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**Subject: Biology**

**Topic: Human Reproduction**

**M.M. 360 COMPETITIVE TEST**  **Time: 60 Min.**

1. Which one of the following cells, found in testes of mammals, secretes male hormones?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Leydig’s cells | b) Sertoli cells | c) Epithelial cells | d) Spermatocytes |

1. Oogenesis comprises :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Multiplication phase | b) growth phase | c) Maturation phase | d) All of these |

1. Middle piece of a mammalian sperm contains :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Nucleus | b) Centriole | c) Mitochondria | d) vacuole |

1. The difference between spermiogenesis and spermiation is :

a) In spermiogenesis spermatozoa are formed, while in spermiation spermatids are formed.

b) In spermiogenesis spermatozoa from sertoli cells are released into the cavity of seminiferous tubules, while in spermiation spermatozoa are formed.

c) In spermiogenesis spermatids are formed, while in spermiation spermatozoa are formed.

d) In spermiogenesis spermatozoa are formed, while in spermiation spermatids are released from sertoli cells into the cavity of seminiferous tubules.

1. Sperm become motile in human being in :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Seminiferous tubules | b) Vas deferens | c) Epididymis | d) Seminal vesicle |

1. In cryptorchidism :

|  |  |
| --- | --- |
| a) Spermatogenesis is fails to occur | b) Maturation of sperm does not occur |
| c) Testis fails to descend in inguinal canal | d) None of these |

1. The growth of corpus luteum is initiated by :

|  |  |  |  |
| --- | --- | --- | --- |
| a) LH | b) prolactin | c) HCG | d) FSH |

1. Corpus luteum is found in :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Ovary | b) oviduct | c) Uterus | d) vagina |

1. How many ova and sperms would be produced from 100 secondary oocytes and 100 secondary spermatocytes during gametogenesis in humans?

|  |  |  |  |
| --- | --- | --- | --- |
| a) 100 ova , 100 sperms | b) 100 ova , 200 sperms | c) 50 ova , 100 sperms | d) 200 ova , 200 sperms |

1. What happens during spermatogenesis?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Mitosis | b) meiosis | c) Both (a) and (b) | d) Metamorphosis |

1. The mullerian duct in female amniotes developed into:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Oviduct | b) Ureters | c) seminal receptacle | d) uterus |

1. Testes descend into scrotum in mammals for :

|  |  |
| --- | --- |
| a) Spermatogenesis | b) development of sex organs |
| c) fertilization | d) Development of visceral organs |

1. Antrum is the cavity of :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Graffian follicle | b) Gastrula | c) Blastula | d) Ovary |

1. Clitoris in female mammals is :

|  |  |
| --- | --- |
| a) Homologous to penis of male | b) Analogous to penis of male |
| c) Non-functional | d) Overgrown structure |

1. Which part of sperm provide energy for its movement?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Tail | b) Middle piece | c) Head | d) Acrosome |

1. In which of the following, testes remains in abdomen and do not descend into scrotum :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Elephant | b) Rabbit | c) Human | d) all the above |

1. Tunica albuginea is the covering of :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Liver | b) Spleen | c) Testes | d) Lungs |

1. Spermatid in human beings is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) 4n | b) 3n | c) 2n | d) n |

1. In spermatogenesis, the maturation phase involves:

a) Formation of spermatids from primary spermatocytes through meiosis.

b) Formation of Oogonia from spermatocytes through meiosis

c) Growth of Spermatogonia into primary spermatocytes

d) Formation of Spermatogonia from gonocytes through mitosis.

1. Ovulation in female is under the control of :

|  |  |  |  |
| --- | --- | --- | --- |
| a) LTH | b) ADH and LH | c) FSH and LH | d) LTH and TSH |

1. Nutritive cells found in seminiferous tubules are :

|  |  |  |  |
| --- | --- | --- | --- |
| a) sertoli cells | b) Leydig cells | c) Chromaffin cells | d) Spermatogonical cells |

1. Nebenkern is a part of :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Human ovum | b) Human sperm | c) Foetus | d) graffian follicle |

1. Cauda epididymis in male genital system leads to :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Rete testis | b) Vas deferens | c) vas efferentia | d) Ejaculatory duct |

1. During oogenesis, each diploid primary oocytes produces:

|  |  |
| --- | --- |
| a) Four functional sperms | b) Two functional egg and two polar bodies |
| c) Four functional polar bodies | d) One functional egg and three polar bodies |

