**KENYATTA UNIVERSITY**

**UNIVERSITY EXAMINATIONS 2017/2018**

**SUPPLEMENTARY/SPECIAL EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBChB Level VI)**

**HMS: SURGERY AND ORTHOPAEDICS– MULTIPLE CHOICE QUESTIONS**

**Date: Monday 17th December 2018** **Time: 2.00 p.m. – 5.00 p.m.**

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**INSTRUCTIONS:**

1. **ATTEMPT ALL QUESTIONS**
2. **MARK YOUR ANSWERS IN THE ANSWER SHEET PROVIDED WITH A TICK OR ACROSS**

1. Which statement is true about complications of blood transfusion:
   a. The main method of control of infection transmission through blood transfusion is achieved by prophylactic treatment during and after transfusion.
   b. Blood transfusion of 5 units in 24 hrs in adults is consistent with the definition of massive transfusion.
   c. Metabolic complications (eg, hypocalcaemia, hyperkalaemia, metabolic acidosis) are commoner in transfusion with fresh blood.
   d. Minor blood transfusion immunological reactions are caused by irregular antibodies and leucocytes antibodies.

2. A 60 kg patient with a breast cancer was admitted for simple mastectomy. Her Hb was 6g/100ml. The anaesthetist asked you to build her Hb to 10 by blood transfusion. Using this clinical information, calculate the estimated number of units required to raise the Hb to 10.
   a. Approximately 2 units
   b. Approximately 3 units
   c. Approximately 4 units
   d. Approximately 5 units

3. About disorders of sexual differentiation (DSD) (ambiguous genitalia) (Intersex)(pseudoharmaphrodite), which of the following statements is true?
   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.

4. A 90 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 1500 ml
   b. Approximately 2000 ml
   c. Approximately 2500 ml
   d. Approximately 3000 ml

10 × 100 = 1000
10 × 50 = 500
70 × 20 = 1400
2900

5. Which intravenous fluid regimen is commonly used in Kiambu hospital for maintenance of fluid balance in the first 4 days after major laparotomy:
   a. Colloids alternating with 5% dextrose.
   b. Normal saline alternating with 5% dextrose.
   c. Ringers lactate alternating with normal saline.
   d. Normal saline with 20 mEq of potassiumin 500ml.

6. A 80 kg patient was admitted with intestinal obstruction. She was drowsy and severely dehydrated, with a blood pressure of 50/0, a weak thready pulse rate of 140/min and urine output of 10ml/hr. Based on these clinical information, calculate the bolus dose required in the initial resuscitation of this patient.
   a. 1L2L
   b. 1.5
   c. 2L
   d. 2.5

20 × 80 = 1600.

7. A 25 year old patient presented with progressive difficulties in passing urine for six months. The urinary stream was weak and he needed to exert force to empty the bladder. Sometimes there was dysuria and dribbling but no haematuria. On past medical history, he had an accident when he was 20 years old in which he sustained a fracture pelvis. On examination, the bladder and the right kidney were palpable. The most likely clinical diagnosis in this patient is:
    a. Benign prostatic hyperplasia
    b. CA prostate
    c. Carcinoma right kidney
    d. Urethral stricture

8. A 70kg patient was brought to the casualty after an accident. Blood pressure was 125/80, PR=125bpm, RR=25/m and temp=36.8 Celcius. He had multiple injuries. The urinary catheter had drained 15mls in the last half hour. 0.5mls/hr
    a. Based on haemorrhagic classification of shock, the estimated amount of blood loss in this patient was approximately 1- 1.5L (2-3 units)
    b. In his initial resuscitation, he requires blood transfusion with 3 units (1.5L) of whole blood.
    c. In his initial resuscitation, he requires blood transfusion with 3 units of packed RBC.
    d. Using ATLS/TEAM protocol in his initial resuscitation, he requires 4L bolus of normal saline

9. Metabolic responses after major trauma or major surgery includes?
    a. Increased water excretion in the first two days.
    b. Increased sodium excretion in the first two days.
    c. Increased potassium excretion in the first two days.
    d. Decreased 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. $PO_2 < 80$
    b. Temperature <36>38
    c. PR>90
    d. WBC <4000>12000

