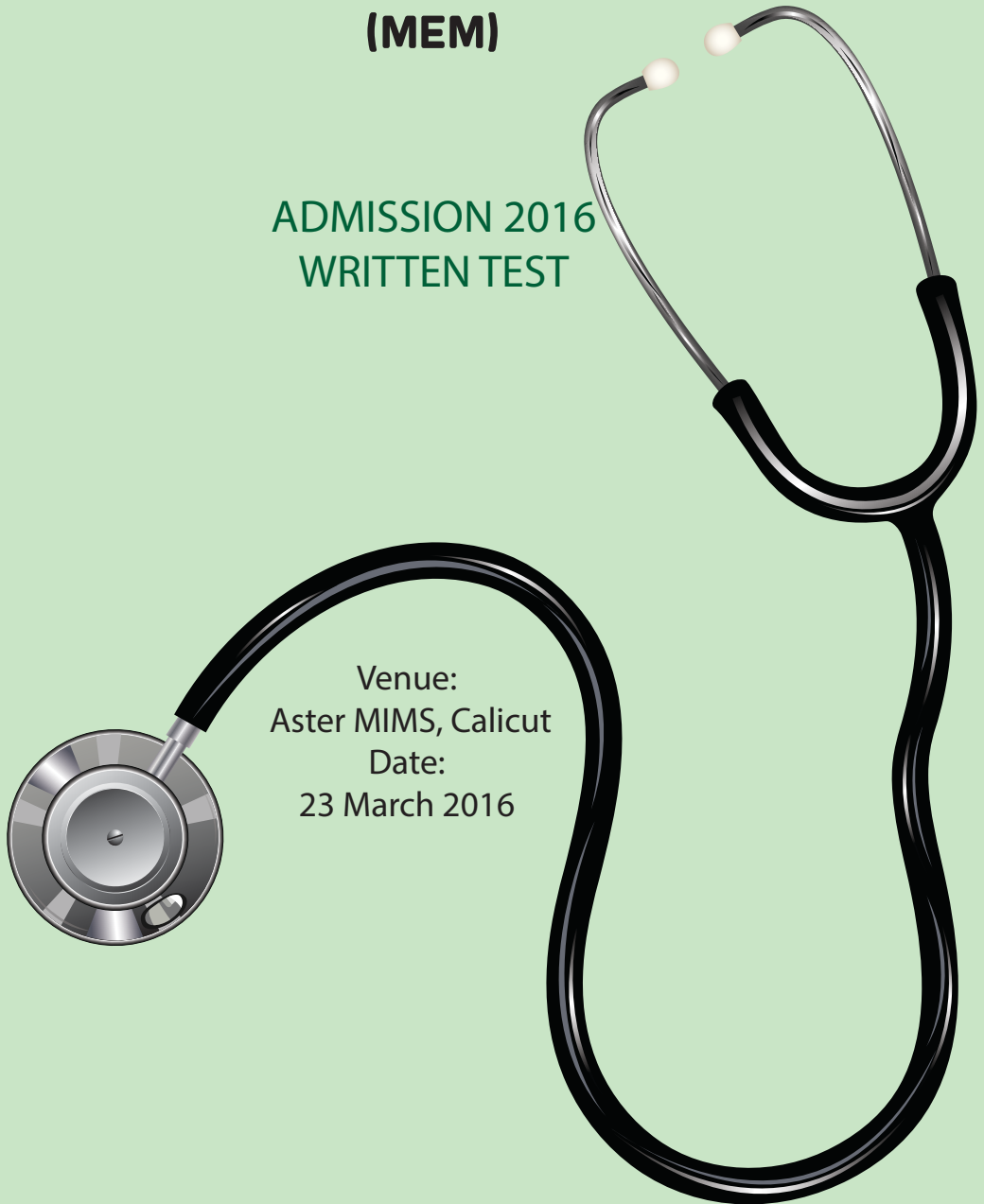




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# MASTERS IN EMERGENCY MEDICINE (MEM)

ADMISSION 2016  
WRITTEN TEST



Venue:  
Aster MIMS, Calicut  
Date:  
23 March 2016



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## MASTERS PROGRAM IN EMERGENCY MEDICINE

Screening test for admission to MEM 2016 Batch under GWU

### Direction:

- Answer all questions
- No negative marks
- 50 objective multiple choice single response questions – each correct answer carrying one mark
- Time: 1 hour
- Score will be added to total interview score
- Don't write on question paper
- Mark correct answer using HP pencil



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1. Widmark's formula is used to calculate?