1. Sperms formed form 4 primary spermatocytes are :

|  |  |  |  |
| --- | --- | --- | --- |
| a) 4 | b) 1 | c) 16 | d) 32 |

1. Which of the following are haploid in nature?

(A) Spermatids (B) Secondary spermatocytes (C) Spermatogonia (D) Primary spermatocytes

|  |  |  |  |
| --- | --- | --- | --- |
| a) A , B and C are correct | b) A and B are correct | c) B and D are correct | d) A and C are correct |

1. Cytoplasm of ovum does not contain:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Golgi complex | b) Centrosome | c) Mitochondria | d) Ribosomes |

1. Pubic hairs are present on :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Labia majora | b) Labia minora | c) Both (a) & (b) | d) None of these |

1. Spermatids are transferred into spermatozoa by :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Spermiation | b) Spermatogenesis | c) Meiosis | d) Spermiogenesis |

1. A human female is born with millions of primary oocytes at the time of birth but only some 500 eggs get a chance of maturity. What is the destiny of rest of the eggs?

a) Rest of eggs differentiate back to thecal and granulosa cells

b) Rest of eggs nurture the dominant follicular cells

c) Rest of eggs move out of the ovary and are destroyed by leucocytes.

d) Rest of eggs break down and are absorbed i.e. degenerative follicular atresia

1. In humans, the unpaired male reproductive structure is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Seminal vesicle | b) Prostrate | c) Bulbourethral gland | d) Testes |

1. Which type of germ cells contain 23 chromosomes?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Spermatogonia | b) Secondary spermatocyte | c) primary spermatocyte | d) None of the above |

1. Which of the following statement is wrong?

a) Sertoli cells provide nutrition to the developing male germ cells.

b) Leydig cells synthesize and secrete androgens.

c) Secretions of the acrosome help the sperm to enter into the cytoplasm of the ovum.

d) Secondary spermatocytes are diploid

1. The release of sperm from seminiferous tubules is called:

|  |  |  |  |
| --- | --- | --- | --- |
| a) spermiogenesis | b) Spermiation | c) Spermatogenesis | d) fertilization |

1. In human, what is the ratio of number of gametes produced form one male primary sex cell to the number of gametes produced from one female primary sex cells?

|  |  |  |  |
| --- | --- | --- | --- |
| a) 1 : 4 | b) 1 : 1 | c) 4 : 1 | d) 1 : 3 |

1. Acrosomal reaction occurs during :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Copulation | b) puberty | c) menopause | d) fertilization |

1. After ovulation, the collapsed ovarian follicle shrinks and becomes filled with cells to form:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Corpus atresia | b) Corpus adiposum | c) corpus luteum | d) Corpus albicans |

1. Which of the following is referred to as “gestation”.

|  |  |  |  |
| --- | --- | --- | --- |
| a) Period of pregnancy | b) spermiation | c) Fertilization | d) Ovulation |

1. The function of allantois is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Nutrition & Excretion | b) Protection from shocks | c) Respiration | d) Excretion |

1. What is the function of amnion?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Respiration | b) Nutrition | c) Excretion | d) Protection from shocks |

1. How many cleavages occur for the formation of 32 blastomeres from the zygote?

|  |  |  |  |
| --- | --- | --- | --- |
| a) 6 | b) 5 | c) 4 | d) 3 |

1. Which of the following germ layers is best associated with development of heart?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Ectoderm | b) Endoderm | c) Mesoderm | d) All of these |

1. In human males sperms contain autosomes and :

|  |  |
| --- | --- |
| a) Only one Y-chromosome | b) Only one X-chromosome |
| c) Both X and Y-chromosome | d) Either X or Y-chromosome |

1. Majority of mammalian spermatozoa acquire capacitation in :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Epididymis | b) Seminal vesicle | c) female rep. tract | d) Urethra |

1. Polyspermy is prevented by:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Fertilization cone | b) Fertilization membrane | c) Jelly coats | d) tertiary membrane |

1. Onset of menstruation id due to :

|  |  |
| --- | --- |
| a) Increase in level of progesterone | b) Fall in level of progesterone |
| c) Increase in level of FSH | d) Decrease in level of FSH |

1. Which of the following statement is correct?

|  |  |
| --- | --- |
| a) Corpus luteum changes into corpus albicans | b) Corpus luteum degenerates after fertilization |
| c) Corpus luteum persists throughout pregnancy | d) Corpus luteum not formed during pregnancy |

1. Yellow coloured milk secreted by cattle soon after the birth of a calf is called:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cholesterol | b) colostrum | c) Chyme | d) Chyle |

1. Fertilization of sperm and ovum takes place in :

|  |  |
| --- | --- |
| a) Ampulla of oviduct | b) Isthmus of oviduct |
| c) Fimbriae of oviduct | d) None of the above |