12. A 30 year old HIV negative farm worker developed celluritis with an abscess of the leg after a splinter injury in the garden. The results of C/S showed a pure growth of streptococcus pyogenase highly sensitive to gentamycin, impenem, ciprofloxacin and penicillin, ceftrioxone. Choose the best antibiotic for this patient after incision and drainage of the abscess.
    a. Penicillin.
    b. Impenem
    c. Gentamycin
    d. Ceftrioxone

13. On aseptic technique and sterilization:
    a. An autoclave (steam under pressure) is used to sterilize rubber and plastic instruments 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 all of the following EXCEPT
    a. E. coli.
    b. Bacteroides spp .
    c. T. vaginalis.
    d. E. histolytica.

15. Which statement is correct about the management of a 60 kg patient with 30%, 2nd degree deep, circumferential burns affecting the trunk only.

a. This patient is considered to have moderate burns in the classification of severity of burns.
b. Initially, this patient should be given 2L of intravenous fluids in the first 8 hrs and 2L in the next 16 hrs
c. Fluid resuscitation in this patient is considered adequate when urinary output is over 20ml/hr
d. Split skin grafting is the preferred method of skin cover in this patient

16. 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.

17. 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.

18. Urinary stones

a. Calcium oxalate, uric acid, are the commonest 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 radiolucent

19. Urinary stones

a. Compared with other urinary stones, oxalate 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. After getting adequate information on his disease and the various methods of treatment and possible complications, a patient with confirmed prostate cancer, with chronic urinary obstruction and deranged UEC refuses to consent for TUR or orchidectomy or radiotherapy. He is fully conscious and of sound mind. What is the NEXT BEST thing for the urologist to do?

a. Catheterize and ask a senior sibling/relative to give consent on behalf of the patient .
b. Catheterize and disqualify himself from looking after him because he has refused his advice for prostatectomy, orchidectomy and radiotherapy.
c. Catheterize and refer him to an oncologist with a letter for medical treatment with anti-androgens.
d. Catheterize and refer him to the renal unit for treatment of renal failure because he has deranged UEC.

21. Which of the following is a cardinal sign of obstruction in a neonate?

a. Delayed passage of meconium > 6 hours after birth
b. Visible peristalsis
c. Antenatal polyhydramnios
d. Projectile vomiting of yellow gastric contents

22. A neonate has been diagnosed with intestinal atresia and is being prepared for surgery. Which of the following preoperative solutions and rates would be most appropriate to resuscitate the neonate?

    a. A bolus of D5W at 20 cc/kg followed by IV 0.45%NS(normal saline) with potassium added at 6 cc/kg/hr
    b. A bolus of Ringer's Lactate at 20 cc/kg followed by IV 0.9%NS (normal saline) with 25% dextrose at 4 cc/kg/hr monitoring the urine output.
    c. A bolus of Ringer's Lactate at 10 cc/kg followed by IV 0.9%NS (normal saline) with 25% dextrose at 4 cc/kg/hr monitoring the pulse and blood pressure.
    d. A bolus of Ringer's Lactate with D5W at 20 cc/kg followed by IV 0.9%NS (normal saline) with 5% dextrose at 150 cc/kg/24 hours or 5 cc/kg/hr.

23. Following insertion of a chest tube for spontaneous pneumothorax in a patient on tuberculosis therapy the nurse reports continuous bubbling in the under-water seal drainage bottle. What is the most likely explanation for the bubbling?

    a. The chest tube is not appropriately connected.
    b. There is a bronchopleural fistula.
    c. There is insufficient water in the under-water seal drainage bottle.
    d. The chest tube insertion was traumatic.

