Section I: Maternal-Fetal Physiology of Fetal Heart Rate Patterns

1. Approximately _____ of maternal cardiac output flows through the uterus of the term gestation.
    a. 5% (250 mL)
    b. 10% (500 mL)
    c. 30% (1500 mL)

2. Which statement about maternal-fetal oxygenation is false?
    a. As the fetus becomes hypoxic, rising levels of CO_2 stimulate the chemoreceptors and increase sympathetic activity, causing the fetal heart rate baseline to rise.
    b. The fetus responds to increased arterial pressure during uterine contractions by slowing its heart rate.
    c. Oxygenated blood from the mother is carried to the placenta by the umbilical arteries.

3. Which statement about the uterine blood flow is false?
    a. The uterine vascular bed constantly maintains maximum dilation.
    b. Only increase in maternal cardiac output can improve uterine blood flow
    c. Placental oxygen reserves are maintained during uterine tachysystole

4. The parasympathetic nervous system innervates the:
    a. Carotid bodies
    b. Aortic bodies
    c. Sinoatrial nodes

5. The inhibitory influence conveyed by the vagus nerve:
    a. Increases the fetal heart rate
    b. Decreases the fetal heart rate
    c. Influences fetal heart rate variability

6. The sympathetic nervous system influences the heart via the:
    a. Fibers that terminate throughout the muscle of the heart
    b. Carotid bodies
    c. Vagus nerve

7. The fetal heart rate is controlled by:
    a. Central nervous system (brain and spinal cord)
    b. Autonomic nervous system (sympathetic and parasympathetic)
    c. Baroreceptors and chemoreceptors
    d. All the above

8. The volume of blood delivered to the intervillous space is dependent on:
    a. Oxygen concentration in the blood
    b. Blood flow to the uterus
    c. Gestational age of the fetus

9. Oxygen and carbon dioxide cross the membranes separating maternal and fetal blood by:
    a. Passive diffusion
    b. Facilitated diffusion
    c. Active transport

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10. When the umbilical vein is compressed during a contraction, the baroreceptors and chemoreceptors in the fetus trigger a transient _____ in the FHR.
    a. Increase
    b. Decrease
    c. No change

11. During the administration of regional anesthesia, it is of primary importance to:
    a. Prevent maternal hypotension
    b. Maintain supine position
    c. Administer oxygen via face mask

12. By approximately _____ weeks' gestation, the fetus's autonomic nervous system is expected to be fully developed and capable of responding to various stimuli as demonstrated by changes in the fetal heart rate.
    a. 28 weeks
    b. 32 weeks
    c. 36 weeks

13. Well-oxygenated blood that enters the right atrium will be directed towards:
    a. Cephalic circulation through the carotid arteries
    b. Lungs through the pulmonary vessels
    c. Lower body through the ductus arteriosus

14. Which statement is false?
    a. Anaerobic metabolism produces lactic acid as a major end product when the body's demand for oxygen exceeds supply.
    b. Oxygen facilitates the conversion of lactic acid into carbon dioxide and water.
    c. Metabolic acidosis causes an increase in bicarbonate in an effort to neutralize the buildup of lactic acid.

15. Chemoreceptors located in the aortic and carotid bodies respond to which of the following:
    a. Carbon dioxide level 40 mmHg
    b. Fetal blood ph of 7.25
    c. Oxygen level 15 mmHg

16. The presence of shoulders accompanying variable decelerations can be explained by the:
    a. Compression of the umbilical vein causes a decrease in oxygen delivery thereby stimulating the chemoreceptors to increase in the FHR.
    b. Compression of the umbilical vein causes hypovolemia, which stimulates the fetal baroreceptors to trigger a decrease in the FHR.
    c. Compression of the umbilical arteries causes the fetal blood pressure to increase thereby stimulating the fetal baroreceptors to increase the FHR.