1. Find the wrong statement from the following :

a) Amnion is outer layer containing amniotic fluid that acts as shock absorber to soft embryo

b) Yolk sac is a foetal membrane that helps in nourishment of the embryo

c) In mammals, allantois is not excretory in function

d) Chorion-allantoic membrane developed from villi and participates in development of placenta

1. LH surge occurs during which phase of the menstrual cycle in human female?

|  |  |
| --- | --- |
| a) Menstrual phase | b) At the beginning of proliferative phase |
| c) Just before the end of proliferative phase | d) At the middle of the cycle |

1. Menstrual cycle is controlled by :

|  |  |  |  |
| --- | --- | --- | --- |
| (A) Estrogen and progesterone of ovary | | (B) FSH of pituitary | |
| (C) FSH and LH of pituitary | | (D) Oxytocin hormone | |
| a) A , B and C are correct | b) A and B are correct | c) B and D are correct | d) A and C are correct |

1. The colostrum is abundant in which of the following antibody:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Ig M | b) Ig E | c) Ig G | d) Ig A |

1. The hormone secreted by corpus luteum is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Testosterone | b) Progesterone | c) hCG | d) Thyroxine |

1. The foetal ejection reflex triggers the release of :

|  |  |
| --- | --- |
| a) Oxytocin from foetal pituitary | b) Human chorionic gonadotrophin (hCG) from placenta |
| c) Human placental lactogens (hPL) from placenta | d) Oxytocin form maternal pituitary |

1. Which of the following hormones is secreted during pregnancy:

|  |  |
| --- | --- |
| a) LH, estrogen and estradiol | b) hCG , progesterone , estradiol , FSH |
| c) hCG , HPL | d) hCG , hPL , progesterone , estrogen and LH |

1. The correct sequence of embryonic development is :

|  |  |
| --- | --- |
| a) Blastula Morula Zygote Gastrula Embryo | b) Zygote Blastula Morula Gastrula Embryo |
| c) Zygote Morula Blastula Gastrula Embryo | d) Gastrula Morula Zygote Blastula Embryo |

1. Sertoli cells are regulated by the pituitary hormone known as :

|  |  |  |  |
| --- | --- | --- | --- |
| a) LH | b) FSH | c) GH | d) Prolactin |

1. Withdrawal of which of the following hormone is the immediate cause of menstruation:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Progesterone | b) estrogen | c) FSH | d) FSH – RH |

1. In humans adult females oxytocin:

|  |  |
| --- | --- |
| a) Stimulates pituitary to secrete vasopressin | b) Cause strong uterine contraction during parturition |
| c) secreted by anterior lobe of pituitary | d) Stimulates growth of mammary glands |

1. Which extra embryonic 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 is the correct matching of the events occurring during menstrual period?

a) Menstruation : Breakdown of myometrium and ovum not fertilized

b) Ovulation : LH and FSH attain peak level and sharp fall in the secretion of progesterone

c) Proliferative phase : Rapid regeneration of myometrium and maturation of graffian follicle

d) Development of corpus luteum : Secretory phase and increased secretion of progesterone

1. Seminal plasma of human rich in :

|  |  |
| --- | --- |
| a) Fructose , calcium and certain enzymes | b) Fructose and calcium but no enzymes |
| c) Fructose and certain enzymes but no calcium | d) Fructose and certain enzymes but poor in calcium |

1. The first movement of the foetus and appearance of hair on its head are usually observed during which month of pregnancy?

|  |  |  |  |
| --- | --- | --- | --- |
| a) 5th month | b) 6th month | c) 3rd month | d) 4th month |

1. Seminal plasma in human males is rich in:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Glucose & Calcium | b) DNA & Testosterone | c) Ribose & Potassium | d) Fructose & calcium |

1. Which one of the following statement about human sperms is correct?

a) The sperm lysins in the acrosome dissolve the egg envelope facilitating fertilization

b) Acrosome serve as a sensory structure leading the sperms towards the ovum

c) Acrosome serve no particular function

d) Acrosome has a conical pointed structure used for piercing and penetrating egg result in fertilization

1. Secretions from which of the following are rich in fructose , calcium and certain enzymes:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Male accessory glands | b) Pancreases | c) Liver | d) Salivary glands |

1. About which day in a normal human menstrual cycle does rapid secretion of LH normally occurs?

|  |  |  |  |
| --- | --- | --- | --- |
| a) 5th day | b) 11th day | c) 14th day | d) 20th day |