24. Which of the following is most appropriate immediate intervention for a patient with an open pneumothorax?

    a. Open flap dressing.
    b. Chest tube insertion
    c. Portable chest x-ray
    d. Intubation and assisted ventilation

25. Mrs S presents with epigastric pains for the past 6 weeks. She has been taking omeprazole, advice from a friend, for the past 3weeks without improvement. An upper endoscopy done confirms the presence of a duodenal ulcer and biopsy confirms the presence of H. pylori. The patient is started on quadruple therapy for 2weeks. What is the best investigation to assess the eradication of H. pylori after completion of treatment?

a. Urease breath test.
b. Stool antibody test.
c. ELISA
d. Biopsy and culture

26. Which of the following are caused by ascaris lumbricoides infestation?

a. Mechanical obstruction of the intestine and perforation of the intestine
b. Ascending cholangitis, obstructive jaundice and acute pancreatitis
c. Chest symptoms
d. All of the above.

27. Which of the following statements is not true of neonates with gastroschisis

a. It is associated with malrotation
b. High incidence of associated anomalies.
c. There is prolonged adynamic ileus following repair
d. It is complicated by intestinal atresia in 10% to 12% of cases.

28. Temperature regulation is important in neonates and infants. Which of the following statements is TRUE:

a. Lower surface area volume ratio leads to excessive heat loss
b. Hypothermia leads to hyperperfusion and acidosis
c. Use of hot irrigation and intravenous fluids adviced
d. Keep operating room temperatures high(naked infants require ambient temperatures of $31.5^0$C)

29. A 24-year-old man presents to the casualty department of Kiambu hospital with abdominal pains after having sustained a stab wound in the right upper quadrant. Vitals Bp 110/80mmHg, pulse 95/min, respiratory rate 16/min and temperature of 36.4. Local wound exploration reveals penetration of the anterior abdominal fascia, and a DPL performed reveals 8000 RBC/mm3 and 900 WBC/mm3. Which of the following is the most appropriate next step?
    a. Obtain an abdominal CT scan
    b. Perform a diagnostic laparoscopy
    c. Continue nonoperative management and observation
    d. Perform a laparotomy

30. A 50-year-old woman presents with pain and enlargement of the right breast. On examination, the right breast is visibly larger than the left breast with skin thickening and redness. She has a palpable right axillary lymph node. Which of the following is the most appropriate management?
    a. Admit the patient to the hospital for intravenous antibiotics treatment
    b. Oral antibiotics and re-evaluate in 1 month
    c. Oral antibiotics, obtain bilateral mammography, and re-evaluate in 1 month
    d. Perform ultrasound evaluation of the left breast and biopsy of any suspicious lesions

31. A 50-year-old man presents with epigastric pain which has improved somewhat with PPI. Upper GI endoscopy reveals a gastric ulcer. Which of the following best describes a characteristic of gastric ulcers?
    a. Type I gastric ulcers are usually not associated with excess acid secretion
    b. Type I gastric ulcers are usually located in the prepyloric region of the stomach
    c. Type II gastric ulcers are usually associated with gastroesophageal reflux
    d. Type III gastric ulcers are not associated with excess acid production

32. A 12-year-old boy presents with a 2 day history of right lower quadrant abdominal pain. He reports that he has been unwell for the past 7days with a cough, runny nose, fever. His temperature is 37.8°C. He has tenderness in the right lower quadrant, without rebound tenderness or guarding.His WBC count is 11,000/mm3 and urinalysis is normal. CT of the abdomen reveals no inflammatory changes around the cecum. There are several enlarged lymph nodes in the mesentery of the ileum. The appendix is not visualized. What is your diagnosis and treatment?
    a. Mesenteric adenitis. Conservative
    b. Probably mesenteric adenitis. Perform diagnostic laparoscopy for confirmation
    c. Mesenteric adenitis. Admit the patient for antibiotics treatment
    d. Perform CT-guided biopsy of the mesenteric lymph nodes for definitive diagnosis

33. Which of the following statement regarding Crohn disease behavior pattern is true?
    a. The disease manifestation is consistent in terms of being inflammatory, stricturing, or penetrating
    b. The anatomic locations remain fairly stable over the course of disease progression in most individuals
    c. The penetrating disease never occurs as the initial manifestation
    d. Anorectal disease is the initial presentation in 60% of patients

