**MASTERS PRE-UNIVERSITY COLLEGE, HASSAN 573201**

**BIOLOGY PRACTICE QUESTIONS**

**Topic: Human Reproduction**

1. **Middle piece of mammalian sperm possesses**

a. mitochondria and centriole b. mitochondria only

c. centriole only d. nucleus and mitochondria

1. **What is the correct sequence of sperm formation?**

a. Spermatogonia, spermatozoa, spermatocytes, spermatids

b. Spermatogonia, spermatocytes, spermatids, spermatozoa

c. spermatids, spermatocytes, Spermatogonia, spermatozoa

d. Spermatogonia, spermatocytes, spermatozoa, spermatids

1. **Which Extraembryonic membrane in humans prevents desiccation of the embryo inside the uterus?**

a. yolk sac b. amnion c. chorion d. allantois

1. **Which one of the following statements about Morula in humans is correct?**

a. it has almost equal quantity of cytoplasm as an uncleaved zygote but much more DNA

b. It has far less cytoplasm as well as less DNA than in an uncleaved zygote

c. It has more or less equal quantity of cytoplasm and DNA as in uncleaved zygote

d. It has more DNA and cytoplasm than an uncleaved zygote.

1. **Human primary spermatocyte contains**

a. 22 autosomes and X chromosome b. 22 autosomes and Y chromosome

c. 22 autosomes and an X or Y chromosome d. 22 pairs of autosomes and XY chromosome

1. **Some of the important events in the human female reproductive cycles are given below. Arrange the events in a proper sequence.**

**1-secretion of FSH; 2-growth of corpus luteum; 3-Growth of the follicle; 4-Ovulation; 5-Sudden increase in levels of LH**

a. 3—1—4—2—5 b. 1—3—5—4—2c. 1—4—3—5—2 d. 2—1—3—4—5

1. **Which one is the correct sequence of development in animals?**

a. Fertilization ---- Zygote ---- Cleavage ---- Morula ---- Blastula ---- Gastrula

b Fertilization ---- Zygote ---- Morula ---- Cleavage ---- Blastula ---- Gastrula

c. Fertilization---- Cleavage---- Zygote ---- Morula---- Gastrula---- Blastula

d. Cleavage --- Fertilization---- Zygote ---- Morula---- Blastula ---- Gastrula

1. **GnRH, a hypothalamic hormone, needed in reproduction, acts on:**

a. Anterior pituitary gland and stimulates secretion of LH and FSH

b. Posterior pituitary gland and stimulates secretion of Oxytocin and FSH

c. Posterior pituitary gland and stimulates secretion of LH and relaxin

d. Anterior pituitary gland and stimulates secretion of LH and oxytocin

1. **Secretory phase of human menstrual cycle is also called**

a) Luteal phase and lasts for 6 days b) Luteal phase and lasts for 13 days

c) Follicular phase and lasts for 13 days d) Follicular phase and lasts for 6 days

1. **Epididymis lies between**

a) Rete testis and vasa efferentia b) Vas deferens and vasa efferentia

c) Vas deferens and ejaculatory duct d) Seminiferous tubules and rete testis

1. **Glands of male reproductive system are**

a) prostate and seminal vesicles b) prostate, Bartholin’s glands and seminals

c) seminal vesicles and Bartholin’s glands d) prostate, Cowper’s glands and seminal vesicles

1. **Several mammary ducts join to form a wider structure called**
   1. Lactierous duct b. Mammary lobe

c. Mammary ampulla d. Mammary process

1. **50 secondary oocytes in females and 50 secondary spermatocytes in males give rise to**
2. 50 0va and 100 sperms b. 100 ova and 200 sperms

c. 200 ova and 50 sperms d. 100 ova and 100 sperms

1. **Seminal plasma of humans is rich in**
   1. Fructose and certain enzymes, poor in Ca2+
   2. Fructose, Ca2+ and some enzymes
   3. Fructose, Ca2+ and no enzymes
   4. Glucose, certain enzymes but no Ca2+
2. **In spermatogeneisis, the phase of maturation involves**
   1. Growth of spermatogoinia into spermatocytes
   2. Formation of spermatogoia from gonocytes through mitosis
   3. Formation of spermatids from primary spermatocytes through meiosis
   4. Formation of oogonia from spermatocytes through meiosis
3. **What is the purpose of polar bodies during oogenesis**
4. Polar bodies serves both as a dumping ground for extra sets of chromosomes and ensure that ovum will

