KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

END OF YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBChB Level VI)

HMS: SURGERY AND ORTHOPAEDICS– MULTIPLE CHOICE QUESTIONS

Date: Wednesday 21st November 2018 **Time: 9.00 a.m. – 12.00 p.m.**

INSTRUCTIONS:

1. **Attempt All Questions**

1. A 40 kg patient had elective operation for hernia repair. He was put on intravenous fluids and nil per os. The calculated fluid requirement in the next 24 hrs is.
   A. Approximately 1400 ml
   B. Approximately 1900 ml
   C. Approximately 2400 ml
   D. Approximately 3000 ml
2. After an elective laparotomy:
   A. Colloids are the preferred group of I.V. fluids after a major laparotomy.
   B. The patient should be instructed to start eating on the 4th post-op day.
   C. Potassium therapy should be started immediately to prevent hypokalaemia.
   D. Total parenteral nutrition is not indicated in the first 4 post-op days.
3. A 70 kg patient was admitted with intestinal obstruction due to adhesions. He was severely dehydrated, with a blood pressure of 80/40, a pulse rate of 140/min and urine output of 20ml/hr. Based on these clinical parameters, the estimated fluid loss (deficit) in this patient is approximately:
   A. 2L
   B. 2-4L
   C. 4-6L
   D. 6-8L

4. A 45 year old patient presented with on and off painless gross and global haematuria for 1 year. There was no dysuria, urgency, hesitancy, poor stream nor incontinence. On examination he had mild conjuctival palour. The kidneys and the bladder were not clinically palpable. The prostate was normal on digital rectal examination. The most likely clinical diagnosis is:
   A. Bladder papilloma
   B. Bladder Carcinoma
   C. Haemorrhagic cyctitis
   D. Transitional cell carcinoma
5. A 30 years old 70kg patient was brought to the casualty after an accident. Blood pressure was 120/70, PR=120bpm, RR=20/m and temp=37 Celcius. He had multiple injuries. The urinary catheter had drained 20mls in the last half hour.
   A. Based on these clinical findings, the estimated amount of blood loss in this patient was 1.5L- 2.5L
   B. In his initial resuscitation, he requires 3 units (1.5L) of whole blood transfusion
   C. In his initial resuscitation, he requires 3 units of packed RBC transfusion
   D. In his initial resuscitation, he requires 3L of normal saline
6. A 45 kg patient with a breast cancer was admitted for simple mastectomy. Her Hb was 6. The anaesthetist asked you to build her Hb to 10 by blood transfusion. How many units of blood will you transfuse?
   A. 1
   B. 2
   C. 3
   D. 4
7. Which statement is true about complications of blood transfusion:
   A. Major blood transfusion incompatibility reactions are caused by irregular irregular antibodies and leucocytes antibodies.
   B. Metabolic complications (eg, hypocalcaemia, hyperkalaemia, metabolic acidosis) are commoner in transfusion with fresh blood.
   C. Blood transfusion of 5 units in 4 hrs in adults is consistent with the definition of massive transfusion.
   D. The main method of control of infection transmission through blood transfusion is achieved by prophylactic treatment during and after transfusion.

8. Disorders of sexual differentiation (DSD) (ambiguous genitalia) (Intersex)(pseudoharmaphrodite)
   A. Normal embryological sexual differentiation occurs in the 1st trimester.
   B. The commonest cause is maternal ingestion of androgens or oestrogens/antiandrogens.
   C. Karyotypes are usually 46XXX or 46XYY.
   D. HCG stimulation test is mainly used to determine the final gender.
9. Which of the following statements is true of metabolic response after major trauma or major surgery?
   A. Increased water excretion in the first two days.
   B. Increased sodium excretion in the first two days.
   C. Increased potassium retention in the first two days.
   D. Increased catabolism for about 2-3 weeks.
10. The following hormones are increased after major trauma EXCEPT
   A. Cortisol
   B. Glucagon
   C. Insulin
   D. Adrenaline
11. Criteria for diagnosis of SIRS response includes all the following EXCEPT:
   A. Temperature <36>38
   B. PR>90
   C. BP<90
   D. WBC <4000>12000
12. Prophylactic antibiotics are best started
   A. 24 hrs before operation
   B. 30 minutes before operation
   C. During operation
   D. Immediately after operation
13. On aseptic technique and sterilization:
   A. An autoclave (steam under pressure) is used to sterilize rubber and plastic instruments for for the main theater.
   B. Boiling is used to sterilize gauze, drapes and gowns for the main theater.
   C. Detergents and antiseptics are used to sterilize gauze, drapes and gowns for the main theater.
   D. Chemical sterilization is used to sterilize fibre optic endoscopy equipment.