34. A 28-year-old man is noted to have painless scrotal mass. The AFP level is elevated. Which of the following statements is most accurate regarding the role of AFP in testicular cancer?
    a. Marked elevation of AFP in men with testicular mass generally indicates a nonseminomatous testicular cancer
    b. Serum levels may be used to determine response to therapy
    c. The development of effective chemotherapeutic agents has eliminated the need for AFP level assessment
    d. The level of AFP should not change following radical orchiectomy for a patient with a 4-cm nonseminomatous testicular cancer

35. In contrast to adults, fetal wound healing:
    a. Has exagarated inflammatory phase
    b. Has less hyaluronic acid content
    c. Has a higher content of type III collagen
    d. Has a higher level of transforming growth factor beta

36. Which of the following about bacterial sepsis is NOT true?

a. Gram positive septicemia usually has a poorer prognosis than gram negative infection
b. Lipid A of the LPS endotoxin is an importent component for virulence
c. TNF can cause self-stimulation of monocytes and macrophages to their full state of activation
d. IL-1 may stimulate T lymphocytes to produce TNF

37. A 24-year-old man presents with a one week history of abdominal pain. His temperature is 39.4°C. He has generalized tenderness, with rebound tenderness and guarding. Intraoperative findings include volvulus and gangrene of the terminal ileum, and Meckels diverticulum. Resection of the terminal ileum is done. The following are the possible complications of terminal ileum resection EXCEPT:

a. Megaloblastic anemia
b. Steatorrhea
c. Increased oxalate binding
d. Gallstones

38. A 45 year old man presents with a gunshot wound on the back. He has 5/5 strength in both upper limbs and on the left lower limb. There is decrease sensation in the left leg. The right leg has normal sensation but 2/5 strength. Which of the following conditions describes this injury?

a. Brown-Sequard syndrome
b. Anterior cord syndrome
c. Posterior cord syndrome
d. Central cord syndrome

39. Which of the following is TRUE regarding omphalocele?

a. Initial treatment is an attempt at gentle reduction
b. Majority of patients have associated cardiac and genetic abnomarlities
c. Occurs due to umbilical vein vascular accident
d. Mortality often as a result of persistent sepsis

40. A 65year old man presents with lower urinary tract symptoms and prostatic surface antigen (PSA) of 9.6. Digital rectal examination reveals a normal prostate with no nodules. What is the next step in his management?

a. Transrectal ultrasound guided biopsy
b. MRI
c. Ultrasound
d. Transrectal Prostatic biopsy

41. In managing a patient with haematochezia.

a) The investigation of choice in elderly patients with brisk lower GI bleeding is angiography
b) Colonoscopy is useful as a hemostatic intervention within 2 hours of low GI bleeding
c) Enteroclysis is diagnostic for a jejunal bleeding
d) Angiodysplastic lesions are best treated with local excision

42. Endoscopic Treatment for bleeding oesophageal varices includes the following except

a) Adrenaline intravareceal injections
b) Band ligation
c) Application of biological glue
d) Baloon tamponade

43. In the management of patients with primary thyrotoxicosis in Graves disease

a) Sore throat is a significant complication of carbimazole use
b) Radio-iodine therapy is a suitable alternative to surgery in children
c) In a pregnant patient, surgery is best performed in the first trimester
d) Antithyroid drug propyl thiouracil will cure the disease in 80% cases

44. Solitary thyroid nodules

a. Are 2 times more prevalent in women
b. In the male populationrisk of malignancy exceeds 80%
c. More than 50% of scintigraphically cold nodules are malignant
d. The risk of malignancy in a solitary hot nodule on scintigraphy is negligible

45. Which Clinical features are suggestive of congenital aganglionic megacolon (Hirchsprungs disease)

a. Failure of neonate to pass stools in the first 48 hours
b. Blood-stained diarrhea , fever and vomiting
c. Constipation with hard stools on rectal exam
d. Palpable hypogastric thick bowel segment

46. A child with Hirchsprung's disease is admitted for surgery. Which of the following is correct.

a. Initial stage colonic decompression is performed at the transition zone
b. The Soave operation involves stripping of the rectal mucosa
c. Diagnosis is based on a stool and blood studies
d. In Swensons procedure a permanent colostomy is fashioned

