresh gas outlet

D:-Scavenging interface

Correct Answer:- Option-C

Question99:-A sidestream gas analyser

A:-Can measure only one gas

B:-Uses a continuous pump

C:-Should never be allowed to empty into room air

D:-All of the above

Correct Answer:-**Question Cancelled**

Question100:-Indication for the use of Rigid video laryngoscopes includes all except

A:-Limited neck extension

B:-Emergency surgical airway requirement

C:-Upper airway partial obstruction

D:-Craniofacial abnormalities

Correct Answer:- Option-B