## PROVISIONAL ANSWER KEY

52/2019/OL

153/2018

Question Paper Code:

Category Code:

Exam: Assistant Professor in Anaesthesia NCA Medium of Question: **English** Date of Test 01-11-2019 **Medical Education** Department Alphacode Question1:-The trachea begins at the level of the cricoid cartilage and extends to the carina at the level of the A:-6th thoracic vertebra B:-5th thoracic vertebra C:-4th thoracic vertebra D:-3rd thoracic vertebra Correct Answer:- Option-B Question2:-Sternomental distance of less than \_\_\_\_\_ cm are associated with difficult intubation A:-16 cm B:-15.5 cm C:-14 cm D:-12.5 cm Correct Answer:- Option-D Question3:-Which of the following is not true about preoxyenation A:-An end tidal oxygen concentration greater than 85% maximizes apnea time B:-Is essential in rapid sequence induction C:-May be given by tidal volume ventilation through facemask for 3 minutes D:-May be given by 8 vital capacity breaths over 60 seconds Correct Answer: - Option-A Question4:-The glossopharyngeal nerve supplies all of the following except A:-Posterior third of the tongue B:-Anterior surface of the epiglottis C:-Vallecula D:-Glottic surface of the epiglottis Correct Answer:- Option-D Question5:-Recovery from blockade following spinal anaesthesia occurs in the following order A:-Motor, touch, pinprick, cold B:-Motor, touch, cold, pinprick C:-Cold, pinprick, touch, motor D:-Cold, touch, pinprick, motor Correct Answer: - Option-A Question6:-While assessing motor blockade following central neuraxial blockade: Inability to raise extended leg and move knee; able to move feet is a Modified Bromage scale of A:-0 B:-1 C:-2 D:-3 Correct Answer:- Option-C Question7:-Which of the following factors increase headache after spinal puncture? A:-Age, younger more frequent B:-Males > females C:-Insertion and use of catheters for continuous spinal anaesthesia D:-Timing of ambulation Correct Answer: - Option-A Question8:-Cervical plexus block provides anaesthesia in the distribution of A:-C 2-6 B:-C 3-6 C:-C 2-4 D:-C 2-5 Correct Answer:- Option-C

Question9:-Kayak sign is seen in which of the following ultrasound guided regional block A:-Femoral block B:-Popliteal block C:-Supraclavicular block D:-Transversus abdominis plane block Correct Answer:- Option-D Question 10:- The most troublesome complication that limits the dose of epidural fentanyl in labour analgesia is A:-Itchina B:-Fetal bradycardia C:-Maternal hypotension D:-Maternal bradycardia Correct Answer:- Option-A Question11:-Tuffiers line joins the A:-Posterior superior iliac spines B:-Anterior superior iliac spines C:-Sacral cornua D:-Ischial tuberosities Correct Answer:- Option-B Question12:-Which of the following non technical skills is the glue that holds all components together A:-Communication B:-Team working C:-Situation awareness D:-Decision making Correct Answer:- Option-A Question13:-The boiling point of sevoflurane is A:-50.2°C B:-48.5°C C:-58.6°C D:-22.8°C Correct Answer:- Option-C Question14:-The following is **not true** about the low pressure section of the gas supply system A:-It is the least vulnerable area of the anaesthesia machine B:-A leak in the LPS can cause delivery of a hypoxie mixture C:-It is located downstream all safety features except oxygen analyzer D:-A leak can cause inadequate concentration of anaesthetic agent Correct Answer: - Option-A Question15:-Which of the following separates the intermediate pressure system from the low pressure system A:-Flow meter tubes B:-Vaporizer C:-second stage pressure regulators D:-Flow control valves Correct Answer:- Option-D Question16:-All of the following are essential components of the circle system except A:-Inspiratory and expiratory unidirectional valves B:-Oxygen analyzer C:-Adjustable pressure limiting valve D:-Canister containing carbon dioxide absorbent Correct Answer:- Option-B Question17:-Which of the following summarizes the relative efficiency of the mapleson systems for spontaneous ventilation to prevent rebreathing A:-DFE>BC>A B:-CB>A>DFE C:-A>DFE>CB D:-A>CB>DFE Correct Answer:- Option-C Question18:-Pharyngeal function is restored to normal when adductor pollicis TOF function is A:->0.6B:->0.7 C:->0.8

