PTS 3a Mock SBA Series 2020 

**Paper 5**- [Questions]- Version 1

**Examination instructions**

* Time allocated for examination: **2 hours 30 minutes.**
* You are **not permitted** to leave the examination hall in the first **90 minutes**.
* Please write your **student number** at the top of the answers page.
* You are permitted to use a Sheffield University approved **calculator** should you wish.
* The use of mobile phones or other **electronic devices is strictly prohibited** in this exam and should be handed in or switched off for the duration of the exam.
* This examination is **not negatively marked**.
* Please complete all **100 questions** provided.
* The paper consists of **100 marks** in total.

**Disclaimer:**

The following paper has been **written for students by students** and **bares no reflection on the real exam.** This is a **learning tool** that has **not been reviewed by the University of Sheffield** and thereforethe **use of this paper** for learning are **at the student’s discretion.**

Please **do not share** this document on **google drives** or **directly** to **future 3a students,** ths takes away from their opportunity to complete the mock SBA in the run up to their exams when it has maximal impact as a revision resource. **This mock paper will be edited and repeated in future years.** Thank you.

**Chief Exam Editor**

*Andrew Maud*

**SBA Question Contributors**

*Eloise Marsland*

*Anuj Thakkar*

*Jack Hogg*

*Je Ern Chooi*

*Sarah Ibrahim*

*Emma Hartick*

*Megan Taylor-West*

*Philip Holcroft*

*Robert Croft*

*Joanna George*

*Matt Mank*

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**[Question paper begins on the following page]**

**1. A 9-year-old boy presents with red, dry itchy patches of skin on the flexor surfaces of his elbows and knees and on his face. He is diagnosed with atopic eczema. What is the first line treatment?**

1. Antihistamines
2. Bandage the inflamed skin
3. Emollients
4. Oral corticosteroids
5. Topical corticosteroids

**2. Which of the following is not a risk factor for atopic eczema?**

1. Certain food allergies
2. Family history of asthma
3. Family history of eczema
4. Personal history of asthma
5. Use of skin irritants, such as detergents

**3. A 6-week-old baby presents with non-bilious projectile vomiting which occurs after every feed. The vomiting has got progressively worse over the last several days. There is no blood in the vomit. The parents report that he is having less wet nappies than usual and appears to be more agitated. What would you classically expect to find on an abdominal examination?**

1. Distended abdomen
2. Guarding in the right iliac fossa
3. Hepatomegaly
4. No significant findings
5. Palpable olive-sized pyloric mass

**4. What genetic abnormality is the cause of Edward’s syndrome?**

1. 45 XO
2. Single nucleotide mutation on chromosome 11
3. Trisomy 13
4. Trisomy 18
5. Trisomy 21

**5. What is the most common presentation of a patient with a varicocele?**

1. Asymptomatic
2. Dull discomfort in the scrotum
3. Infertility
4. Red, swollen and warm testicle
5. Sharp severe pain in the scrotum

**6. Which of the following is not a risk factor for cerebral palsy?**

1. Birth complications
2. Macrosomia
3. Maternal infection
4. Maternal thyroid dysfunction
5. Prematurity

**7. A 1-week-old baby presents with yellow discolouration of the skin and sclera. Which of these is not a likely cause?**

1. Polycythaemia
2. Neonatal infection
3. Physiological response
4. Pyloric stenosis
5. Rhesus incompatibility

**8. Which of the following is not part of the standard management of DKA in children?**

1. IV fluid replacement
2. IV insulin infusion
3. IV sodium bicarbonate
4. Potassium
5. Oral fluid replacement

**9. A 7-year-old girl presents with a 2 week history of tiredness, weight loss and bed wetting. A set routine blood tests are performed and the results are as follows:**

**Hb: 130g/L**

**WBC: 7x109/L**

**Albumin: 42g/dL**

**AST: 16IU/L**

**ALT: 17IU/L**

**Creatinine: 0.9mg/dL**

**Sodium: 141mmol/L**

**Potassium: 4mmol/L**

**Random blood glucose = 12.3mmol/L**

**CRP: 2mg/L**

**What is the most likely diagnosis?**

1. Addison’s disease
2. Leukaemia
3. Type 1 Diabetes
4. Type 2 Diabetes
5. Urinary tract infection

**10. Which of the following is not a common side effect of topical corticosteroids?**

1. Acne
2. Oedema
3. Striae
4. Telangiectasia
5. Thinning of the skin

**11. You are a GP trainee and a woman has come in to see you. She is extremely anxious and raises some concerns with you about her planned pregnancy. She suffers with sickle cell anaemia and is worried that her future child will suffer the same. Genetic testing has shown that her husband is not a carrier of the gene. What is the percentage chance that the child is a carrier of the disease?**

1. 0%
2. 25%
3. 50%
4. 75%
5. 100%

**12. A 7-year old girl presents with a 3-month history of knee swelling and joint stiffness which is worse in the morning and after long periods of rest. Her mother says she ‘walks like an old woman’ and struggles to get up and down the stairs. On examination the patient appears systemically well, however, there is obvious swelling and inflammation bilaterally of the knees. Blood tests show raised WCC, ESR and a positive antinuclear antibody. You start her on Naproxen to manage her symptoms. What is the next most appropriate step in her management?**

1. Arrange a CT scan of the knees
2. Prescribe an anti-TNF alpha inhibitor
3. Prescribe prednisolone
4. Refer to Ophthalmology
5. Refer to Trauma & Orthopaedics

**13. You are in A&E, a mother comes in with her 3 year old child who has just had what she describes as a ‘fit’. She said her child went stiff before violently jerking. This lasted for 5 minutes before resolving spontaneously. This has never happened before but she recalls her mother telling her about a similar episode she had when she was a baby, although she can’t remember the exact details. She says her child has been suffering with ear pain, discharge and feels hot to touch. You examine the child to find a high grade fever (39 degrees). What is the most likely cause?**