- a) Quantity of alcohol in the body ✓
- b) Time since injuries
- c) age of injuries inflicted
- d) Stature

2. Sputum can be disinfected by all except:

- a) Autoclaving
- b) Boiling
- c) cresol
- d) chlorhexidine ✓

3. Mass chemoprophylaxis is not given for one of the following

- a) Plague
- b) Lymphatic filariasis
- c) Scabies ✓
- d) Vit A deficiency

4. A 4-year-old male patient s brought to your ED at 2Am with complaints of pain in right scrotum since 30 mins. On examination boy is in severe pain. Vitals reveals tachycardia and other parameters are normal. On local examination you find swollen right scrotum and you find right testis lying in transverse plane. Cremastic reflex is absent. What is your next immediate step?

- a) Discharge the boy after pain management
- b) Raise the scrotum to relieve pain along with IV analgesics
- c) Immediate general surgery consultation and apply ice till surgeon arrives and shift to OR.
- ✓ d) Immediately manually twist the right testis in counter clock wise direction till pain is relieved.

5. Which of the following is not found in the upper respiratory tract?

- a) Oropharynx
- b) Palatine tonsils
- c) Fauces
- d) Trache ✓



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6. A 45 year old female presents to your ER with mild pleuritic right sided chest pain. A Chest X ray reveals a small ( $< 1\text{cm}$ ) ring of air outside the lung at the apex. What is the correct management?

- a) Chest drain (Seldinger technique)
- b) Aspiration under ultrasound guidance
- c) Aspiration without ultrasound
- d) Observation initially ✓

7. True statement regarding Lung Volumes

- a) The vital capacity is the sum of inspiratory reserve v
- b) The residual volume is measured with the help of a Spirometer
- c) FEV1/FVC ratio increases in obstructive airways disease
- d) The tidal volume is usually about 6–8 mL/kg at rest ✓

8. True statement regarding femoral triangle is

- a) Has the medial border of iliopsoas as the lateral boundary
- b) Contains the femoral nerve in its femoral sheath
- c) Has the femoral canal as its most medial structure ✓
- d) Can have a femoral hernia which can be distinguished from an inguinal hernia because its neck is always medial to the pubic tubercle.

9. Regarding foot anatomy, FALSE statement is

- a) Inversion is mainly due to the action of tibialis anterior and tibialis posterior
- b) Inversion and eversion occur at the talocalcaneal joint
- c) The medial arch of the foot is supported by three tendons
- d) Calcaneal fractures are typically caused by severe eversion of the foot ✓

10. Which of the following is NOT used in chemoprophylaxis for contacts of meningococcal meningitis

- a) Rifampicin
- b) Ceftriaxone
- c) Ciprofloxacin
- d) Flucloxacillin ✓



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11. A patient presents with sudden onset of breathlessness after a subclavian vein cannulation. On examination, breath sounds are absent while the chest is hyper resonant on percussion on one side. Most likely cause is

- a) Subclavian vein Embolism
- b) Iatrogenic pneumothorax ✓
- c) Malposition of cannula
- d) Cardiac arrhythmia

12. A person with head injury opens eyes to painful stimulus, uses inappropriate words and localizes pain. What is his GCS score?

- a) 8
- b) 10 ✓
- c) 11
- d) 13

13. A rickshaw tyre passed over the body of an 8 yr old child leaving distinct markings of the tyre treads. Marking's of the rickshaw tyre over the child's body are best defines as

- a. Contact abrasions
- b. Percolated abrasions
- c. Imprint abrasion ✓
- d. Patterned abrasion

14. A sewage worker presents to the Emergency department with fever and jaundice. Laboratory findings were suggestive of renal failure. Which of the following antibiotics are recommended?