D:->0.9Correct Answer:- Option-D Question19:-In the ambulatory surgical setting the most significant cause of delayed discharge is A:-Postoperative pain B:-Nausea and vomiting C:-Cognitive dysfunction D:-Hypertension Correct Answer: - Option-A Question20:-The most vulnerable organ to laser is A:-Heart B:-Eye C:-Skin D:-Lungs Correct Answer:- Option-B Question21:-Which of the following is not an exclusion criteria for robotically assisted endoscopic CABG A:-Severe aortic and mitral valve disease B:-Morbid obesity C:-Severe peripheral vascular disease D:-Ejection fraction <40% Correct Answer:- Option-D Question22:-Obstructive sleep apnea is defined as A:-Episodic complete cessation of airflow during breathing for 10 seconds or longer occurring 5 or more times per hour of sleep with decrease of at least 4% in oxygen saturation B:-Episodic complete cessation of airflow during breathing for 15 seconds or longer occurring 5 or more times per hour of sleep with decrease of at least 5% in oxygen saturation C:-Episodic complete cessation of airflow during breathing for 10 seconds or longer occurring 10 or more times per hour of sleep with decrease of at least 4% in oxygen saturation D:-Episodic complete cessation of airflow during breathing for 15 seconds or longer occurring 10 or more times per hour of sleep with decrease of at least 5% in oxygen saturation Correct Answer: - Option-A Question23:-Clinical criteria for diagnosing metabolic syndrome include the all of the following except A:-Abdominal obesity B:-Raised triglycerides C:-Raised HDL cholesterol D:-Hypertension Correct Answer:- Option-C Question24:-Anaesthetic drug dosing is based on ideal body weight for all the following drugs except A:-Propofol B:-Midazolam C:-Vecuronium D:-Remifentanil Correct Answer:- Option-B Question25:-Which of the following coagulation factors is decreased during pregnancy A:-VII B:-XI C:-IX D:-X Correct Answer:- Option-B Question26:-What is the change that occurs to central venous pressure during pregnancy A:-Unchanged B:-Increased by 5% C:-Increased by 10% D:-Decreased by 5% Correct Answer:- Option-A Question27:-The largest increase in cardiac output occurs during which phase of pregnancy A:-Second trimester

B:-Thrid trimester
C:-First stage of labour
D:-Immediately after delivery
Correct Answer:- Option-D

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Question 28:-In massive obstetric haemorrhage the ratio of blood products to be transfused is 1 platelet plasmapheresis for
every ____ units of PRBCs
    A:-1-2
     B:-2-4
     C:-4-6
     D:-6-8
     Correct Answer:- Option-C
Question29:-Which of the following drugs has minimal placental transfer
     A:-Volatile anaesthetics
     B:-Benzodiazepines
     C:-Local anaesthetics
     D:-Heparin
     Correct Answer:- Option-D
Question30:-Which of the following is a major criteria for diagnosis for fat embolism
     A:-Respiratory insufficiency
     B:-Pvrexia
     C:-Tachycardia
     D:-laundice
     Correct Answer:- Option-A
Question31:-Which of the following characteristics is more typical of infant airway compared to adult airway
     A:-Larynx is located more caudad in the neck
     B:-Smaller tongue relative to the oral cavity
     C:-Narrowest portion of the trachea is at the level of the vocal cords
     D:-Vocal cords have more caudad and anterior attachment
     Correct Answer:- Option-D
Question32:-According to the Glasgow coma scale, spontaneous eye opening has a score of
     A:-5
     B:-4
     C:-3
     D:-2
     Correct Answer:- Option-B
Question33:-All of the following are goals for early resuscitation in trauma except
     A:-Maintain systolic blood pressure between 80 to 100 mm Hg
     B:-Maintain platelet count more than 1,00,000 per high power field
     C:-Maintain prothrombin and partial thromboplastin times within normal range
     D:-Maintain normal serum ionized calcium
    Correct Answer:- Option-B
Question34:-During triage in mass casualty patients that require immediate attention are triaged under which colour
     A:-Green
     B:-Yellow
     C:-Red
     D:-White
     Correct Answer:- Option-C
Question35:-Which component of the triple manoeuvre to maintain airway patency is used in a polytrauma patient
    A:-Head tilt
     B:-Chin lift
     C:-Jaw thrust
     D:-All of the above
     Correct Answer:- Option-C
Question36:-Treatment of choice in a patient having atrial fibrillation with ischaemic chest pain and hypotension is
     A:-Cardioversion
     B:-Beta Blocker
     C:-Amiodarone
     D:-Anticoagulation
     Correct Answer: - Option-A
Question37:-Minimum time required for neurologic prognostication in post arrest cardiac care is
     A:-24 hrs
     B:-48 hrs
     C:-72 hrs
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D:-96 hrs Correct Answer:- Option-C Question38:-Dose of vasopressin in cardiac arrest is A:-80 units to replace first or second dose of epinephrine B:-40 units to replace first or second dose of epinephrine C:-20 units to replace first or second dose of epinephrine D:-10 units to replace first or second dose of epinephrine Correct Answer:- Option-B Question39:-Potentially reversible causes of cardiac arrest include A:-Hypovolemia B:-Hypoxia C:-Tension pneumothorax D:-All of the above Correct Answer:- Option-D Question 40: - Antiarrhythymic of choice in arrhythmia resistant to defibrillation after epinephrine administration is A:-Adenosine B:-Amiodarone C:-Lignocaine D:-Magnesium Correct Answer:- Option-B Question41:-Elevated anion gap metabolic acidosis is caused by all the following except A:-Rental tubular acidosis B:-Lactic acidosis C:-Methanol poisoning D:-Salicylate poisoning Correct Answer: - Option-A Question42:-All the following are causes of metabolic acidosis except A:-Hypovolaemia B:-Septic Shock C:-Severe Hypoxia D:-Hypoalbuminemia Correct Answer:- Option-D Question43:-Stewart Fencl approach as Analytical tool in acid-base chemistry is a ..... A:-Descriptive approach B:-Semi Quantitative approach C:-Quantitative approach D:-Qualitative approach Correct Answer:- Option-C Question44:-All the following are measures to monitor cerebral metabolism except A:-Intra cerebral `PO (2)` monitor B:-Jugular venous oxymetry C:-Trans-cranial Doppler D:-Near infra-red spectroscopy (NIRS) Correct Answer:- Option-D Question45:-All the following are causes of increase in partial pressure of end tidal `CO (2)` except A:-Fever B:-Pulmonary embolism C:-Malignant hyperthermia D:-Thyrotoxicosis Correct Answer:- Option-B Question46:-Mixed venous `O\_(2)` saturation (`SvO\_(2)` ) is the oxygen saturation of blood at the A:-Proximal pulmonary artery B:-Proximal pulmonary vein C:-Right atrium D:-Superior vena cava Correct Answer: - Option-A

