



UNIVERSITY OF NAIROBI
College of Health Sciences
SCHOOL OF MEDICINE

DEPARTMENT OF SURGERY

END OF ROTATION EXAMINATION IN GENERAL SURGERY
GROUP: A
2019/2020 MULTIPLE CHOICE (MCQ)

DATE: 22.10.2020

TIME: 9.10am

1. INSTRUCTIONS: THERE ARE 50 MULTIPLE CHOICE QUESTIONS.
2. CHOOSE THE SINGLE BEST ANSWER
3. ANSWER IN THE ANSWER SHEET PROVIDED

1. An 85-year-old woman presents with a 6-hour history of severe sudden onset central abdominal pain. Her heart rate is 110 beats per minute and irregularly irregular. Her blood pressure is 132/94mmHg and temperature is 38.1°C. Abdominal examination reveals a generally soft but distended and tender abdomen with no audible bowel sounds. Per rectal examination reveals guaiac-positive stool. What is the most likely diagnosis?

- A. Abdominal aortic aneurysm
- B. Acute pancreatitis
- C. Mesenteric ischaemia ✓
- D. Myocardial infarction
- E. Peptic ulcer disease

C

2. An 8-week-old infant is diagnosed with a congenital diaphragmatic hernia (CDH). What is the most common cause of a CDH?

- A. Anterior defect (Morgagni hernia)
- B. Central tendon defect
- C. Defect in the pleuroperitoneal fold
- D. Enlarged oesophageal hiatus ✓
- E. Posterolateral defect (Morgagni hernia) ✓

E

3. A 6-year-old boy with abdominal pain is admitted to the paediatric surgical ward for investigation and treatment. He is known from a previous admission to have a Meckel's diverticulum and his attending doctors wonder if it is the cause of his current symptoms.

Which of the following is not a recognised presentation of a Meckel's diverticulum?

- A. Gastrointestinal haemorrhage
- B. Incidental mesenteric lesion found at laparoscopy/laparotomy
- C. Intussusception
- D. Perforation
- E. Symptomatic inguinal hernia ✓

E

4. The following are true regarding testicular torsion; except
- (a) The highest incidence is in the neonatal and peripubertal periods
 - (b) May present with abdominal pain and vomiting and few testicular symptoms
 - (c) Extra-vaginal torsion is more common in the peripubertal periods
 - (d) Testicular viability is reduced if surgery is delayed more than 6 hours
 - (e) Contralateral orchidopexy should also be performed if a torsion is confirmed

E

5. Which of the following statements regarding clinical features of gastric cancer are true?

- (a) They may be non-specific in the late stages.
- (b) Anaemia can be a presenting symptom. ✓
- (c) Troiser's sign refers to a palpable 'Virchow's node' in the right supraclavicular fossa
- (d) This is a rare cause of GOO
- (e) Trousseau's sign is diagnostic

B

6. A 3-week-old neonate presents with dehydration and bilious vomiting. A contrast study reveals a duodenojejunal junction lying on the right side of the abdomen.

What is the most appropriate definitive management?

- A Hydrostatic reduction ✓
- B Inversion of nasogastric tube ✗
- C Intravenous fluids and antiemetics ✗
- D Laparotomy ✓
- E Review at 6 months of age to determine the need for intervention

D

7. A 78-year-old diabetic male resident of an old peoples' home is brought to A&E with a two weeks history of episodes of somnolence and confusion. He is reported to have fallen in the bathroom and hit his head two months ago. The most likely diagnosis is

- a. Alzheimer's disease
- b. Acute subdural haematoma
- c. Chronic subdural haematoma
- d. Viral encephalitis
- e. Epidural haematoma

C

8. A 27-year-old woman sustains multiple rib fractures in a road traffic accident. When is an urgent thoracotomy not indicated?