17. _____ is defined as the accumulation of hydrogen ions in the blood.
    a. Hypoxemia
    b. Hypoxia
    c. Acidemia
    d. Acidosis

18. _____ is defined as a decreased of oxygen in the tissues.
    a. Hypoxemia
    b. Hypoxia
    c. Acidemia
    d. Acidosis

19. An example of fetal metabolic acidemia would be:
    a. pH 7.20 with base deficit of 6
    b. pH 7.15 with base deficit of 3
    c. pH 7.19 with base deficit of 12

20. The following umbilical **arterial** cord blood gas is obtained:
    pH 7.18
    pCO_2 70 mm Hg
    pO_2 20 mm Hg
    Base Excess 1 mEq/L

    These findings are most consistent with fetal:
    a. Normal acid base status
    b. Metabolic acidosis
    c. Respiratory acidosis

21. Lactic acid transfers across the placenta slowly or inefficiently, which results in acidemia and
    a. Respiratory acidosis
    b. Metabolic acidosis
    c. Mixed acidosis

22. Fetal behavior is affected when the fetus is unable to excrete nonvolatile acids (lactic acid). This is demonstrated by a decrease in fetal movement, absence of fetal tone, and loss of fetal breathing movements. In what order do these behaviors disappear in the presence of hypoxia:
    a. Fetal breathing, fetal activity, fetal tone
    b. Fetal tone, fetal breathing, fetal activity
    c. Fetal activity, fetal tone, fetal breathing

23. An acceleration of the FHR during fetal scalp stimulation is correlated with a fetal blood pH of
    a. 6.5
    b. 7.20
    c. 7.5

24. Which statement is **true**?
    a. Fetal scalp stimulation procedure involves applying 15 seconds of gentle pressure after the fetal heart rate has recovered.
    b. Fetal acceleration after fetal scalp stimulation reflects an intact autonomic nervous system and a fetus that is not acidotic.
    c. Fetal scalp stimulation may be done during a deceleration or Bradycardia episode.

25. Epidural or spinal anesthesia result in a sympathetic blockade that can lead to:
    a. Increase in blood pressure secondary to peripheral vasoconstriction
    b. Maternal hypotension secondary to vasodilation
    c. Decrease maternal heart rate

Section 2: Electronic Fetal Heart Rate Monitoring Equipment and Technology

1. When properly placed on the maternal abdomen, the ultrasound transducer detects:
    a. Beating motion of the fetal heart
    b. Sound waves of the fetal heart valves
    c. Electrical impulses transmitted from the sinoatrial nodes

2. The fetal monitor employs a method referred to as autocorrelation, which involves:
    a. A process of successively comparing waveforms to identify their similarities.
    b. The electronic technique used by the ultrasound transducer to distinguish the fetal heart motion from other motion (i.e. fetal movement).
    c. Both a and b

3. Internal FHR monitoring is accomplished with a fetal electrode, which may be placed directly on the fetal scalp or:
    a. Face
    b. Buttocks
    c. Fontanel

4. As the FHR nears the upper limits (200 bpm) of the capability of external monitoring, which is likely to occur?
    a. Half-counting
    b. Double-counting
    c. Triple-counting

5. As the FHR nears the lower limits (50 bpm) of the capability of external monitoring, which is likely to occur?
    a. Half-counting
    b. Double-counting
    c. Triple-counting

6. What is the best action to take if you suspect double-counting or half-counting on the fetal monitor?
    a. Consider internal monitoring
    b. Verify that the logic function is turned on
    c. Assess the maternal pulse compared against the electronic fetal monitor's audible signal

7. _____ appears in the FHR tracing as **disorganized** deflections of varying lengths above or below the FHR signal:
    a. Dysrhythmia
    b. Arrhythmia
    c. Artifacts

8. Which statement regarding IUPC is false?
    a. Measures hydrostatic pressure within the uterus
    b. Provides relative measurement of intra-amniotic pressure
    c. Referenced to atmospheric pressure

9. Which statement regarding tocotransducer is true?
    a. The thickness of the patient's subcutaneous layer does affect the uterine activity reading.
    b. Application of the tocotransducer over the fundus interferes with the signal during contractions.
    c. The tocotransducer is useful for determining the strength of contractions and uterine resting tone.

10. An advantage of internal fetal heart rate monitoring (FECG) is:
    a. Provides the most accurate assessment of FHR.
    b. Easy to apply
    c. Can be applied regardless of status of membranes, dilation, or station/presentation.