1. Encephalitis
2. Epileptic seizure
3. Febrile convulsion
4. Hypoglycaemia
5. Hyponatraemia

**14. A 15-year-old boy has presented to A&E with a high grade fever, headache and neck stiffness. He shouts at you saying that the ‘light is blinding me’. Following your initial examination of the boy you notice a non-blanching petechial rash across his chest. You decide to carry out the Sepsis Six protocol as per hospital guidelines. The registrar decides to perform a lumbar puncture also. Given his presentation, what would you most likely see on his CSF results?**

1. Clear, High Glucose, Low Protein and Polymorphic Neutrophils
2. Clear, Normal Glucose, Normal Protein and Raised Lymphocytes
3. Cloudy, High Glucose, High Protein and Polymorphic Neutrophils
4. Cloudy, Low Glucose, Low Protein, Raised Lymphocytes
5. Cloudy, Low Glucose, High Protein, Polymorphic Neutrophils

**15. A 7-year-old child has presented to the GP surgery with a severe sore throat, fever and nausea. On examination, there is enlargement of the cervical lymph nodes and facial flushing. You also note a bright red tongue, raised sandpaper-like rash under the armpits and around the groin. Given the likely diagnosis, what is the most common causative agent?**

1. Neisseria Meningitidis
2. Paramyxovirus
3. Parvovirus B19
4. Staph. Aureus
5. Strep. Pyogenes

**16. A 2-year-old girl has come to A&E with her mother, she has presented with a fever and coryzal symptoms. You immediately notice a loud barking cough and hoarseness to her voice. On auscultation of the lungs you hear a high pitched respiratory stridor. You give her dexamethasone, however her oxygen saturations continue to drop and she becomes drowsy. You decide to give her some oxygen. What is the next management step?**

1. IV Cefotaxime
2. IV Hydrocortisone
3. Nebulised Adrenaline
4. Nebulised Salbutamol
5. Oral Chlorphenamine

**17. A 3 month old baby has presented to AMU with a 2 day history of shortness of breath, coryzal symptoms and a dry cough. On examination the baby is febrile and a high pitched wheeze is heard on auscultation. You suspect this is bronchiolitis. Which of the following is not an indication for admission?**

1. Cyanosis
2. Fluid Intake <50%
3. Nasal Flaring
4. Respiratory Rate 40
5. SpO2 <94%

**18. A 5-month old boy presents to the emergency department continually crying and drawing up his legs. He is refusing feeds and it is evident that he is in some discomfort. On examination you palpate a ‘sausage shaped mass’ in the right upper quadrant of his abdomen. In his nappy you notice a blood-stained mucus stool. His abdomen is visibly distended. You decide to order an abdominal ultrasound scan. What would you expect to see?**

1. Double Bubble
2. Fluid in the peritoneum
3. Perforation of the bowel
4. Rigler’s sign
5. Target-like mass

**19. A teenage boy presents to the GP surgery with abdominal pain and distension, diarrhoea and foul smelling stools which he finds difficult to flush. He is a known Type 1 Diabetic. After taking a detailed history and ordering basic investigations you suspect a diagnosis of Coeliac Disease. You refer him to gastroenterology for an endoscopy with duodenal biopsy to confirm your diagnosis. What would you not expect to see on biopsy?**

1. Cobblestone appearance
2. Crypt hyperplasia
3. Intraepithelial lymphocytes
4. Normal Mucosal Thickness
5. Villous Atrophy

**20. Which one of these is not associated with failure to thrive?**

1. Coeliac Disease
2. Low socio-economic background
3. Maternal depression
4. Toddlers diarrhoea
5. Vomiting

**21. A 26-year-old female was brought into A&E by her boyfriend after he found her on the floor unconscious smelling of alcohol. The boyfriend explains that the patient has a background of deliberate self-harm and was recently discharged from the hospital after an episode of paracetamol overdose. Their relationship was turbulent, and you found out that the patient was sexually abused by a relative when she was 8 years old. What is the most likely personality disorder based on the history?**

* 1. Antisocial personality disorder
	2. Avoidant personality disorder
	3. Emotionally unstable (borderline personality disorder
	4. Paranoid personality disorder
	5. Schizoid personality disorder

**22. A 34 year-old-man was brought into A&E by an ambulance following paracetamol overdose. He is known to the mental health service with moderate depression for many years. Which of the following is not a risk factor of suicide?**

1. Chronic disabling illness
2. Family history of suicide attempt
3. Females in 20s-30s
4. Previous history of deliberate self-harm
5. Substance misuse

**23. Which of the following is not a feature of alcohol dependence?**

1. Compulsive need to drink
2. Drinking at the same time each day at the same place
3. Increase quantity of alcohol to produce the same effect
4. Increase variety of alcohol consumed
5. Reinstatement of drinking after attempted abstinence

**24. Regarding treatment for alcohol dependence, which of the following is incorrect?**

1. Acamprosate reduces craving by inhibiting GABA transmission
2. Clomethiazole is unsafe to be used in patients who continue to drink
3. Disulfiram caused build-up of acetaldehyde on consumption of alcohol causing unpleasant symptoms such as flushing, headache and anxiety.
4. Naltrexone acts as opioid antagonist to reduce the pleasurable effect of alcohol
5. Out-patient alcohol detoxification includes vitamin B1 supplement

**25. Mr Smith has been feeling very low in mood for the past 3 months. He suffers from insomnia and struggles to gather motivation and energy to do his daily tasks. On prompting, he confesses that he has lost weight due to his lack of appetite. Which of the following pharmacological treatments would be the most suitable for Mr Smith?**

