

**APPENDIX G:  
SBMA WRITTEN EXAMS AND CASE STUDIES FOR  
SECOND-YEAR RESIDENT PHYSICIANS**

## SBMA Written Exams and Case Studies for Second-Year Resident Physicians

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# Written Evaluation

## OBGYN RY2

### Critical Thinking

- 1) Which of the following are characteristics of the hymen?
  - a. richly innervated
  - b. contains sebaceous glands
  - c. contains muscular elements
  - d. covered by stratified squamous epithelial
  
- 2) Which of the following is the most common type of bacteria in the vagina during pregnancy?
  - a. Lactobacillus
  - b. Peptostreptococcus
  - c. Listeria monocytogenes
  - d. Streptococcus agalactiae
  
- 3) During postpartum surgery for sterilization, you grasp a tubular structure for ligation through a small infraumbilical incision. Correct anatomical information regarding the round ligaments that may assist you include which of the following?
  - a. extend to the pelvic sidewalls
  - b. are not covered by peritoneum
  - c. lie superior to the fallopian tubes
  - d. originate from the posterior uterine surface

### Ambulatory Care

- 4) Your nonpregnant patient's blood pressure measures 146/94 on several visits and persists despite lifestyle changes. The first-line treatment agent for her should be which of the following antihypertensive medication groups?
  - a. thiazide-type diuretics
  - b. calcium-channel blockers
  - c. B-adrenergic receptor blocker
  - d. Angiotensin-converting enzyme inhibitors
  
- 5) Which of the following organisms is the major cause of adult community-acquired bacterial pneumonia?
  - a. Staphylococcus aureus
  - b. Chlamydia trachomatis
  - c. Mycoplasma pneumoniae
  - d. Streptococcus pneumoniae
  
- 6) Which of the following shows increased mortality rates with increasing obesity?
  - a. all causes of death combined
  - b. cancer
  - c. cardiovascular disease
  - d. all of the above
  
- 7) What is the most common presenting finding in ulcerative colitis?
  - a. lower abdominal pain
  - b. bloody diarrhea
  - c. intractable nausea
  - d. projectile vomiting

- 8) Which of the following is the pathophysiology of type 2 diabetes?
- absence of the islet cells
  - destruction of the islet cells
  - insulin resistance in target tissues
  - develops ketoacidosis if untreated

### **Reproductive Endocrinology**

- 9) The thyroid undergoes which of the following structural changes during pregnancy?
- enlarges
  - decreases in size
  - remains the same size
  - becomes nodular
- 10) Which of the following is a rare but potentially serious maternal complication of thioamide (PTU) therapy?
- agranulocytosis
  - gastrointestinal bleeding
  - polycythemia
  - seizures
- 11) Transient postpartum thyroiditis is associated with which of the following nonspecific symptoms?
- depression
  - fatigue
  - palpitations
  - all of the above
- 12) In luteal phase defect, the endometrium is not maintained because there is insufficient
- estrogen
  - progesterone
  - prolactin
  - FSH
- 13) Hyperprolactinemia caused by a pituitary adenoma is frequently associated with amenorrhea and
- hirsutism
  - vaginal atrophy
  - hot flushes
  - galactorrhea
- 14) Dysfunctional uterine bleeding is defined as
- menstruation beyond the age of 50
  - failure to menstruate because of anatomic obstruction
  - irregular menstruation without anatomic lesions of the uterus
  - failure to menstruate within 6 months of a previous menstrual cycle

### **Gynecology**

- 15) Patients with chronic pelvic pain
- more frequently meet criteria for major depression, substance abuse, sexual dysfunction, and somatization than controls
  - have a higher prevalence of sexual abuse in their histories
  - report a high incidence of marital distress
  - all of the above