Section 3: Fetal Heart Rate Pattern Interpretation

1. The minimum baseline duration must be at least _____ minutes in any 10-minute window, or the baseline for that period would be considered indeterminate.
    a. 2
    b. 5
    c. 10

2. The FHR baseline is assessed only when the patient is experiencing fluctuations in the fetal heart rate:
    a. During uterine contractions
    b. During any 10 minute window with periodic or episodic changes
    c. During any 10 minute without signs of periodic or episodic changes

3. Which fetal heart component is considered most reassuring?
    a. FHR baseline 140 bpm
    b. No periodic change
    c. Accelerations

4. The presence of moderate variability indicates that:
    a. The autonomic and central nervous systems of the fetus are well developed
    b. The fetus is at risk for metabolic acidosis and hypoxia
    c. The maternal blood flow and oxygenation is compromised

5. Minimal variability in the FHR baseline can be attributed to the following except:
    a. Fetal movement
    b. Fetal dysrhythmia
    c. Immature CNS

6. Accelerations in the FHR may be attributed to:
    a. Fetal sleep
    b. Regional analgesia
    c. Fetal movement

7. Which statement regarding marked variability is **false**?
    a. This pattern is only usually seen antepartum
    b. It may be caused by the administration of narcotics
    c. It can be a sign that the fetus is hemodynamically compromised or mildly hypoxemic

8. One of the **first** sign that the fetus is becoming hypoxic/acidotic is:
    a. Minimal or absent variability
    b. Onset of tachycardia or a rising baseline rate
    c. Decrease in FHR baseline rate

9. Nonhypoxic causes attributed to minimal or absent variability include:
    a. Prematurity
    b. Cord prolapse/compression
    c. Abruptio placenta

10. _____ is the most common FHR change when uterine rupture occurs during a trial of labor after a previous cesarean section (TOLAC):
    a. Bradycardia
    b. Variable decelerations
    c. Late decelerations

11. During second stage, intense intracranial pressure occurs as the fetal head descends through the maternal pelvis and vagina. A second-stage bradycardia with moderate variability may be seen in the adequately oxygenated fetus as a:
    a. Normal response to stimulation of the vagus nerve
    b. Hypoxic event resulting from increased arterial pressure
    c. Sign of terminal bradycardia

12. Uniform accelerations occur simultaneously with contractions and maintain a very similar (uniform) shape with each occurrence. The accelerations may be attributed to :
    a. Maternal fetal heart rate may be erroneously recorded
    b. Breech presentation and stimulation of fetal torso causing a sympathetic response
    c. Mild cord compression inhibiting blood flow through the umbilical arteries
    d. A and B

13. Which statement is **false**?
    a. When maternal blood pressure is low, there is an increase in uteroplacental perfusion to protect the fetus heart and brain.
    b. Previously well-oxygenated fetuses demonstrate a similar response to contractions to that of the chronically hypoxic fetus when faced with an acute decrease in oxygenation.
    c. Variable decelerations may result from head compression in the second stage of labor secondary to vagal stimulation.

14. Specific interventions for variable decelerations in the second stage of labor include the following **except**:
    a. Vaginal examination to check for cord prolapse
    b. Ask patient to push using closed glottis technique with every contractions
    c. Change maternal position (left lateral, right lateral, knee-chest)

15. Which statement regarding sinusoidal pattern is **false**?
    a. The FHR baseline can be determined
    b. The baseline variability is absent or minimal
    c. The fetal tracing may be complicated by variable, late, or prolonged decelerations

16. By palpating through a series of contractions, the provider can determine the:
    a. Duration and frequency only
    b. Frequency and uterine resting tone only
    c. Duration, frequency, and intensity of the contractions

17. Intermittent auscultation may be used to assess:
    a. Fetal heart rate
    b. FHR variability
    c. Late or early fetal heart rate deceleration

18. The most sensitive FHR indicator of fetal wellbeing, which is evident as a jagged line on FHR tracings, is the:
    a. Accelerations
    b. Baseline fetal heart rate
    c. Variability

19. Betamimetic tocolytic agents work by:
    a. Blocking oxytocin release
    b. Interfering with calcium uptake
    c. Relaxing smooth muscle

