

FINAL ANSWER KEY

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Question1:-The three legged stool of prethoracotomy respiratory assessment includes all the following except

- A:-Predicted preoperative FEV1 > 40%
- B:- V_{O_2} max > 15 ml/kg/min
- C:-Predicted postoperative DLCO > 40%
- D:- PaO_2 > 60

Correct Answer:- Option-A

Question2:-The SPIKES protocol is a communication framework used for

- A:-End of Life Conferences
- B:-Breaking Bad News
- C:-Dealing with emotion
- D:-Family meetings in the ICU

Correct Answer:- Option-B

Question3:-All of the criteria must be met for diagnosing Metabolic Syndrome except

- A:-Triglycerides \geq 200 mg/dl
- B:-HDL cholesterol < 40 (<50) mg/dl in men (women)
- C:-Fasting Glucose \geq 110 mg/dl
- D:-Blood Pressure \geq 130/85 mm Hg

Correct Answer:- Option-A

Question4:-Anesthetic concerns involving Robotic radical prostatectomy include all the following except

- A:-Hypercarbia
- B:-Hypoxemia
- C:-Steep head up tilt
- D:-Pneumoperitoneum

Correct Answer:- Option-C

Question5:-The metabolism of which of the below given muscle relaxant is significantly affected in hepatic dysfunction

- A:-Atracurium
- B:-Cis-atracurium
- C:-Mivacurium
- D:-None of the above

Correct Answer:- Option-C

Question6:-Hepatopulmonary syndrome is characterised by the triad of

- i. End stage liver disease
- ii. Increased alveolar arterial gradient
- iii. Intrapulmonary vascular dilation
- iv. Azotemia

- A:-i, ii, iii
- B:-ii, iii, iv
- C:-i, ii, iv
- D:-i, iii, iv

Correct Answer:- Option-A

Question7:-All of the following statements regarding pre-eclampsia are true except

- A:-SBP > 140 mmHg
- B:-DBP > 90 mmHg
- C:-Proteinuria > 5 g/day

D:-Protein/creatinine ratio of atleast 0.3

Correct Answer:- Option-C

Question8:-Schonfeld Index is used for the diagnosis of

A:-Fat embolism syndrome

B:-Air embolism syndrome

C:-Pulmonary thromboembolism

D:-Deep vein thrombosis

Correct Answer:- Option-A

Question9:-A patient with multiple drug allergy coming for emergency caesarean section in view of severe pre-eclampsia has had LMWH in the morning at 8 am. She is taking Enoxaparin at 0.4 ml SC OD since her 3rd month of pregnancy since she had an episode of DVT. Which of the following statement is true regarding the management of said patient ?

A:-Wait for 24 hours until the last dose of LMWH

B:-Can be taken up within 2 hours of LMWH if platelet count, PT/INR and aPTT are normal

C:-There is no need for PT/INR or aPTT measurement

D:-Needle placement should occur atleast 10-12 hours after LMWH

Correct Answer:- Option-D

Question10:-The most common cause of post operative visual loss after spine surgery is

A:-Central retinal artery occlusion

B:-Central retinal vein occlusion

C:-Ischaemic optic neuropathy

D:-Cortical brain ischaemia

Correct Answer:- Option-C

Question11:-The diagnosis of TRALI is met by all the following criteria except

A:- $PaO_2/FiO_2 < 300$

B:-Room air $SpO_2 < 88\%$

C:-Bilateral infiltrates on chest radiograph without cardiomealy

D:-Onset of lung dysfunction within 6 hours of transfusion

Correct Answer:- Option-B

Question12:-During literature review, reviewer bias results from

- i. Inability to determine the quality of the reported literature accurately
- ii. Only one reviewer extracting data and interprets study finding
- iii. Preferential selection of studies in the interest of promoting a view point
- iv. Can be addressed by conducting a reliability check

A:-i and iv

B:-i and iii

C:-ii and iv

D:-iii and iv

Correct Answer:- Option-C

Question13:-The proposed limit of exposure to inhalational anesthetic agents as recommended by National Institute for Occupational Safety and Health (NIOSH), for nitrous oxide and volatile anesthetic agents respectively are

A:-25 and 2 ppm

B:-50 and 2 ppm

C:-25 and 4 ppm

D:-50 and 4 ppm

Correct Answer:- Option-A

Question14:-A surgical laser is currently used in many surgical procedures to cut or destroy tissue. All of the following are true about lasers except

A:-Laser is an acronym for "Light Amplification by Stimulated Emission of Radiation"

B:-Lasers produce ionising radiation which may cause eye injury

C:-Lasers produce infrared visible or ultraviolet light

D:-The plume produced during laser surgery may present a significant health risk

Correct Answer:- Option-B

Question15:-In patients with Automated Implanted Cardioverter Defibrillator, coming for surgery, all of the following are true except

A:-All programmable pacemakers should be properly interrogated to ensure proper function