- a) Cotrimaxozole
- b) Imipenam
- c) Ciprofloxacin
- d) Penicillin G ✓



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15. Which of the following is recommended for medical treatment of variceal bleed

- a) Octreotide ✓
- b) Desmopressin
- c) Vasopressin
- d) Nitroglycerin

16 Toxic shock syndrome is caused by

- a) Infected DPT vaccine
- b) Infected Polio vaccine
- c) Infected BCG vaccine
- d) Infected Measles vaccine ✓

17. A man with blunt injury abdomen after road side accident has a blood pressure of 100/80mmHg and a pulse rate of 120bpm. Airway has been established and respiration has been stabilized. Next best step is management is

- a) Immediate blood transfusion
- b) Blood for cross matching and IV Fluids ✓
- c) Ventilate the patient
- d) Rush the patient to OT

18. Tensor of the Vocal Cord

- a) Cricothyroid ✓
- b) Posterior crico arytenoids
- c) Lateral crico arytenoids
- d) Thyro arytenoids



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19. A 21 yr old woman is brought to the ED because she has been experiencing abdominal pain for the past 12 hrs that has been getting progressively worse. The date of her LMP was 8wks ago. The patient is found by the paramedics to be pale and lethargic, with a systolic BP of 70 mm Hg. Upon arrival in the ED, her BP is unchanged. The patient's abdomen is distended and rigid with percussion tenderness. What is the most likely diagnosis?

- a) Threatened miscarriage
- b) Intrauterine pregnancy
- c) Ectopic pregnancy ✓
- d) Incomplete miscarriage
- e) Torsed ovary

20. Commonest complication following tonsillectomy

- a) Palatal palsy
- b) Haemorrhage ✓
- c) Sepsis
- d) Injury to uvula

21. Which is not seen in inflammatory stage of wound healing?

- a. Angiogenesis ✓
- b. Chemotaxis
- c. Increased capillary permeability
- d. Cytokine & chemotactic factor release

22. Hyperplasia of smooth muscle of airway is seen in?

- a. Emphysema
- b. Asthma ✓
- c. Alveolar proteinosis
- d. Bronchiectasis



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23. First sign / symptom of renal graft rejection is

- a. Fever
- b. Rash
- c. Increased creatinine ✓
- d. Tenderness

24. Highest chance of embolisation are seen with vegetations of?

- a. Rheumatic fever
- b. Marantic endocarditis
- c. Libmann Sack's endocarditis
- d. Infective endocarditis ✓

25. The hallmark for diagnosis of Hepatitis B is?

- a) HbsAg ✓
- b) Anti HBsAg antibody
- c) Anti HBc Antibody
- d) Anti HBE Antigen

26. A 28-year old multiparous woman, at 30wks gestation by dates, arrives in the ED because she is concerned about the sudden onset of bright red vaginal bleeding and the passage of blood clots. She denies a history of trauma or pain. Her vitals are stable on arrival. How should the emergency physician proceed?

- a) An immediate and through pelvic examination is indicated
- b) Vaginal delivery should be induced
- c) A caesarean section should be performed
- d) The patient should be transferred to the operating room to undergo examination ✓
- e) The patient should be referred to an obstetrician





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27. Dark field microscopy is used for?

- a) Syphilis ✓
- b) Rickettsia
- c) Brucella
- d) T.vaginalis

28. 7-year-old boy presents with a grossly swollen eyelid. His mother can't think of anything that set this off. What finding is most characteristic of orbital cellulitis?

- a) Chemosis
- b) Warmth and erythema of the eyelid
- c) Physically tautfeeling eyelid
- d) Proptosis ✓

29. 27yearold contact lens wearer presents to the ER complaining of ocular irritation. On exam he has a small 2mm corneal abrasion. You should

- a. treat with erythromycin ointment
- b. treat with ciprofloxacin drops ✓
- c. bandage contact lens for comfort and speed reepitheliazation
- d. patch the eye and followup in 72 hours

30. Aqueous fluid is produced in which chamber?

- a. anterior chamber
- b. vitreous chamber
- c. posterior chamber ✓
- d. trabecular chamber



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31. An 18yr old college girl is brought to the ED on a Sunday night by her roommate. The roommate says that the patient has been acting 'strange'. The roommate had gone home for the weekend and had returned to find the patient crying on the floor. The patient is subdued, distracted, and intermittently tearful, and has said repeatedly, 'I want to get tested. He touched me'. What is the most appropriate course of action?

