



ANESTHESIA MINI-OSCE

Doctor 2020

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Anesthesia mini-OSCE

1st semester/ 1st month

Question 1:

A picture of anesthetic machine

1. بانيسون سيركت:اللي برا بتنفخ هوا
2. The part that gives you the concentration of the anesthetic agent?

Ans: Vaporizer

3. مين بتحكم في الأوكسجين يدويا؟
ال switch الأخضر

Question 2 and 3:

2 ECG questions

Question 4 :

Match the drug with its use:

Ans:

Non depolarizer — Atracurium

Releases histamine — Atracurium

Reverses succinylcholine — None

Non competitive inhibitor — Succinylcholine

Question 6:

Hypovolemic shock grade 3

Amount of blood lost:1500-2000 ml

Give blood IV and stop bleeding

Question 7:

Monitor screen:

Heart rate

Blood pressure(systolic,diastolic,MAP)

Temperature

Missing:

Capnograph

Question 8:

About Soda lime

- Oxidized by reaction with CO₂
- Benefit:to remove CO₂ (from the breathing circuit)
- Closed circuit

Question 9:

Picture about preoperative assessment

- ASA 2
- Hard palate
- More than 6 (thyromental distance:easy assessment)

Question 10:

Ketamine and propofol

- Mechanism of action

Ans: Propofol: GABA A receptor agonist

Ketamine: NMDA receptor antagonist

- Give 2 side effects of each drug

Ans:

Propofol:

Hypotension, bradycardia, pain on injection, green urine

Ketamine:

Dissociative amnesia, unpleasant emergence reactions with hallucination and fear
(+ increases heart rate, blood pressure and pulmonary arterial pressure)

Question 11:

Ringer Lactate:

131 Na

111 Cl

29 lactate

279 mosm/L

6.5 pH

Question 12:

A question about a child (preoperative)

- How to calm him down:

Ans: Bring his mother to him and give him sedatives

- What agent is used in anesthesia induction:

Ans: Sevoflurane

Question 13:

Two pictures about laryngeal view classification and mallampati score

Anesthesia mini-OSCE

1st semester/ 2nd month

1. Picture of ABGs of a patient with acute on top of chronic renal failure

A. Acid base status of the patient:

Ans: Metabolic acidosis

B. Mention two steps of management

Ans:

1. Adequate fluid resuscitation
2. Correction of electrolyte abnormalities (and administration of sodium bicarbonate)

2. Patient presenting with a bee sting

A. Diagnosis?

Ans: Anaphylaxis

B. Why is it difficult to intubate?

Ans: Lip and tongue swelling, called angioedema, as well as pharyngeal and glottic swelling may compromise the airway.

C. Best drug?

Ans: Epinephrine

3. A question about pink and green cannula

A. Pink cannula what are the two labeled parts?

Ans: injection port, needle grip

B. what is the maximum flow of the green cannula?

Ans: 90 ml/min



4. 4-year child

A. size of ETT?

Ans: Size of ETT= $4+(Age/4)=4+(4/4)=5$ mm

B. Deficit?

Ans: Two things that should be asked about in the preoperative assessment

5. 50-year-old adult male with controlled HTN

A. ASA?

Ans: 2

B. Cuff size?

Ans: 8

C. Laryngeal view?

Ans: 4

D. Pharyngeal view?

Ans: 3

6. Patient with torsade de pointes Shockable rhythm

Management?

Ans: DC shock + chest compressions

7. Match each of the following with its use:

- Diagnostic cystectomy
- Hernia repair
- Left eye orbital op
- Submental abscess

8. Epidural procedure:

A. Characteristics of the needle?

Ans: Low resistance needle

B. Gauge?

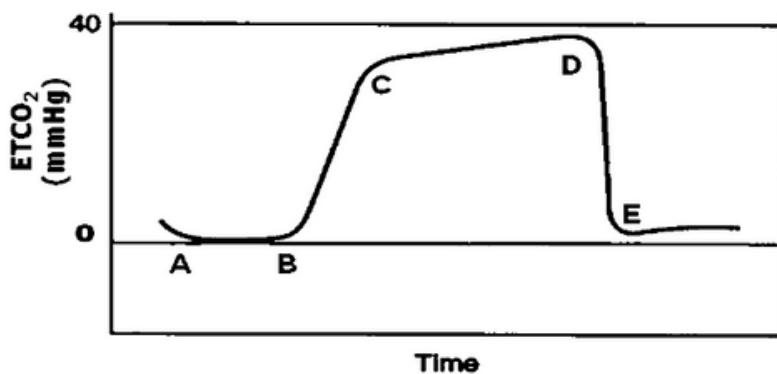
Ans: 16-18G

C. Mention two complications?

Ans:

1. Hypotension
2. Post dural puncture headache

9) Capnograph



A. At what point does inspiration and expiration start?

Ans:

Inspiration starts at D

Expiration starts at A

B. Normal range?

Ans: ETCO₂: 30-35 mmHg

10. 4 pictures of types of pain

Muscle pain, abdominal pain: nociceptive

Herpes zoster, diabetic foot: neuropathic

Anesthesia mini-OSCE

1st semester/ 3rd month

Question 1



A. What is the name of this chain?give a definition

Ans: Chain of survival.

It is a group of sequential procedures that are done to maintain adequate blood flow containing O₂ and nutrients to the cells of the vital organs to try to maintain their function and prevent permanent damage

B. What does loop 2 indicate?

Ans: Early CPR, to buy time

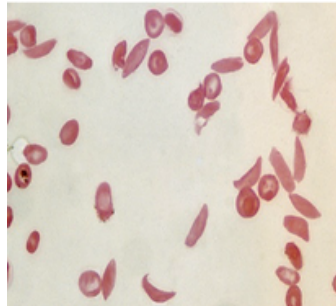
C. What does loop 3 indicate?

Ans: Early defibrillation, to restart the heart

Question 2: Match type of hypoxia with each picture (hypoxic hypoxia,anemic hypoxia,circulatory hypoxia,histotoxic hypoxia)



Hypotoxic + Anemia



Anemia



Circulatory



Danger
Cyanide

Histotoxic

Question 3

A. What is the name of the procedure?

Ans: Spinal anesthesia

B. At any level is it inserted?

Ans: Below the level of cauda equine (L1-L2) in adults at L4-L5 or L3-L4

C. Mention the characteristics of the needle

Ans: Low resistance needle

D. Mention two complications of this procedure?

Ans:

1. Hypotension
2. Post dural puncture headache



Question 4

Patient comes with this pain measurement, what would you give him? (more than one choice is applicable)



- A. Morphine
- B. Tramadol
- C. NSAIDS
- D. Paracetamol
- E. +- cold pressors

Question 5

A. Question about the dose.

B. To which family does this drug belong?

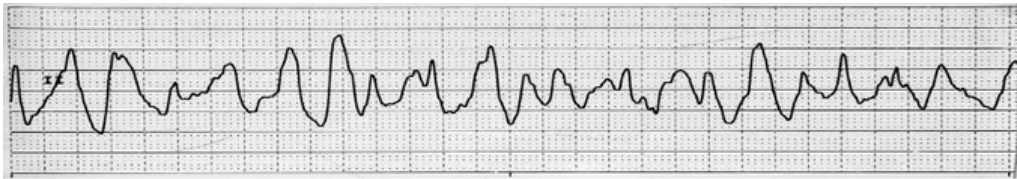
Ans: Local anesthetics

C. What is the mechanism of action?

Ans: Inhibition of sodium channels to prevent depolarization



Question 6



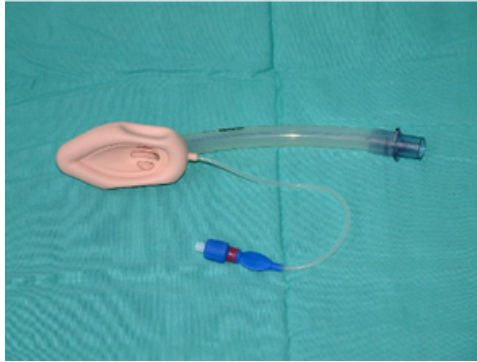
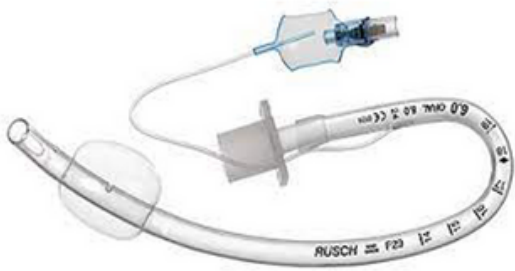
A. What is the diagnosis?