- B:-Asynchronous pacing must be programmed on the pacemaker
 - C:-Magnets should be used to change the pacing program that is in an AICD
 - D:-Bipolar cautery units are preferable instead of monopolar electrocautery
- Correct Answer:- Option-C

Question16:-The following statements about VV ECMO are true

- i. Used only when respiratory assistance is required
- ii. Native and Artificial lungs are in series
- iii. Native and Artificial lungs are in parallel
- iv. Acts as a passive pumpless lung assistant primarily for decarboxylation

- A:-i and ii
- B:-i and iii
- C:-ii and iii
- D:-iii and iv

Correct Answer:- Option-A

Question17:-Which of the following criteria are required for confirmation of systemic inflammatory response syndrome ?

- i. Body temperature $> 38^{\circ}\text{C}$ or $< 36^{\circ}\text{C}$
- ii. HR > 90 bpm
- iii. RR > 20 bpm or $\text{PaCO}_2 < 32$
- iv. WBC $> 12000 \text{ mm}^3$ or $< 4000 \text{ mm}^3$ or $> 10\%$ immature forms

- A:-Any 1 of the above
- B:-2 or more
- C:-3 or more
- D:-All 4 criteria must be met

Correct Answer:- Option-B

Question18:-The Hunt and Hess grading system is

- A:-A clinical grading system
- B:-Uses GCS and assesses focal neurological deficit
- C:-Is based on computed tomography scan
- D:-Is based on the MRI appearance

Correct Answer:- Option-A

Question19:-ARDS net goals for mechanical ventilation in patients with ARDS include all except

- A:-Pplat ≤ 30 cm of H_2O
- B:- PaO_2 55 to 80 mm Hg
- C:- SpO_2 85-95%
- D:-pH goal 7.25 to 7.45

Correct Answer:- Option-C

Question20:-The modified Aldrete scoring system reviews all of the following as criteria for discharge from PACU except

- A:-Activity
- B:-Respiration
- C:-Circulation
- D:-Pain

Correct Answer:- Option-D

Question21:-Paediatric CPB has all the following characteristics except

- A:-Hypothermic temperatures rarely below $25-30^{\circ}\text{C}$
- B:-Use of total circulatory arrest is common
- C:-Hemodilution 3-5 fold greater dilution of circulating blood volume
- D:-Low perfusion pressure 20-30 mm Hg

Correct Answer:- Option-A

Question22:-Specific contraindication to epidural anesthesia in children include all except

- A:-Spina bifida occulta
- B:-Intraspinal tumour
- C:-Tethered cord syndrome
- D:-Infection at the site of injection

Correct Answer:- Option-A

Question23:-All of the following statements pertaining to eye surgery are true except

- A:-N₂O should be avoided 15 minutes before insertion of intraocular gas
- B:-N₂O must be avoided for 7-45 days after the use of intraocular gas
- C:-The oculocardiac reflex may cause bradyarrhythmias
- D:-The oculocardiac reflex follows the oculovagal reflex pathway

Correct Answer:- Option-D

Question24:-The important pre existing vulnerability factors defined in the medical model of delirium include

- i. Advanced age
- ii. Visual acuity < 20/70
- iii. Apache score > 16
- iv. Mini Mental State Examination (MMSE) score < 24

- A:-i, ii and iv
- B:-iii and iv
- C:-ii, iii and iv
- D:-i, ii, iii, iv

Correct Answer:- Option-D

Question25:-All of the following statements about fetal physiology are true except

- A:-Fetal cardiac output depends primarily on HR
- B:-Fetal myocardium is less compliant than adult myocardium
- C:-Changes in preload have minimal effect on cardiac output
- D:-The normal fetal cardiac output is in the range of 50-75 ml/kg/min

Correct Answer:- Option-D

Question26:-All of the following about the ethical aspects of anesthesia care are true except

- A:-Competent patients have the right to refuse treatments
- B:-Children should be involved in medical decision making
- C:-Advance decisions by surrogate decision makers are legally binding
- D:-DNAR orders do not require reconsideration before surgery

Correct Answer:- Option-D

Question27:-Declarative memory is

- A:-Explicit in nature
- B:-Involves procedural memory
- C:-Subconsciously recalled
- D:-Mediated in the striatum and neocortex

Correct Answer:- Option-A

Question28:-All the following are effects of stimulation of the sympathetic nervous system except

- A:-Vasoconstriction
- B:-Glycogenolysis
- C:-Lipolysis
- D:-Gluconeogenesis

Correct Answer:- Option-C

Question29:-Norepinephrine

- A:-An extra methyl group differentiates it from epinephrine
- B:-Causes powerful vasoconstriction and may cause reflex bradycardia
- C:-Cardiac output is increased
- D:-Decreases pulmonary vascular resistance