1. Aripiprazole
2. Citalopram
3. Fluoxetine
4. Haloperidol
5. Mirtazapine

**26. Which of the following is an absolute contraindication for electroconvulsive therapy (ECT)?**

1. Cerebral tumour/ aneurysm
2. Phaeochromocytoma
3. Pregnancy
4. Raised intracranial pressure
5. Recent MI

**27. A 24-year-old female complains of excessive and uncontrollable worrying on most days of the week for the past 8 months. She describes that during the “attack” she feels very breathless and tense, has a dry mouth and experiences palpitations and excessive sweating. She is unable to identify the possible triggers to explain what might be causing her symptoms and could not predict when it will happen. She is very frustrated, and it has severely affected her job as a teacher. Which of the following is the most likely diagnosis?**

* 1. Acrophobia
	2. Agoraphobia
	3. Generalised anxiety disorder
	4. Hypomania
	5. Social phobia

**28. Which of the following is a good prognostic factor for schizophrenia?**

* 1. Female sex
	2. Gradual onset psychosis
	3. No obvious precipitant
	4. Premorbid high IQ
	5. Strong family history of psychosis

**29. Which of the following is not an example of drug-induced psychosis?**

* 1. Anti-malarial
	2. Bromocriptine
	3. Levodopa
	4. Metoclopramide
	5. Steroids

**30. An 82-year-old man had total hip replacement surgery 5 days ago and is currently waiting to be discharged to a care home. During the morning ward round, the junior doctor was told by the nurse that the patient seems to be confused and agitated. After reviewing the patient’s notes, the junior doctor realised that the patient has not opened his bowel for 5 days. Which of the following feature is not in keeping with the diagnosis of delirium?**

* 1. Acute onset
	2. Hallucinations
	3. Night-time waking
	4. Normal consciousness
	5. Rambling speech

**31. A 21-year-old male presents to Accident and Emergency with 12 hours of increased agitation, restlessness, tremor, vomiting and diarrhoea. He has a past medical history of depression and takes fluoxetine to manage it. On examination, he has hyperthermia, tachycardia, muscle rigidity, hyperreflexia and ankle clonus. He mentions that he has recently started taking St John’s wort to help his depression. What is the most likely diagnosis?**

1. Anticholinergic toxicity
2. Malignant hyperthermia
3. Meningitis
4. Neuroleptic Malignant Syndrome
5. Serotonin Syndrome

**32. A woman who gave birth 4 weeks ago presents to the GP with her baby. She complains of constantly crying and not being able to bond with her baby. Which of the following screening tools is the most appropriate to detect postnatal depression?**Beck Depression Inventory

1. Edinburgh Scale
2. Hamilton Depression Rating Scale
3. PHQ-4
4. PHQ-9

**33. Which of the following is a feature of delirium that can help differentiate it from dementia?**

1. Disorganised thinking
2. Fluctuating course
3. Inattention
4. Memory loss
5. Poor judgement

**34.** **A mother presents to her GP with her 8-year-old son. She’s finding her son constantly bumping into things and sometimes loses his balance. He is also struggling with writing and completing his schoolwork. What is the most likely diagnosis?**

1. Attention deficit disorder
2. Attention deficit hyperactivity disorder
3. Dyscalculia
4. Dyslexia
5. Dyspraxia

**35.** **A 30-year-old patient presents to Accident and Emergency with increasing chest pain and shortness of breath. They have recently divorced their long-term partner and is finding it increasingly stressful at work. What is the most likely diagnosis?**

1. Alcohol withdrawal
2. Cannabis use
3. Serotonin syndrome
4. Pulmonary embolism
5. Panic attack

**36.** **A mother and her 6-year-old son come into your CAMHS clinic appearing distraught as he is becoming more difficult to manage at home. He has recently been diagnosed with ADHD and his mother has already completed an education programme on the disorder. What would be the next treatment option for his ADHD?**

1. Agomelatine
2. Carbamazepine
3. Fluoxetine
4. Melatonin
5. Methylphenidate

**37.** **Which of the following options on anxiolytics is false?**

1. Benzodiazepines should be avoided in patients with a Hx of substance use
2. Hydroxyzine is better for short term use than benzodiazepines
3. IV injections of benzodiazepines can cause thrombophlebitis
4. Short acting benzodiazepines are less likely to cause behavioural disinhibition than other benzodiazepines
5. SSRIs increase the plasma concentration of benzodiazepines

**38.** **A 45-year-old man with a past medical history of schizophrenia is started on clozapine after previous antipsychotics didn’t relieve symptoms. 2 days after commencing treatment, he presents to the emergency room with confusion and stiff arms. Other observations include temperature of 38°C, respiratory rate of 22, heart rate of 130, blood pressure of 80/50 and O2 Sats of 96%. Which of the following is the most likely diagnosis?**

1. Anaphylaxis
2. Neuroleptic malignant syndrome
3. Neutropenic sepsis
4. Non-compliance to medication
5. Paracetamol overdose

**39.** **When pharmacologic therapy is necessary for the treatment of delirium, which of the following options is the preferred first-line of treatment?**

1. Haloperidol 0.5 mg PO
2. Lorazepam 0.5 mg IV
3. Lorazepam 1 mg PO
4. Quetiapine 25 mg PO
5. Quetiapine 50 mg PO

**40.** **Which of the following is NOT a key drug interaction associated with methylphenidate?**

1. Carbamazepine
2. Isocarboxazid
3. Linezolid
4. Risperidone
5. Venlafaxine

**41. Which of these is not typically seen in patients with polycystic ovarian syndrome (PCOS)?**

1. Acne
2. Difficulty conceiving
3. Low blood pressure
4. Thinning of hair from the head
5. Weight gain

**42. A 21-year-old woman arrives in the sexual health clinic after having unprotected sex 4 days ago. She wishes to use a form of emergency contraception because she does not want a child at this moment in time. She does not take any regular medication, however she is currently taking 2 capsules of Doxycycline twice daily for a chlamydia infection which was diagnosed yesterday.**

