

MRCEM SBA Sample Questions

1. A 60 year old plumber attend the ED with painful swelling to his left knee. Clinical examination demonstrates a hot, erythematous knee with a range of movement from 20 degrees to 120 degrees. His observations are normal.

What is the most appropriate treatment?



- A) Arthroscopic washout
- B) *Flucloxacillin***
- C) Incision and drainage
- D) Naproxen
- E) Penicillin V

2. A 17 year old man attends the ED with a rash. He had a cold sore the previous week and has now developed multiple lesions to his hands and torso. He is systemically well.

Which of the following is the most likely diagnosis?



- A) Erythema migrans
- B) *Erythema multiforme***
- C) Gianotti-Crosti syndrome
- D) Pityriasis Rosea
- E) Stevens-Johnson syndrome

3. An 18 month old child is brought to the ED with a widespread rash. She has been ill with a fever and upper respiratory type symptoms for three days, but her fever settled earlier this morning. She appears clinically well with a n otherwise normal examination.

What is the most likely diagnosis?



- A) Erythema infectiosum
- B) Kawasaki syndrome
- C) Measles
- D) *Roseola infantum***
- E) Scarlet fever

4. A 45 year old woman presents to the ED with a two day history of abdominal pain. Abdominal examination confirms generalised tenderness. Her x-ray is shown.

What is the x-ray abnormality demonstrated?



- A) Gastric distension
- B) Gastric volvulus
- C) Inflammatory small bowel changes
- D) Large bowel obstruction
- E) ***Small bowel obstruction***

5. An 11 year old boy presents with his parents to the ED having developed a limp over the last week. He is systemically well and has no medical history.

What is the most likely diagnosis?



- A) Perthes disease
- B) Primary bone neoplasm
- C) Septic arthritis
- D) *Slipped upper femoral epiphysis***
- E) Transient synovitis

6. A 37 year old man is brought to the ED following a house fire. He is GCS 10 and agitated on arrival with a HR of 120 beats per minute and BP 105/85. He has sooty deposits around his face and mouth but no burns elsewhere on his body. He appears cyanosed and is receiving 10 L/min of oxygen through a face mask.

On oxygen 10 litres.

What is his calculated anion gap?

| | | | |
|---------------------------|----------------|----------------------|-------------------|
| pH | 7.15 | Na | 145 mmol/L |
| PaCO₂ | 6.0 kPa | K⁺ | 4 mmol/L |
| PaO₂ | 7.5 kPa | Urea | 3 mmol/L |
| O₂ sats | 98% | Cl | 90 mmol/L |
| HCO₃ | 25 | Blood Sugar | 5 |

- A) 30
- B) 38
- C) 49
- D) 55
- E) 293

7. A 22 year old man presents with a three day history of sore throat and fever. His temperature in the department is 39°C. He has malaise and complains of mild upper abdominal pain. His oropharynx is as shown.

What is the most likely diagnosis?



- A) **Infectious mononucleosis**
B) Influenza A infection
C) Paramyxovirus infection (mumps)
D) Streptococcal tonsillitis
E) Viral pharyngitis
8. A 28 year old woman who is 36 weeks pregnant presents with vaginal bleeding. Her previous scans have confirmed an intra-uterine pregnancy. She is rhesus negative. She has no abdominal pain and ongoing significant bleeding.

What pathology is the most likely explanation for her haemorrhage?

- A) **Placenta praevia**
B) Placental abruption
C) Progression of Labour
D) Threatened miscarriage
E) Uterine rupture