14. Metronidazole (Flagyl) is effective in the treatment of
    A. Post operative infections by E. coli.
    B. Post operative infections by bacteroides .
    C. Post operative infections by krebsiella.
    D. Post operative infections by pseudomonas.
15. Which statement about burns is NOT TRUE
    A. 1st degree burns affects the outer layers of the epidermis only
    B. 2nd degree superficial burns are usually treated by skin grafting
    C. 2nd degree deep burns affects the whole epidermis and the upper layer of the dermis
    D. Closed (occlusion) method of management of burns is preferred in circumferential and flexure burns.
16. Which statement is NOT TRUE about wound healing:
    A. Inflammatory stage is characterized by activation of haemostasis response, immune cellular response and humoural response.
    B. Proliferative stage is characterized by neo vascularization, granulation tissue and epitherialization
    C. Early closure accelerates the proliferative phase
    D. Remodeling stage is completed in 5-10 days.
17. Which statement is true about skin cover in wounds
    A. Full thickness graft has a higher take rate than split thickness skin graft.
    B. Mesh graft is preferred for plantar and palmar burns.
    C. Skin substitutes are most useful in deep dermal burns
    D. Skin flaps depend on the donor site for blood supply.
18. Urinary stones
    A. Calcium oxalate, uric acid, are the least common types
    B. Uric acid stones are associated with persistent low pH
    C. IVP is more sensitive than CAT scan in detection of urinary stones
    D. About 75-90% of urinary stones are radio opaque
19. Urinary stones
    A. Compared with other urinary stones, uric acid stones respond better to medical treatment
    B. Expectant management is preferred for stones less than 5mm
    C. Ureteric stones which fail to pass down expectantly are best treated by laparotomy.
    D. Short wave lithotripsy is the preferred treatment for large stag horn calculi

20. The modern Hippocratic oath is contained in:
    A. The declaration of Geneva (1948).
    B. The International code of Medical ethics (1949).
    C. The Nuremberg trial.
    D. The Helsink declaration 1964.
21. A doctor can release confidential information about his/her patient without breaching the ethical principle of confidentiality in the following circumstances EXCEPT?
    A. When the patient has authorized the doctor through a valid written and signed agreement.
    B. To guardians and other "surrogates" who are required to give consent for a minor or cases with mental incapacity.
    C. To the lawyer accompanying the patient.
    D. To other professionals participating in the management of the case.

22. Bleeding oesophageal varices are a common complication of portal hypertension. In their management
    A. Sclerotherapy has less complications compared to banding
    B. patients with a good hepatic reserve function should be considered for liver transplantation
    C. administration of a course of antibiotics reduces bleeding recurrence
    D. Octreotide enhances splanchnic vasodilatation

23. A patient with iron deficiency anaemia of 6 g/dl and a positive hemoccult test but a stable blood pressure. The endoscopy and colonoscopy are nonrevealing for bleeding site. The next most appropriate investigation would be
    A. Contrast enhanced MRI
    B. Capsule endoscopy
    C. Selective mesenteric angiography
    D. Helical CT scanning

24. Medullary carcinoma of the thyroid
    A. Is a tumour of the parafollicular D cells
    B. Produce thyroxine as the principle hormone
    C. 80% of cases are sporadic and no-familial
    D. Can occur as part of the MEN type IIa syndrome

25. An adult female has a multinodular euthyroid goitre. A thyroidectomy in such a patient is commonly indicated when

A. The nodule regresses with administration of T-Eltroxin
B. Patient expresses significant cosmetic concerns
C. The patient has myxedema
D. Since the risk of carcinoma exceeds 20%

26. Pathological features in Hirchsprungs disease include the following **except**

A. Absence of ganglion cells in the Aeubachs plexus
B. Genetic mutations of the *Ret* gene
C. Atrophic nerve bundles in the affected segment
D. Acetylcholinesterase positive nerve fibers

27. The most appropriate management for a patient with benign prostatic hyperplasia will be best guided by

A. The size of the gland on digital palpation and on transrectal sonography
B. Peak flow rate on uroflowmetry as a measure of severity of bladder outlet obstruction
C. The ease of catherisation and the age of the patient
D. the cost of surgery versus of medical treatment