- 16) In the management of chronic pelvic pain
- it is preferable to administer pain medication continuously rather than in an as-needed basis
  - antidepressants are ineffective
  - anxiolytics do not have potential for addiction and should be used liberally
  - pain relief after administration of GnRH agonists is proof that the cause of pain is endometriosis
- 17) Which of the following have been suggested as possible mechanisms for development of endometriosis?
- retrograde menstruation and direct implantation
  - coelomic metaplasia
  - vascular dissemination
  - all of the above
- 18) During an ultrasonographic examination of your patient for menstrual irregularity, you identify a unilocular, smooth-bordered, thin-walled, anechoic structure within the plane of the broad ligament. It is adjacent yet distinct from the right ovary. The most likely diagnosis is which of the following?
- parovarian cyst
  - fallopian tube diverticula
  - tuboovarian abscess
  - pedunculated uterine myoma
- 19) Which of the following is the most common presentation of chlamydial infection in pregnancy?
- asymptomatic infection
  - complaint of vaginal discharge
  - septic abortion
  - fetal growth restriction
- 20) How long does it take for all signs and symptoms of primary herpesvirus infection to resolve?
- 3 to 5 days
  - 7 to 10 days
  - 14 to 28 days
  - 35 to 50 days
- 21) Choose the INCORRECT statement
- the organisms most commonly responsible for acute mastitis are *Staphylococcus aureus* and *Streptococcus*
  - nonpuerperal mastitis is associated with a bloody nipple discharge and is found in individuals who are immunocompromised
  - duct ectasia is most commonly seen in women in the fifth or sixth decade of life
  - galactocele presents as a firm, nontender mass in the outer quadrants of the breast
- 22) The most common indication for the performance of hysterectomy is
- uterine leiomyomata
  - dysfunctional uterine bleeding
  - uterine prolapse
  - adenomyosis
- 23) How sensitive is a vaginal secretion wet mount for the detection of trichomoniasis?
- 20%
  - 40%
  - 60%
  - 100%
- 24) It is now believed that the most important cause of pelvic organ prolapse is
- low estrogen levels
  - vaginal delivery
  - straining with constipation
  - coughing resulting from chronic lung disease

- 25) A 39-year-old gravida 4 para 4 presents complaining of a “bulge” in her vagina. When ring forceps are placed against the anterior vaginal wall and directed laterally and posteriorly toward the ischial spines, the defect is corrected. Which of the following is the most likely defect(s)?
- transverse defect alone
  - midline defect alone
  - paravaginal defect alone
- 26) The primary purpose of a well-documented medical record is to
- protect the physician from a malpractice claim
  - provide adequate information to the patient’s insurance company
  - communicate with members of the health care team
  - meet hospital requirements
- 27) When counseling and documenting informed consent for a procedure, you should include which of the following:
- risks of the procedure
  - benefits of the procedure
  - alternatives to the procedure
  - all of the above
- 28) Maternal factors associated with an increased risk of spontaneous abortion include all of the following EXCEPT
- advanced maternal age
  - herpes simplex infection
  - antiphospholipid antibodies
  - uncontrolled insulin-dependent diabetes
- 29) Your 26-year-old patient, G5 P2 A3, presents with a history of two spontaneous vaginal deliveries followed by three first-trimester spontaneous abortions. Her second delivery was complicated by a postpartum hemorrhage with dilatation and curettage to remove placental fragments. The most likely cause of this patient’s abortions is which of the following?
- large uterine fibroids
  - antiphospholipid syndrome
  - Asherman syndrome
  - Systemic lupus erythematosus

### **Obstetrics**

- 30) Uterine enlargement in pregnancy is primarily due to what process involving myocytes?
- hyperplasia (new myocyte production)
  - hypertrophy and stretching
  - atrophy with replacement by collagen
  - hyperplasia and hypertrophy play equal roles
- 31) Which of the following is a factor responsible for the softening and cyanosis of the cervix in early pregnancy?
- increased vascularity
  - decreased stromal edema
  - decreased venous oxygen concentration
  - atrophy of cervical glands
- 32) In the fetus or neonate, what are the two sutures between the posterior margin of the parietal bones and the upper margin of the occipital bone called?
- occipitalis
  - sagittal
  - lambdoid
  - coronal