20. Betamethasone is likely to produce a transient:
    a. Decrease in FHR variability
    b. Decrease in FHR baseline
    c. Increase in fetal activity

21. Prolonged pushing by holding your breath and counting to 10 during second stage labor results in:
    a. Increased cardiac output
    b. Decreased placenta perfusion
    c. Decreased maternal blood pH

22. Rapid descent of the fetal head in the second stage of labor is likely to produce:
    a. Variable decelerations
    b. Late decelerations
    c. Early decelerations

23. According to ACOG, which of the following is indicative of tachysystole?
    a. Six or more contractions in 20 minutes
    b. A single contraction lasting more than 45 seconds
    c. Less than one minute in between contractions

24. A patient experiencing a prolapsed cord is likely to have which fetal heart rate pattern?
    a. Prolonged deceleration
    b. Sinusoidal pattern
    c. Late deceleration

25. Blunted acceleration that lasts 20-30 seconds above the baseline following a deceleration is referred to as:
    a. Shoulders
    b. Overshoot
    c. Acceleration

26. Pseudosinusoidal fetal tracings are commonly seen after the administration of the following **except**:
    a. Butorphanol (Stadol)
    b. Nalbuphine (Nubain)
    c. Magnesium sulfate

27. The nurse is providing auscultation to assess the FHR of **a low risk patient in labor**. The nurse detects a deceleration of the fetal heart rate for less than 30 seconds that returns to baseline of 140 bpm. The appropriate response is:
    a. Wait until the next contraction to listen to the fetal heart rate
    b. Place the patient on the electronic fetal monitor immediately
    c. Listen to the fetal heart rate in between contractions

28. Adjunct tools used to assess fetal acid-base status or rule out acidosis include:
    a. Fetal scalp stimulation
    b. Vibro-acoustic stimulation
    c. Fetal scalp blood sampling
    d. All the above

29. Fetal dysrhythmias affect about _____ of all pregnancies.
    a. 1%
    b. 3%
    c. 5%

30. The primary method of distinguishing between artifact and dysrhythmia is:
    a. Use of M-mode sonography
    b. Use of FECG (spiral electrode)
    c. Auscultation of the FHR and rhythm

31. Which statement about dysrhythmias is false?
    a. Diagnosis of the specific-type of dysrhythmia can be accomplished simply by looking at the FHR tracing.
    b. They appear as organized linear deflections above and/or below the FHR baseline.
    c. They can only be recorded on the strip chart when the signal source is the FECG and the FHR is printed without the use of any type of artifact-elimination technology (Logic).

32. Which fetal dysrhythmia is most serious?
    a. Supraventricular tachycardia
    b. Premature ventricular contractions
    c. Premature atrial contractions

33. Treatment for fetal supraventricular tachycardia usually includes:
    a. Administration of digoxin or other antiarrhythmic agents
    b. Pacemaker following delivery of the fetus
    c. Administration of steroids to reduce antibodies

34. Which fetal bradydysrhythmia is associated with congenital heart disease?
    a. First degree atrioventricular (A-V) block
    b. Second degree atrioventricular (A-V) block
    c. Third degree atrioventricular (A-V) block

35. A common cause of complete heart block when the fetal heart is structurally normal is:
    a. Alcohol or drug use
    b. Maternal autoimmune disease (SLE, anti-SSA/Ro, anti –SSB/La)
    c. Maternal heart valve disease

36. Treatment for fetal 3rd degree heart block usually includes:
    a. Administration of digoxin or other antiarrhythmic agents
    b. Pacemaker following delivery of the fetus
    c. Steroids to reduce inflammation

37. Fetal tachyarrhythmia is most often diagnosed when the ventricular heart rate is faster than:
    a. 160 beats/minute.
    b. 180 beats/minute.
    c. 220 beats/minute.