28. Clinical presenting features indicative of carcinoma of the prostate include the following except

A. A histological surprise following surgery following surgery for Benign hyperplasia
B. Multiple osteoblastic pelvic bony lesions in a radiographic evaluation for back pain
C. A hard anterior ulcerating rectal mass obliterating the median sulcus on a patient presenting with hematochezia and dysuria
D. Asymptomatic 65 year male with elevated PSA titres of 10 nmol/ml noted in the well-man clinic

29. Which of the following investigations is not routinely indicated for the evaluation for common associated anomalies of a newborn with an imperforate anus

A. Lumbar –sacral radiography
B. Echocardiography
C. Abdominal ultrasonography
D. Cranial CT scan

30. The investigation of choice in the evaluation of a male child suspected to have posterior urethral valves is

A. Ascending urethrography
B. Micturating cysto-urethrogram(MCU)
C. Cystoscopy
D. CT cystogram

31. Undescended Testis is a common condition in the surgical clinic. It is true that

A. It occurs in more frequently on the left testis of newborn boys
B. The undescended testis maintains a normal endocrine functioning
C. Laparoscopy is the best means of identifying an impalpable testis
D. It should be treated by orchidopexy even after puberty to rescue fertility

32. The clinical presentation of acute sigmoid volvulous is most likely to be characterised by

A. An African male patient in the 60s from a rural settlement
B. Mildly distended abdomen with a faecal loaded rectum on digital examination
C. A short and wide sigmoid mesenteric attachment to the pelvic base
D. A distended faecal filled colonic loop on a plain abdominal radiograph

33. An adolescent boy presents following a blunt abdominal injury. He has tachycardia and an abdominal ultrasound scan suggests hemoperitoneum from a splenic laceration. In his management,

A. He may have abdominal pain referred to the right shoulder (Kehr's sign)
B. An emergency surgical splenectomy is inevitable
C. Splenectomy reduces the risk of a meningococcal infection
D. A positive diagnostic peritoneal lavage indicates the need for a CT scanning

34. An adult male presents with severe colicky loin pain radiating to the groin. The urinalysis reveals microscopic haematuria and an abdominal sonography confirms a 3mm calculous on the upper ureter. Subsequent management of the patient should consider

A. Initial hydration and antispasmodics hoping the stone to pass out spontaneously
B. Emergency ureterolithotomy (open surgery) is the best option
C. External shock wave lithotripsy is contraindicated in upper 1/3 ureteric stones
D. Cystoscopy and Ureteroscopic extraction is quick and easy for this situation

35. Which of the following colonic polyps are pre-malignant

A. Juvenile polyps

B. Polyps associated with Peutz-Jeghers syndrome

C. Tubular adenomas

D. Hyperplastic polyps

36. In the clinical presentation of a colorectal tumour,

A. A T3 stage tumour invades the muscle layer but is limited by the serosa

B. Abdominal distension occur early in the presentation of right colon tumours

C. Synchronous lesions are found in the same colon segment as the primary lesion

D. Right sided colon tumours present with early onset of abdominal pain and hematochezia

37. Which is a true statement regarding femoral hernias

A. The risk of strangulation is similar to that of an indirect inguinal hernia

B. Typically the swelling is above and lateral to the pubic tubercle

C. Rarely occurs in males

D. The femoral canal contains femoal vein

38. The following is true regarding Umbilical swellings in neonates

A. An omphalocoele is usually >4cm in diameter

B. An umbilical hernia is covered by an amniotic membrane

C. Gastroschisis must be repaired immediately after birth

D. A layer of skin covers an omphalocoele

39. Paediatric brain tumours are most commonly found in

A. Posterior cranial fossa

B. Anterior cranial fossa

C. Middle cranial fossa

D. Supratentorial space

40. Vasogenic brain edema due to tumour is best managed by the use of

A. 20% mannitol

B. 5% hypertonic saline

C. 25%hypertonic saline

D. Dexamethasone

41. The definitive management for an adult patient with a sigmoid volvulus considers that

A. Pneumatic or hydrostatic reduction is the best option in the patients with a high risk of anaesthesia
B. Single staged resection and anastomisis of the sigmoid is almost always a safe surgical option
C. Fluid deficit is minimal since the patient experiences minimal vomiting
D. A colostomy is rarely fashioned in gangrenous sigmoid volvulus

42. A 14 year old girl fell in the farmyard and cut her leg. In the evening of the next day her family brings her to your clinic as she is complaining of severe pain and vomiting. On examination, she looks unwell and her leg wound has erythema, swelling and tenderness for 10 cm around the cut and there is a browny-yellow foul smelling discharge coming from the center of the wound. What is your diagnosis and choice of antibiotics?