- A. Cardiac tamponade
- B. Chest drainage of 300 mL blood in the first hour and 250 mL/h in the next few hours
- ~~C. Flail chest with evidence of haemothorax~~
- D. Immediate chest drainage of >1500 mL of blood
- E. Widening of the mediastinum to >8 cm

C

9. You are the Paediatrics intern on call. You are called to casualty to review a 3 month old baby brought by the mother with a history of progressive head enlargement, poor feeding, persistent crying and vomiting after feeds. Which of the following is true regarding the condition the baby is presenting with?

- a. An occipito-frontal circumference is not needed in this baby
- b. An examination of the back is not needed
- ~~c. A cranial ultrasound is indicated if the anterior fontanelle is open~~
- d. MRI brain is the imaging modality of choice

C

10. A 57 year old male patient presents to casualty with a history of persistently worsening headache over 3 months, vomiting, blurring of vision and gait ataxia. He reports the headache is now not relieved by paracetamol. Which of the following statements regarding his condition is false?

- a. A thorough history and examination are the most important part of his management
- b. A CT scan brain pre and post contrast are the imaging modality of choice
- c. An MRI brain is the imaging modality of choice
- d. Urgent neurological review is needed
- e. A fundoscopy is an important part of the management of this patient

B

11. Regarding congenital malformations of the spine in children, the following is true:
- a. The cranial 1/3 of the neural tube forms the brain
 - b. The central nervous system is an endodermal structure
 - c. The neural tube forms after closure of the cranial and caudal neuropores by day 28
 - d. Secondary neurulation is responsible for formation of the spine from L1 to the coccyx
 - e. Folic acid supplementation is not needed in all women of child bearing age

A

12. Which of the following represents the correct flow of CSF from production to reabsorption?

- a. Choroid plexus-Foramen of Monro-Lateral ventricle-Aqueduct of Sylvius-Third ventricle-Foramina of Luschka and Magendie-Fourth ventricle-Arachnoid villi
- b. Lateral ventricle-Choroid plexus- Foramen of Monro-Third ventricle-Aqueduct of Sylvius-Fourth Ventricle- Foramina of Luschka and Magendie-Arachnoid villi
- c. Choroid plexus- Lateral ventricle-Foramen of Monro- Third ventricle-Aqueduct of Sylvius-Fourth Ventricle- Foramina of Luschka and Magendie- Arachnoid villi
- d. Arachnoid villi-Lateral ventricles- Foramen of Monro- Third ventricle- Aqueduct of Sylvius-Fourth ventricle- Foramina of Luschka and Magendie- Choroid plexus
- e. Choroid plexus-Foramina of Luschka and Magendie-Lateral ventricle-Aqueduct of Sylvius-Third ventricle- Foramen of Monro-Fourth ventricle-Arachnoid villi

C

13. You are called to the new born unit to review a baby. On arriving there you find a newborn boy with a midline swelling in the lumbosacral region. Clear fluid is seen coming from the swelling. The head circumference is normal with no lower limb movement noted. What would be your initial management of this baby?

- a. Proceed to aspirate fluid from the swelling and send it to the laboratory
- b. First get an ultrasound of the swelling
- c. Dress the area with wet sterile gauze and nurse the baby prone
- d. Suture the leak point of the swelling

C

14. Which of the following statements is TRUE?

- a. Haemospermia usually results from malignancy of the prostate
- b. Pneumaturia is most frequently due to gas-forming organisms in diabetic patients with high concentrations of urinary sugar
- c. A thick, purulent, profuse urethral discharge is usually seen in non-gonococcal urethritis
- d. Cloudy urine most commonly results from phosphate crystals precipitating in alkaline urine
- e. Spontaneous emission of semen from the urethra is abnormal.

B

15. Which of the following statements about scrotal and testicular problems is true?

- a. Torsion of the testis is most common between 20-30 years of age
- b. Hydrocele is diagnosed by transillumination, if any part transilluminates then malignancy is excluded
- c. A right sided varicocele is slightly less common than a left sided one
- d. A left sided varicocele could be indicative of left wilms' tumour
- e. Epididymal cysts always occur in the tail of the epididymis

C

16. Jose is a 62-year man who has just been diagnosed with pancreatic cancer. You run into his brother in the corridor and he asks you not to tell Jose because the knowledge will kill him faster. A family conference to discuss the prognosis is scheduled for that same afternoon. What is the best way for you as the doctor to handle the situation?

