# TEST BANK

## SUBJECT:

Reproductive physiology PP

## COLLECTED BY :

Majdoleen Hamed

**1-A young woman is given daily injections of a substance beginning on the 16th day of her normal menstrual cycle and continuing for 3 weeks. She does not menstruate as long as the injections continue, the injected substance is most probably:**

a. FSH
b. A prostaglandin E2 inhibitor
c. An inhibitor of progesterone's actions
d. Testosterone
e. HCG

**2-When do progesterone levels rise to their highest point during the female hormonal cycle?**

a. Between ovulation and the beginning of menstruation (20th -24th day)
b. During menstruation phase (0-4th day)
c. When 12 primary follicles are developing to the antral stage
d. When the blood concentration of luteinizing hormone is at its highest point
e. Immediately before ovulation (14th day)

**3-What stimulates the secretion of testosterone during embryonic development in order for male differentiation to occur during embryonic development?**

a. Gonadotropin-releasing hormone from the embryo's hypothalamus
b. Luteinizing hormone from the maternal pituitary gland
c. Human chorionic gonadotropin
d. Follicle stimulating Hormone from the maternal pituitary gland
e. Inhibin from the corpus luteum

**4-Spermatogenesis is regulated by FSH via a negative feedback control system. What is the positive signal that stimulates spermatogenesis via Sertoli cells and the negative feedback signal associated with inhibiting pituitary formation of FSH?**

a. Positive: Testosterone. Negative: Testosterone
b. Positive: Testosterone. Negative: Estrogen
c. Positive: Inhibin. Negative: Luteinizing hormone
d. Positive: Testosterone. Negative: Inhibin
e. Positive: Luteinizing hormone. Negative: Testosterone

**5-All of the following can induce labor EXCEPT?**

a. Administration of oxytocin
b. Mechanically dilating and stimulating the cervix
c. Administration of an antagonist of prostaglandin E2
d. Administration of an antagonist of progesterone
e. rupturing the fetal membranes

1-E
2-A
3-C
4-D
5-C

**6-Regarding the Human Chorionic Gonadotropin (hCG) which is true:**

a. It is a product of the anterior pituitary gland
b. Has similar pharmacological properties to LH
c. It is a product of the uterus
d. It is a product of the posterior pituitary gland
e. Produced from the blood of pregnant ladies

**7-Which is FALSE regarding Posterior pituitary hormones:**

a. They include oxytocin and vasopressin
b. They are released from the termini in response to an action potential
c. Both are synthesized as preprohormones and processed into nonapeptides
d. Both are synthesized in the cell bodies of Posterior pituitary gland
e. Both are synthesized in the cell bodies of hypothalamic neurons

**8-Before implantation, how does the developing blastocyst obtain its nutrition?**

a. From seminal fluid.
b. From the uterine progesterone-induced secretions.
c. It does not require nutrition before implantation.
d. It digests the nutrient- rich endometrial cells and then absorb the contents.
e. The cells of the blastocyst stores nutrients that are metabolized for nutritional support.

**9-During the 12-hr period preceding (just before) ovulation, which of the following is true?**

a-The luteinizing hormone surge occurs immediately after the formation of the corpus luteum
b. The luteinizing hormone surge is followed immediately by a fall in the plasma concentration of progesterone
c. Follicle stimulating hormone reaches its lowest level in the cycle.
d. A surge of luteinizing hormone is secreted from the pituitary to reach about 16 fold
e. The plasma concentration of estrogen is continuing its rising under influence of luteinizing hormone

**10-All of the following facilitate sufficient oxygen delivery to fetal tissues through placenta, EXCEPT ONE:**

a. On the fetal side of the placenta when CO2 is lost, the pH rises allowing additional oxygen uptake (Bohr effect).
b. High fetal cardiac output.
c. The oxygen dissociation curve for fetal hemoglobin is shifted to the right of that for maternal hemoglobin
d. The maternal blood gains CO2, the pH falls allowing release of oxygen (Bohr effect).
e. High fetus-haemoglobin (HbF) which has higher affinity for 02 than mother's haemoglobin (HbA).