A. Wound infection – IM Cetriaxone as she is vomiting
B. Pyomyositis – High dose IV cloxacillin or cefazolin
C. Wound infection with abscess – I&D of the wound with IV cefazolin and IV flagyl
D. Necrotising fasciitis – Surgical consult for urgent debridement with IV clindamycin and high dose IV penicillin.

43. The following statements are advantages of minimal access surgery **EXCEPT**:

A. Decrease in wound size.
B. Decreased postoperative pain.
C. Reduced operating time.
D. Improved vision.

44. All of the following are associated with cryprochirdism EXCEPT:

A. It is associated with Prune Belly syndrome
B. The inguinal canal is the most common location of the testicle
C. Division of the spermatic cord is not indicated at reoperation if inadequate length is a problem
D. The complications include testicular torsion, cancer and infertility

45. With regard to ulcerative colitis, which of the following statements is true?

A. In at least one half of the patients, the entire colon is involved with skip areas.

B. The characteristic histologic finding of crypt abscesses is the sine qua non of ulcerative colitis and is not seen with other inflammatory conditions of the bowel.

C. The disease is most commonly a chronic relapsing one, with an acute and fulminant course seen in only 10% to 15% of patients.

D. Cancers arising in association with ulcerative colitis tend to be located in the rectum and sigmoid colon, similar to cancers not associated with ulcerative colitis

46. A 35year old male presented at Kiambu hospital surgical outpatient clinic with a 3 week discharge in the perianal region. On examination, a sinus was seen at 4 oclock, 3 cm from the anal opening. The internal opening not seen on proctoscopy. What is the next step in management of this gentleman?

A. Fistulotomy

B. MRI pelvis

C. Seton placement

D. Ligation of the intersphincteric fistula tract procedure

47. A 24year old male presented at Kiambu with copious vomiting for 1 year. He reports of having been on treatment for peptic ulcer disease for the past 10years. Endoscopy done reports gastric outlet obstruction with histology reporting features of chronic gastritis. The following are true about his volume replacement EXCEPT:

A. The key is to replace chloride deficit

B. He likely has hypochloremic, hypokalemic, metabolic alkalosis

C. Maintence therapy after resuscitation should be with ringers lactate

D. Initial resuscitation fluid should be normal saline

48. A 16 year old from Lokichogio presents at Kiambu hospital with abdominal distention for the past 6months. An ultrasound of the abdomen reports a cyst with split walls, multiple septations and calcification of the cyst wall. The following statements EXCEPT:

A. Anaphylactic shock, abdominal pain and collapse can occur after trivial traumatic

B. Man is the definitive host of the causative organism

C. Can present with features of obstructive jaundice

D. Treatment is with exploratory laparotomy under cover of albendazole.

49. A 16year old female presents to Kiambu Hospital with a 3wk history of painful defecation and some red streaking on bowel movements. Currently, she has a lot of perianal pain on sitting. On anal examination, you noticed a pile at the posterior midline with associated small anal tear. The initial treatment of this patient is:
    A. Sitz baths and stool softeners
    B. Topical glyceryl trinitrate
    C. Botulinum toxin injections
    D. Lateral internal sphincterectomy
50. A 45 year old man was diagnosed with bowel obstruction and referred to your hospital. For financial reasons he arrives 48 hours after the initial referral. On examination, he has a BP of 85/40 heart rate of 120 sinus rhythm and respiratory rate of 30 with a temperature of 100.5. He refuses to allow an abdominal examination. From this basic clinical information what do you suspect is his MAIN problem and your first intervention?
    A. Septic shock from ischemic bowel that requires repeated 1.0L bolus of NS (normal saline) fluid until MAP > 65.
    B. Cardiogenic shock from sepsis that requires 1.0L bolus of NS(normal saline) X1 only followed by dobutamine if systolic BP<100
    C. Hypotension and tachycardia from dehydration second to bowel obstruction that requires 2.0L bolus of ½ NS (normal saline) with dextrose5% until systolic BP >110 and HR <100.
    D. Sepsis from bowel obstruction causing bacterial translocation that requires 1.0L NS(normal saline) bolus followed by vasopressors, preferably levophed.
51. A 50 year old lady is in the front seat of a matatu when it collides into the central rail on Thika road at high speed. On arrival at your hospital you perform the primary survey and complete A through E and find her vital signs are BP 120/80, HR 110, temperature normal, oxygen saturations of 89% on 2.0 L/min nasal prongs, the rest of her primary survey was normal, including a FAST that showed no fluid. Her secondary survey revealed abdominal pain and tenderness with pain on rebound and no bowel sounds. On inspection she had a large bruise over the lower abdominal wall. What is the most likely injury?
    A. Abdominal wall hematoma with no internal organ injuries as the vitals are stable
    B. Bowel injury – either perforation or transection
    C. Splenic injury with active bleeding
    D. Liver injury – with or without active bleeding

52. A neonate has abdominal distention and is toxic. An abdominal x-ray shows peritoneal and scrotal calcifications. This is consistent with which of the following possible diagnosis?