Ans: Ventricular fibrillation

B. What do you do next?

Ans: Shockable rhythm-resume CPR for 2 min until the defibrillator is charged then give the first shock and resume CPR for 2 min, then give the second shock and continue CPR for another 2 min, after that give the third shock administering epinephrine or amiodarone, give epinephrine every 3-5 min

Question 7

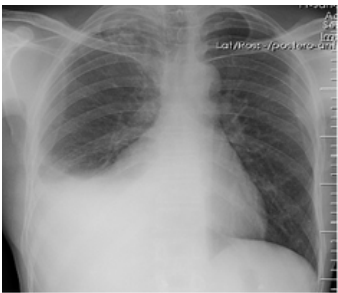


Match each with its use:

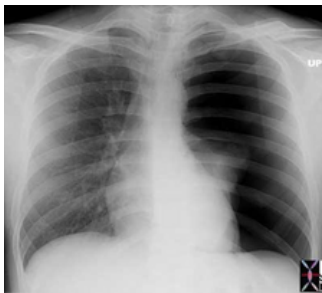
1. Sublingual surgery — Preformed N shaped tube
2. Nasal septum surgery — Preformed S shaped tube
3. Hysteroscopy — Laryngeal mask
4. Liver procedure — Regular endotracheal tube

Question 8

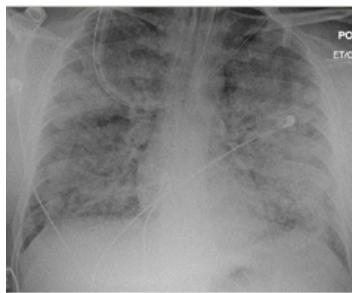
Match each of the following x rays with the diagnosis:



Pleural effusion



Pneumothorax



ARDS



Pneumonia

Question 9



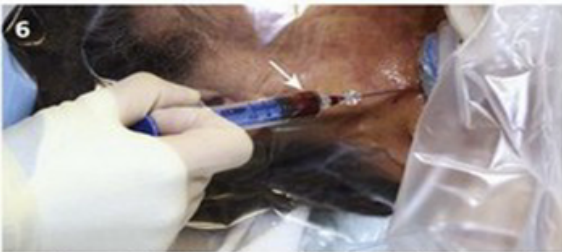
A. Which of the following is contraindicated in pneumothorax?

Ans: N₂O

B. Which of the following is used in anesthesia induction?

Ans: Sevoflurane

Question 10



A. What are the next two steps?

Ans:

1. Hold needle still and remove syringe, feed the wire through the needle
2. Hold wire still and remove the needle over the wire
3. Use a scalpel to make a small incision
4. Feed the dilator over the guidewire (twisting motion)

B. mention 2 IMMEDIATE complications of this procedure

Ans: Pneumothorax, arrhythmia

Question 11



A. What is the indication of using this device?

Ans: To measure oxygen saturation, HR and rhythm of arterial waveform

B. What does SpO₂ mean?

Ans: Arterial oxygen saturation

C. Mention 2 things that can make this device give inaccurate readings

Ans:

1. Misplaced on the pts finger, slipped
2. Pt movement, shivering.
3. Poor tissue perfusion (cold extremities)

Question 12

Pediatric case admitted for surgery

A. suitable fluid

Ans: Crystalloid

B. suitable muscle relaxant

Ans: Cistracurium

Question 13

60 year old male, 80 kg admitted for surgery

A. What airway management technique can be used in this case?

Ans: Endotracheal tube

B. Estimated blood volume

Ans: 75 ml/kg

C. How much blood loss is allowed?

Ans: 15% of his blood volume

Question 14

Question with a monitor picture

A. Mention two invasive monitoring procedures

Ans:

ABP

CVP

Anesthesia mini-OSCE

1st semester/ 4th month

Question 1:

4 CXRs

Pneumothorax: acute dyspnea

Cardiomegaly: leg swelling

Foreign body aspiration: cough and choking

Pneumonia: fever

Question 2:

2 year old 12kg with hypospadias- general anesthesia

1. Induction agent?

Sevoflurane

2. Maintenance?

Sevoflurane / Desflurane

Question 3:

IHD patient lost consciousness and hypotensive, he was given 3 cardioversion attempts with no benefit

Next steps?