- A. Honour the request of the family member who is protecting his brother from the bad news
- B. Tell his brother that withholding information is not permitted under any circumstance
- C. Tell his brother to withhold the information as he wishes
- D. Give the brother a dress down for suggesting such an option
- E. Ask Jose how he would wish to handle the information in front of the rest of the family and allow the family some time to discuss the matter

17. A 3-week-old neonate presents with crying and vomiting and malrotation is suspected. Which of the following statements describes malrotation of the gut?

- A. The caecum fails to descend to a subhepatic position during embryological development
- B. It is frequently associated with other congenital abnormalities
- C. The diagnosis is based on bilious vomiting in the first few days of life
- D. There is normal gas pattern on plain X-ray and the diagnosis requires a contrast study
- E. With neonatal bilious vomiting, definitive surgery may be deferred until nutritional issues are addressed

18. Which of the following statements regarding management of the acute wound are incorrect?

- A. A bleeding wound should be elevated and a pressure pad applied
- B. Clamps may sometimes need to be put on bleeding vessels blindly
- C. Anaesthesia is usually required in the assessment of wounds
- D. A thorough debridement is essential
- E. Repair of all damaged structures may be attempted in a tidy wound

19. A 21-year-old woman presents with an asymptomatic breast mass. Which of the following is true concerning her diagnosis and treatment?

- A. Mammography will play an important role in diagnosing the lesion
- B. Ultrasonography is often useful in the differential diagnosis of this lesion
- C. The mass should always be excised
- D. The lesion should be considered pre-malignant
- E. The mass will definitely disappear after the first pregnancy

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 20-22. SELECT THE MOST APPROPRIATE CHOICE FOR EACH STATEMENT CONCERNING MALIGNANT MELANOMA.

- A. Nodular type
 - B. Acral lentiginous type
 - C. Mucosal lentiginous type,
 - D. Lentigo maligna melanoma,
 - E. Superficial spreading type.
20. Carries the worst prognosis
21. Usually occurs on the face
22. Locally aggressive disease

A. NODULAR

21. D.

22. A

23. A careful history is necessary in all patients being considered for inguinal hernia repair. Symptoms which deserve investigation and appropriate treatment prior to proceeding with inguinal hernia repair include all the following except:

- A. Chronic cough

- D. Urinary hesitancy and straining
- E. Chronic constipation
- F. A specific episode of muscular straining with associated discomfort
- G. History of long-standing heavy lifting

D
D
D

24. Carcinoma of the urinary bladder:
- A. Is primarily of squamous cell origin
 - B. Is preferentially treated by radiation
 - C. May be successfully treated using only intravesical agents even if it invades the bladder muscle
 - D. May mimic an acute UTI with irritability and haematuria
 - E. Is preferentially treated by partial cystectomy

C

25. In a diabetic patient scheduled for elective surgery:
- A. Fasting blood sugar of 10 mmol/L on the day of surgery is optimal
 - B. An intravenous infusion of 5% dextrose should be started on the morning of surgery
 - C. Insulin requirements may increase after major surgery
 - D. Half the morning dose of insulin should be given on the day of surgery
 - E. Prophylactic antibiotics are not necessary

B

26. In a T1, N0, M0 breast tumour:
- A. The tumour size is between 2-5cm
 - B. Breast conservative surgery may be a management option
 - C. There is no role for radiotherapy in the management
 - D. There is a definite role for chemotherapy
 - E. This is TIS disease

C??