6-B
7-D
8-B
9-D
10-C

**11-Regarding the Metabolic and Cardiovascular Effects of estrogen which is false**

a. Increase the circulating levels of thyroxine
b. Estrogen levels decrease after menopause
c. Increase the rate of resorption of bone
d. Maintenance of normal structure and function of skin and blood vessels in women
e. Decrease the rate of resorption of bones

11-C

1-Which of the following is CORRECT regarding Testosterone ? *

a. Testosterone is secreted in midtrimester of gestation by the influence of hypothalamic gonadotropin releasing hormone (GnRH) of fetus
b. Under the stimulus of follicle stimulating hormone FSH, Sertoli cells secrete Testosterone
c. Testosterone secretion is increased during first 10 weeks of neonatal Me to descend the testes in the scrotum
d. Testosterone is converted by the enzyme 5 a- reductase to progesterone then it binds to cytoplasmic receptor to induce its anabolic effects
e. Even in absence of Testosterone during gestation male organs in male (XY) fetus will defectively develop

2-The following is CORRECT regarding the difference between oogenesis and spermatogenesis :

a. At birth, a female has 1-2 million primary oocytes which will not increase in number after birth, however, a male is born with spermatogonia that will only start proliferation at puberty
b. All sperms will carry sex chromosome Y, while al oocytes will carry sex chromosome X
c. Spermatogenesis in stimulated by GnRH and only FSH, while oogenesis is stimulated by GnRH and only LH
d. By the end of meiosis II, secondary spermatocyte will produce 4 sperms, a secondary oocyte will produce 2 mature ova
e. At every female sexual cycle a mature ovum (finished meiosis II) will be released from ovaries, a male will produce mature sperms (finished meiosis II) from testes

3-From the figure on the right, at which day of the female sexual cycle estradiol demonstrates a positive feedback control over both Luteinizing hormone LH and follicle stimulating hormone FSH secretion ?

a. day 16-20
b. day 13-14
c. day 0-4
d. day 5-10
e. Estradiol has only negative feedback control over LH and FSH secretion

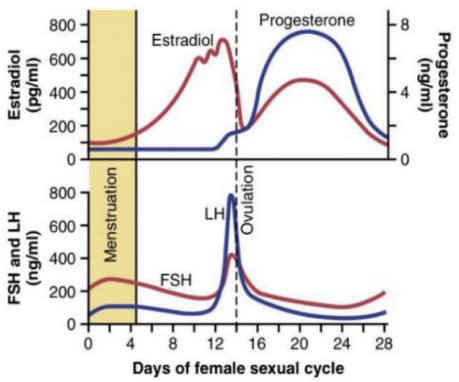


**Figure 82-4.** Approximate plasma concentrations of the gonadotropins and ovarian hormones during the normal female sexual cycle. FSH, Follicle-stimulating hormone; LH, luteinizing hormone.

**4-What is the main cause of menopause symptoms ?**

a. Loss of Estrogen
b. Loss of Follicle stimulation hormone
c. Loss of gonadotropin releasing hormone
d. Loss of Oxytocin hormone
e. Loss of Lutinizing hormone

**5-During the week following ovulation, the endometrium increases in thickness to 5 to 6 millimeters. What stimulates this increase in thickness ?**

a. Luteinizing hormone
b. Follicle-stimulating hormone
c. Progesterone from the corpus luteum
d. Estrogen from the corpus luteum
e. Prolactin

**6-How does the blastocyst obtain nutrition during the first week after implantation ?**

a. The cells of the blastocyst contain stored nutrients that are metabolized for nutritional support
b. Mainly from endometrial secretions
c. Mainly by trophoblast cells that digest the nutrient-rich endometrial cells and absorb their contents for use by the blastocyst
d. Mainly from the placenta which provides nutrition derived from maternal blood O
e. Mainly from ejaculated semen

**7-Which of the following is CORRECT regarding factors that facilitate delivery of enough oxygen to the fetal tissues?**

a. High fetus haemoglobin (HbF) which has lower affinity for 02 than mother's haemoglobin (HbA)
b. Low fetal cardiac output
c. The maternal blood gains CO2, the pH rises allowing additional uptake of oxygen
d. Fetal hemoglobin can carry more oxygen at a high PC02 than it can at a low PCO2

e. On the fetal side of the placenta when $CO_2$ is lost, the pH rises allowing additional oxygen uptake

