60

(*University of Choice*)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR

SECOND YEAR SECOND TRIMESTER EXAMINATIONS
MAIN EXAM

FOR THE DEGREE OF
BACHELOR SCIENCE IN NURSING DIRECT ENTRY

COURSE CODE: NCN 225

COURSE TITLE: REPRODUCTIVE HEALTH AND SAFE MOTHERHOOD II

DATE: 09/04/2024 **TIME: 3:00PM-6:00PM**

INSTRUCTIONS TO CANDIDATES

Answer all question provided

This Paper Consists of 6 Printed Pages. Please Turn Over.

SECTION A: MULTIPLE CHOICE QUESTIONS 60 MARKS

1. The management of antepartum hemorrhage depends on several factors, including:
   A. Gestational age
   B. Maternal parity
   C. Presence of uterine fibroids
   D. Fetal heart rate variability
2. Uterine rupture is a rare but serious complication of pregnancy and is most commonly associated with:
   A. Multiple gestations
   B. Placenta previa
   C. Prior cesarean delivery
   D. Maternal age over 40
3. Vasa previa is characterized by:
   A. The umbilical cord inserts into the fetal membranes rather than the placenta
   B. There is a velamentous insertion of the umbilical cord
   C. Fetal blood vessels traverse the amniotic membranes over the cervix
   D. There is a complete separation of the placenta from the uterine wall
4. Which medication is a prostaglandin analog commonly used for cervical ripening in induction of labor?
   A. Oxytocin
   B. Dinoprostone
   C. Misoprostol
   D. Methylergonovine
5. What is the goal of cervical ripening agents in induction of labor?
   A. To initiate uterine contractions
   B. To soften and dilate the cervix
   C. To control maternal blood pressure
   D. To prevent postpartum hemorrhage
6. Which factor should be carefully assessed before initiating labor induction to minimize risks?
   A. Maternal occupation
   B. Gestational age
   C. Paternal age
   D. Socioeconomic status

7. Which of the following is true regarding placenta previa?
    A. It occurs when the placenta separates partially or completely around the cervix
    B. It is often associated with severe abdominal pain
    C. It typically presents with painless vaginal bleeding in the third trimester
    D. It is more common in multiparous women
8. Which diagnostic tool is commonly used to confirm the diagnosis of placenta previa?
    A. Ultrasound
    B. Magnetic resonance imaging (MRI)
    C. Fetal non-stress test (NST)
    D. Doppler ultrasound
9. Which maternal condition is associated with an increased risk of placental abruption?
    A. Gestational diabetes
    B. Chronic hypertension
    C. Preeclampsia
    D. Hyperthyroidism
10. What is the recommended fetal surveillance method during labor induction?
    A. Non-stress test (NST)
    B. Biophysical profile (BPP)
    C. Maternal serum alpha-fetoprotein (MSAFP)
    D. Fetal fibronectin (fFN) assay
11. Which of the following Bishop score components indicates cervical readiness for labor induction by use of oxytocin?
    A. Cervical dilation of 1 cm
    B. Cervical effacement of 50%
    C. Cervical consistency firm
    D. Cervical position posterior
12. In the Bishop scoring system, what does a score of "0" indicate for each component?
    A. Complete cervical dilation, effacement, and softness
    B. Closed cervix, thick, posterior, and firm
    C. 50% effacement, moderate consistency, and anterior position
    D. 3 cm dilation, 75% effacement, soft, and midposition

13. Which of the following symptoms is a common sign of severe preeclampsia?
    A. Severe abdominal pain
    B. Decreased urinary frequency
    C. Visual disturbances
    D. Increased fetal movement
14. What is HELLP syndrome, a severe form of preeclampsia, characterized by?
    A. Hemolysis, elevated liver enzymes, and low platelet count
    B. Hypertension, electrolyte imbalance, and lung dysfunction
    C. Heart failure, embolism, and lung collapse
    D. Hyperglycemia, edema, and lung congestion
15. What is indicated by a deviation from the alert or action lines on the partograph?
    A. A sign that signals caeserian delivery
    B. Fetal distress or maternal complications
    C. The need to augument labour
    D. The onset of transition phase in labor
16. What action should be taken if the progress of labor crosses the action line on the partograph?
    A. Encourage the mother to rest
    B. Administer oxytocin to speed up labor
    C. Continue monitoring closely, and prepare for possible interventions
    D. Allow more time for natural progression of labor
17. How can the partograph aid in reducing maternal and fetal complications during labor?
    A. By administering pain relief medication promptly
    B. By facilitating early detection of deviations from normal labor progress
    C. By increasing the frequency of vaginal examinations
    D. By inducing labor before term
18. Which of the following is a characteristic feature of Respiratory Distress Syndrome in newborns?
    A. Increased surfactant production
    B. Normal lung compliance
    C. Hypoxemia and cyanosis
    D. Mature lung alveoli
19. How does surfactant administration benefit neonates with Respiratory Distress Syndrome?
    A. By reducing lung compliance
    B. By reducing alveolar surface tension
    C. By preventing atelectasis
    D. By promoting pulmonary fibrosis