27. Which of the following statements describes pyloric stenosis?
- A. Bilious vomiting is frequently associated with the diagnosis
 - B. In over 50% cases, it presents in the first 2 weeks of life
 - C. Infants present with a hypochloemic, hypokalemic metabolic alkalosis
 - D. It most commonly presents in first born female infants
 - E. Surgical correction must take place within the first 24 hours of presentation

28. A 5-year-old child with pain in his right iliac fossa is suspected to have acute appendicitis. Which of the following statements describes appendicitis in children?
- A. A child with peritonitis should have volume resuscitation (≥ 20 mL/kg intravenous fluid) prior to surgery
 - B. Diagnosis is easier to reach than in adults, and tends to present at an earlier stage
 - C. Elevated white cell count and C-reactive protein are prerequisites before taking the child to theatre
 - D. Laparoscopic appendicectomy is contraindicated in children under 6 years of age
 - E. Signs are ordinarily specific, but diagnosis is aided by sequential re-examination

C

29. Which of the following is an antifibrinolytic agent used in regular clinical practice?
- A. Unfractionated heparin (UFH)
 - B. Tranexamic acid (TXA)
 - C. Protamine sulfate
 - D. Tissue plasminogen activator (tPA)
 - E. Plasminogen activator inhibitor-1 (PAI-1)

E

30. A 28-year-old woman with AIDS has right upper quadrant pain and is found to have acute cholecystitis on ultrasound examination. Which of the following is the appropriate therapy?

- A. The patient should begin antibiotic therapy but should undergo no surgical intervention because of her immune status.
- B. The patient should begin antibiotic therapy and have a percutaneous cholecystostomy tube placed.
- C. The patient should begin antibiotic therapy and undergo open cholecystectomy.
- D. The patient should begin antibiotic therapy and undergo laparoscopic cholecystectomy.
- E. None of the above.

D D

31. Which of the following is not a sonographic characteristic of an inflamed gallbladder?
- A. Gallbladder distention
 - B. Pericholecystic fluid
 - C. Wall thickness of 2 mm
 - D. Sonographic Murphy's sign
 - E. Gallstones

C

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 31-35. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

- A. Wet gangrene
- B. Necrotizing fasciitis
- C. Toxic epidermal necrosis
- D. Dry gangrene
- E. Gas gangrene

32.B
33.E
34.B
35.D

- 32. Melaney's synergistic gangrene
- 33. Clostridium species
- 34. Fournier's gangrene
- 35. Demarcation is very clear

C E B D

36. The following statement about peritonitis are all true EXCEPT:

- A. Peritonitis is defined as inflammation of the peritoneum.
- B. Most surgical peritonitis is secondary to bacterial contamination.
- C. Primary peritonitis has no documented source of contamination and is more common in adults than in children and in men than in women.
- D. Tuberculous peritonitis can present without ascites.
- E. Peritonitis can present as intestinal obstruction.