47. Prostatic specific antigen as a marker for prostate cancer

a. Is highly organ specific and cancer disease specific
b. Is transiently elevated following ejaculation
c. Levels above 35nmol/l are suspicious of early carcinoma
d. Is produced by the columnar prostatic acinar epithelial cells

48. An elderly patient is assessed to have Benign prostatic hyperplasia. It is correct that

a. the false capsule is made of a hyperplastic peripheral zone of the gland
b. the periurethral transitional zone is usually normal in size and histology
c. PSA titres are usually between 4 to 12 ng/ml
d. Tamsulosin is a useful therapeutic alpha blocking option for glands less than 40 grams

49. High ano-rectal anomalies

a. Include the cloaca deformity in females
b. Are managed on a single stage plastic surgical correction
c. Result from embryological failure of canalisation of anorectal bundle
d. Identification of associated fistulae allows dilatation to enhance voiding

50. A 1 month old child is presented for elective circumcision but noted to have the urethral opening in the under surface of the penis.
    a. The circumcision procedure may be conducted
    b. This is a glandular type of a hypospadia
    c. One is likely to observe bending of the penis on its erection
    d. Surgical correction of the anomaly should be performed immediately

51. 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

52. Non –trauma indications for splenectomy include
    a. Radical gastrectomy for a Gastric Carcinoma
    b. Idiopathic thrombocytopenic purpura relapsing despite steroid therapy
    c. Portal vein thrombosis
    d. Pancreatic tail pseudocyst

53. The emergency management in casualty of a trauma patient with thoracic left sided subcutaneous emphysema , absent breath sounds, tachypnea and a tracheal shift to the right would be
    a. An emergency transportation to radiology for a chest radiograph
    b. Positive pressure ventilation and supplemental oxygen
    c. Thoracocentesis at the left 2nd intercostal space
    d. Intercostal chest tube drainage at the triangle of safety

54. The following increase the risk of colonic cancer development except
    a. Ulcerative colitis disease
    b. cholecystojejunostomy
    c. ureterosigmoidostomy urinary diversion
    d. Helicobacter pylori infection

55. In regard to urinary bladder (vesical) calculi, it is incorrect that

a. They may be totally asymptomatic
b. Pain is experienced at end of micturition and decreases on lying down
c. They are associated with increased risk of transitional cell carcinoma of the bladder
d. Males are affected more than the females

56. Common risk factors associated with development of renal calculi include

a. Increased urinary citrate promoting precipitation of urinary calcium
b. Hypoparathyroidism
c. Renal epithelial desquamation due to Vitamin A toxicity
d. Diets whose metabolism gives rise to aciduria

57. Which of the following features are most suggestive of a strangulated inguinal hernia

a. A recently irreducible chronic hernia
b. An expansile cough impulse on palpation of an inguial hernia site
c. Toxic shock with a tender hernia swelling of recent increased size
d. Multiple fluid levels on an abdominal radiograph for a patient with a reducible inguinal swelling

58. An elderly man is admitted for repair of bilateral direct inginal hernia. Which of the following tests must be ordered prior to arranging for his surgery?

a. ~~Surgery only~~ Chest radiograph.
b. Surgery and radiotherapy Abdominal MRI.
c. Surgery ,radiotherapy and chemotherapy Serum cholesterol level.
d. Radiotherapy only MCU micturating cystourethrogram.