Amiodarone 300 mg IV over 10-20 min

Repeat synchronized DC shock(x3, at max voltage)

If still, give Amiodarone 900 mg over 24 hours

Question 4:

ECG – normal HR

Question 5:

Patient doing knee surgery under GA

1. Most (serious or common) post anesthesia complication?

Aspiration (not sure)

2. 3 other modalities of anesthesia?

Spinal, caudal and epidural

Question 6:

Preoperative assessment of a patient

CVS: moderate exercise, no other symptoms

Fasting for 3 hours

ASA risk score: 3

Most feared complication for this specific patient?

Aspiration (not sure)

Question 7:

ECG of cardiac arrest

- Diagnosis:

Monomorphic ventricular tachycardia

- Next steps CPR team leader is going to do:

Stop, feel the pulse, check respiration, continue CPR for 2 minutes until the defibrillator is charged, clear, deliver the first shock, continue CPR

Question 8:

4 pics of venturi mask, nasal cannula, rebreather, (non or partial rebreather)

1. Which is fixed performance:

Venturi mask

2. Which follows Bernoulli's principle:

Venturi mask

3. Which one shows increase in FiO₂ with every 1L increase in flow:

Nasal cannula

4. Which one does not increase dead space of the patient:

Venturi mask

Question 9:

Picture of bleeding in the OR with urine output 13ml/hr

1. Shock class:

3e

2. Predict percentage of blood loss:

30-40%

Question 10:

Picture of central pipeline (black, yellow and white)

1. Which pressure is 139:

None

2. Which one has negative pressure:

Yellow

Question 11:

Picture of central line inserted in left subclavian vein with pneumothorax on the left side

1. Where is the catheter inserted

2. What complication did it cause

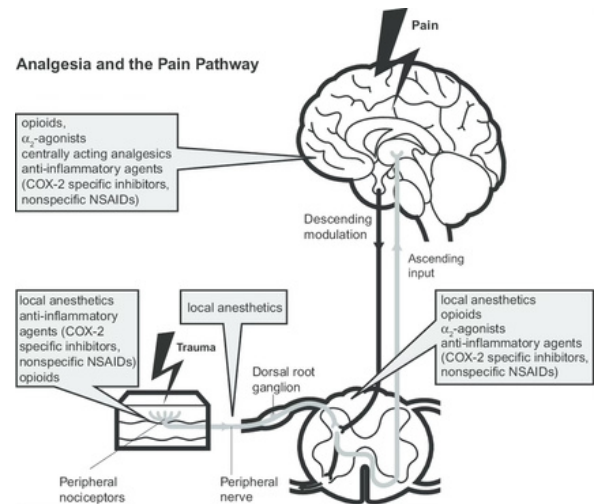
Question 12:

3 pics of waveform from pulse oximetry

Diagnosis?

Question 13:

Site of action of each category



Question 14:

Picture of this needle attached to a catheter

1. Name
2. Function
3. Two modes of insertion
4. Four common complications

Question 15:

Similar picture to this picture (not sure)

Device name:

Vision Bipap

2. Function:

Non invasive mechanical ventilation (fixed performance)

3. Advantage over other modalities:

FiO₂ 100%



Anesthesia mini-OSCE

2nd semester/ 5th month

Question 1:

A-What is the gauge and flow rate of this cannula?

Gauge:22

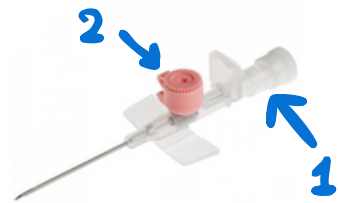
Flow: 36ml/min



B-The name of the highlighted parts?

1-Flashback Chamber

2-Injection port cap



Question 2:

2 year old 12kg with hypospadias- general anesthesia

ECG of A fib/PEA with a hex of arrested of patient

A-What's his cause of arrest?

B-What 3 things you will do once you recognized that he's arrested?