A. Intrauterine perforation with meconium peritonitis

B. Osteogenesis imperfecta

C. Hypercalcemia of the mother throughout pregnancy from hyperparathyroidism

D. Chronic intrauterine intestinal obstruction

53. Which of the following investigations is most likely to show a small pleural effusion.

A. Antero-posterior chest radiograph.

B. Postero-anterior chest radiograph.

C. Lateral chest radiograph.

D. Doppler ultrasound scan

54. Which of the following lists represents the highest risk of peripheral arterial disease?

A. Oral contraceptive use, sedentary lifestyle, smoking.

B. Smoking, diabetes, uncontrolled hypertension.

C. Obesity, history of breast cancer, varicose veins.

D. Exposure to radiation, hypertension, varicose veins

55. Following thoracic trauma which of the following situations demands the most urgent intervention?

A. Diaphragmatic hernia

B. Hemothorax

C. Tension pneumothorax

D. Lung contusion.

56. A 72 year old lady has a barium enema and a sigmoid mass consistent with colon cancer is visualized. She has symptoms of weight loss, constipation and reduced appetite. What further tests are required to determine definitive treatment?

A. Colonoscopy, CEA, liver function tests and ultrasound of the abdomen.

B. Rigid sigmoidoscopy, CEA, CA 19-9, serum albumin and ultrasound of the abdomen

C. Colonoscopy, CT scan of the abdomen and chest x-ray

D. Flexible sigmoidoscopy, chest x-ray and CT scan of the abdomen

57. A 35 year old man has a history of diabetes and uses insulin daily. He now has a 3 day history of severe right upper quadrant pain with vomiting and jaundice. On examination, he presents with severe generalized abdominal pain, mental status changes and fever. What is the next best step in management?

A. IV bolus fluid infusion, anti-pyretics and immediate surgical consultation
B. IV anti-pyretics, IV fluid infusion based on urine output, IV analgesia
C. IV bolus fluid infusion, IV antibiotics and immediate surgical consultation
D. IV bolus fluid infusion, IV antibiotics, IV analgesia and urgent surgical consultation.

58. A six year old child presented with abdominal pain, scanty blood stained mucoid stool and vomiting for one day. On examination the child was moderately dehydrated, not anaemic, good nutrition status, afebrile, PR= 110/bpm, RR=30/min. BP was not taken because there was no paeditric BP cuff. The abdomen showed minimal distention assymetrical distention and a mass in the right lumbar region. DRE confirmed blood stained mucoid stool on the finger. What is your clinical diagnosis?

A. Intestinal obstruction by a ball of ascaris lumricoides
B. Intestinal obstruction by amoeboma with amoebic dysentery
C. Intestinal obstruction by ileo-colic intususception
D. Intestinal obstruction by right sided colonic polyp

59. Which of the following statements in regard to inhalational injury is correct?

A. Singed nasal hairs and carbonaceous sputum are signs of inhalational airway when there is associated hypoxia on the pulse oximeter or on the arterial blood gas, if available.
B. Upper airway injury is usually from heat and heated gases and lower airway injury is from products of combustion.
C. Carbon monoxide poisoning is effectively treated with by 50-100% O2 by nasal prongs and only occurs after burns in closed spaces.
D. Inhalational injury is important to detect because of the need to treat the subsequent pulmonary edema but does not add to the overall risk of mortality with a burn injury.

60. A child of 12 has a femoral hernia. It frequently pains when it is swollen but it reduces on its own. Because of this hernia, the child has dropped out of school for being out of class for many days in a month. The surgeon has advised surgery to prevent development of acute intestinal obstruction and to get the child back to school. After several counseling sessions by the intern, the nurse and the surgeon (in presence of other nuclear family members), the parents have declined to give consent for surgery. What should the surgeon do?

A. Ask the parents to sign a form against the medical advice and send them home.
B. The surgeon or any other doctor can give the consent.
C. Ask the grandparents or an adult sibling to give consent.
D. Refer the case to a magistrate court for consent and arbitration.