59. The most appropriate management plan for a benign brain tumour includes

a. Surgery only
b. Surgery and radiotherapy
c. Surgery ,radiotherapy and chemotherapy
d. Radiotherapy only

60. Meningiomas arise from
    a. Arachnoid cap cells
    b. Oligodendrocytes
    c. Schwann cells
    d. Meningothelial cells

61. 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

62. 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

63. A vascular necrosis is associated with all the following except
    a. Sickle cell disease
    b. Osteochondritis dissecans
    c. Osgood schlatters disease
    d. Perthe's disease

64. 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

65. 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

66. 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

67. 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

68. The hip joint may be replaced in all except the following:

a. TB arthritis
b. Post traumatic avascular necrosis
c. Rheumatoid arthritis
d. Haemophilic arthritis

69. A 15 year old boy presents with a single episode " popping" or displacement of his left knee cap while climbing stairs but "it returned" spontaneously.
    a. Physiotherapy ,a knee support and observation would be adequate initial management
    b. A knee CT scan should be done before definitive management and advice can be given
    c. A knee arthroscopy is advised
    d. All of the above apply

70. The following is true of closed Fractures of the femoral shaft in adults
    a. They can only be managed by locked intramedullary nailing
    b. May need blood transfusion
    c. They can be adequately managed in a long leg cast
    d. Traction treatment should not be instituted at home

71. A shoulder x ray reveals that a body builder who weighs 100 kg has dislocated his shoulder while weightlifting 4 hours earlier.
    a. A shot of morphine or pethidine and reduction should be attempted in casualty
    b. One should order a 3D CT scan of the shoulder before attempting reduction
    c. An open reduction of the shoulder needs to be done
    d. General anaesthesia with muscle relaxation is paramount to successful reduction of the joint

72. Which of the following statements is true of femoral shaft fractures .
    a. In children, they should not be treated in a hip spica as it does not guarantee anatomical reduction.
    b. In the elderly, they must not be treated by skeletal traction because of osteoporosis
    c. Rotational stability in not as important as limb length discrepancy
    d. Angulation is of greater concern in adults than in children

73. Absolute indications for operative management of fractures in a child include the following EXCEPT
    a. Open fractures
    b. Salter Harris Type II fractures
    c. Associated injury to a major vessel requiring repair
    d. Compartment syndrome

74. After performing closed reduction of a posterior hip dislocation, the hip joint is found to be grossly unstable. What is the single most useful investigation that you would perform to try to establish the likely cause of the instability?

a. MRI hip / pelvis
b. CT Scan of the Pelvis
c. Arthroscopy of the affected hip
d. Plain pelvic X-ray – AP view

75. Which of the following is true

a. Humeral shaft fractures do not heal well if managed in a hanging cast
b. The U slab should only be used if the humeral fracture is not suitable for surgery
c. Non-surgical management of humeral fractures has poor results
d. Fracture malunion in the humerus is more acceptable than in the femur

76. 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

77. In osteogenesis imperfect, the defect is in

a. Collagen
b. Hydroxyapatite
c. Cartilage
d. Glycosaminoglycans

78. The definitive diagnosis of osteoporosis is based on

a. DEXA Scan
b. CT Scan
c. MRI
d. Plain X-Rays

79. An otherwise healthy 40 year old female is admitted with fractures of her right humerus and the ipsilateral radius and ulna. Both injuries are closed. What is the best management option for these injuries?

a. A co-aptation splint (U-slab) for the humerus fracture and a forearm cast for the radius and ulna fractures

b. A hanging cast for the humerus fracture and a forearm cast for the radius and ulna fractures

c. A long arm cast that stabilizes both the humerus and forearm fractures

d. D. Open reduction and internal fixation with plates and screws

80. A displaced neck of femur fracture in a 50 year old healthy male is best managed by:

a. Reduction and fixation with multiple K-wires

b. Total Hip Replacement

c. Reduction and fixation with a reconstruction nail

d. Reduction and fixation with 3 cannulated screws

81. A 34 year old female presents to the clinic with complaints of bilateral heel pain. It is worse with the first few steps after waking up. Other than tenderness at the origin of the insertion of the plantar fascia. First line treatment of her condition should include all the following except

a. Plantar fascia stretching exercises

b. Silicon Heel Cushions

c. Medial Arch Support

d. Avoidance of High Heel Shoes

82. A healthy 23 year old male presents with an isolated displaced middle third clavicle fracture sustained while playing rugby. As part of his treatment you would:

a. Attempt closed reduction and give analgesics and an arm-sling

b. Give analgesics, an arm-sling and start shoulder ROM exercises in a week or two

c. Plan for open reduction and fixation with plate and screws

d. Plan for open reduction and fixation with K-wires

83. The following are absolute indications for open reduction and internal fixation of a closed fracture of the shaft of the humerus except

a. Pathological fracture secondary to metastatic carcinoma
b. Radial nerve palsy present at presentation
c. Compartment syndrome
d. Brachial artery injury