Question47:-Bispectral index (BIS) 80 means

A:-General Anesthesia B:-Light/Moderate sedation

C:-Awake state D:-Burst suppression Correct Answer:- Option-B Question48:-Cannon 'a' wave in cvp monitoring is seen in A:-Atrioventricular dissociation B:-atrial fibrillation C:-tricuspid stenosis D:-pericardial constriction Correct Answer: - Option-A Question49:-ECG changes in hyperkalemia except A:-Tall, peaked T waves B:-Prolonged PR interval C:-elevation of U wave D:-Widened QRS Correct Answer:- Option-C Question50:-Anaesthetic drugs that trigger malignant hyperthermia except A:-Succinyl choline B:-Rocuroronium C:-sevofluorane D:-Halothane Correct Answer:- Option-B Question51:-Train of four ratio fade indicates A:-Control response B:-Partial non depolarizing block C:-Partial depolarizing block D:-None of the above Correct Answer:- Option-B Question52:-Child torcutte Pugh classification includes except A:-Ascites B:-Bilirubin C:-Albumin D:-ALT Correct Answer:- Option-D Question53:-Which of the following inhalational agents is the induction agent of choice in children? A:-Methoxyflurane B:-Sevoflurane C:-Desflurane D:-Isoflurane Correct Answer:- Option-B Question54:-Which of the following side effect is seen with fentanyl? A:-Chest wall rigidity B:-Tachycardia C:-Pain on injection D:-Hypertension Correct Answer: - Option-A Question55:-Which of the following inhalational agents has the minimum blood gas solubility coefficient? A:-Isoflurane B:-Sevoflurane C:-Desflurane D:-Nitrous oxide Correct Answer:- Option-C Question56:-Halothane causes except A:-Hypotension B:-Tachycardia C:-Broncodilatation D:-Malignant hyperthermia Correct Answer:- Option-B Question57:-Which one of the following local anesthetics belongs to the ester group?