**Which would be the most appropriate choice of emergency contraception for this patient?**

1. Combined pill
2. Intrauterine device (Copper coil)
3. Intrauterine system (Mirena coil)
4. Levonorgestrel 1.5mg (Levonelle)
5. Ulipristal acetate 30mg (EllaOne)

**43. A 32-year-old female is seen in the midwifery clinic to discuss her upcoming delivery. It is decided that she will undergo an elective caesarean at 40 weeks because her last 2 children were also delivered in this way.**

**Caesarean section is not associated with a higher incidence of…**

1. Bladder or ureteric injury
2. Hysterectomy
3. Maternal death
4. Perineal pain
5. Venous thromboembolism

**44. A 28-year-old primigravid woman presents to your GP practice with her husband. Over the past few days she has been suffering with persistent blood-stained vomiting, weight loss and dehydration. During the consultation her husband also mentions that she has been behaving slightly out of character.**

**Which of the following investigations would not be helpful in confirming the diagnosis?**

1. Full Blood Count
2. Liver Function Tests
3. Thyroid function tests
4. Urea and Electrolytes
5. Urinalysis

**45. A 35-year-old multiparous woman has recently been diagnosed with gestational diabetes. She wants to know about the risks that this may pose to her pregnancy.**

**Which of the following complications can gestational diabetes cause?**

1. Anaemia
2. Low birth weight for gestational age
3. Overdue birth
4. Placenta praevia
5. Polyhydramnios

**46. A 20-year-old woman with epilepsy is having prenatal counselling regarding changing her sodium valproate medication to an alternative.**

**If she were to become pregnant whilst taking this medication which congenital abnormality would her baby be the most likely to have?**

1. Atrial Septal Defect
2. Cleft palate
3. Hypospadias
4. Polydactyly
5. Blindness

**47. Marfan’s syndrome is caused by a defect on chromosome 15 which means there is a defect in fibrillin synthesis.**

**What kind of inheritance pattern is Marfan’s syndrome?**

1. Autosomal dominant
2. Autosomal recessive
3. Mitochondrial
4. X-linked dominant
5. X-linked recessive

**48. After giving birth, your patient starts bleeding profusely.**

**Which of the following is not a primary cause of postpartum haemorrhage?**

1. Coagulation disorders
2. Genital tract trauma
3. Retained placenta
4. Taking Tranexamic acid
5. Uterine atony

**49. A 15-year-old girl comes into your GP practice asking to talk about contraceptive options. During the conversation, she tells you that she would prefer not to use condoms and that she does not want to become pregnant for a considerable amount of time. She also mentions that she does not want to be on a contraceptive that will make her put on weight as some of her friends have experienced this as a side effect. You look through her notes and see that she has suffered from migraines with aura in the past.**

**Which of the following contraceptive options would be the most appropriate to advise this girl to use?**

1. Combined pill
2. Condoms
3. Copper coil
4. Depot injection
5. Transdermal contraceptive patch

**50. A 37-year-old woman has just given birth to twins. She begins heavily bleeding and is beginning to lose consciousness. After investigation it is decided that this is most likely due to uterine atony. Mechanical measures are administered to try to stimulate myometrial contractions and oxytocin, ergometrine, carboprost and misoprostol have all been given, however the bleeding will still not stop.**

**Which would be the next most appropriate step to try to stop the bleeding?**

1. Carbamazepine
2. Haemostatic suturing
3. Hysterectomy
4. Ibuprofen
5. Intrauterine balloon tamponade

**51. A 35-year-old woman of Afro-Caribbean ethnicity presents to her GP due to her periods in the last few months being heavier than usual. On bimanual examination a firm, non-tender uterine mass is felt. What is the first line investigation to confirm the diagnosis?**

A. Ca-125

B. Colposcopy

C. CT pelvis

D. Full blood count

E. Transvaginal US

**52. A 32-week pregnant woman attends the Labour ward due to her feeling a leakage from her vagina. A midwife examines her and performs an ultrasound, and confirms that her membranes have ruptured. What prophylactic antibiotics should be prescribed?**

A. IV benzylpenicillin

B. IV cefuroxime

C. PO amoxicillin

D. PO co-amoxiclav

E. PO erythromycin

**53. A 22-year-old female attends Accident and Emergency with severe lower abdominal pain. Her last menstrual period was 6 weeks ago. Her urine pregnancy test comes back positive. No uterine pregnancy can be seen on TVUS, and her b-hCG levels come back at 1650. Which of the following is not a risk factor for the likely diagnosis?**

A. Endometriosis

B. Hypertension

C. In vitro fertilisation

D. Previous ectopic pregnancy

E. Progesterone only pill

**54. For which of the following is antenatal screening not offered?**

A. Anaemia

B. Bacteriuria

C. Cytomegalovirus

D. Hepatitis B

E. Syphilis

**55. A 37-year-old woman presents to A&E with severe abdominal pain and passing clots. She says she is 12 weeks pregnant and is very anxious as her last pregnancy ended in a miscarriage which she found incredibly stressful. Which of the following is not an indication to consider alternative management options for a miscarriage, instead of expectant management?**

A. Advanced maternal age

B. Late first trimester

C. Mother has coagulopathies

D. Previous traumatic experience

E. Signs of infection

**56. A 36-year-old woman attends her 34-week antenatal appointment for her routine check-up. On measurement, her blood pressure is >165/115 mmHg and her urine dipstick is ++ for protein, but she reports no symptoms. She has a past medical history of childhood eczema and asthma, for which she has a salbutamol inhaler and a low dose budesonide inhaler. She has no known drug allergies. She thinks her mother may have had high blood pressure during pregnancy. She is admitted to the antenatal ward for further investigations and monitoring. What medical treatment would you start?**