38. Baseline is the approximate mean FHR rounded to increments of 5 bpm, during a 10 minute segment including:
    a. Periodic or episodic changes
    b. Periods of marked FHR variability
    c. Segments of the baseline that differ by 25 bpm or less

39. Abrupt decrease in FHR of $\geq$ 15 beats per minute from the baseline with onset of deceleration to nadir less than 30 seconds. The deceleration lasts $\geq$ 15 seconds and less than 2 minutes. This type of deceleration is called:
    a. Early deceleration
    b. Prolonged deceleration
    c. Variable deceleration

40. A decrease from the FHR baseline that is greater than or equal to 15 bpm, lasting greater than or equal to 2 minutes, but less than 10 minutes. This type of deceleration is called:
    a. Early deceleration
    b. Prolonged deceleration
    c. Variable deceleration

41. Measurement of the resting tone of the uterus via tocotransducer is determined by:
    a. Palpation
    b. Spiral electrode
    c. Intrauterine pressure catheter (IUPC)

42. The patient is complaining of abdominal pain and the uterus has loss of uterine contractility. The nurse palpates the uterus and notices a recession of the presenting fetal part and vaginal bleeding. The fetal heart rate begins to decelerate. The patient is most likely experiencing a:
    a. Uterine rupture
    b. Placental abruption
    c. Placenta previa

43. Decelerations are identified as _____ if they occur with less than 50% of contractions in any 20-minute segment.
    a. Recurrent
    b. Intermittent
    c. Prolonged

44. Uterine activity is assessed based on the number of contractions that are occurring in a 10 minute segment, averaged over a _____ period
    a. 10 minute
    b. 20 minute
    c. 30 minute

45. Which of the following conditions is most likely to contribute to a decrease in placenta surface due to calcifications or infarctions?
    a. Gestational hypertension
    b. Type 1 diabetes
    c. Polyhydramnios

46. Diabetic ketoacidosis alters the maternal acid-base balance and decreases the oxygen available to the fetus. Which statement is correct?
    a. Stabilization of the mother's blood glucose will enhance the fetal oxygenation status
    b. Sodium bicarbonate should be administered for a maternal arterial pH < 7.5
    c. Increased variability in the fetal heart baseline is likely to develop as a result of ketoacidemia.

47. Ms. Jackson is Para 0 Gravida 1, 32 weeks gestation. She presents to L&D to rule out preterm labor. Cervix is closed and membranes are intact. Fetal heart pattern revealed FHR baseline of 135 – 140 bpm, minimal to absent variability, and no periodic changes. An ultrasound showed fetal hydrops and a biophysical profile score was 4/10. What is the best intervention?
    a. Repeat biophysical profile within 24 hours
    b. Perform a fetal acoustic stimulation test or vibro-acoustic stimulation
    c. Delivery of the fetus

48. Ms. Green is Para 2 Gravida 3, 42 weeks gestation diagnosed with gestational diabetes (controlled blood glucose). She presents to L&D with c/o labor pains. Cervix is 6/90%/0; SROM 6 hours; fluid with meconium. Patient is placed on fetal monitor (ultrasound transducer and tocotransducer). Fetal heart pattern revealed FHR baseline of 155 – 160 bpm, marked variability, and intermittent variable decelerations. Uterine contractions are occurring every 1 ½ – 2 minutes with duration of 50 – 60 seconds. The marked variability is likely caused by:
    a. Hyperglycemia
    b. A response to mild hypoxia to a transient cord compression
    c. Tachysystole

49. Ms. Parker is Para 2 Gravida 3, 40 weeks gestation. She presents to L&D with c/o labor pains. Cervix is 5/100%/-1; membranes intact. Fetal heart pattern revealed FHR baseline of 145 – 150 bpm, moderate variability, and periodic accelerations. Uterine contractions are occurring every 2 - 2 ½ with duration of 60 – 90 seconds. One hour after being admitted, patient experienced a deceleration lasting 4 minutes before returning to the baseline. What is your initial intervention?
    a. Cesarean delivery
    b. Perform a vaginal exam
    c. Scalp stimulation

50. A 20 year old G3P2 woman presents to the labor and delivery unit at 39 weeks gestation with painful contractions. Findings on personal, medical, and obstetrical histories are unremarkable. The patient is placed on electronic fetal monitor. Her cervical exam revealed that she is 7cms/100/-1. The EFM tracing shows a baseline FHR of 120 bpm with a deceleration during a contraction to 90 bpm for 2 ½ minutes. Despite your interventions, the decelerations persist and are become longer in duration – as low as 70 bpm for 3 - 5 minutes. The uterine contractions are every 1-2 minutes, and lasting 40 seconds. The patient is "uncomfortable and unable to relax in between contractions." These symptoms are indicative of:
    a. Placenta previa
    b. Placenta abruption
    c. Uterine rupture