A:-Procaine

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B:-Bupivacaine
     C:-Lignocaine
     D:-Mepivacaine
     Correct Answer: - Option-A
Question58:-Induction agent of choice in hypovolemic shock
    A:-Propofol
     B:-Thiopental
     C:-Fentanyl
     D:-Ketamine
     Correct Answer:- Option-D
Question59:-Compound A is related to
    A:-Halothane
     B:-Isofluorane
     C:-Sevofluorane
     D:-Ether
     Correct Answer:- Option-C
Question60:-Ideal ventilatory strategy in ARDS
    A:-High volume, low rate
     B:-Low volume, High rate
     C:-Normal volume, normal rate
     D:-Normal volume, High rate
     Correct Answer:- Option-B
Question61:-Loss of resistance method to identify epidural space was perfected by
     A:-Fernand Cathelin
     B:-Achillo F Doglliotti
     C:-August Bier
     D:-Leonard Corning
     Correct Answer:- Option-B
Question62:-World Anesthesia day is celebrated every year on
    A:-April 7
     B:-December 1
     C:-October 16
     D:-May 26
     Correct Answer:- Option-C
Question63:-Which of the following is an unpaired cartilage forming larynx
     A:-Cricoid cartilage
     B:-Arytenoid cartilage
     C:-Corniculatecartilage
     D:-Cuneiform cartilage
     Correct Answer:- Option-A
Question64:-Suprascapular nerve arises from
     A:-Posterior cord of brachial plexus
     B:-Lower trunk of brachial plexus
     C:-Upper trunk of brachial plexus
     D:-Medial cord of brachial plexus
     Correct Answer:- Option-C
Question65:-Anatomic dead space for a 70 kg man is approximately
    A:-70 ml
     B:-100 ml
     C:-140 ml
     D:-240 ml
     Correct Answer:- Option-C
Question66:-Cerebrospinal fluid is produced from
     A:-Choroid plexus
     B:-Arachnoid villi
     C:-Foramen Munroe
     D:-Foramen Lluschka
     Correct Answer: - Option-A
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Question67:-The extent of sympathectomy following spinal anaesthesia is described as extending

A:-2 to 6 dermatomes above sensory block level B:-2 to 6 dermatomes below sensory block level C:-1 to 2 dermatomes above sensory block level D:-1 to 2 dermatomes below sensory block level Correct Answer: - Option-A Question68:-Hydrolysis by plasma cholinesterases is the primary elimation route for all the following drugs except A:-Succinylcholine B:-Mivacurium C:-Procaine D:-Lignocaine Correct Answer:- Option-D Question69:-Which of the following drug is contraindicated in patients with porphyria A:-Thiopentone Sodium B:-Propofol C:-Ketamine D:-Midazolam Correct Answer: - Option-A Question70:-Megaloblastic anemia can occur in patients with prolonged exposure to A:-Cyclopropane **B:-Nitrous Oxide** C:-Halothane D:-Sevoflurane Correct Answer:- Option-B Question71:-Reversal agent for Recuronium is A:-Naloxone B:-Sugammadex C:-Flumazenil D:-Atipamezole Correct Answer:- Option-B Question72:-At constant temperature, the volume of a fixed amount of a perfect gas varies inversely with its pressure. This law is known as A:-Charles' law B:-Gay Lussac's law C:-Avagadro's law D:-Boyle's law Correct Answer:- Option-D Question73:-Relationship between pressure within a sphere and the tension in the wall is described by A:-Laplace's law B:-Delton's law C:-Poiscuille's law D:-Fick's law Correct Answer: - Option-A Question74:-Following muscles are used for inspiration except A:-Diaphragm B:-Scalene muscles C:-Internal intercostal muscles D:-External intercostal muscles Correct Answer:- Option-C Question 75:- The p50 (the partial pressure of oxygen in blood at which 50% hemoglobin is saturated with oxygen) for normal adult hemoglobin is A:-5 mm Hg B:-15 mm Hg C:-47 mm Hg D:-27 mm Hg Correct Answer:- Option-D Question76:-Smoking cessation on the day before surgery results in which of the following effects

A:-Decreased postoperative respiratory complications B:-Decreased carboxyhemoglobin concentrations C:-Decreased need for post operative ventilation D:-Decreased Sputum volume

Correct Answer:- Option-B

Question 77:- Which of the following volatile anesthetic is the most potent depressant of the normal baroreceptor response

A:-Sevoflurane

B:-Halothane

C:-Isoflurane

D:-Desflurane

Correct Answer:- Option-B

Question78:-During liver transplantation on a 56 year old man the Thromboelastograph (TEG) tacing showed fibrinolysis.