-الدكتور معتمد الجواب PEA فالجواب يعتمد على ECG

Question 3:

Old woman with 2 days Hx of Loin pain, started to be hemodynamically unstable and confused, 80/40 Bp, Tachycardic, Fever;

A-What's probably happened?

Urosepsis (septic shock)

B-How would you maintain her Bp?

IV Fluid

Vasopressin

Question 4:

A patient is having spinal anaesthesia in his surgery;

A-Is done at which at which level?

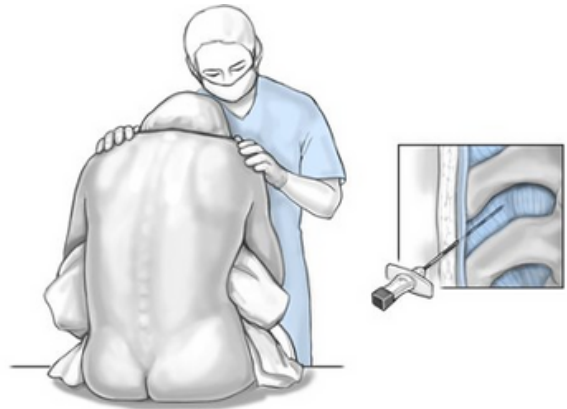
between L3-4 below L1-2

B-Why?

To avoid spinal nerve injury (cauda equina)

C-2 Possible Complications?

Hypotension, post dural headache



Question 5:

Machine questions;

A-What's in the figure?

Vaporizer

B-What is the agent?

Sevoflurane



Question 6:

About Epidural anaesthesia , If you want to use Bupivacaine,

A-What will be the dose for epidural anaesthesia?

175mg

B-Which level does this line indicate?

L4/L5



Question 7:

ECG with Bradycardia for unstable patient who had MI, had cardiac arrest;

A-What's the HR?

52

B-What other 4 adverse causes of Atropine?

Shock, Syncope, HF, MI

Question 8:

(صورة ورقة جدول العمليات غرفة الأطفال المريض للدكتورة عبير دياب وموجود فيها نفس المعلومات يلي بالسؤال)

2 years old boy is about to have a surgery for undescended testicles,

A-Calculate the deficit?

40kg *Fasting 6 hours= 240

B-Suitable ETT size?

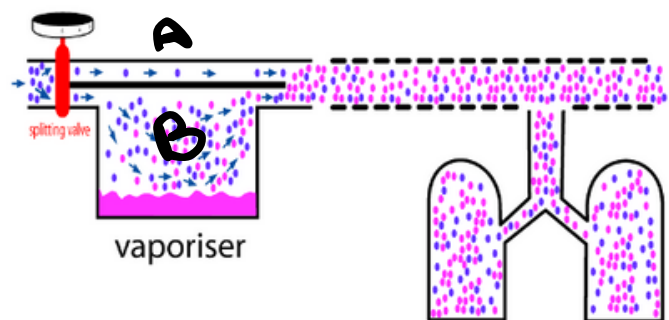
4.5

Question 9:

A- What's A and B?

A: Bypass chamber (only medical gas)

B: Vaporizer chamber (medical gas + inhalational anesthesia)



Question 10:

Match the type of RF in these cases?

(كان مكتوب عند كل صورة اسم المرض والسؤال بس توصيل)



Asthma Attack

RF . 1



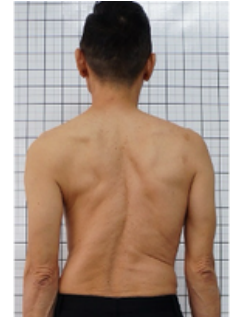
Pneumothorax

RF . 1



Pneumonia

RF . 1



Scoliosis

RF . 2

Question 11:

Pain (صور الأدوية المذكورة بالسؤال كان بالسؤال أكثر من 4 صور)

Pethidine antidote - **naloxone**

Hydrolysis by tissue non specific esterases- **Remifentanyl**

More potent than fentanyl - **Sufentanil (fentanyl citrate)** NOT SURE OF THE NAME

Question 12:

السؤال كان مرقمهم بأحرف ومعطي خيارات

A+B مثلا

Match the fluid type with the correct statement;