- 33) What is the name of the process by which fetal skull bones shift during labor to accommodate the maternal bony pelvis?
- accommodation
  - conformation
  - craniosyntosis
  - molding
- 34) Endemic cretinism is seen in countries with high incidences of which dietary problem?
- low protein intake
  - iodide deficiency
  - elevated lithium levels in water supply
  - manganese deficiency
- 35) Bromocriptine increases which of the following fetal effects?
- stillbirth
  - growth restriction
  - microcephaly
  - no adverse effects
- 36) Which of the following is a risk associated with second-trimester amniocentesis?
- chorioamnionitis
  - amniotic fluid leakage
  - fetal needle stick injury
  - all of the above
- 37) Higher rates of which of the following is a disadvantage of early amniocentesis compared with second-trimester amniocentesis?
- fetal death
  - foot deformities
  - membrane rupture
  - all of the above
- 38) Which of the following is NOT a condition associated with an elevated MSAFP level?
- omphalocoele
  - cloacal extrophy
  - oligohydramnios
  - complete molar pregnancy
- 39) Unexplained elevated abnormal AFP levels are associated with which of the following complications?
- fetal death
  - low birthweight
  - preterm rupture of membranes
  - all of the above
- 40) Which of the following statements regarding fetal movement is true?
- its highest rates are at term
  - it is affected by amniotic fluid volume
  - maternal perception of movement generally correlates poorly with instrumental measurement
  - all of the above are true
- 41) Which of the following is NOT a component of the biophysical profile?
- heart rate
  - breathing
  - eye movement
  - body movement

- 42) Pregnancy risk factor A suggests that the risk of fetal harm is
- certain
  - probable
  - possible
  - rare
- 43) Pregnancy risk factor C means that
- animal studies show clear danger to humans
  - animal studies show no risk to humans
  - the drug is shown to be safe in humans
  - the drug should only be given if the potential benefits outweigh the risks
- 44) Your patient is at 30 weeks gestation and experiences premature membrane rupture. What is the likelihood that she is in spontaneous labor at the time of presentation?
- 5%
  - 25%
  - 50%
  - 75%
- 45) Which of the following strongly suggest the diagnosis of preterm labor?
- cervical dilatation greater than 1 cm
  - cervical effacement greater than or equal to 80%
  - contractions (4 in 20 minutes) with progressive cervical dilatation
  - all of the above
- 46) Administration of which of the following is most beneficial to perinatal outcome for pregnancies at risk for preterm delivery?
- antimicrobials
  - glucocorticoids
  - Phenobarbital plus vitamin K
  - Thyrotropin-releasing hormone
- 47) What test is performed as a standard part of prenatal care to detect abnormal maternal red cell antibodies?
- direct Coombs test
  - enzyme-linked antiglobulin panel
  - indirect Coombs test
  - rosette test
- 48) Your patient is Rh-negative. Her husband, a Caucasian, is Rh-positive (D-positive). What is the risk that their fetus is D-positive?
- 25%
  - 50%
  - 75%
  - 100%
- 49) A prolonged or postterm pregnancy is one that extends beyond what gestational age?
- 37 weeks
  - 40 weeks
  - 42 weeks
  - 44 weeks



- 50) Fetuses born of multifetal gestations compared with singleton gestations are at increased risk for which of the following?
- death
  - low birthweight
  - congenital malformation
  - all of the above
- 51) Women carrying multifetal gestations compared with those carrying singletons are at increased risk for which of the following?
- death
  - preeclampsia
  - postpartum hemorrhage
  - all of the above
- 52) Which of the following ultrasound measurements is the most reliable index of fetal size?
- biparietal diameter
  - abdominal circumference
  - femur length
  - intrathoracic ratio
- 53) How are small-for-gestational-age newborns defined?
- below 2500 g
  - below 2000 g
  - below the 10<sup>th</sup> percentile for gestational age
  - below the 20<sup>th</sup> percentile for gestational age
- 54) Which of the following is the preferred method of delivery for severe abruption with fetal demise?
- vaginal delivery
  - immediate cesarean delivery
  - cesarean delivery following blood replacement
  - cesarean delivery following cryoprecipitate replacement
- 55) Which of the following is increased in nulliparas undergoing elective induction of labor?
- preterm delivery
  - endometritis
  - chorioamnionitis
  - cesarean delivery
- 56) What proportion of women who undergo membrane stripping will enter labor spontaneously within 72 hours?
- one fourth
  - one third
  - one half
  - two thirds
- 57) Which of the following factors has contributed to improved safety of obstetrical anesthesia?
- increased maternal age
  - increased parity
  - increased use of regional anesthesia
  - decreased obesity
- 58) Which of the following is an absolute contraindication to spinal analgesia?
- preeclampsia
  - skin infection at site of needle entry
  - controlled seizure disorder
  - diabetes