Correct Answer:- Option-B

Question30:-Cardioselective beta blockers include all except

- A:-Atenolol
- B:-Propranolol
- C:-Metoprolol

D:-Esmolol

Correct Answer:- Option-B

Question31:-The reverse steal or robin hood effect is the

A:-Decrease in CMR_{O_2} seen with volatile anesthetics

B:-Neuroprotective effect of barbiturates

C:-Increase in CMR seen with ketamine

D:-Increase in ICP seen with succinylcholine

Correct Answer:- Option-B

Question32:-Hypokalemia produces

A:-Short PR interval

B:-Long QT interval

C:-Ventricular extrasystoles

D:-Q waves

Correct Answer:- Option-C

Question33:-A patient with ASA 5 status classification during preoperative evaluation signifies

A:-A brain dead organ donor

B:-A moribund organ donor

C:-A moribund patient who is equally likely to die in the next 24 hours with or without surgery

D:-Severe disease that is a constant threat to life or requires intensive therapy

Correct Answer:- Option-C

Question34:-The Epworth Sleepiness Scale is used to

A:-Assess patients with OSA

B:-Assess patients with excessive day time sleep

C:-Assess patients with excessive night-time sleep

D:-Assess sedation in recovery room

Correct Answer:- Option-B

Question35:-A patient with smoking history for the past 40 years is scheduled for elective inguinal herniorrhaphy. He has intermittent episodes of breathlessness for which he is having Formeterol and Budesonide MDI twice daily. His last episode of exacerbation was more than 3 months ago. On spirometric evaluation, his post bronchodilator FEV1 is 60% of predicted and FEV1:FVC is 50%. According to the GOLD criteria for COPD severity classification, your patient has

A:-Stage II Moderate COPD

B:-Stage III Severe COPD

C:-Stage IV very severe COPD

D:-Stage V Moribund COPD

Correct Answer:- Option-A

Question36:-Intrinsic PEEP can be detected during mechanical ventilation intraoperatively by the following method

A:-Capnography shows that the CO₂ concentration does not plateau but is still upsloping at the time of the next breath

B:-Direct measurement of flow may be displayed graphically by the ventilator showing that the expiratory flow has not reached zero before initiation of the next breath

C:-Direct measurement of the resulting PEEP by using the expiratory hold function

D:-All of the above

Correct Answer:- Option-D

Question37:-A 20 yr old male with no significant past history had severe bronchopneumonia and was on mechanical ventilation for 5 days is now showing an ABG with pH 7.31, PaCO₂ 45 mm Hg, PaO₂ of 75 mm Hg at FiO₂ 0.5, Pressure support is 5 and PEEP is 4 cm of H₂O. On clinical assessment RR is 18 bpm and is not showing any signs of increased work of breathing. Which of the following is not advisable in the scenario ?

A:-Weaning criteria have not been met and it is preferable to improve PaO₂ to 75 mm Hg at FiO₂ 0.3

B:-SIMV until patient is breathing unassisted

C:-Intermittent T piece trials

D:-Use of decreasing levels of pressure support ventilation

Correct Answer:- Option-A

Question38:-A 63 year old male complaining of acute chest discomfort was brought to the hospital. The 12 lead ECG showed No ST segment elevation in any of the leads. Cardiac markers were sent from the EM department and Trop T marker was significantly elevated. Which of the following is not advisable in this scenario ?

A:-Bed rest, supplemental oxygen and analgesia

B:-Beta blocker therapy to be initiated

C:-Thrombolytic therapy to be commenced at the earliest

D:-Heparin (UFH or LMWH)

Correct Answer:- Option-C

Question39:-3 lead ECG monitoring with most probability to detect intraoperative ischaemia is

A:-II, aVL, V5

B:-II, aVF, V5

C:-II, V3, V5

D:-II, V4, V5

Correct Answer:- Option-D

Question40:-A 70 year old male with a history of hypertension, diabetes and dyslipidemia presents to the emergency department with altered sensorium. Clinical evaluation is suggestive of a likely subdural hematoma. To assess his cardiorespiratory status, with which of the following physical activity is he least likely to have significant cardiopulmonary ailment during surgery ?

A:-Walk to washroom on level floor

B:-Play the accordion

C:-Walk one block

D:-Climb one flight of stairs

Correct Answer:- Option-D

Question41:-Which of the following statements about thermoregulation is untrue ?

A:-Cold signals travel primarily via A δ nerve fibres

B:-Warm signals travel primarily via unmyelinated C fibres

C:-A δ nerve fibres also convey pain sensation which is why intense cold cannot be distinguished from sharp pain

D:-Ascending thermal information traverses the spinothalamic tract in the anterior spinal cord

Correct Answer:- Option-C

Question42:-All the following statements about Phase II block are true except

A:-Also called as desensitising block

B:-Train of four count shows a fade response

C:-Response to tetanic stimulation does not fade

D:-Seen in patients with abnormal plasma cholinesterase activity

Correct Answer:- Option-C

Question43:-In preoperative assessment of patients, physical activity is graded in terms of Metabolic Equivalents (METs). The value that corresponds to oxygen consumption of 1MET in an adult is

A:-2 ml/kg/min

B:-3.5 ml/kg/min

C:-5.5 ml/kg/min

D:-7 ml/kg/min

Correct Answer:- Option-B

Question44:-If the pressure in a full N₂O E cylinder is 745 psi at 20C, the pressure in a half full cylinder will be about _____ psi.