84. The following displacements are acceptable for a displaced humerus shaft fracture except

a. Up to 20 degrees of Antero-posterior angulation
b. Up to 30 degrees of Valgus
c. Up to 10 degrees of Varus
d. Up to 3 cm of shortening

85. All the following radiological features are suggestive of a supracondylar fracture except

a. Posterior fat pad sign
b. Anterior humeral line falling posterior to the capitellum
c. Anterior humeral line bisecting the capitellum
d. Anterior humeral line falling anterior to the capitellum

86. The following is true of hypertrophic non-union except

a. Fracture splintage was inadequate
b. The capacity of the fracture to heal is compromised
c. Treatment entails stable fixation of the fracture
d. Bone grafting is necessary to stimulate fracture healing

87. Treatment of club foot should start

a. As soon as possible after birth
b. After 6 months or so when the foot is better developed
c. At 1 year once child starts walking
d. At 13 years when the childs foot has attained adult size

88. Radiological features of hip osteoarthritis include the following except

a. Widening of the joint space
b. Subchondral cysts
c. Irregularity of the articular surface
d. Subchondral sclerosis

89. A 25 year old male patient with a one week old shaft of femur fracture awaiting Intramedullary nailing develops difficulty in breathing. He also gets confused. On pulse oxymetry, his oxygen saturations are decreasing (80% on room air). You also note that he has petechial haemorrages on his chest.

a. Sepsis
b. Fat embolism
c. DIC
d. Hypovolemia

90. A Kenya Sevens Rugby team player complaints of sudden onset right knee pain following injury while playing. He has knee swelling as well, as inability to squat. He also reports that he has experienced locking of the involved knee on several occasions. On examination, the knee is swollen and there is medial joint line tenderness. Thessalys test is positive. Your diagnosis is

a. A torn ACL
b. A torn PCL
c. A lateral meniscal tear
d. A medial meniscal tear

91. The following are radiographic features of rickets except:

a. Increased width of the growth plate ✓
b. Decreased bone density ✓
c. Ricket rosary ✓
d. Subperiosteal bleeding

92. Which of the following primary signs of breast cancer, evident on a mammographic image, would indicate the cancer at the earliest possible time?

a. Dense mass with spiculations
b. Numerous clustered microcalcifications
c. Skin reaction
d. Enlargement of focal veins

93. Which of the following systems is the most radiosensitive vital organ system in the human being?

a. Cerebrovascular
b. Gastrointestinal
c. Hemopoietic
d. Skeletal

94. Which of the following are natural sources of ionizing radiation?

a. Medical X-ray radiation and cosmic
b. Radioactive elements in the crust of the earth and in the human body
c. Radioactive elements in the human body and a diagnostic xray machine
d. Radioactive fallout and environs of atomic energy plants

95. Pediatric patients require special consideration and appropriate radiation protection procedures because they are more vulnerable to which of the following?

a. Both the late somatic effects and genetic effects of radiation
b. Only the somatic effects of radiation
c. Only the genetic effects of
d. Only the early somatic effects of radiation

96. Why is anaphylactic shock the most frequently seen type of shock in diagnostic imaging?

a. Patients who come for diagnostic imaging procedures are weak and debilitated
b. Iodinated contrast agents are frequently used
c. Patients here have more allergies
d. X-ray radiation causes this problem.