51. It is recommended that low risk patients have the FHR evaluated and recorded every _____ minutes during the active phase of first-stage labor:
    a. 15
    b. 30
    c. 60

52. It is recommended that high risk patients have the FHR evaluated and recorded every _____ minutes during the active phase of first-stage labor:
    a. 15
    b. 30
    c. 60

Section 4: Antepartum Fetal Assessment

1. The fetus is typically given up to _____ minutes to produce a reactive nonstress test.
    a. 20
    b. 40
    c. 60

2. A reactive nonstress test in a term fetus is interpreted as:
    a. The occurrence of two or more accelerations, each rising to ≥ 15 beats above the FHR baseline and lasting for a period of ≥ 15 seconds, within a 20-minute time frame.
    b. The occurrence of two or more accelerations, each rising to ≥ 10 beats above the FHR baseline and lasting for a period of ≥ 10 seconds, within a 20-minute time frame.
    c. The occurrence of two or more accelerations, each rising to ≥ 15 beats above the FHR baseline and lasting for a period of ≥ 15 seconds, within a 40-minute time frame.

3. Which of the following conditions would most likely require bi-weekly nonstress test?
    a. PPROM
    b. Type 1 diabetes
    c. Previous fetal demise

4. Recurrent variable decelerations during a nonstress test of a preterm fetus may suggest:
    a. No need for follow-up. Continue expectant management
    b. Follow-up amniotic fluid volume by sonographic examination to determine if oligohydramnios is the underlying cause of this pattern.
    c. Immediate delivery of the fetus

5. A nonreactive non-stress test is:
    a. Reassuring
    b. Ominous
    c. Indicative of further testing

6. Approximately 80-90% of nonreactive nonstress test is suggestive of:
    a. Fetal sleep
    b. Fetal hypoxia/acidosis
    c. Immature or abnormal central nervous system

7. Which statement about vibro-acoustic stimulation (VAS) is false?
    a. Accelerations after the stimulus is predictive of reassuring fetal status
    b. It is used to elicit accelerations of the FHR
    c. It takes longer to perform compared to the testing time of the NST

8. Vibro-acoustic stimulation procedure includes:
    a. Placing the fetal acoustic stimulator on the maternal abdomen in the area of the fetal head and applying up to 5 second stimulus
    b. If no reaction occurs, the stimulation may be repeated after 1 second interval between stimulation for a total of three attempts
    c. Establishing a baseline FHR before applying vibro-acoustic stimulation

9. Which statement about the contraction stress test (CST) if false?
    a. The CST may be accomplished by assessing spontaneous contractions, having the patient perform nipple stimulation, or by administering oxytocin intravenously.
    b. The CST may be an earlier predictor of declining fetal status than the NST.
    c. Intravenous Oxytocin is the most efficient means of eliciting a contraction pattern for the purpose of the CST.

10. When instructing the patient to perform a nipple stimulation:
    a. The patient rubs one nipple through her clothing for 5 minutes until contractions occur.
    b. The patient rubs one nipple through her clothing for 2 minutes and if no contraction appears the patient should stop and wait for 5 minutes before attempting the technique again.
    c. The patient rubs one nipple through her clothing for 2 minutes and if no contractions appear the patient should stop nipple stimulation and intravenous Oxytocin should be administered.