A:-186

B:-248

C:-372

D:-745

Correct Answer:- Option-D

Question45:-In a CO₂ absorbent canister, the greatest amount of carbon monoxide is produced by

A:-Halothane

B:-Isoflurane

C:-Sevoflurane

D:-Desflurane

Correct Answer:- Option-D

Question46:-Typical mixed venous oxygen tension in a healthy adult is

A:-25 mm Hg

B:-40 mm Hg

C:-55 mm Hg

D:-75 mm Hg

Correct Answer:- Option-B

Question47:-Normal systemic vascular resistance varies between _____ (dynes)(s)/cm⁵ .

A:-50 and 150

B:-300 and 600

C:-900 and 1500

D:-1800 and 2100

Correct Answer:- Option-C

Question48:-A 48 year old male is posted for excision of a complex spinal cord tumour which may likely cause damage to the anterior spinal artery intraoperatively. Which of the following neuromonitoring aide will help you identify such a damage intraoperatively ?

A:-EEG

B:-MEP

C:-SSEP

D:-Bispectral index monitoring

Correct Answer:- Option-B

Question49:-A prolonged QTc interval may be seen in all the following except

A:-Hyperkalemia

B:-Hypocalcemia

C:-Hypomagnesemia

D:-Hypothermia

Correct Answer:- Option-A

Question50:-A 65 year old woman posted for elective subtotal hysterectomy was given spinal anesthesia. Soon after, the ECG shows narrow complex tachyarrhythmia with HR 180 bpm and a regular R-R interval. All of the following are advisable in this scenario except

A:-Carotid sinus massage

B:-Valsalva manouvre

C:-Adenosine

D:-Defibrillation

Correct Answer:- Option-D

Question51:-Which of the following predictors is likely to be associated with lower incidence of perioperative nausea and vomiting ?

A:-Female gender

B:-Use of fentanyl for pain relief

C:-Patients with a history of smoking

D:-Patients undergoing laparoscopic surgery

Correct Answer:- Option-C

Question52:-A 70-year-old male, who is diabetic for the last 20 years, is scheduled for an elective surgery. Which of the following is not a sign of autonomic diabetic neuropathy ?

A:-History of recurrent diarrhea

B:-History of postural hypotension

C:-History of recurrent constipation

D:-History of urinary retention

Correct Answer:- Option-D

Question53:-Which of the following regarding the neuron action potential is false ?

A:-Resting Membrane Potential (RMP) is about -60 to -70 mV

B:-Threshold potential is about -55 mV

C:-During the depolarising phase, the K⁺ permeability rises, leading to an influx of K⁺ ions

D:-During the repolarisation phase, opening of voltage-dependent K⁺ channels, cause a large outward K⁺ current rapidly restoring the axoplasm to its RMP

Correct Answer:- Option-C

Question54:-What is the order of nerve blockade of different types of nerve fibres ?

A:-B > A_δ = C > A_γ > A_β > A_α

B:-B > A_δ > A_γ > A_β > A_α > C

C:- $A\delta > A\gamma > A\beta > A\alpha > B > C$

D:- $C > B > A\delta > A\gamma > A\beta > A\alpha$

Correct Answer:- Option-A

Question55:-Regarding action of Local Anaesthetic (LA) on Na^+ channels, which of the following is true ?

A:-The affinity of LA for the inactivated state of the Na^+ channel is higher than its resting state

B:-At low frequencies of impulse firing, a phase- or use-dependent block is seen

C:-The cationic form of LA acts on the Na^+ channel from outside the axon

D:-The unionised form acts from within the axon to inactivate the Na^+ channel

Correct Answer:- Option-A

Question56:-A 24 year old female with a history of mild asthma was admitted to the intensive care unit with Guillian Barre syndrome. She is complaining of difficulty in breathing. Which is the best way to monitor her respiratory function and if she needed intubation ?

A:-Pulse oximetry

B:-Patients self report of symptoms

C:-ABG

D:-Measurement of vital capacity

Correct Answer:- Option-D

Question57:-A patient with life threatening exacerbation of asthma requires emergency intubation and mechanical ventilation. Which of the following agents is the most likely to improve lung mechanics and bronchospasm ?

A:-Atracurium

B:-Ketamine

C:-Propofol

D:-Fentanyl

Correct Answer:- Option-B

Question58:-Which of the following complications is most frequently seen after pulmonary artery catheter insertion via the internal jugular vein ?