97. In urinary tuberculosis, frequent finding on plain film of the abdomen is:

a. Mass
b. Ileus
c. Calcification
d. Psoas abscess

98. Cranial sonography is most useful for detecting:

a. Ventricular dilatation
b. Midline shift
c. Epilepsy
d. Vascular lesions

99. Best imaging modality to diagnose a liver mass is:

a. Plain film
b. Angiography
c. CT scan
d. Nuclear scan

100. Contrast used for MRI is:

a. Gadoinium DPA
b. Radium
c. Indium
d. Iodinated contrast

101. A 57-year old man with a history of ocular trauma complains of floaters, flashing lights and a shade of darkness over the inferior nasal quadrant in his right eye. On examination, his vision is reduced and the intraocular pressure is a little lower in the affected eye with some pigment in the vitreous cavity. What is your most likely diagnosis?

a. Pituitary adenoma
b. Epi-retinal membrane involving the macula
c. Retinal tear with beginning retinal detachment
d. Dense vitreous hemorrhage in the inferior nasal quadrant

102. Topical steroids are contraindicated in case of viral corneal ulcer for fear of:

a. Secondary glaucoma
b. Cortical cataract
c. Corneal perforation
d. Secondary viral infection

103. .Proptosis is present in all of the following conditions except:

a. Horner's syndrome
b. Orbital cellulitis
c. Thyroid ophthalmopathy
d. Cavernous sinus thrombosis

104. Many drugs have been implicated in toxic optic neuropathy, which of the following is not?

a. Lead
b. Ethanol
c. Ethambutol
d. Digoxin

105. Evisceration is:

a. Excision of the entire eyeball
b. Excision of all the inner contents of the eyeball including the uveal tissue
c. Excision of an ocular growth
d. Removal of orbit contents

106. Vision 2020, "The Right to Sight" deals with all the following priority diseases except:

a. Cataracts
b. Trachoma
c. Childhood Blindness
d. Diabetic retinopathy

107. Which of the following statements is true of myopia?

a. It is also called long-sightedness
b. It is corrected by concave lenses
c. It is corrected by convex lenses
d. The image is formed behind the retina

108. Treatment options in POAG may include all except

a. Atropine
b. Beta blockers
c. Prostaglandin analogues
d. Carbonic anhydrase inhibitors

109. Which one is not true concerning HIV manifestation in otolaryngology?

a. Lymphoid hyperplasia found in the nasopharynx is a manifestation of HIV-associated lymphadenopathy
b. Adenoidal Hypertrophy in an otherwise asymptomatic adult should raise the suspicion of a possible underlying HIV infection.
c. Multiple fine needle aspirations should be performed if Kaposi's sarcoma is suspected.
d. Non Hodgkin's Lymphoma is the second most common malignancy associated with HIV

110. Concerning recurrent laryngeal papilloma, which one is not true?

a. Microsurgery can be performed repeatedly
b. Intralesional injection of tenofovir is curative
c. Associated with HPV 6 & 11
d. Children become infected as they pass through birth canal

111. 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

112. The following are causes of conductive hearing loss EXCEPT
   a. Cerumen impaction.
   b. Perforated tympanic membrane
   c. Ossicular disarticulation
   d. Acoustic neuroma

113. The Following tests can be used to assess hearing thresholds except
   a. Pure Tone Audiogram.
   b. Tympanometry.
   c. Auditory Brainstem Reflex.
   d. Otoacoustic emmisions.

114. 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.

115. Which statement is TRUE about Nitrous oxide:-
   a. Supports combustion
   b. Is flammable
   c. Is formed by heating oxygen & nitrogen
   d. In tissues is slower to reabsorb than oxygen

116. All the factors decrease MAC EXCEPT:
   a. Pregnancy
   b. Hyperthermia
   c. Hypothermia
   d. Hypoxia

117. Ketamine is:
   a. Is a direct inotrope
   b. Causes bronchodilatation
   c. Less likely to see emergence delirium
   d. Reduces pharyngeal secretions

118. Benzodiazepines:

a. Have no analgesic effect
b. Have an antanalgesic effect
c. Have an analgesic effect
d. Have dose-related analgesic and antanalgesic effects

119. Lignocaine works by:

a. Altering Na+ permeability
b. Altering membrane structure
c. Reduced Ca++ permeability
d. Increased K+ permeability

120. Platelet activation requires:

a. Vessel wall damage
b. Calcium
c. Cyclooxygenase
d. Prostaglandins