A. Candesartan

B. Labetalol

C. Nifedipine

D. No medical treatment

E. Ramipril

**57. A 66-year-old woman presents to her GP complaining of feeling very tired over the last few months and more recently feeling bloated. She reports no other symptoms. She has a past medical history of hypertension, which is controlled on Candesartan. NKDA. No significant family history. She drinks a bottle of wine a week and has never smoked. On examination the only findings are of abdominal distension and a left pelvic mass. If this woman’s CA125 comes back raised, what is the next indicated investigation?**

A. Alpha fetoprotein

B. Beta hCG

C. CT abdo pelvis

D. MRI abdo pelvis

E. US abdo pelvis

**58. A 39-year-old woman attends an antenatal appointment at 12 weeks in order to have screening for Down syndrome. The combined screening test for Down’s syndrome consists of which of the following?**

A. Alpha fetoprotein, unconjugated oestriol, beta hCG

B. Alpha fetoprotein, nuchal translucency, PAPP-A

C. Nuchal translucency, beta hCG, PAPP-A

D. Nuchal translucency, unconjugated oestriol, crown-rump measurement

E. PAPP-A, beta hCG, inhibin-A

**59. An 18-year-old girl attends her GP practice with severe right-sided abdominal pain. After taking a history and examination, the GP thinks she might have appendicitis, and refers her to the Surgical Assessment Unit. All investigations come back normal. On further questioning, she reports she has encountered this pain before, just not as severely, and that it tends to occur a few days before menstruation. Which of the following is not a risk factor for endometriosis?**

A. Early menopause

B. Family history

C. High body mass index (BMI)

D. Smoking

E. White ethnicity

**60. A 30-year-old female attends her GP due to having very heavy periods. She has no symptoms suggesting an underlying pathology, and examination is normal. What is the next step in management?**

A. Arrange a TVUS

B. Arrange fitting of Mirena IUS

C. FBC

D. Prescribe the combined oral contraceptive pill

E. Prescribe tranexamic acid

**61. A 20 year old woman attends her GP surgery with a 2 week history of dysuria & purulent discharge. She last had unprotected sexual intercourse 3 days ago with a regular partner of 1 year. The GP decides to treat her for an infection before the test results are available. What medication should they use?**

1. Metronidazole 2g stat PO
2. Fluconazole 150mg stat PO
3. Doxycycline 100mg bd 1 week PO
4. Amoxicillin 500mg tds PO
5. Azithromycin 1g stat PO

**62. A 28 year old woman attends her local GUM clinic and describes a 1 week history of painful lesions, raised inguinal lymph glands & dysuria. She explains that over the last few months things have been very stressful at work and is concerned that her partner of 2 years does not feel close to her anymore. Which of the following diseases is in line with these symptoms?**

1. Chlamydia
2. Gonorrhoea
3. Genital Herpes
4. Genital Warts
5. HIV

**63. A GP suspects that his 23 year old patient has a vaginal infection. He tests the vaginal pH and it is pH 5. Which condition is this most in line with these test results?**

1. Vulvovaginal Candidiasis
2. Bacterial Vaginosis
3. Chlamydia
4. Genital Warts
5. Gonorrhoea

**64. You have taken a charcoal swab for a patient you suspect has an STI. The swab is sent off for microscopy, culture & sensitivity testing. The lab report describes seeing gram negative diplococci. Which STI are these findings in line with?**

A. Chlamydia Trachomatis

B. Escherichia coli

C. Neisseria Gonorrhoea

D. Klebsiella Pneumoniae

E. Staphylococcus Aureus

**65. A 42 year old man presents to you with erectile dysfunction and appears very distressed by the matter. He has purchased some blue pills on the internet and is afraid to take them. Which of the following would not be appropriate advice to give to the gentleman, in terms of how he can improve his lifestyle?**

1. Stop smoking
2. Reduce anxiety
3. Reduce stress
4. Cycle regularly
5. Do not drink >14 units of alcohol a week

**66. A 38 year old woman who smokes presents to her GP and asks about her options for contraception treatment. She has previously used barrier contraception, but would like to explore what other options are available. Which of these contraceptives would you make sure to avoid?**

1. Progesterone only pill
2. Mirena coil
3. Injectable Progesterone- Depo-provera
4. Combined oral contraceptive pill
5. Copper coil

**67. A 25 year old woman comes to her local GP to get some advice on using the injectable contraception- depo-provera. Which of these is the most important to warn the patient about for this particular medication?**

1. It can cause breast tenderness
2. There is risk of an ascending infection
3. It can take upto a year to return to normal fertility
4. Increased risk of VTE
5. It’s effects cannot be reversed

**68. A 15 year old girl presents to her GP and wants to discuss contraceptive advice with him. She discloses to the doctor that she has regular intercourse with her partner. Which set of guidelines allow the doctor to give contraceptive advice without informing the parent?**

1. Gillick guidelines
2. Contraception guidelines
3. Fraser guidelines
4. FSRH guidelines
5. UK-MEC guidelines

**69. A 32 year old lady presents to her GP with worries about getting pregnant. She tells her GP that she had intercourse 4 days ago with her partner of 3 years and they had a scare when the condom split. She has not acted on the matter since. What advice can you offer her?**

1. Reassure her that everything will be fine, and that she would not have become pregnant
2. Give her the levonelle emergency pill as emergency contraception
3. Inserting the copper coil as emergency contraception
4. Give her the progesterone only pill as emergency contraception
5. Inserting the mirena coil as emergency contraception

**70. A 25 year old woman is currently taking the combined oral contraceptive pill and has found this to be an effective form of contraception. She recently has been experiencing some dysmenorrhoea and has heard that there is a form of contraception that can help relieve these symptoms. She also describes how she would like a more ‘long-lasting’ form of contraception Which of the following is this statement most in keeping with?**