20. What is the most common type of breech presentation?
    A. Frank breech
    B. Complete breech
    C. Footling breech
    D. Transverse breech
21. What is the preferred mode of delivery for a breech presentation?
    A. Cesarean section
    B. Vaginal birth with forceps assistance
    C. Vaginal birth with vacuum extraction
    D. Home birth
22. The primary purpose of administering magnesium sulfate in the management of preeclampsia?
    A. To lower blood pressure
    B. To prevent seizures
    C. To induce labor
    D. To improve fetal growth
23. The most common cause of postpartum hemorrhage?
    A. Uterine rupture
    B. Placental abruption
    C. Uterine atony
    D. Cervical lacerations
24. What is the initial step in managing postpartum hemorrhage?
    A. Administration of uterotonic medications
    B. Immediate blood transfusion
    C. Manual removal of retained placental fragments
    D. Assessment of vital signs and blood loss
25. Which of the following interventions may be considered if pharmacological measures fail to control postpartum hemorrhage?
    A. Delayed cord clamping
    B. Uterine artery embolization
    C. Early rupture of membranes
    D. Administration of tocolytic agents

26. Which of the following interventions is recommended for managing postpartum hemorrhage secondary to retained placental tissue?
    A. Manual removal of the placenta
    B. Administration of vasopressors
    C. Immediate induction of labor
    D. Performing a cesarean hysterectomy
27. What is the most common cause of neonatal jaundice?
    A. ABO incompatibility
    B. Breastfeeding jaundice
    C. Rh incompatibility
    D. Physiological jaundice
28. What is the mechanism underlying breast milk jaundice in neonates?
    A. Hepatic immaturity
    B. Hemolysis of red blood cells
    C. Inadequate breast milk intake
    D. Inhibition of bilirubin conjugation
29. Which laboratory test is used to differentiate physiological jaundice from pathological causes of jaundice in neonates?
    A. Direct Coombs test
    B. Serum bilirubin levels
    C. Liver function tests
    D. Complete blood count
30. What is the recommended management for neonatal jaundice caused by ABO incompatibility?
    A. Phototherapy
    B. Intravenous immunoglobulin (IVIG)
    C. Exchange transfusion
    D. Antibiotic therapy
31. Which of the following is a potential complication of severe neonatal jaundice?
    A. Hypertension
    B. Kernicterus
    C. Hypoglycemia
    D. Respiratory distress syndrome
32. At what bilirubin level should phototherapy be initiated in a term newborn?
    A. >15 mg/dL
    B. >18 mg/dL
    C. >20 mg/dL
    D. >25 mg/dL

33. What is the purpose of administering antenatal corticosteroids to women at risk of preterm delivery?
    A. To prevent maternal infections
    B. To improve fetal growth
    C. To accelerate fetal lung maturation
    D. To reduce maternal blood pressure
34. Which of the following is a potential long-term complication of prematurity?
    A. Osteoporosis
    B. Type 2 diabetes mellitus
    C. Neurodevelopmental disabilities
    D. Chronic obstructive pulmonary disease (COPD)
35. At what gestational age is a newborn considered extremely preterm?
    A. Before 28 weeks of gestation
    B. Before 32 weeks of gestation
    C. Before 34 weeks of gestation
    D. Before 36 weeks of gestation
36. Which medication is commonly used in pregnant women with cardiac diseases to prevent thromboembolic events?
    A. Aspirin
    B. Warfarin
    C. Heparin
    D. Clopidogrel
37. Prolonged labor is defined as:
    A. Labor lasting longer than 4 hours in nulliparous women and longer than 6 hours in multiparous women
    B. Labor lasting longer than 12 hours in nulliparous women and longer than 8 hours in multiparous women
    C. Labor lasting longer than 24 hours in nulliparous women and longer than 18 hours in multiparous women
    D. Labor lasting longer than 36 hours in nulliparous women and longer than 24 hours in multiparous women
38. Which maternal position is often recommended to help progress labor in cases of prolonged labor?
    A. Supine position
    B. Lithotomy position
    C. Upright or ambulatory positions
    D. Trendelenburg position

39. Which of the following interventions may be considered to augment labor in cases of prolonged labor?
    A. Cesarean section
    B. Amniotomy
    C. Forceps delivery
    D. Administration of tocolytic agents
40. Gestational diabetes mellitus (GDM) is diagnosed during which trimester of pregnancy?
    A. First trimester
    B. Second trimester
    C. Third trimester
    D. Any trimester
41. Which of the following statements regarding gestational diabetes mellitus (GDM) is true?
    A. GDM always resolves after delivery.
    B. GDM increases the risk of developing type 1 diabetes.
    C. GDM increases the risk of macrosomia (large birth weight).
    D. GDM has no effect on fetal growth.
42. What is the recommended initial screening test for gestational diabetes mellitus (GDM) in low-risk pregnant women?
    A. Random plasma glucose test
    B. Fasting plasma glucose test
    C. Oral glucose tolerance test (OGTT)
    D. Hemoglobin A1c test
43. Which of the following medications is commonly used for managing gestational diabetes mellitus (GDM) if lifestyle modifications are insufficient?
    A. Metformin
    B. Insulin
    C. Glyburide
    D. Pioglitazone
44. Which of the following maternal complications is associated with poorly controlled diabetes during pregnancy?