A



B



C

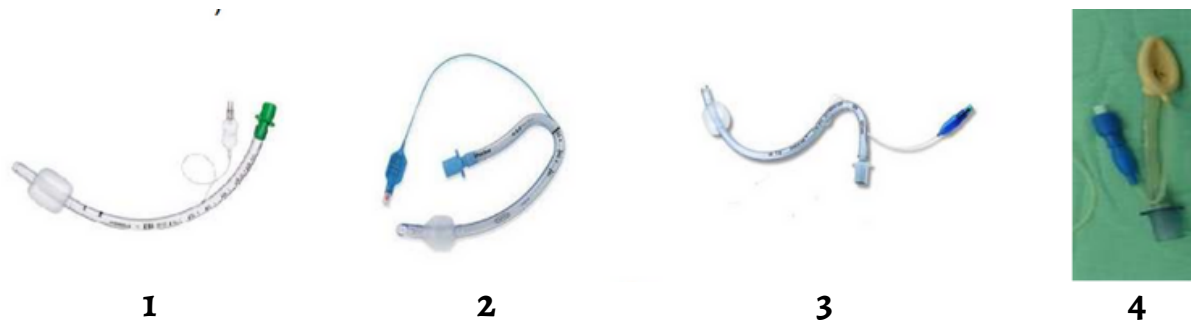


D

ABO is mandatory in? **PRBCs+FFP**
200ml? **Plasma**
From Buffy coat? **platelets**
Fibrinogen and factor 8? **Cryoprecipitate**

Question 13:

Choose the best ETT type indicated for these surgeries;

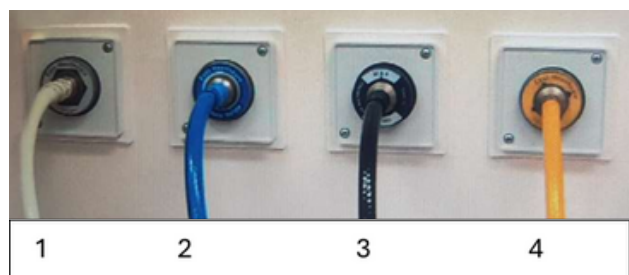


Urology Surgery- **4** Cholecystectomy- **1**
Left Eye Surgery- **2** Mandibular Surgery- **3**

Question 14:

What is the pressure of the following Central line outlet:

- 1- **4 bar**
- 2- **4 bar**
- 3- **4 bar**
- 4- **negative**



Question 15:

Liver and spleen rupture, order your priorities in managing the case?
Interfere surgically to stop bleeding (damage control surgery)- **Priority.**
Secure airways- **Priority.1**
Arterial line- **Priority.**
Blood Transfusion- **Priority.**

Anesthesia mini-OSCE 2nd semester/ 6th month

Question 1:

2 years child will have a cleft palat surgery

A. What is the type of endotracheal tube?

Non-cuffed?

B. The size of endotracheal tube?

4.5

C. The most serious complication post-anesthetic?

Question 2:

According to this picture:

A. Malampati score?

4



B. In a previous anesthesia the patient had a fever, what is the most serious complication that may have postoperatively?

Question 3:

True or false?

A. Anesthetic management care involve endoscopy and hemodialysis units

B. You can take consent from a patient in conscious sedation before he goes into deep sedation

C. Surgery starts at 2nd stage of anesthesia

D. Cystoscopy need muscle relaxant

All are false

Question 4+5:

Match (may be more than one answer for any part):



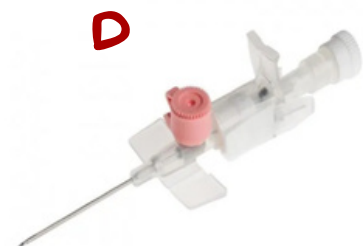
- A. Elimination by Hoffman —
- B. Its effect reversed by neostigmine —
- C. Its effect reversed by Sugammadex —
- D. Metabolized by pseudocholinesterase (not sure) —
- E. Cause bradycardia —
- F. Associated with egg allergy —
- G. Used for hemodynamically unstable patient —

Question 6:

Picture of monitor, mention all abnormalities with their normal ranges.

Question 7:

The name of each equipment?