1. Mirena coil
2. Copper coil
3. Progesterone only pill
4. Progesterone only injection
5. Progesterone only implant

**71. A 65 year old man presents to ED complaining of back pain and numbness. He says he hasn’t wanted to come in for the last 2 weeks as he thought it was just side effects from the treatment for his Duke D bowel cancer, diagnosed 6 weeks ago. He says that he has some new pain in his back, but what is really concerning him is that for the last 2 days he has had incontinence of urine and faeces. He also admits to not having any feeling when he wipes after opening his bowels. He also says he has felt more unsteady on his feet over the last 2 weeks and struggling to walk. What is your first line treatment for this presentation?**

A. Surgical decompression

B. Gabapentin

C. Dexamethasone 16mg

D. Alteplase

E. Levodopa

**72. A 35 year old man presents with a 3 week history of worsening numbness in his hands and legs. He says that it started off fairly mild but he now struggles to feel anything in his feet and he says he struggles to get up from a chair and he is now quite worried. His wife reports that he had ‘a nasty cold’ a couple of weeks before his numbness. Examination shows reduced sensation in all modalities peripherally and marked proximal weakness. You commence appropriate supportive treatments, what other treatments would you like to start?**

1. Aciclovir
2. Dexamethasone
3. Intravenous Immunoglobulin therapy
4. Methotrexate
5. Vancomycin

**73. A 57 year old man presents to you, his GP, describing as he terms it, an unusual headache. He says for the last month or so he gets electric shocks in his face. You further elicit that this pain radiates from his scalp to both his eyebrow and his maxilla on the right side. It seems happen every time there is a gust of wind or when he washes his hair on a morning. The last few days he says brushing his teeth causes an electric shock into his jaw. He is otherwise fit and well. What is the most likely diagnosis?**

1. Chronic Tension Headache
2. Cluster Headache
3. Migraine
4. Temporal Arteritis
5. Trigeminal Neuralgia

**74. A 22 year old lady presents to her GP with worsening vision. She says for the last couple of months her vision has got progressively worse. She describes having trouble seeing cars when she crosses the road, and has to turn her head to the extremes to be able to see anything, but has no problem seeing things directly in front of her. She doesn’t have any double vision, has never lost her vision completely and this is present at all times. She also says that over the same time period her menses have been irregular and she seems to have milky discharge from her breasts despite never being pregnant.**

**Your examination elicits a Bitemporal Hemianopia, with pupillary reflexes and eye movements intact. Other cranial nerves are normal. Which investigation is needed to confirm the diagnosis?**

1. CT Head
2. EEG
3. EMG
4. MRI Head
5. PET Head

**75. A 32 year old lady presents to ED with sudden visual loss in her right eye. She says it happened over a couple of hours. She has had blurred vision before in her left eye a couple of months ago, but it resolved by itself. She says her mum died from Multiple Sclerosis last year and is worried that she may also be developing it. Which feature is not stereotypical of Optic Neuritis?**

1. Optic disc swelling
2. Phosphenes
3. Resolution of symptoms within hours of onset
4. Retro-orbital Pain
5. Unilateral Presentation

**76. A 60 year old lady presents to her GP complaining of dizziness. Questioning reveals that she notices the room spins sometimes when she moves her head. This can be rolling in head or if she turns to speak to somebody. Each episode lasts for about 30 seconds and stops spontaneously. In addition to the spinning sensation she gets double vision as well. She describes no other symptoms and is otherwise fit and well.Examination reveals that Dix-Hallpike Maneuver is positive and no other part of the examination is remarkable. Which differential is the most likely diagnosis?**

1. Benign Paroxysmal Positional Vertigo
2. Otitis Externa
3. Posterior Circulation Stroke
4. Postural Hypotension
5. Vestibular Neuritis

**77. A 63 year old man with Parkinson's Disease (PD) presents with his wife to his GP. The man denies any new problems, however his wife has noticed a change in his mood recently. Over the last couple of months, she says that he has been more lethargic with his day to day activities and seems to get angry with her more often than is normal. On further questioning he admits that he no longer enjoys looking at his garden, which he puts down to not being able to do the manual tasks himself. He often finds himself sat in his living room not concentrating on anything in particular and struggles to complete tasks. He is unaware of anything that is upsetting him at the minute but is upset that his wife feels he is different and it makes him think he is worthless. The GP performs an AMT and the man scores 9/10. What is the most likely cause of his new symptoms?**

1. Alzheimer’s Dementia
2. Depression
3. Frontotemporal Dementia
4. Hypoactive Delirium
5. Lewy-Body Dementia

**78. An 82 year old lady is brought to the ED by ambulance, which her daughter had rang for. Her daughter was with this lady 1 hour ago when this lady dropped her cup of tea on the floor, was unable to speak to her daughter and her face was sagging on the right side. Her daughter denies that this lady has hit her head in anyway. On arrival in ED her symptoms have not resolved and examination reveals a normal left side of the body, but there is reduced sensation to touch isolated to the right side, together with weakness, flaccidity and areflexia. She is cardiovascularly stable. Which investigation is most important to request for this lady?**

1. Clotting screen
2. CT Head
3. ECG
4. MR angiography
5. Transthoracic Echocardiography

**79. A 29 year old man presents to his GP complaining of double vision. He is fit and well normally and noticed this visual change about a week ago. He denies any other symptoms. He has had no trauma.**

**Examination reveals that the right eye is deviated both laterally and inferiorly. The right pupil is dilated and does not react to light. There is ptosis on the right side. The left eye is normal. No other abnormalities are noted. Which Cranial nerve is affected in this man.**

1. CN II
2. CN III
3. CN IV
4. CN V (1)
5. CN VI

**80. A 19 year old man is brought to ED via ambulance as a victim of violent crime. He was assaulted and experienced both blunt trauma and stab wounds. He has a head injury, puncture wounds in his limbs, and in the midline of his back. Your examination reveals he has severe weakness in his right lower limb with loss of proprioception. The rest of the right lower limb is normal. The left lower limb has no sensation of pain but is otherwise normal. What is the best description of the lesion in this man?**