- a. Psychiatric consultation in a quiet area
- b. Complete pelvic examination with rape protocol
- c. History and physical examination searching for evidence of trauma ✓
- d. Immediate notification of the police or children protective services agency
- e. Immediate notification of the patient's parent.

32. A patient presented with photophobia and watering in left eye. On examination with fluorescein staining revealed dendritic ulcer which is caused by

- a. Staphylococci
- b. Fungal
- c. Herpes simplex virus ✓
- d. Herpes zoster virus

33. Earliest change in a 1 year old child with raised ICT is

- a) Posterior clinoid erosion
- b) Sutural separation ✓
- c) Erosion of sella
- d) Silver beaten appearance on X Ray Skull



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34. A 4 year old boy falls from the back of a 3 wheeler, hitting his head. He has no loss of consciousness, is alert and well oriented. On examination, he has blood behind his left tympanic membrane. CT Scan of skull is likely to show

- a) Basilar fracture of skull ✓
- b) Epidural Hematoma
- c) Intraventricular Haemorrhage
- d) Subdural Hematoma

35. Which of the following should you NOT do for a child suffering a seizure?

- a) Try to ease their fall
- b) Restrain them ✓
- c) Protect their head and limbs
- d) Put them into the recovery position when the convulsion has stopped

36. Which of the following does not form the femoral triangle

- a. Inguinal ligament
- b. sartorius muscle
- c. adductor magnus ✓
- d. adductor longus

37. Which of the following is not form the rotator cuff muscle

- a. Infraspinatus
- b. Subscapularis
- c. Supraspinatus
- d. Teres Major ✓



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37. Which of the following is not form the rotator cuff muscle

- a. Infraspinatus
- b. Subscapularis
- c. Supraspinatus
- d. Teres Major ✓

38. 54 year old man know case of CAD brought ED with acute chest pain and sweating .

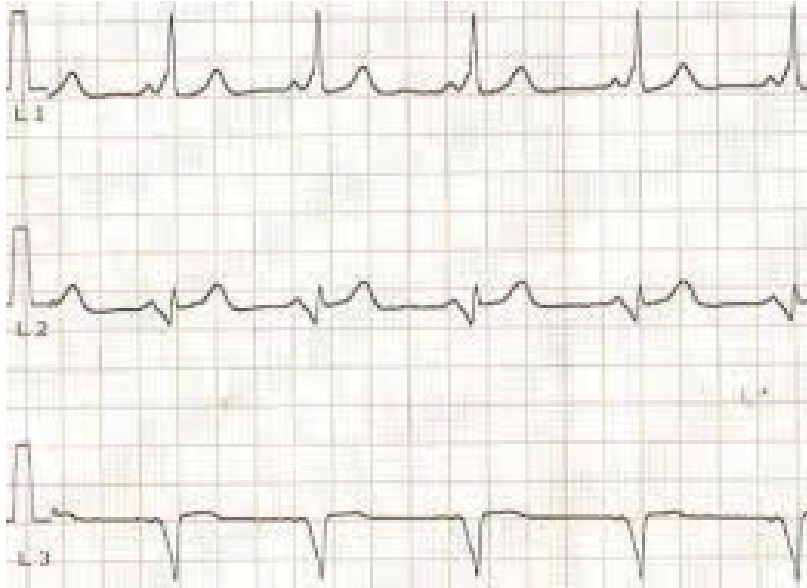
He was unresponsive in front of you . His ECG traces are as follows.



Your management

- a. 300mg IV amiodarone
- b. Adenosine 12mg IV
- c. Cardio Version using 100Joule
- d. DC Shock 200 joule Biphasic ✓

39.



What is your Diagnosis ?