- A. Spinal needle
- B. Epidural needle
- C. Nerve stimulator
- D. IV cannula

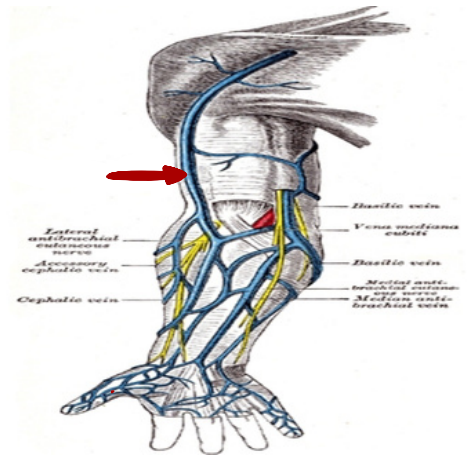
Question 8:

A. The name of this vein:

Cephalic vein

B. Continuation of? (not sure)

Axillary vein



Question 9:

Case of respiratory failure list your priorities in the management

- 1. Primary objective is to reverse and prevent hypoxemia**
- 2. Secondary objective is to control PaCO₂ and respiratory acidosis**
- 3. Treat the underlying disease**

Question 10:



A. What is the type of this cardiac arrest?

Asystole

B. Mention what you should do?

Question 11:

A case of pneumothorax

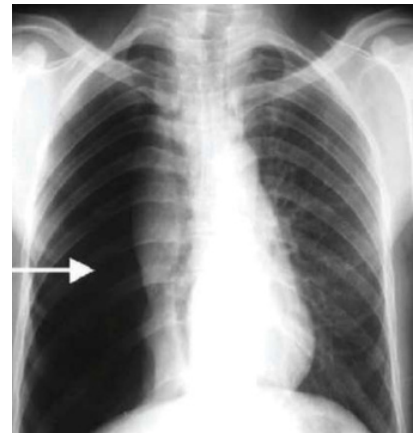
A. What is the hemodynamic status?

Respiratory failure type 1?

B. Management?

Needle decompression

C. Your further management?



Question 12:

According to each of the following mention what will happen to oxygen dissociation curve: (pics of minotors and someone do exercise)

Exercise — **Right**

Hypercapnia — **Right**

Hypothermia — **Left**

Alkalosis — **Left**

Question 13:



A. What is the size of this tube?

8mm

B. What is the function of that part (red arrow)?

Prevent the Aspiration and air leaking

Question 14:

Question about this (I forgot it :)

Scoring Guideline

Post Anesthesia Recovery Score (Aldrete Score)	
Activity	2 Able to move 4 extremities voluntarily or on command 1 Able to move 2 extremities voluntarily or on command 0 Able to move 0 extremities voluntarily or on command
Respiration	2 Able to deep breathe and cough freely 1 Dyspnea or limited breathing 0 Apneic
Circulation	2 B/P \pm 20 of Pre-anesthetic Level 1 B/P \pm 20 to 50 of Pre-anesthetic Level 0 B/P \pm >50 of Pre-anesthetic Level
Consciousness	2 Fully Awake 1 Appropriate on Calling 0 Not Responding
Color	2 Pink 1 Pale, Dusky, Bluish, Jaundiced, Other 0 Cyanotic

1- Adult VAS Pain Scoring Scale

2- Pediatric FACES Scoring Scale

Guidelines for discharging Patients from PACU

** The Following are required for Discharging patients from PACU, unless indicated otherwise by discharging physician:

- Vital signs should be stable and within acceptable limits
- Patient should have a minimum Total Recovery Score (Aldrete) of 6
- Patient with pre-operative mental state abnormality should return to baseline state before discharge
- Patient should have a maximum Pain Score of 4
- Patient should be adequately hydrated
- Sufficient time (up to 2 hours) should elapse after use of reversal agents (Opioid/anticholinergics, Naloxone, Flumazenil) to ensure no recurrence of original agent action
- Outpatients should be discharged in the presence of a reasonable adult to escort them home and report any complications
- Outpatients should be provided with written instructions regarding post-procedure diet, medications, & activities as well as a phone number to use in case of emergency
- Outpatients should be tested for ability to stand unaided to exclude Postural Hypotension or gait instability before discharge

Discharge Order

Question 15:

Question about cannula gauges