C

37. All of the following statements about the embryology of Meckel's diverticulum are true except:

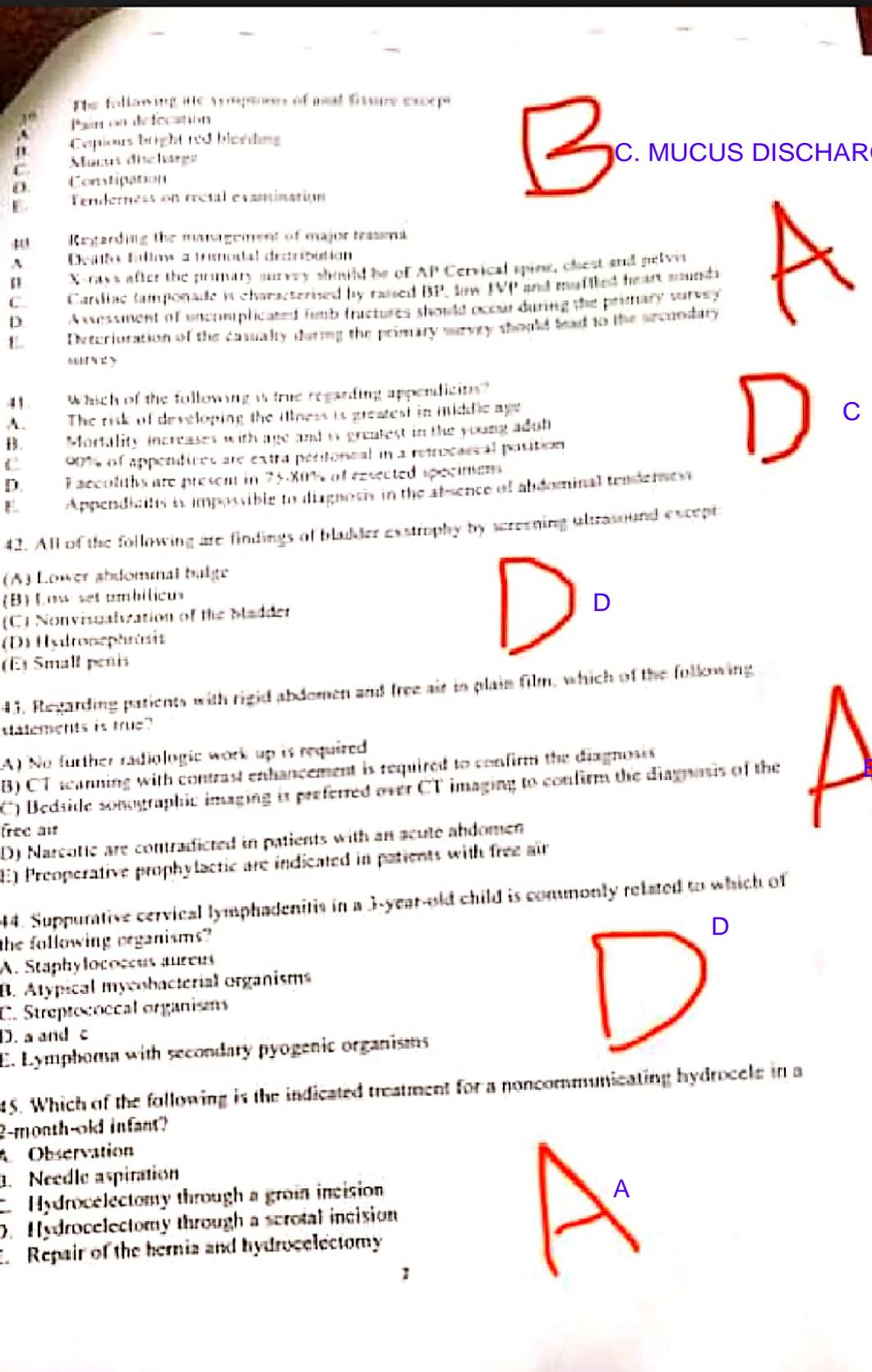
- A. Meckel's diverticulum usually arises from the ileum within 60 cm of the ileocecal valve.
- B. Meckel's diverticulum results from the failure of the vitelline duct to obliterate.
- C. The incidence of Meckel's diverticulum in the general population is 5%.
- D. Meckel's diverticulum is a true diverticulum possessing all layers of the intestinal wall.
- E. Gastric mucosa is the most common ectopic tissue found within a Meckel's diverticulum.

C C

38. The following are forms of primary lymphoedema except

- A. Milroy's disease
- B. Meigs's disease
- C. Primary lymphatic malignancy
- D. Tarda
- E. Sporadic praecox lymphoedema

C



39. The following are symptoms of anal fissure except
 A. Pain on defecation
 B. Copious bright red bleeding
 C. Mucous discharge
 D. Constipation
 E. Tenderness on rectal examination

B
 C. MUCUS DISCHARGE

40. Regarding the management of major trauma
 A. Deaths follow a trimodal distribution
 B. X-rays after the primary survey should be of AP Cervical spine, chest and pelvis
 C. Cardiac tamponade is characterised by raised BP, low JVP and muffled heart sounds
 D. Assessment of uncomplicated limb fractures should occur during the primary survey
 E. Deterioration of the casualty during the primary survey should lead to the secondary survey