- a) Mobitz type 2
- b) Acute MI
- c) WPW syndrome ✓
- d) Complete heart block

40. What is the use of this equipment in Emergency room

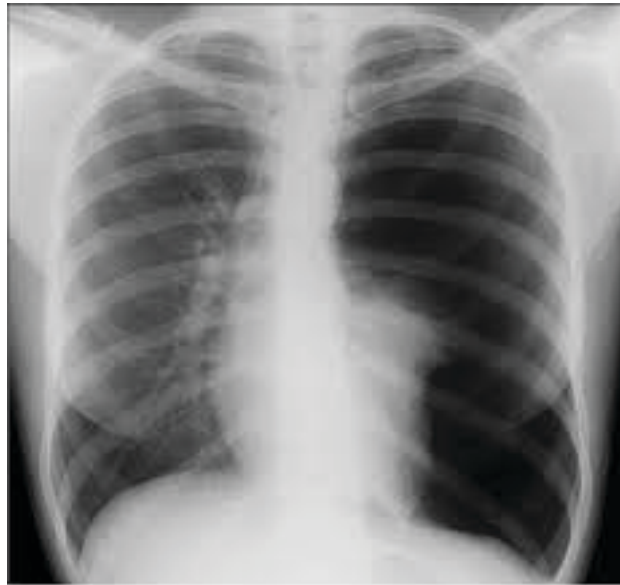


- a. To rule out Oesophageal intubation ✓
- b. Neonatal Tube suction
- c. Paediatric NG tube placement
- d. Wound irrigation balloon



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41. 40-year-old man presented in ED the acute chest pain and breathlessness . His hypotensive and diaphoretic.His chest X ray is as follow



Your management

- a. Urgent pulmonology consult
- b. CT thorax and Refer to Thoracic surgeon
- c. Needle thoracostomy ✓
- d. Tube Thoracostomy
- e. All of the above

42. What is the use of this tape



- a) Fluid calculation in Adult burns
- b) Drug calculation in Critical care medicine
- c) Triage guide
- d) Paediatric Resuscitation ✓



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43. Identify the equipment



- a. McCoy Laryngoscope ✓
- b. Miller Blade
- c. Macintosh Laryngoscope
- d. None of the above

44. 24 year old man brought ED following RTA .GCS 7 . Intubated from ED . Neurosurgeon advised CT . In the CT console his Saturation fall to 60 percent . What are the immediate management

- a) Stop CT and take back to Ed
- b) Change SpO2 probe and continue CT
- c) Give 100% oxygens
- d) Check Tube position ✓

45. Best description for this wound



- a. Incised wound
- ✓ b. Laceration
- c. Abrasion
- d. All of the above



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46 What is the use of this drug



- a. Morphine Antagonist
- b. Anti psychotic drug
- c. Benzo Diazepine antagonist ✓
- d. Organo phosphorous antagonist

47 . Lignocaine toxicity manifest as

- a. CNS excitation ✓
- b. CNS Depression
- c. CVS depression
- d. Respiratory depression

48. All the following are Nor depolarizing muscle relaxants except

- a. Vecuronium
- b. Rocuronium
- c. Mivacurium ✓
- d. Atracurium

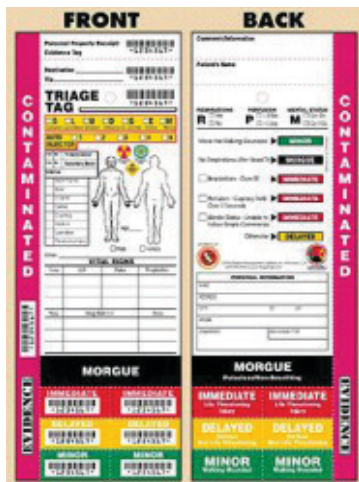


49. All are true about it except



- a. Used in Oxygen therapy
- b. Low flow system ✓
- c. High flow system
- d. Useful in COPD
- e. Used in Controlled oxygen therapy

50. What is the use of this sheet



- a. Initial evaluation in Emergency room
- b. Initial management of burns patients
- c. Intensive care medical documentation chart
- d. Emergency department nurses record
- e. Disaster management tool ✓





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**Answer Sheet for admission to MEM 2016 Batch under GWU**

Name:

Admit Card No.:

Total Wrong Answers:

Question No	A	B	C	D	E
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**Darken on the correct Answer**

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Name:  Admit Card No.:

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Total Wrong Answers:

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Total Wrong Answers:

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Name:

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Total Wrong Answers:

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