## **Oncology**

- 59) A 39-year-old obese, diabetic para 1 patient presents with a history of 8 months of menorrhagia. She states she is not interested in preserving her fertility (she has had a tubal ligation) and NSAIDs (non-steroidal anti-inflammatory drugs) have not helped her menstrual bleeding. What should be the next step in management of this patient?
- trial of oral contraceptives
  - endometrial biopsy
  - endometrial ablation
  - hysterectomy
- 60) Characteristics of Paget's disease of the vulva include all of the following EXCEPT
- presentation as a patchy, eczematous lesion
  - the presence of underlying invasive disease in more than 90% of patients
  - histologic extension beyond that which is clinically apparent
  - tends to occur in white postmenopausal women
- 61) The best rationale for choosing radical surgery over radiation for treatment of early stage carcinoma of the cervix is
- better survival with surgery
  - fewer complications
  - preservation of ovarian function
  - decreased short-term recurrence
- 62) Compared with fractionated small doses, a single, large focused dose of radiation is
- more likely to be effective in destroying a tumor
  - as likely to be effective in destroying a tumor
  - less likely to be effective in destroying a tumor
- 63) The transformation zone is defined as
- the area of white epithelium on the cervix
  - the area around the squamocolumnar junction
  - the area of abnormal epithelium on the cervix
  - the area between the original and current squamocolumnar junction
- 64) An endometrial biopsy returns positive for simple hyperplasia. What is her risk of developing endometrial cancer?
- 1%
  - 3%
  - 8%
  - 29%
- 65) Which of the following is characteristic of alkylating agents?
- affects assembly of microtubules
  - structural analogs of normal molecules necessary for cell function
  - inhibits DNA-directed RNA synthesis
  - interferes with base pairs, producing cross links, causing single-strand and double-strand breaks
- 66) Which of the following is characteristic of antitumor antibiotics?
- affects assembly of microtubules
  - structural analogs of normal molecules necessary for cell function
  - inhibits DNA-directed RNA synthesis
  - interferes with base pairs, producing cross links, causing single-strand and double-strand breaks

Examinee \_\_\_\_\_

**Shock Case Study**

Mrs. A. is 20 years old. She gave birth to a full-term newborn 2 hours ago at home. Her birth attendant was a local traditional birth attendant, who has brought Mrs. A. to the health center because she has been bleeding heavily since childbirth. The duration of labor was 12 hours, the birth was normal & the placenta was delivered 20 minutes after the birth of the newborn.

**What will you include in your initial assessment of Mrs. A & why?**

**What particular aspects of Mrs. A.'s physical examination will help you make a diagnosis or identify her diagnosis & why?**

**What screening procedures / laboratory tests will you include in your assessment of Mrs. A & why?**

You have completed your rapid assessment of Mrs. A & your main findings include the following:

Pulse rate 108 beats/minute BP 80/60 RR 22 breaths/minute Temp 36.8C

She is pale & sweating

Uterus is soft & does not contract with fundal massage. She has heavy, bright red vaginal bleeding

The TBA says she thinks the placenta & membranes were complete

**Based on these findings, what is Mrs. A.'s diagnosis & why?**

**Based on your diagnosis, what is your plan of care for Mrs. A & why?**

Some placental tissue has been removed from Mrs. A's uterus. 15 minutes after initiation of treatment, however, she continues to have heavy vaginal bleeding. Her bedside clotting test is 5 minutes. Her pulse is 100 beats/minute & BP 80/60 mmHg.