A

41. Which of the following is true regarding appendicitis?
 A. The risk of developing the illness is greatest in middle age
 B. Mortality increases with age and is greatest in the young adult
 C. 90% of appendices are extra peritoneal in a retrocaecal position
 D. Faecoliths are present in 75-80% of resected specimens
 E. Appendicitis is impossible to diagnosis in the absence of abdominal tenderness

D

42. All of the following are findings of bladder exstrophy by screening ultrasound except:

- (A) Lower abdominal bulge
- (B) Low set umbilicus
- (C) Nonvisualization of the bladder
- (D) Hydronephrosis
- (E) Small penis

D

43. Regarding patients with rigid abdomen and free air in plain film, which of the following statements is true?

- A) No further radiologic work up is required
- B) CT scanning with contrast enhancement is required to confirm the diagnosis
- C) Bedside sonographic imaging is preferred over CT imaging to confirm the diagnosis of the free air
- D) Narcotic are contraindicated in patients with an acute abdomen
- E) Preoperative prophylactic are indicated in patients with free air

A

44. Suppurative cervical lymphadenitis in a 3-year-old child is commonly related to which of the following organisms?

- A. Staphylococcus aureus
- B. Atypical mycobacterial organisms
- C. Streptococcal organisms
- D. a and c
- E. Lymphoma with secondary pyogenic organisms

D

45. Which of the following is the indicated treatment for a noncommunicating hydrocele in a 2-month-old infant?

- A. Observation
- B. Needle aspiration
- C. Hydrocelectomy through a groin incision
- D. Hydrocelectomy through a scrotal incision
- E. Repair of the hernia and hydrocelectomy

A



46. A newborn presents with discharge of urine from the umbilicus. The most probable diagnosis is:

- A. Meckel's diverticulum
- B. Mesenteric cyst
- C. Urachal fistula
- D. Omphalocele
- E. Umbilical granuloma

C

47. Which of the following statements on the basic anatomy of the inguinal canal is least accurate?

- A. The external ring is formed by an arched gap in the external oblique aponeurosis adjacent to the pubic tubercle ✓
- B. The internal ring is superior and lateral to the external ring. ✓
- C. The cord in the male and the round ligament curve lateral and posterior to the inferior epigastric vessels.
- D. A direct hernia protrudes through the posterior wall of the inguinal canal, medial to the superficial inferior epigastric vessels. ✓
- E. A direct hernia may exit the canal via the external ring and extend down into the scrotum, not within the cremaster fascia or tunica vaginalis.

C

48. All of the following burn injuries require referral to a burn center EXCEPT:

- A. A 12% total body surface area (TBSA) second-degree burn to the chest in a 3-year-old.
- B. A 5% TBSA second-degree burn of the face in a 4-year-old.
- C. A 3% TBSA second-degree burn of the hand in a 2-year-old.
- D. An 8% full-thickness burn involving the perineum in a 5-year-old.
- E. A 4% TBSA full-thickness burn of the knee in a 3-year-old.

A

49. A 16-year-old male who was the driver in a head-on collision has a pulse of 120 beats per minute, respiratory rate of 36 breaths per minute and blood pressure of 70 mm Hg, palpable. His trachea is deviated to the left, with palpable subcutaneous emphysema and poor breath sounds in the right hemithorax. The most appropriate initial treatment would be:

- A. Immediate thoracotomy
- B. Catheter insertion in the subclavian vein for fluid resuscitation
- C. Intubation and ventilation
- D. Tube and ventilation
- E. Immediate tracheostomy

A

50. Which of the following is true regarding esophageal atresia (EA) and tracheoesophageal fistula (TEF)?

- A. The most common type is the H type
- B. It is suspected prenatally by oligohydramnios
- C. In most patients, gastrostomy is required before definitive repair
- D. Twenty percent of patients have cardiac anomalies
- E. Upper endoscopy is required to make the diagnosis

A

D