A:-Carotid artery puncture

B:-An arrhythmia requiring treatment

C:-Bacterial colonisation

D:-Pulmonary artery rupture

Correct Answer:- Option-C

Question59:-Significant intravenous absorption/inadvertent intravenous injection of bupivacaine can cause profound bradycardia and sinus node arrest. Which of the following best describes the mechanism of cardiac toxicity of bupivacaine ?

A:-Bupivacaine binds inactivated fast sodium channels and dissociates from them slowly

B:-Bupivacaine binds activated fast sodium channels and dissociates from them slowly

C:-Bupivacaine binds inactivated slow sodium channels and dissociates from them slowly

D:-Bupivacaine binds activated slow sodium channels and dissociates from them slowly

Correct Answer:- Option-A

Question60:-Which of the following surgeries carries the highest cardiovascular risk ?

A:-Emergency appendectomy

B:-Carotid endarterectomy

C:-Femoral-popliteal bypass surgery

D:-Inguinal hernia repair

Correct Answer:- Option-C

Question61:-Surgical electrocautery may cause a problem with an Automated Implantable Cardioverter Defibrillator (AICD) by all the following mechanisms, except

A:-AICD interpreting a cautery current as ventricular fibrillation

B:-Inhibition of pacemaker function due to cautery artifact

C:-Increased pacing rate due to activation of a rate-responsive sensor

D:-Cautery current generating too much heat at the location of AICD and causing burns

Correct Answer:- Option-D

Question62:-Which of the following statements regarding the structure of Local Anaesthetic (LA) is false ?

A:-They consist of a hydrophobic aromatic ring and a hydrophilic tertiary amine group held by a hydrocarbon chain

B:-All of them exist as a weak acid-base pair in solution except benzocaine

C:-They are classified as esters or amides depending upon the type of linkage bond in the hydrocarbon chain

D:-Cocaine is synthetically produced

Correct Answer:- Option-D

Question63:-Which of the following statements regarding chirality is incorrect ?

A:-A chiral molecule is a type of molecule that lacks an internal plane of symmetry

B:-Enantiomers are stereoisomers having a non-superimposable mirror image

C:-Optical rotation (optical activity) is the turning of the plane of linearly polarised light about the direction of motion as the light travels through a substance

D:-Enantiomers have similar optical activities but different physical and chemical properties

Correct Answer:- Option-D

Question64:-Tolerance does not develop to which of the following side effects of opioids ?

A:-Itching

B:-Respiratory depression

C:-Urinary retention

D:-Constipation

Correct Answer:- Option-D

Question65:-Which of the following views of Transesophageal Echocardiograph (TEE) is most suited to visualize blood supply of all the segments of the heart ?

A:-Midesophageal fourth-chamber view

B:-Midesophageal second-chamber view

C:-Transgastric midshort axis view

D:-Midesophageal third-chamber view

Correct Answer:- Option-C

Question66:-General guidelines for separation from Cardiopulmonary Bypass (CPB) include all the following, except

A:-Core body temperature of at least 34°C

B:-Stable heart rhythm or pacemaker rhythm

C:-Heart rate around 80 to 100 bpm

D:-Adequate ventilation with 100% O₂

Correct Answer:- Option-A

Question67:-A 25-year-old male with a family history of sudden cardiac deaths is undergoing a laparoscopic appendectomy. Immediately after induction and intubation, you notice a heart rate of 120 bpm and blood pressure of 60/40 mm Hg, with a normal capnogram. You suspect the patient has idiopathic hypertrophic subaortic stenosis. Which of the following maneuvers is most likely to help this patient's hemodynamics ?

A:-Lowering the head end of the bed and administering 10 mg of ephedrine IV

B:-Administering a bolus of 1 L of normal saline and esmolol 10 mg IV

C:-Administering verapamil 5 mg IV immediately

D:-Administering a bolus of normal saline and phenylephrine 100 µg IV

Correct Answer:- Option-D

Question68:-A 67-year-old male has a diagnosis of Myasthenia Gravis (MG). Which of the following medications should be avoided to reduce the risk of exacerbation ?

A:-Gentamicin

B:-Paracetamol

C:-Trimethoprim

D:-Aspirin

Correct Answer:- Option-A

Question69:-The following biochemical parameters suggest resolution of DKA/HHS except