1. Anterior section of the spinal cord
2. Cerebellar stroke
3. Left hemisection of the spinal cord
4. Right hemisection of the spinal cord
5. Transection of the right femoral nerve

**81. Margaret is a 70 year old woman who has presented to the GP with tremor in her hands. The tremor is bilateral and present at rest but gets worse while stretching her arms out. There are no other symptoms of note. The tremor is only mildly affecting her activities of daily living, but she is worried that the tremor is due to Parkinson’s which her friend has recently been diagnosed with. She finds that her symptoms usually improve after drinking a glass of wine. She has a PMH of asthma which she is currently on medication for. Given the most likely diagnosis, what would be the best management?**

A - Advise her to drink more alcohol in the day to improve symptoms

B - Bromocriptine

C - Levodopa

D - Propranolol

E - Reassure and explain treatment is not possible

**82. Phil is a 75 year old man who has tremor, which is worse on his left side and while at rest. He also has cogwheel rigidity in that arm. He has been referred to the neurologist under suspicion of Parkinson’s. Which of the following can be classed as an additional symptom from the classic triad?**

A - Depression

B - Difficulty initiating movement

C - Expressionless face

D - Lewy Body Dementia

E - Micrographia

**83. You are an F2 working on your on-call shift. You have been bleeped to see a 33 year old patient who has collapsed to the floor, her muscles momentarily stiffened and then her arms and legs started jerking. After waiting 5 minutes, IV Lorazepam was administered and a second dose was also given. The episode still has not terminated. What should you do next?**

A - IV Diazepam

B - IV Lorazepam

C - IV Phenytoin

D - Oral Phenytoin

E - Wait for episode to self-terminate

**84. A 23 year old woman has come into the neurology with a suspected seizure. Her friend had recorded it, which showed her dropping to the floor, hip-thrusting and asymmetrical movement of her arms and legs. Before the episode she felt a slight feeling of panic and ‘weird state of mind’. She felt like she recovered from the episode quite quickly within a few seconds. She has never experienced an episode like this before. Her mother has epilepsy. She has no PMH and uses the copper coil for contraception. She expresses that she has been quite stressed lately with her work and issues with her partner. What is the most likely diagnosis?**

A - Absence seizure

B - Generalised tonic clonic seizure

C - Hypoglycaemia

D - Myoclonic seizure

E - Non-epileptic attack disorder

**85. A 55 year old man has presented to an Accident and Emergency with haematemesis. He said he’s been repeatedly vomiting and retching. He tells you that he had 3 bottles of whiskey and that he is a regular drinker. What is the most likely diagnosis?**

A - Diffuse erosive gastritis

B - Malignancy

C - Mallory Weiss tear

D - Oesophageal-gastric varices

E - Peptic ulcer disease

**86. A 67 year old gentleman describes experiencing severe pain and stiffness in his right knee, which is relieved when he sits down. He has tried taking paracetamol and applying ibuprofen gel which has not eased his pain. X-ray changes show a loss of joint space and subchondral sclerosis. Given the most likely diagnosis, the doctor decides to prescribe an NSAID, what else should he co-prescribe?**

A - Alendronic acid

B - Mesalazine

C - Omeprazole

D - Prednisolone

E - Ranitidine

**87. A 63 year old woman has been started on alendronic acid by her GP for her osteoporosis. What important information must be given before prescribing this medication?**

A - Alendronic acid can be taken in an injectable form if required

B - Stay standing or sitting upright for at least half an hour before taking the tablets

C - Tablets must be taken with food or immediately after eating

D - Take the tablets in the evening before bed

E - This drug should be administered via IV once a year

**88. A Chest X-Ray is taken in a two month old baby presenting with cyanosis of crying. The findings show a boot-shaped heart (upturned cardiac apex). What is the most likely diagnosis?**

A - Complete AVSD

B - Overriding Aorta

C - Patent Ductus Arteriosus

D - Tetralogy of Fallot

E - Transposition of the Great Arteries

**89. A 35 year old woman comes in with increasing difficulty walking over the last few weeks. She has a positive Lhermitte's sign on examination and has generally been feeling quite fatigued. A year ago she also had an issue with her eyes which resolved, so she never went to the doctor for it. She has no past medical history and only takes the combined contraceptive pill. Given the most likely diagnosis, what problem did she most likely have with her eyes?**

A - Acute angle-closure glaucoma

B - Amaurosis fugax

C - Optic neuritis

D - Retinal detachment

E - Stroke

**90. A 30 year old comes in complaining of increased thirst and passing large amounts of urine. She complains of changes to her vision. What visual field defect would you find in this patient on examination?**

A - Bitemporal hemianopia

B - Central scotoma

C - Inferior quadrantanopia

D - Monocular vision loss

E - Superior quadrantanopia

**91. Graham is a 68 year old retired bus driver attending your morning GP surgery, complaining of worsening tiredness and shortness of breath whilst walking. He is a previously heavy smoker, takes Atorvastatin and Amlodipine regularly, and uses a GTN spray PRN. On examination, you note a raised JVP, a 3rd heart sound, and chest crackles bi-basally. Given the likely diagnosis, which combination of pharmacological treatments are indicated first-line for reducing morbidity?**

1. ACE-inhibitor + Calcium Channel Blocker
2. ACE-inhibitor + Beta-blocker
3. Calcium Channel Blocker + Loop Diuretic
4. Beta-blocker + Loop Diuretic
5. Loop Diuretic alone

**92. Faisal is a 82-year-old man who recently broke his wrist after falling out of bed. He also had a neck of femur fracture last winter after slipping on ice. His current medications are Adcal D3 and Atorvastatin. You want to start Faisal on Alendronic acid 10mg OD to reduce his risk of further osteoporotic fractures. He asks for some information about taking Alendronic acid. Which of the following statements about Alendronic acid is correct?**