61. **In tuberculosis** of the spine, investigation would demonstrate:
A. Wedge fractures of the affected vertebral bodies.
B. Raised ESR.
C. Minimal radiotracer uptake in technetium-99 scans.
D. Polymorphonuclear leucocytosis.

62. Initial treatment of choice in TB spine without paraplegia is:
A. Laminectomy.
B. Chemotherapy and rest.
C. Immediate surgical exploration.
D. Aspiration of the psoas abscess

63. A 25-year-old patient presented in the clinic with established non-union of the tibia for the last two years. In such patient, the presenting features would be:
A. Pain at rest.
B. Bony tenderness at the non-union site.
C. Radiographic sclerosis.
D. Vitamin D deficiency.

64. A 78-year-old lady was admitted to the hospital following a fall. Her radiograph of the right hip joint demonstrated undisplaced intracapsular fracture of the femoral neck. Treatment of choice for her would be:
A. Skin traction.
B. Total hip replacement.
C. Skeletal traction.
D. Open reduction and internal fixation.

65. The common complications of this fracture are:
A. Deep vein thrombosis.
B. Delayed union and nonunion.

C. Avascular necrosis of the femoral head.

D. All of the above.

66. A footballer has twisted his ankle in a tackle. The ankle is very tender over the medial and lateral malleolus. What is the optimal imaging modality for diagnosis?

A. Fluoroscopy

B. Magnetic resonance imaging (MRI)

C. Plain X-rays

D. Computed tomography (CT) scan

67. Action of Vitamin D is?

A. Stimulates bone marrow

B. Increases calcium loss

C. Stimulates absorption of calcium

D. Stimulates osteoblasts

68. Which is not a principle of open fracture treatment?

A. No tendon repair

B. Aggressive antibiotic cover

C. Immediate wound closure

D. Wound debridement

69. In a displaced transverse fracture of the patella, the treatment of choice is?

A. Excision of the smaller fragment

B. Wire fixation

C. Plaster cylinder

D. Patellectomy

70. A lady presents with a history of fracture radius, which was immobilized with plaster of Paris cast for 4 weeks. After that she developed swelling of hand with shiny skin. What is the most likely diagnosis?

A. Volkmannn's ischaemia

B. Myositis ossificans

C. Reflex sympathetic dystrophy

D. Non-union

71. A patient develops compartment syndrome following manipulation and plaster for fracture of both bones of leg. What is the best treatment?

A. Split the plaster
B. Infusion of low molecular weight dextran
C. Elevate the leg after splitting the plaster
D. Do operative decompression of fascial compartments

72. The commonest complication of a Colles fracture is?

A. Sudeck's dystrophy
B. Malunion
C. Non-union
D. Volkmann's ischemic contracture

73. A patient presents after a game of squash with pain in the back of the calf which was sudden in onset and accompanied by a sharp cracking noise. What is the optimal imaging modality for diagnosis?

A. Plain X-rays
B. Fluoroscopy
C. Ultrasound
D. Computed tomography (CT) scan

74. Which of the following group of adults is likely to develop avascular necrosis of the femoral head.

A. Those with gouty arthritis
B. Patients who have had kidney transplant
C. Men with long term osteoarthritis of the hip
D. Those on long term non-steroidal anti-inflammatory treatment

75. A young motorcyclist sustains a fracture of the tibia where the skin and muscle have been ripped off over a distance of 10 cm. What is the optimal method of stabilization?

A. Plates and screws
B. External fixator
C. Plaster of Paris

D. Intramedullary nail

76. When osteomyelitis disseminates by hematogenous way the most affected part of the bone is?

A. Epiphysis

B. Diaphysis

C. Metaphysis

D. Any of the above

77. What is Brodie's abscess?

A. Long standing localized pyogenic abscess in the bone.

B. Cold abscess

C. Subperiosteal abscess

D. Soft tissue abscess

78. Which is the most appropriate way to manage a child with pus in the knee joint

A. Take aspirate from the knee for laboratory studies, broad spectrum I.V antibiotic administration, urgent knee washout with continued I.V antibiotics and analgesics

B. Broad spectrum IV antibiotics, aspirate from knee for laboratory studies and get results, knee wash out if bacteria identified, give analgesics

C. Start I.V antibiotics, splint the limb, observe for 48 hours , aspirate for laboratory studies if no change, wash out the pus, give analgesics