A:-Serum glucose below 200 mg/dl in DKA and below 250-300 mg/dl in HHS

B:-Serum bicarbonate more than 18 mEq/L

C:-Venous pH more than 7.30

D:-Negative Urine or serum ketones by nitroprusside test

Correct Answer:- Option-D

Question70:-The following apply to levosimendan

A:-It impairs diastolic relaxation

B:-It is a sodium channel sensitizer

C:-It increases myocardial oxygen consumption

D:-It can be used with β -blockers

Correct Answer:- Option-D

Question71:-A 55 kg 81-year-old man suffers an acute myocardial infarction. Following coronary artery bypass grafting he is admitted to the cardiac intensive care unit. He is intubated and ventilated with no inotropic or vasopressor support. Cardiac output studies show: heart rate 115 bpm, blood pressure is 131/78 mmHg, central venous pressure 19 mmHg, cardiac index 1.9 L/min/m², pulmonary artery wedge pressure 24 mmHg and systemic vascular resistance index 2800 dyne/s/cm⁵/m². His urine output is less than 20 ml/hour, and his lactate is 6.1 mmol/L. There is no evidence of tamponade on echocardiogram. The most appropriate medication would be

A:-Milrinone

B:-Dobutamine

C:-Noradrenaline

D:-Digoxin

Correct Answer:- Option-A

Question72:-A 57-year-old male is undergoing coronary artery bypass grafting (left internal mammary artery to left anterior descending artery). After termination of Cardiopulmonary Bypass (CPB), you notice a prominent V wave in the Pulmonary Artery Occlusion Pressure (PAOP) tracing. The most likely reason for the finding is

A:-Left-ventricular dysfunction

B:-Right-ventricular dysfunction

C:-Cardiac tamponade

D:-Posterior papillary muscle dysfunction

Correct Answer:- Option-D

Question73:-In which of the following situations is applying Continuous Positive-Airway Pressure (CPAP) to the nondependent lung most ideal for improving oxygenation ?

A:-Bronchopleural fistula

B:-Open lobectomy

C:-Massive pulmonary hemorrhage

D:-Sleeve resection

Correct Answer:- Option-B

Question74:-Critical Illness Polyneuropathy (CIP)

A:-Characteristically involves the cranial nerves

B:-Occurs due to axonal degeneration

C:-Is associated with patients who have had multi-organ failure

D:-Can be treated with high-dose steroids

Correct Answer:- Option-B

Question75:-According to SHEA/IDSA Practice Recommendation 2014, the general strategies to reduce VAP include all except

A:-Prefer nasal intubations to oral unless contraindicated

B:-Routine change of ventilator circuits is not required unless visibly soiled or malfunctioning

C:-Monitor endotracheal tube cuff pressure (keep it between 20-30 cmH₂O) to avoid air leaks around the cuff, which can allow entry of bacterial pathogens into the lower respiratory tract, while permitting capillary perfusion

D:-Prefer endotracheal tubes with a subglottic suction port to prevent pooling of secretions around the cuff leading to microaspiration for patients expected to require greater than 48 or 72 hours of mechanical ventilation

Correct Answer:- Option-A

Question76:-The usual indications of commencing RRT are the following except

A:-Oliguria is less than 0.5 mL/kg/h urine output for at least 2 h

B:-Volume overload/pulmonary edema

C:-Refractory hyperkalemia (> 6.5 mEq/L)

D:-Severe metabolic acidosis (pH < 7.1)

Correct Answer:- Option-A

Question77:-MACOCHA Score is a simple score developed for ICU patients which has been shown to differentiate between a difficult from a non difficult airway in ICU patients. The MACOCHA score has seven easily identifiable variables which include all the following except

A:-Mallampati score III or IV

B:-Obstructive sleep apnea syndrome

C:-Reduced mobility of cervical spine

D:-Protruding mandible

Correct Answer:- Option-D

Question78:-A 65 year old male, recently diagnosed as a case of pulmonary tuberculosis, on antitubercular treatment for the past 2 months, presented to emergency department with

history of coughing out blood. For the past 2 weeks, he has a history of sputum streaking of blood, but today morning, he expectorated about a cup of bright red blood. While giving history of his symptoms, he expectorated large amount of blood, about 300 mL. Which of the following is NOT advisable in this scenario ?

- A:-Diagnostic bronchoscopy is the primary method for diagnosis and localization of hemoptysis
- B:-Iced saline bronchial lavage in the involved lung – Iced saline lavage of up to 1000 mL in 50 mL aliquots at the bleeding site
- C:-Administration of topical hemostatic agents, such as epinephrine (1:20,000)
- D:-IV infusion of Tranexamic acid

Correct Answer:- Option-D

Question79:-The oxygen failure safety valve

- A:-Will prevent a hypoxic gas mixture from being delivered
- B:-Will cut off the flow of oxygen should the nitrous oxide supply fail
- C:-Prevents the user from dialing a hypoxic mixture on the flowmeters
- D:-May or may not cut off the flow of air if the oxygen supply fails

Correct Answer:- Option-A

Question80:-The cylinder size most commonly used on anesthesia machines and for patient transport is

- A:-Size B
- B:-Size C
- C:-Size D
- D:-Size E

Correct Answer:- Option-D

Question81:-All of the following statements about confirmation of epidural space are true except