The parameter of TEG measuring clot strength is

A:-R value

B:-Alpha angle

C:-Maximum Amplitude (MA)

D:-K Value

Correct Answer:- Option-C

Question 79: Which of the following insulin replacement therapies has the longest duration of action

A:-Insulin Lispro

B:-Resular Insulin

C:-Neutral Protamine Hagedorn (NPH)

D:-Insulin Glargine

Correct Answer:- Option-D

Question 80:-What metabolic condition is most likely associated with large amounts of normal saline infusion in an otherwise healthy patient

A:-Metabolic alkalosis

B:-Non-Anion gap metabolic acidosis

C:-High Anion gap metabolic acidosis

D:-Increased strong Iron difference

Correct Answer:- Option-B

Question81:-The motto on the seal of the ASA is

A:-Vigilance

**B:-Alertness** 

C:-Watchfulness

D:-Compassion

Correct Answer:- Option-A

Question82:-the hallmark of parasympathetic activation is the release of

A:-Serotonin

B:-adrenaline

C:-Dopamine

D:-Acetylcholine

Correct Answer:- Option-D

Question83:-The sympathetic nervous system originates from

A:-Pons

B:-Medulla

C:-Thoracolumbar region in spinal cord

D:-Lumbosacral region in spinal cord

Correct Answer:- Option-C

Question84:-Receptor preference for Dexmedetomidine is

A:-1600:1 `prop` 2 receptors relative to `prop` 1 receptors

B:-200:1 `prop` 2 receptors relative to `prop` 1 receptors

C:-1600:1 `prop` 1 receptor relative to `prop` 2 receptors

D:-200:1 `prop` 1 receptor relative to `prop` 2 receptors

Correct Answer:- Option-A

Question85:-All of the following is true about cerebral blood flow except

A:-Receives approximately 15% of cardiac output

B:-Is approximately 50 mL/100 g/min

C:-Gray matter receives 80% and white matter receives 20% of blood flow

D:-Ketamine decreases Cerebral Metabolic Rate and cerebral blood flow

Correct Answer:- Option-D

Question86:-What percentage of `CO\_(2)` is transported as bicarbonate ion in blood?

A:-5% B:-20% C:-75% D:-90% Correct Answer:- Option-D Question87:-The greatest amount of ventricular filling occurs in which phase of diastole A:-Isovolumic relaxation B:-Rapid filling phase C:-slow filling, or diastasis D:-Final filling during atrial systole Correct Answer:- Option-B Question88:-In mallampathi scoring visualisation of soft palate, faucial pillars, uvula obscured by base of tongue is A:-Grade 1 B:-Grade 2 C:-Grade 3 D:-Grade 4 Correct Answer:- Option-B Question89:-ENIGMA trial evaluated the use of which anaesthetic agent A:-Etomidate B:-Nitrous oxide C:-Isoflurane D:-Morphine Correct Answer:- Option-B Question 90:-All of the following are true about inhaled anaesthetic agents except A:-Increase rate of mucous clearance B:-Reduce tidal volume and minute ventilation C:-Diaphragmatic function is well preserved D:-Inspiratory rib cage muscles are depressed Correct Answer:- Option-A Question91:-Techniques to prevent post operative nausea and vomiting include all except A:-Use regional anaesthesia alone B:-Avoid use of nitrous oxide for anaesthesia maintenance C:-Use of inhalation agent instead of propofol if general anaesthesia used D:-Try to avoid paralysis if clinically indicated Correct Answer:- Option-C Question92:-Which of the following bronchial blockers have a bifurcated tip? A:-Arndt blocker B:-Cohen blocker C:-EZ blocker D:-Uniblocker Correct Answer:- Option-C Question93:-Haemodynamic goals in a patient with aortic stenosis include all except A:-Sinus Rhythm B:-Maintain heart rate C:-Avoid increasing systemic vascular resistance D:-Maintain venous return Correct Answer:- Option-C Question94:-All of the following are electrolyte imbalances seen in an infant with severe vomiting except A:-Hyponatremia B:-Hyperchloremia C:-Hypokalemia D:-Metabolic alkalosis Correct Answer:- Option-B Question95:-Which of the following irrigating fluids cause transient post operative visual syndrome A:-Distilled water B:-Glycine C:-Sorbitol D:-Mannitol Correct Answer:- Option-B

Question96:-How many days must ticlopidine be stopped before administering neuraxial block? A:-Don't stop B:-7 days C:-14 days D:-21 days Correct Answer:- Option-C Question97:-Parkland formula for resuscitation in burns patients uses which fluid A:-Crystalloid B:-Colloid C:-Crystalloid and colloid D:-Albumin Correct Answer:- Option-A Question98:-Which of the following is not part of the lethal triad in a trauma patient A:-Acidosis B:-Coagulopathy C:-Hypothermia D:-Haemorrhage Correct Answer:- Option-D Question99:-Which of the following criteria is assessed as part of the modified Aldrete Scoring System A:-Respiration B:-Pain C:-Nausea and vomitting D:-Surgical bleeding Correct Answer:- Option-A Question100:-The pin index safety system for carbon dioxide is A:-1.5 B:-2.5 C:-1.6 D:-2.6 Correct Answer:- Option-C