1. During menstrual cycle levels of LH and estrogen are highest around:

|  |  |  |  |
| --- | --- | --- | --- |
| a) 14th day | b) 21st day | c) 7th day | d) 28th day |

1. Hormones for menstrual cycle are produced by:

|  |  |
| --- | --- |
| a) Ovaries only | b) uterus only |
| c) ovaries & uterus | d) Ovaries and anterior pituitary |

1. Hysterectomy is surgical removal of :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Uterus | b) Prostrate gland | c) Vas deferens | d) Mammary glands |

1. In human females meiosis II is not completed until :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Uterus implantation | b) Birth | c) Puberty | d) Fertilization |

1. Which of the following events is not associated with ovulation in human females:

|  |  |
| --- | --- |
| a) Release of secondary oocyte | b) LH surge |
| c) Decrease in estradiol | d) Full development of graffian follicle |

1. Ectopic pregnancy are referred as :

|  |  |
| --- | --- |
| a) Implantation of defective embryo in the uterus | b) Pregnancies terminated due to hormonal imbalanced |
| c) Pregnancy with genetic abnormalities | d) Implantation of embryo at side other than uterus |

1. Which of the following statement is correct regarding menstrual cycle ?

a) LH induces rupture of graffian follicle

b) Proliferative phase is characterized by increased production of progesterone

c) Corpus luteum secrete large amount of estrogen

d) Both LH and FSH attain a peak level in secretory phase

1. The amnion of mammalian embryo is derived from :

|  |  |
| --- | --- |
| a) Endoderm and mesoderm | b) Mesoderm and trophoblast |
| c) Ectoderm and mesoderm | d) Ectoderm and endoderm |

1. A temporary endocrine gland in the human body is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Corpus allatum | b) Pineal gland | c) Corpus cardiacum | d) Corpus luteum |

1. The shared terminal duct of the reproductive tract and urinary system in human male is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Urethra | b) Ureter | c) vas deferens | d) Vasa efferentia |

1. Middle piece of mammalian sperm possesses :

|  |  |
| --- | --- |
| a) Mitochondria and centriole | b) Mitochondria only |
| c) Centriole only | d) Nucleus and mitochondria |

1. Which of the following hormone is responsible for the both milk ejection reflex and foetal ejection reflex

|  |  |  |  |
| --- | --- | --- | --- |
| a) oestrogen | b) Prolactin | c) Oxytocin | d) relaxin |

1. What is the correct sequence of sperm formation :

a) Spermatid , spermatocyte , Spermatogonia , spermatozoa

b) Spermatogonia , spermatocyte , spermatozoa , spermatid

c) Spermatogonia , spermatozoa , spermatocyte , spermatids

d) Spermatogonia , spermatocyte , spermatid , spermatozoa

1. The part of fallopian tube closet to ovary is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Isthmus | b) Infundibulum | c) Cervix | d) Ampulla |

1. Which of the following hormone level cause ovulation from graffian follicle?

|  |  |
| --- | --- |
| a) High concentration of progesterone | b) Low concentration of LH |
| c) Low concentration of FSH | d) High concentration of estrogen |

1. The Leydig cells as found in the human body as secretory source of

|  |  |  |  |
| --- | --- | --- | --- |
| a) Progesterone | b) Intestinal mucus | c) Glucagon | d) Androgens |

1. If for some reason, the vasa efferentia in the human reproductive system get blocked, the gametes will not be transported from

|  |  |
| --- | --- |
| a) Epididymis to vas deferens | b) ovary to uterus |
| c) Vagina to uterus | d) Testes to epididymis |

1. At which stage of life, the oogenesis is initiated?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Embryonic development | b) Birth | c) Birth | d) Puberty |

1. At the end of first meiotic division male germ cell get differentiate into:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Secondary spermatocyte | b) Primary spermatocyte | c) Spermatogonium | d) spermatid |

1. Which of the following secretes the hormone relaxin, during pregnancy?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Graffian follicle | b) Corpus luteum | c) Foetus | d) Uterus |

1. Menstrual flow occur due to lack of :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Progesterone | b) FSH | c) Oxytocin | d) Vasopressin |

1. Bartholin’s gland are situated:

|  |  |
| --- | --- |
| a) on either side of vagina in humans | b) on either side of vas deferens in humans |
| c) on the sides of the head of some amphibians | d) At the reduced tail end of birds |

**[Class =12th]**

**Answers**

|  |
| --- |
| 1. a |
| 1. d |
| 1. c |
| 1. d |
| 1. c |
| 1. c |
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**Topic: Human Reproduction**

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