- A:-Tsui test can be used for confirmation of epidural placement of catheter
- B:-With the use of nerve stimulator to confirm proper placement of epidural catheter, presence of a motor response with > 10 mA indicates inappropriate catheter location
- C:-With the use of nerve stimulator to confirm proper placement of epidural catheter, presence of a motor response with < 1 mA indicates appropriate catheter location
- D:-Both sensitivity and specificity of Tsui test is 100%

Correct Answer:- Option-C

Question82:-A 6-year-old patient scheduled for laparoscopic bilateral inguinal hernia repair undergoes inhalational induction and intubation with a 5.0-mm cuffed endotracheal tube. The tube is secured with the 15-cm mark at the patient's gumline. Auscultation reveals equal breath sounds bilaterally. Inflation of the pilot balloon results in palpation of the inflated tube cuff just above the cricoid cartilage. A leak test reveals leak of air into the oropharynx at a positive pressure of 20 cm H₂O. The next best step in management is

- A:-No change in anesthetic care is indicated
- B:-The tube cuff should be deflated until a leak is present starting at 15 cm H₂O of positive pressure
- C:-The tube cuff should be deflated and the tube advanced until the cuff, when inflated, is palpable below the cricoid cartilage
- D:-The tube cuff should be deflated and the tube withdrawn until ventilator peak pressures decrease

Correct Answer:- Option-C

Question83:-The Tec 6 desflurane vaporizer

- A:-Is electrically heated to 39°C
- B:-Is pressurized to 3 atm
- C:-Is pressure-compensated
- D:-All of the above

Correct Answer:- Option-A

Question84:-Variable bypass vaporizers should be located

- A:-Between the common gas outlet (upstream) and the flow meters (downstream)
- B:-Between the flowmeters (upstream) and the common gas outlet (downstream)
- C:-Between the gas pipeline and the flow meters
- D:-Inside the circle system

Correct Answer:- Option-B

Question85:-A 50 year old man developed fever on day 3 post inguinal herniorrhaphy under subarachnoid block. This was accompanied by severe headache, vomiting, stiffness of neck and altered sensorium. On clinical examination Kernig's sign and Brudzinkis sign were elicited positive. The most common organism responsible is

- A:-Streptococcus Salivarius
- B:-Streptococcus pneumoniae
- C:-Staphylococcus aureus
- D:-Pseudomonas aeruginosa

Correct Answer:- Option-A

Question86:-Regarding the 'gate control' theory of pain, which of the following is the correct statement ?

- A:-It explains why sometimes we feel pain, while at other times we do not
- B:-It explains why local rubbing eases the pain
- C:-It explains why endogenous opioids decrease pain
- D:-It explains why after a certain threshold, a gate opens and acute pain transforms into chronic pain

Correct Answer:- Option-B

Question87:-Which one of the following terms is correctly matched with its definition ?

- A:-Allodynia : an unpleasant abnormal sensation, whether spontaneous or evoked
- B:-Dysaesthesia : increased sensitivity to stimulation, excluding the special senses
- C:-Hyperaesthesia : pain due to a stimulus which does not normally provoke pain
- D:-Hyperalgesia : an increased response to a stimulus which is normally painful

Correct Answer:- Option-D

Question88:-A 67-year-old chronic male smoker, a known case of small cell carcinoma, was admitted to hospital with altered sensorium, nausea and dizziness. His vital signs were stable. Liver function tests, urea, and creatinine were normal. Serum sodium was 118 mEq/L and serum potassium was 4.0 mEq/L. All the following regarding the treatment of hyponatremia are true except

- A:-To prevent further decrease in the serum sodium concentration
- B:-To decrease intracranial pressure in patients at risk for developing brain herniation
- C:-To alleviate symptoms of hyponatremia
- D:-Sodium may be corrected at the rate of 3-4 mEq/L for an initial few hours or till symptoms subside

Correct Answer:- Option-D

Question89:-A 75-year-old male patient, a case of Chronic Obstructive Pulmonary Disease (COPD), was transferred from another hospital with complaints of fever, increased breathlessness for 5 days, and altered sensorium since 1 day. He also had an episode of seizure 1 day. He was being managed on the lines of acute exacerbation of COPD with cor pulmonale with pneumonia. He received antibiotics and diuretic therapy in the previous hospital. On evaluation, his laboratory values showed hemoglobin 13 g/dl, packed cell volume of 38.5%, serum sodium 160 mEq/L, serum potassium 3.0 mEq/L, serum urea 146 mg/dl, and serum creatinine of 1 mg/dl. Which of the following is true about the current scenario ?