**Based on these findings, what is your continuing plan of care for Mrs. A & why?**

**What are 2 examples of surgical treatment that may be performed?**



Examinee \_\_\_\_\_

**Partograph Case Study # 2**

**Record all information on the partograph**

Mrs. B was admitted at 10:00 on September 4, 2006.  
Membranes intact  
Gravida 1, Para 0  
Medical Record number 1443  
The fetal head is 5/5 palpable above the symphysis pubis  
The cervix is 4cm dilated  
There are 2 contractions in 10 minutes, each lasting less than 20 seconds  
FH 140  
Membranes intact  
Blood pressure 100/70  
Temperature 36.2  
Pulse 80 per minute  
Urine output 400mL: negative protein & acetone

**What is your diagnosis?** \_\_\_\_\_

**What action will you take?** \_\_\_\_\_

10:30 FH 140, Contractions 2/10 each 15 sec, pulse 90  
11:00 FH 136, Contractions 2/10 each 15 sec, pulse 88, membranes intact  
11:30 FH 140, Contractions 2/10 each 20 sec, pulse 84  
12:00 FH 136, Contractions 2/10 each 15 sec, pulse 88, Temp 36.2  
The fetal head is 5/5 palpable above the symphysis pubis  
The cervix is 4cm dilated, membranes intact

**What is your diagnosis?** \_\_\_\_\_

**What action will you take?** \_\_\_\_\_

12:30 FH 136, Contractions 1/10 each 15 sec, pulse 90  
13:00 FH 140, Contractions 1/10 each 15 sec, pulse 88  
13:30 FH 130, Contractions 1/10 each 20 sec, pulse 88  
14:00 FH 140, Contractions 2/10 each 20 sec, pulse 90, temp 36.8, blood pressure 100/70  
The fetal head is 5/5 palpable above the symphysis pubis  
Urine output is 300 mL, negative protein & acetone

**What is your diagnosis?** \_\_\_\_\_

**What action will you take?** \_\_\_\_\_

The cervix is 4cm dilated, sutures apposed  
Labor augmentation with oxytocin 2.5 units in 500 mL IV fluid at 10 drops per minute (dpm) is started  
14:30 FH 140, Contractions 2/10 each 30 sec, pulse 88, infusion increased to 20 dpm  
15:00 FH 140, Contractions 3/10 each 30 sec, pulse 90, infusion increased to 30 dpm  
15:30 FH 140, Contractions 3/10 each 30 sec, pulse 88, infusion increased to 40 dpm  
16:00 FH 144, Contractions 3/10 each 30 sec, pulse 92, fetal head is 2/5 palpable above the symphysis pubis, cervix is 6cm dilated, sutures apposed, infusion increased to 50 dpm

16:30 FH 140, Contractions 3/10 each 45 sec, pulse 90

**What action will you take?** \_\_\_\_\_

17:00 FH 138, Pulse 92, Contractions 2/10 each 40 sec, maintain at 50 dpm

17:30 FH 140, Pulse 94, Contractions 3/10 each 45 sec, maintain at 50 dpm

18:00 FH 140, Pulse 96, Contractions 4/10 each 50 sec, maintain at 50 dpm

18:30 FH 144, Pulse 94, Contractions 4/10 each 50 sec, maintain at 50 dpm

19:00 FH 144, Pulse 90, Contractions 4/10 each 50 sec, fetal head is 0/5 palpable above the symphysis pubis, the cervix is fully dilated

19:30 FH 142, Pulse 100, Contractions 4/10 each 50 sec

20:00 FH 146, Pulse 110, Contractions 4/10 each 50 sec

20:10 Spontaneous delivery of a live male infant, Wt 2.654kg

**How long was the active phase of the first stage of labor?**

**How long was the second stage of labor?**

**Why was labor augmented?**

Examinee \_\_\_\_\_

**Shoulder Dystocia Case Study**

Mrs. A. is a 35 year old gravida 7, para 6. She was admitted to RBH in active labor at 10:00 pm. Labor has progressed well, as indicated on her partograph. It is now 4:00 am & the fetal head has just delivered & remains tightly applied to the vulva.

**What will you include in your initial assessment of Mrs. A & why?**

Immediate assessment of the situation reveals the following:

The chin retracts & depresses the perineum

Traction on the head fails to delivery the shoulder, which is caught behind the symphysis pubis.

**Based on these findings, what is Mrs. A.'s diagnosis & why?**

**Based on your diagnosis, what is your plan of care for Mrs. A & why?**

No further progress has been made

**Based on these findings, what is your continuing plan of care for Mrs. A & why?**