A. Hypertension
B. Preterm labor
C. Polyhydramnios
D. Preeclampsia

45. Infants born to mothers with gestational diabetes are at an increased risk of developing which condition?
    A. Hypoglycemia
    B. Hyperthyroidism
    C. Sepsis
    D. Hemophilia
46. Which of the following statements is true regarding preexisting diabetes (type 1 or type 2) in pregnancy?
    A. It poses no additional risks to the mother or fetus.
    B. Insulin requirements usually decrease during pregnancy.
    C. Tight glycemic control is not necessary during pregnancy.
    D. It increases the risk of congenital malformations and macrosomia.
47. What is the most common cause of anemia in pregnancy worldwide?
    A. Iron deficiency
    B. Folate deficiency
    C. Vitamin B12 deficiency
    D. Sickle cell disease
48. The typical fetal heart rate pattern associated with fetal distress is called?
    A. Bradycardia
    B. Tachycardia
    C. Irregular heart rate
    D. Variable decelerations
49. Which of the following interventions is typically used to manage fetal distress during labor?
    A. Administering oxytocin in poor powers
    B. Immediate cesarean section delivery
    C. Changing the mother's position to right lateral position
    D. Changing the mother's position to left lateral
50. What does fetal variability refer to in obstetrics?
    A. The range of fetal weight within a population
    B. The fluctuations in the fetal heart rate
    C. The variability in fetal movements during labor
    D. The degree of variability in amniotic fluid volume

51. What does the biophysical profile (BPP) assess in prenatal care?
    A. Maternal blood pressure
    B. Fetal anatomy
    C. Fetal well-being
    D. Placental function
52. How is fetal breathing movements assessed in the biophysical profile?
    A. By ultrasound visualization of diaphragmatic movements
    B. By counting the number of fetal hiccups
    C. By observing fetal gasping movements
    D. By maternal perception of fetal movements
53. What does it mean if the amniotic fluid volume is scored as zero in a biophysical profile?
    A. Excessive amniotic fluid (polyhydramnios)
    B. Insufficient amniotic fluid (oligohydramnios)
    C. Normal amniotic fluid volume
    D. Presence of meconium in the amniotic fluid
54. Which maternal risk factor is associated with an increased likelihood of obstructed labor?
    A. Young maternal age
    B. Multiparity
    C. Maternal obesity
    D. History of previous cesarean section
55. What is the occiput posterior position in labor?
    A. The baby's head is facing downward towards the birth canal.
    B. The baby's head is flexed with the occiput facing towards the mother's sacrum.
    C. The baby's head is facing upwards towards the mother's abdomen.
    D. The baby's head is rotated to the side, presenting the occiput towards the mother's hip.
56. What is the primary goal of the Lovset's maneuver during a breech delivery?
    A. To reduce the risk of shoulder dystocia
    B. To protect the baby's head from injury during delivery
    C. To prevent cord compression
    D. To facilitate delivery of the baby's body

57. Which maneuver involves manually rotating the fetus to dislodge a nuchal arm during a breech delivery?
    A. Lovset's maneuver
    B. Rubin maneuver
    C. Woods' screw maneuver
    D. Mauriceau-Smellie-Veit maneuver
58. What is the primary advantage of using a Foley catheter for induction of labor?
    A. It requires minimal monitoring
    B. It is associated with fewer complications
    C. It has a rapid onset of action
    D. It can be used in outpatient settings
59. What role do anti-angiogenic factors play in the pathophysiology of preeclampsia?
    A. They promote vasodilation
    B. They enhance placental development
    C. They impair angiogenesis and contribute to endothelial dysfunction
    D. They increase maternal immune response
60. In preeclampsia, the release of inflammatory mediators contributes to:
    A. Vasodilation
    B. Reduced vascular permeability
    C. Endothelial cell activation and dysfunction
    D. Increased blood flow to the placenta

SECTION B: SHORT ANSWER QUESTIONS

1. Draw a well labelled diagram of fetal skull showing areas of obstetrical importance **(6marks)**
2. Describe the difference between placenta praevia and placenta abruption **(8 marks)**
3. Describe the pathophysiology of respiratory distress syndrome (RDS) **(6 marks)**

LONG ANWER QUESTIONS (LAQ) (20 MARKS)

1. Daisy is a 24-year-old para 1+ 0 gravida 2 who presents to maternity ward at 43 weeks gestation. Her antenatal profiles results were normal. Explain the protocol on how to manage this client from admission to discharge **(20 marks**