- A:-Aim to correct sodium levels at the earliest
- B:-10-15% improvement in sodium levels in first 2 h
- C:-Correction in chronic (> 48 h) settings :- Total less than 10-12 mEq/24 h
- D:-Slow correction will cause rapid shift of water inside the brain causing cerebral edema and seizures

Correct Answer:- Option-C

Question90:-A 50-year-old male patient was admitted with generalized weakness and abdominal distension. On examination, he was found to be alert and hemodynamically stable. Neurological examination revealed quadriplegia. Abdominal examination revealed distension with sluggish bowel sounds. His serum potassium level was 2 mEq/L. The ECG taken showed all the following features except

- A:-ST segment elevation
- B:-Decrease in amplitude of T waves
- C:-Increase in amplitude of U wave
- D:-Premature atrial or ventricular ectopics

Correct Answer:- Option-A

Question91:-A 60-year-old diabetic male patient, hypertensive and on Angiotensin-Converting Enzyme (ACE) inhibitors, was admitted with dizzy spells. On admission, his pulse was 60/min, BP was 110/70 mmHg, and sensorium was normal. His blood biochemistry showed urea 90 mg/dl, creatinine 2.0 mg/dl, Na 130 mEq/L and K 6.5 mEq/L. Which of the following statements is untrue regarding calcium therapy in such a patient ?

- A:-Give calcium gluconate or calcium chloride-10 mL of 10% solution over 2 min under continuous ECG monitoring
- B:-Intravenous calcium works within minutes and the effect is long-lasting (3-6 hrs)
- C:-Calcium acts by directly antagonizing the membrane action of hyperkalemia and does not cause lowering of serum potassium
- D:-Calcium chloride contains three times more elemental calcium compared to calcium gluconate (13.6 vs. 4.6 mEq in 10 mL of 10% solution) and is the preferred drug

Correct Answer:- Option-B

Question92:-Baker's classification of Low flow anesthesia states that

- A:-Metabolic Flow 125 ml/min
- B:-Minimal Flow 250-500 ml/min
- C:-Medium Flow 500-1000 ml/min
- D:-Low Flow 1-2 L/min

Correct Answer:- Option-B

Question93:-All of the following are true about isoflurane except

- A:-Synthesised by Ross Terrel in 1965

- B:-Halogenated methyl ether
 - C:-1-Chloro-2, 2, 2, trifluoroethyl difluoro methyl ether
 - D:-Structural isomer of sevoflurane
- Correct Answer:- Option-D

Question94:-Propofol acts by all the following mechanisms except

- A:-Potentiating GABA induced Cl^- current
 - B:-Direct depressant effect on neurons of spinal cord
 - C:-Inhibition of NMDA receptor
 - D:-Increases serotonin level in area postrema
- Correct Answer:- Option-D

Question95:-A 45 year old male smoker was diagnosed with DVT 6 months ago for which he was started on LMWH 0.6 ml twice daily. He now comes to the casualty with acute pain in right iliac fossa and USG is suggestive of acute appendicitis. Which of the following ASRA guidelines must be followed if he requires surgery ?

- A:-Time before puncture 24 hours
 - B:-Time Before Epidural Catheter Manipulation or Removal 12 hours
 - C:-Time After Puncture/Catheter Manipulation or Removal 6 hours
 - D:-Laboratory test required include PT/INR, aPTT
- Correct Answer:- Option-A

Question96:-All of the following drugs increase the mean arterial blood pressure, except

- A:-Dopamine
 - B:-Norepinephrine
 - C:-Epinephrine
 - D:-Isoproterenol
- Correct Answer:- Option-D

Question97:-Which of the following is most likely the (analgesic) mechanism of action of lidocaine when used for neuropathic pain ?

- A:-Inhibition of G-protein-coupled receptors
 - B:-Antagonism of NMDA receptors
 - C:-Calcium channel blockade
 - D:-Sodium channel blockade
- Correct Answer:- Option-A

Question98:-You have just administered a bolus of 2% lidocaine (25 mL) through an epidural catheter that has been working well for labor analgesia in preparation for emergency cesarean section for fetal distress in an otherwise-healthy 35-year-old woman. Shortly after administration of lidocaine, the patient complains of nausea, and you notice that her heart rate has decreased from 99 to 38 bpm. The most likely cause is

- A:-Anaphylactic reaction to lidocaine
 - B:-Pneumothorax
 - C:-Epidural level is higher than T4
 - D:-Amniotic fluid embolus
- Correct Answer:- Option-C

Question99:-Which of the following nerves is typically spared during performance of an interscalene brachial plexus block ?

- A:-Median
 - B:-Axillary
 - C:-Musculocutaneous
 - D:-Ulnar
- Correct Answer:- Option-D

Question100:-A 56-year-old patient with a past medical history of hypertension, diabetes and alcohol abuse presents to the operating room for a right-elbow open reduction internal fixation, secondary to a motor vehicle accident that occurred 24 hours ago. On postoperative day 1, the patient complains of right fourth and fifth digit numbness and minor pain. A diagnosis of cubital tunnel syndrome has been made. The nerve most likely to be involved is

- A:-Median nerve
 - B:-Ulnar nerve
 - C:-Radial nerve
 - D:-Musculocutaneous nerve
- Correct Answer:- Option-B