

**HST071: Human Reproductive Biology**  
**Homework 3**

1. Daughters of mothers who received diethylstilbestrol (DES) therapy during pregnancy have a higher risk of developing \_\_\_\_\_.
2. Invasive cervical carcinoma is most often (squamous cell carcinoma / adenocarcinoma)
3. Which of the following lesions of the vulva, vagina, or cervix is found in daughters of women who received DES therapy during pregnancy?
  - (A) Sarcoma botryoides
  - (B) Clear cell adenocarcinoma
  - (C) Squamous cell carcinoma
  - (D) Papillary hidradenoma
  - (E) Pagel disease of the vulva
4. The combination of pelvic inflammatory disease and monoarticular arthritis is suggestive of which of the following conditions?
  - (A) Chlamydia infection
  - (B) Gonorrhea
  - (C) HSV infection
  - (D) HPV infection
  - (E) Syphilis
5. The most significant risk for breast cancer is
  - (A) age of the patient
  - (B) number of pregnancies
  - (C) age of onset of menarche
  - (D) amount of fiber in the diet
  - (E) family history of breast cancer
6. Which of the following preventive measures has led to a significant decline in cancer in recent years?
  - (A) screening mammography
  - (B) routine cervical Pap smears
  - (C) a change in diet to high fiber / low fat
  - (D) estrogen replacement after menopause
  - (E) cessation of smoking
7. A 26-year-old woman with acute onset of lower abdominal pain and excessive vaginal bleeding passed a cast of tissue composed of clot material when she went to the bathroom. Histologic examination of the tissue reveals blood clot and decidualized tissue, but no chorionic villi or trophoblastic tissue are present. Based on these findings, the patient most likely has
  - (A) a normal menstrual period with excess clot material
  - (B) aborted an intrauterine pregnancy
  - (C) endometrial hyperplasia
  - (D) a possible ectopic pregnancy
  - (E) a hydatidiform mole
8. List the three conditions in which serum  $\beta$ -human chorionic gonadotropin ( $\beta$ -hCG) levels are elevated. Can you name the mnemonic?

9. A 32-year-old woman is 3 months post-evacuation of a hydatidiform mole. Her serum  $\beta$ -hCG levels are still elevated. A chest s-ray reveals nodular masses in both lung fields. This patient likely has \_\_\_\_\_. A biopsy of one of the lung nodules would most likely reveal
- (A) normal chorionic villi lined by normal trophoblastic tissue
  - (B) chorionic villi lined by atypical trophoblastic epithelium
  - (C) chorionic villi lined by malignant trophoblastic epithelium
  - (D) chorionic villi without trophoblastic tissue
  - (E) malignant trophoblastic tissue without chorionic villi
10. Name the three predisposing factors for development of choriocarcinoma:

Match the condition on the left with the appropriate association on the right

- 11. \_\_\_\_\_ endometriosis (A) nulliparity
- 12. \_\_\_\_\_ endometrial hyperplasia (B) excess estrogen stimulation
- 13. \_\_\_\_\_ leiomyoma (C) hematosalpinx
- 14. \_\_\_\_\_ endometrial carcinoma (D) severe menstrual pain
- 15. \_\_\_\_\_ ectopic pregnancy (E) postmenopausal decrease in size

16. Endometriosis is characterized by the presence and proliferation of \_\_\_\_\_ endometrial tissue. It (does / does not) have an association with endometrial cancer, and is (responsive / unresponsive) to hormonal variations of the menstrual cycle.

17. Fill in the following table:

	Genetics	Embryo present? (yes or no)	Predispose to choriocarcinoma? (yes or no)
Complete mole			
Partial mole			

18. In a complete mole, the origin of the chromosomes are \_\_\_\_\_, a process called \_\_\_\_\_.
19. Endometriosis is characterized by menstrual type bleeding resulting in blood-filled, or so-called \_\_\_\_\_ cysts. The most common site of endometriosis is the \_\_\_\_\_.
20. The typical dose of estrogen in a modern OCP is
- (A) 35 ug
  - (B) 35 mg
  - (C) 75 ug
  - (D) 75 mg
  - (E) 15ug

21. Perforation of the uterus with use of an intrauterine device (IUD) most often occurs
- (A) at insertion
  - (B) during pregnancy
  - (C) when inserted during menstruation
  - (D) when inserted as menstruation begins
  - (E) about two weeks after insertion
22. Most IUDs today contain
- (A) progesterone
  - (B) silicon
  - (C) copper
  - (D) no active ingredients other than plastic
  - (E) a single string
23. Virtually every contraceptive contains the same ingredient: \_\_\_\_\_.
24. Which of the following will not pass a latex condom
- (A) viruses
  - (B) bacteria
  - (C) sperm
  - (D) B and C
  - (E) A, B, and C
25. During pregnancy,
- the mean plasma volume (decreases / increases / remains unchanged)
  - the mean red cell volume (decreases / increases / remains unchanged)
  - serum osmolality (decreases / increases / remains unchanged)
  - serum folate (decreases / increases / remains unchanged)
  - total serum protein (decreases / increases / remains unchanged)
  - total lipids (decrease / increase / remains unchanged)
  - resting heart rate (decreases / increases / remains unchanged)
  - systolic blood pressure (decreases / increases / remains unchanged)
  - effective renal plasma flow (decreases / increases / remains unchanged)
  - pH (decreases / increases / remains unchanged) due to (decreased / increased) respiration rate and resulting respiratory \_\_\_\_\_.
26. Male factors account for what percent of infertility
- (A) < 5%
  - (B) 10%
  - (C) 20%
  - (D) 40-50%
  - (E) 70-80%
27. Abruptio placenta is \_\_\_\_\_ of the placenta. It is associated with \_\_\_\_\_.
28. Name the triad of pre-eclampsia (which is synonymous with \_\_\_\_\_):

29. Eclampsia, a severe form of toxemia, is characterized in addition by \_\_\_\_\_ and \_\_\_\_\_. This condition (does / does not) reverse on termination of pregnancy.
30. The annual abortion rate in the United States is approximately
- 1,400,000
  - 300,000
  - 50,000
  - 5,000,000
  - 10,000,000
31. The most serious complication of saline abortion is \_\_\_\_\_.
32. First trimester abortions are generally performed using
- sharp curettage
  - saline
  - prostaglandins
  - suction curettage
  - oxytocin
33. Methotrexate may be used to terminate a pregnancy. This drug works as a \_\_\_\_\_.
34. Mifepristone has the following property
- strong glucocorticoid receptor affinity
  - weak progesterone receptor affinity
  - strong androgen receptor affinity
  - strong estrogen receptor affinity
35. Misoprostol is
- PGF<sub>2</sub>α
  - PGE<sub>1</sub>
  - PGE<sub>2</sub>
  - PGI
  - PGD