have most of the cytoplasm

1. They rid the body of defective sets of chromosomes, leaving the good set within the ovum
2. They are merely the by products of meiosis and serves no function
3. They prevent the development of most sets of multiple births.
4. **Exact time of human gestation period is**
5. 9 months ± 15 days b) 9 months ± 20 days c) 9 months ± 7 daysd) 9 months ± 1 days
6. **Cryptorchidism is a condition where \_\_\_\_\_\_\_\_\_** 
   1. One of both testes are not developed
   2. One or both testes fail to descend into the scrotum
   3. One or both testes are not formed
   4. None of the above
7. **Corpus luteum develops under the influence of** 
   1. Progesterone b. Estrogen c. FSH d. LH
8. **Which of the following are secretions produced by the spermatozoa at the time of fertilization?**
   1. Fertilizin and sperm lysine b. Anti-fertilizin and sperm lysine

c. Fertilizin and anti-fertilizin d. only sperm lysin

1. **In spermatogenesis, reduction division of chromosome occurs during conversion of**
   1. Secondary spermatocytes to spermatids
   2. Primary spermatocytes to secondary spermatocytes
   3. Spermatogonia to primary spermatocytes
   4. Spermatids to sperms
2. **Match the following:**

**List – I List –II**

A. Inguinal canal 1. Network of seminiferous tubules

B. Rete testis 2. Secondary sexual characters

C. Leydig cells 3. Far descending of testis

D. Prepuce 4. Dorsal bundles of muscles

E. Corpora cavernosa 5. Terminal skin of Penis

a. A – 1, B – 2, C – 3, D – 5, E – 4 b. A – 3, B – 1, C – 4, D – 2, E – 5

c. A – 3, B – 1, C – 2, D – 5, E – 4 d. A – 2, B – 4, C – 3, D – 5, E – 1

1. **Connective tissue around seminiferous tubules possess endocrine cells called**

a) Leydig cells b) Sertoli cells

c) Primary germ cells d) Both A and B

1. **Select the correct option describing gonadotropin activity in a normal pregnant female:**

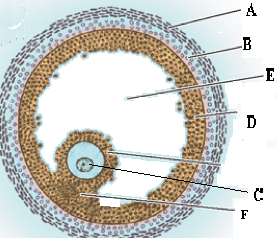
a. High level of FSH and LH stimulates the thickening of endometrium

b. High level of FSH and LH facilitates implantation of the embryo

c. High level of hCG stimulates the synthesis of estrogen and progesterone

d. High level of hCG stimulates the thickening of endometrium

1. **In the diagram of section of Graffian follicle, different parts are indicated by alphabets. Choose the answer in which the parts they indicate.**

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**A B C D E F**

a. Membrane granulose; Theca interna; Ovum; Cumulus oophorus; Antrum; Theca externa

b. Theca externa Theca interna Antrum Membrane granulose ovum Cumulus oophorus

c. Theca externa Theca interna Ovum Membrane granulose Antrum Cumulus oophorus

d. Membrane granulose Theca externa Ovum Cumulus oophorus Antrum Theca interna

1. **The type of epithelium found in the fallopian tube which functions to move particles in specific direction is:**

a. Squamous epitheliumb. Ciliated Cuboidal epithelium

c. Ciliated columnar epithelium d. Brushborder cuboidal epithelium

1. **Which one of the following is not the function of placenta?**

a. Facilitates removal of CO2 and waste material from embryo

b. Secretes Oxytocin during parturition

c. Facilitates supply of oxygen and nutrients to embryo

d. Secretes estrogen

1. **The glandular tissue of each breast is divided into how many lobes?**

a. 15 – 20 b. 25 – 30 c. 5 – 10 d. 1 – 5

1. **Seminal vesicle is present at the junction of**

a. prostate & urethra b. prostate & vas deferens

c. prostate & cowper’s gland d. vas deferens & testes

1. **In which phase of cell division is oogonia arrested**

a. Anaphase II b. Prophase I c. Interphase d. Both prophase I and II

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| --- | --- | --- | --- |
| **Sl.no** | **Key** | **Sl.no** | **Key** |
| **1** | A | **16** | A |
| **2** | B | **17** | C |
| **3** | A | **18** | B |
| **4** | A | **19** | D |
| **5** | D | **20** | B |
| **6** | B | **21** | B |
| **7** | A | **22** | C |
| **8** | A | **23** | A |
| **9** | B | **24** | C |
| **10** | B | **25** | B |
| **11** | D | **26** | C |
| **12** | C | **27** | B |
| **13** | A | **28** | A |
| **14** | B | **29** | B |
| **15** | **C** | **30** | B |