1. Alendronic acid should be taken on alternate days
2. Alendronic acid should be taken at the same time as his Adcal D3
3. Alendronic acid should be taken with food to minimise oesophageal irritation
4. Alendronic acid should be taken at least 30 minutes before breakfast
5. Alendronic acid should be taken and then the patient should lie down for 30 minutes

**93. You are an F2 working on A&E in Barnsley Hospital. You get asked to see Debbie, a 72 year old who has an acutely red and swollen left knee. You remember from medical school that a red and swollen joint is septic arthritis until proven otherwise, and a joint aspiration should be arranged. Which of the following aspects of Debbie’s history would be a contraindication for joint aspirate in ED?**

1. Debbie has prosthetic joints in both knees after a long career as a professional skier.
2. Debbie has pedal oedema bilaterally, likely a side effect of her Amlodipine
3. Debbie has had a joint aspiration in the last 12 months
4. Debbie has a 15 pack-year smoking history
5. Debbie has a history of osteoarthritis

**94. Mrs Johnson has come in for a review for her gout medication. After having several acute attacks of gout last year, she was started on Allopurinol to lower her serum urate level. Unfortunately she developed a rash with Allopurinol. What drug would you prescribe as an alternative to Allopurinol?**

1. Leflunomide
2. Colchicine
3. Febuxostat
4. Hydroxychloroquine
5. Verapamil

**95. Sally is a 46-year-old obese woman who presents to A&E with a 6-hour history of moderate steady pain in the right upper quadrant (RUQ) that radiates through to her back. This pain began after eating dinner, gradually increased, and has remained constant over the last few hours. She has experienced previous episodes of similar pain for which she did not seek medical advice. Her observations are normal. On examination you elicit tenderness to palpation in the RUQ without guarding or rebound tenderness. You diagnose biliary colic, what would the first line treatment for Sally be?**

1. Observation
2. Laparoscopic cholecystectomy
3. IV fluids and nasogastric decompression
4. Anticoagulation e.g rivaroxiban
5. Whipple procedure

**96. Mr Craig is a 50-year-old man presenting with complaints of fatigue for 2 months. He also notes some ‘bloating’ of his abdomen and shortness of breath beginning 2 weeks ago. His wife tells you that Mr Craig has been having episodes of confusion lately, and has a long history of heavy alcohol use, drinking about half a pint of vodka daily for around 20 years. On examination, Mr Craig is noted to have scleral jaundice, tremors in both hands, and spider angiomata on his chest. You suspect alcoholic liver disease as one of your differentials for Mr Craig’s symptoms, so you request LFTs. What pattern in Mr Craig’s LFTs would defend your diagnosis of alcoholic liver disease?**

1. ↑AST +↑ALT with an AST/ALT ratio of 2:1
2. ↑AST + ↑ALT with an AST/ALT ratio of 1:2
3. Predominant ↑ALP
4. Isolated ↑ALP
5. Isolated ↑Bilirubin

**97. Adam is a 60-year-old man presenting in GP surgery with a history of increasing urinary frequency without burning and nocturia 3 times each night. He has limited his fluid consumption and caffeine intake in the evening without much benefit. There is no personal or family history of prostate cancer. Examination demonstrates no suprapubic mass or tenderness, and a rectal examination demonstrates normal rectal tone and a moderately enlarged prostate without nodules or tenderness. Given Adam’s likely diagnosis, which of the following drugs could be prescribed to help with his symptoms?**

1. Oxybutinin
2. Mebeverine
3. Tamsulosin
4. Dexamethasone
5. Bendroflumethiazide

**98. Marc, a 29-year-old man presents to you with a 3-day history of urinary symptoms. He has diminishing urinary stream, dysuria, and urinary frequency. He denies any possibility of an STD. He is sufficiently ill with malaise and chills to require hospital admission. On examination, he is febrile with a temperature of 38.5°C. Digital rectal examination reveals a tender, boggy, and slightly enlarged prostate. Given the likely diagnosis, what is the most likely complication you should be most wary of?**

A. BPH

B. Prostate Cancer

C. Prostatic abscess

D. Urinary retention

E. Bladder Cancer

**99. Eileen is an 86 year old currently suffering from an exacerbation of COPD. She has been treated empirically with Tazocin, and a sputum sample and blood cultures have been sent for microscopy culture and sensitivities. Bacterial pathogens are thought to be responsible for triggering 50% to 70% of COPD exacerbations. Which of the following bacteria are most commonly involved in an infective exacerbation of COPD?**

1. Moraxella catarrhalis
2. Staph aureus
3. Aspergillus fumigatus
4. Pseudomonas aeruginosa
5. Escherichia Coli

**100. Alpha-1-antitrypsin deficiency is a genetic condition causing pulmonary and hepatic manifestations including emphysema, COPD, and cirrhosis. You see a couple preparing to have a child, both of which are known carriers of the affected variant allele. Given the inheritance pattern of the condition, what is the chance of their child also being a heterozygous carrier of the allele?**

1. 0%
2. 25%
3. 50%
4. 75%
5. 100%

[END OF PAPER 5]

**Important note-** this mock SBA is meant to be used as a learning tool, it intentionally covers a broad

range of topics and asks challenging questions in order to enable you to set future goals for learning and

most importantly to learn from the answers and explanations, adding these to your notes.

This is a revision resource and not a reflection of the true exam.

**Answers-** see separate document: PTS 3a Mock SBA Series- Paper 5- ANSWERS

**Scores/Feedback-** When you have marked your paper please complete the Paper 5 Google form to

record your scores and feedback on questions. This is found here and on the answer document.

Paper 5 Google Form- <https://forms.gle/qPPUMneeM7HgRceV6>

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*Anuj Thakkar, Jack Hogg, Je Ern Chooi, Sarah Ibrahim, Emma Hartick Megan Taylor-West, Philip Holcroft, Robert Croft, Joanna George, Matt Mank*