**8-Removal of Corpus luteum at which of the following weeks of pregnancy will NOT cause abortion :**

a. Fifth week
b. 17th week
c. Seventh week
d. Second week
e. Any week of pregnancy (1st week-to-40 week)

**9-What is the most common cause of respiratory distress syndrome in neonates born at 7 months gestation?** Not included

a. Weakness of neonatal muscles
b. Excessive permeability of the alveolar membrane to water
c. Pulmonary edema due to pulmonary arterial hypertension
d. Formation of a hyaline membrane over the alveolar surface
e. Failure of the alveolar lining to form adequate amounts of surfactant

**10-What is the main cause of the after birth great decrease in the pulmonary artery pressure ?** Not included

a. Systemic arterial pressure increases
b. Detachment of placenta
c. Pulmonary vascular resistance decreases
d. Ductus arteriosus closes
e. Left ventricular pressure increases

**11-All of the following factors induce parturition, EXCEPT ONE :**

a. Stretch of uterine muscle by fetus increases its contractility
b. The rate of oxytocin secretion by the neurohypophysis is increased at the time of labor

c. Progestrone to estrogen ratio increases from 7th month of pregnancy and onword
d. Stretch and irritation of cervix cause a neurogenic reflex that causes secretion of oxytocin
e. The uterine muscle increases its oxytocin receptors in the last few months of pregnancy

**12-The cell of the testes that provides mechanical and nutritive support for developing sperms is controlled by:**

a. Inhibin, FSH
b. LH only
c. LH and estrogen
d. FSH only

**13-Which of the following takes place in days 5-14 of the menstrual cycle?**

a. Development of corpus luteum
b. Growth of ovarian follicles
c. Sloughing of the endometrial cells
d. Increase in endometrial vascularity

**14-Which of the following is wrong about placenta?**

a. hCG is found in the urine after 8 days of pregnancy
b. It originates from trophoblastic cords
c. It becomes the main nutritional source from $8^{th}$ weeks of gestation
d. It secretes more than four types of hormones

**15-Which of the following is common between Sertoli and granulosa cells?**

a. They are primarily stimulated by FSH
b. They are primarily stimulated by LH
c. They can be found in both sexes
d. None of the above

16-Which cell in the ovary is the equivalent of a leydig cell in males?

a. Theca interna cells
b. Granulosa cells
c. Epithelial cells
d. Oocytes

17-Which of the following may induce labour?

a. Maternal corticosteroids
b. Prostaglandins
c. HPL
d. Progesterone

18-Cryptorchidism happens when:

a. The testes do no function well (no testosterone)
b. The testes do not develop at all
c. A female develops male characteristics
d. The testes do not descend properly to the scrotum.

19- A 24-year-old pregnant women with her cycle averaging 30 days, on what day will the ovulation occur?

a. Day 14
b. Day 15
c. Day 4
d. None of the above. She is pregnant so ovulation does not occur

20-hCG peaks during:

a. 10-15 weeks of pregnancy.
b. 13-17 weeks of pregnancy
c. First week of pregnancy
d. It has constant concentration during pregnancy

**21-All of the following is true about testosterone hormone except:**

-Its levels increase during fetal life then reaches zero on birth & increase during puberty

**22-Which of the following is wrong about human reproductive systems?**

-In both sexes, gonadotropin release is non-cyclic

**23-Which of the following is wrong regarding oogenesis?**

-Primary follicles are found only from puberty to menopause

## Answers

| | | | | | |
|---|---|---|---|---|---|
| 1 | Deleted | 8 | B | 15 | A |
| 2 | A | 9 | E | 16 | A |
| 3 | B | 10 | C | 17 | B |
| 4 | A | 11 | C | 18 | D |
| 5 | C | 12 | D | 19 | D |
| 6 | C | 13 | B | 20 | A |
| 7 | E | 14 | A | 21 | - |