11. Compared to vibro-acoustic stimulation, the CST is:
    a. Increased risk of uterine tachysystole
    b. Can be done in a shorter period of time
    c. Carries a lower false-positive rate

12. Follow-up on a unsatisfactory or equivocal CST includes the following except:
    a. Performing a nonstress test
    b. Repeating the CST within 24 hours
    c. Performing biophysical profile immediately

13. A modified biophysical profile involves:
    a. Performing a nonstress test
    b. Assessing fetal breathing
    c. Assessing fetal tone

14. A biophysical profile score of 6 in a patient who is term and has IUGR is:
    a. Reassuring
    b. Non-reassuring
    c. Indicative of further testing

15. Which statement correctly describes the amniotic fluid index (AFI):
    a. Is measured by adding the deepest vertical pockets in four quadrants, defined by dividing the uterus by the umbilicus and linea nigra.
    b. Normal AFI is greater than 25 cms
    c. Involves performing an amniocentesis

16. As a rule of thumb, ACOG recommends that the woman assess fetal kick count by lying on her side until she perceives:
    a. 10 distinct movements in 1 hour
    b. 10 distinct movements in 2 hours
    c. 10 distinct movements in 3 hours

Section 5: Legal Issues in Electronic Fetal Monitoring

1. According to AAP and ACOG (Perinatal Guidelines), the "30-minute rule" indicates that:
    a. Once a decision is made to perform a cesarean birth, the obstetrical team has 30 minutes to transport the patient to the operating room.
    b. Once a decision is made to perform a cesarean birth, the health care team has 30 minutes to prep the patient for a cesarean birth.
    c. Once a decision is made to perform a cesarean birth, the incision should occur within 30 minutes of the decision unless the situation warrants immediate intervention.

2. Health care facilities can take steps to ensure consistent communication regarding EFM data by:
    a. Using a standardize language in all communications about EFM
    b. Requiring all members of the perinatal team to complete EFM certification
    c. Revising medical records to correlate with the standardized language.
    d. All the above

3. According to ACOG:
    a. The various methods for intrapartum fetal monitoring are not effective in predicting or preventing adverse long-term neurologic conditions
    b. Most hypoxic and asphyxic episodes result in irreversible neurologic damage
    c. There is evidence that the management of nonreassuring FHR patterns during labor appears to affect the risk of subsequent cerebral palsy

4. According to ACOG, the false positive rate of EFM for predicting cerebral palsy is:
    a. 99%
    b. 70%
    c. 50%

5. According to ACOG_____% of cerebral palsy occur before the onset of labor.
    a. 99%
    b. 70%
    c. 50%

6. According to ACOG, only ____ of cases of encephalopathy are attributed to intrapartum events.
    a. 1%
    b. 4%
    c. 10%

7. If the FHR tracing is observed to be nonreassuring, the nurse must first:
    a. Notify the care provider and then implement nursing interventions
    b. Notify the charge nurse before implementing appropriate nursing interventions
    c. Implement nursing interventions and then notify the care provider

8. According to ACOG:
    a. Electronic fetal monitoring is used as a diagnostic tool.
    b. Intermittent auscultation technique for monitoring fetal heart during labor requires a 1:2 nurse to patient ratio
    c. Auscultation of the fetal heart rate is comparable to electronic fetal monitoring in regard to outcome.

Answer Key

Section 1: Maternal-Fetal Physiology

1. B
2. C
3. C
4. C
5. B
6. A
7. D
8. B
9. A
10. A
11. A
12. B
13. A
14. C
15. C
16. A
17. C
18. B
19. C
20. C
21. B
22. A
23. B
24. B
25. B

Section 2: EFM Equipment and Technology

1. A
2. C
3. B
4. A
5. B
6. C
7. C
8. B
9. A
10. A

Section 3: FHR Pattern Interpretation

1. A
2. C
3. C
4. A
5. A
6. C
7. C
8. B
9. A
10. A
11. A
12. D
13. A
14. B
15. A
16. C
17. A
18. C
19. C
20. A
21. B
22. A
23. C
24. A
25. B
26. C
27. A
28. D
29. A
30. C
31. A
32. A
33. A
34. C
35. B
36. B
37. C
38. C
39. C
40. B
41. A
42. A
43. B
44. C
45. B
46. A
47. C
48. B
49. B
50. B
51. B
52. A

Section 4: Antepartum Fetal Assessment

1. B
2. A
3. B
4. B
5. C
6. A
7. C
8. C
9. C
10. B
11. A
12. A
13. A
14. B
15. A
16. A

Section 5: Legal Issues in EFM

1. C
2. D
3. A
4. A
5. B
6. B
7. C
8. C

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