D. Do an urgent joint washout,give analgesics ,start IV antibiotics, review the child in two weeks.

79. The type of bone changes occurring in chronic renal failure includes

A. Osteopenia

B. Osteonecrosis

C. Osteomalacia

D. Osteosclerosis

80. Sunray appearance is seen in?

A. Ewing's Sarcoma

B. Ostogenic sarcoma

C. Multiple myeloma

D. Osteoclastoma

81. Which of the following statements if false about achondroplasia?

A. Have short arms and legs

B. Have enlarged head

C. Have a short torso

D. Due to gene mutation

82. In osteogenesis imperfect, the defect is in

A. Collagen

B. Hydroxyapatite

C. Cartilage

D. Glycosaminoglycans

83. The definitive diagnosis of osteoporosis is based on

A. DEXA Scan

B. CT Scan

C. MRI

D. Plain X-Rays

84. Gout is a common arthropathy whose main cause of symptoms is best explained by

A. Hyperurecemia

B. Monosodium urate crystal deposition in the joints and soft tissues

C. Deposition of calcium crystals in the joints

D. Due to excessive intake of alcohol

85. TB arthritis characteristically presents

A. As a low grade joint inflammation with synovial hypertrophy

B. As an acute inflammation with joint swelling , hotness and a fever

C. With destructive joint infection and sclerosis of the surrounding bone

D. As a low grade joint inflammation with early abscess formation in the affected joint

86. Avascular necrosis is associated with all the following except

A. Sickle cell disease

B. Osteochondritis dissecans

C. Osgood schlatters disease

D. Perthe's disease

87. The following features may apply to both degenerative osteoarthritis and rheumatoid arthritis except:

A. Loss of cartilage in the joint

B. Genu valgum

C. Joint destruction and erosion on radiographs of the affected joint

D. Moderate to severe join pain

88. A 13 year old boy presents with a two week history of progressive pain in his right groin and his guardian says that he has developed a limp on the same side. He is otherwise well. Which of the following investigations would be most appropriate to ask for

A. A CT scan of the pelvis

B. A hip joint aspiration for laboratory studies

C. A full heamogram with ESR and CRP

D. Special radiographic views of the pelvis

89. A 65 year old man has had pain in the left hip joint for a few years that has begun to subside but he then has noticed a reduction in the joint range of motion in the same hip. The most useful single thing he should do is

A. Engage in a programme of physiotherapy to loosen the joint

B. Start a two weeks trial of anti inflammatory drugs to further reduce the pain

C. Test for rheumatoid factor

D. Take an x ray of the pelvis

90. A forty year old teacher presents with pain in his dominant right shoulder that would initially afflict him at night but lately occurs all the time especially as he wears and removes his jacket or attempts to write on the upper part of the board in class.

A. He requires a trial of physiotherapy and diclofenac

B. He should have the joint aspirated to rule out sepsis of the joint

C. An arthroscopy of the shoulder would be the most logical next step

D. An x ray of the joint would give the most likely diagnosis

91. The following is true of brain MRI in regards to T1 weighted and T2 weighted imaging sequences:

A. The CSF is of hyperintense signal on T1 and hypointense signal on T2

B. The CSF is of hyperintense signal on T1 and isointense signal on T2

C. The CSF is of hypointense signal on T1 and hyperintense signal on T2

D. The CSF is of isointense signal on T1 and hypointense signal on T2

92. The appearance of a Pneumothorax on A Chest Radiograph is:

A. Lung Field is Translucent with no lung markings

B. Lung Field is Translucent with lung markings

C. Lung Field is Radiopaque with no lung markings

D. Lung Field is Radiopaque with lung markings

93. The following is an absolute contraindication to MRI imaging

A. Dental Amalgum

B. Claustrophobia

C. Transvenous Pacing Leads

D. EEG Electrodes

94. Signs of Small Bowel intestinal obstruction on an Erect Abdominal include the following except:

A. More than 5 air/fluid levels

B. Pearl of bead sign

C. Stretched out valvulae conniventes

D. Stretched out haustral markings

95. Positive Sonographic Murphy's sign in the presence of a gallstone is indicative of:

A. Acute Acalculus Cholecystitis

B. Acute Calculus Cholecystitis

C. Chronic Acalculus Cholecystitis

D. Chronic Calculus Cholecystitis

96. Conrad Roentgen discovered X-rays in which year:

A. 1890

B. 1900

C. 1905

D. 1895

97. A good inspiratory chest xray has the following characteristics except:

A. Atleast 9 posterior ribs seen above the hemidiaphragms

B. Atleast 6 anterior ribs seen above the hemidiphragms

C. The 7 th anterior ribs cut across the midpoint of the hemidiaphragms

D. Atleast 9 anterior ribs seen above the hemidiaphragms

98. A middle aged lady with suprapubic pain is found to have a simple right adnexal cyst. Which term in ultrasound would best describe its echopattern:

A. Echogenic
B. Isoechoic
C. Anechoic
D. Hypoechoic

99. The characteristic appearance of An Acute Intracranial Epidural Hematoma on A CT Scan is:

A. Concave Hyperdense Collection with Midline Shift
B. Concave Hyperdense Collection without Midline Shift
C. Biconvex Hyperdense Collection with Midline Shift
D. Biconvex Hyperdense Collection without Midline Shift

100. The following statements regarding mammography are true except

A. Uses high energy X-ray beam
B. Breast compression is necessary
C. Is a screening tool
D. Uses low energy X-ray beam

101. The following is not an early complication in nasal injury

A. Septal hematoma
B. Infections- antibiotic prophylaxis
C. Naso-facial disproportion
D. Emphysema of the face

102. In Repair of nasal injury, which one is Untrue

A. <6 hours- immediate reduction
B. <2 days- immediate reduction
C. < 2 weeks- closed reduction
D. > 3 weeks- delayed 3-6 months

103. What is Kartagener's syndrome

A. Absence of the dynein arm on the peripheral ciliary microtubules.
B. The cilia are unable to beat effectively because of mucous accumulation.
C. Chronic rhinosinusitis, azoospermia, and situs inversus.

D. Clinically nasal examination shows mucus or mucus accumulation.

104. Which factor does not inhibit normal ciliary activity.

A. Drying within the nasal cavity

B. excessive heat or cold

C. dissolved oxygen

D. infections

105. In sinusitis, why is high-resolution computed tomography preferred to plain radiographs for imaging the sinuses?

A. Evaluation of the maxillary- ethmoid sinuses.

B. osteomeatal complex

C. overlapping anatomic structures

D. evaluation of sphenoid and ethmoid sinuses

106. Describe the pathophysiology of sinusitis.

A. Mucosal edema of the paranasal sinuses

B. obstruction of the drainage

C. physiologic change in the sinus cavity

D. impaired mucociliary clearance

107. Concerning Ransay-hunt syndrome, which one is not true.

A. geniculate ganglion pathology

B. keratitis is a complication

C. Causes otitis externa.

D. Pathogmonomic with HIV infection.

108. Which one is correct concerning neck masses?

A. Fine needle aspiration reserved for big masses

B. Open biopsy is done immediately to discourage spread of tumour

C. Panendoscopy is important

D. Congenital masses have slow growth rate

109. The following are causes of conductive hearing loss EXCEPT

A. Perforated tympanic membrane

B. Ossicular disarticulation

C. Acoustic neuroma

D. Otitis media

110. The Following tests can be used to assess hearing thresholds except

A. Pure Tone Audiogram.

B. Tympanometry.

C. Auditory Brainstem Reflex.

D. Otoacoustic emmisions.

111. Factors that increase minimum alveolar concentration (MAC) include

A. Sepsis

B. Old age

C. Chronic alcohol use

D. Dehydration

112. Local anaesthetics

A. Are not cardio-toxic

B. Toxicity is not dependent on liver function

C. Combination with adrenaline increases toxicity

D. Neurotoxicity is apparent before cardiotoxicity

113. The universal colour code for halothane is

A. blue

B. yellow

C. red

D. purple

114. Propofol

A. Is safe to use in patients with allergy to eggs

B. Is supplied as a white powder

C. Does not cause pain on injection

D. Cannot be used to maintain anaesthesia

115. Ketamine

A. Has no analgesic effect

B. Causes dissociative anaesthesia

C. Causes bronchospasms

D. Causes retrograde amnesia

116. Morphine

A. Acts on kappa, mu and delta receptors

B. Acts on GABA receptors

C. Acts on 5HT receptors

D. Acts on NMDA receptors

117. Atropine

A. Causes bradycardia

B. Causes increased salivation

C. Causes blurred vision

D. Causes bronchoconstriction

118. Succinylcholine (suxamethonium)

A. Is a long acting muscle relaxant

B. Its use causes generalised muscle pains

C. Can be reversed with neostigmine

D. Is a competitive neuromuscular locking agent

119. In preoperative preparation of patients for anaesthesia fasting for

A. Breast milk at least four hours

B. Heavy protein diet atleast four hours

C. Water atleast six hour

D. Milk atleast four hours

120. Non steroidal anti inflamatory drugs (NSAIDs)

A. Causes mast cell release

B. Are safe to use in renal impairment

C. Are safe to use in hepatic impairment

D. Do not increase the incidence of GI bleeding