

Assignment

Class-12

Subject: Bio - zoology

Unit 1

Chapter 2. Human reproduction

Part - A

I. One Mark Questions

- The attachment of blastocyst to the uterine wall is called
 - Fertilization
 - Organogenesis
 - Implantation**
 - Insemination
- Testis is covered by an outermost layer
 - Tunica albuginea**
 - Perimetrium
 - Fimbriae
 - Vitelline membrane
- The primary female sex organ is
 - Endometrium
 - Clitoris
 - Ovaries**
 - Mammary gland
- The ovary remains attached to the pelvic wall and the uterus by an ovarian ligament called
 - Fallopian tube
 - Mesovarium**
 - Fimbriae
 - Tunica albuginea
- Which wall layer of Uterus exhibits strong contractions during parturition.
 - Endometrium
 - Myometrium**
 - Mesovarium
 - Deltoid muscle
- Which gland is homologous to the bulbourethral glands of the male -
 - Mammary gland
 - Oil gland
 - Bartholin's glands**
 - None of these.
- Which stage of meiotic division, the primary Oocytes are temporarily arrested,
 - Meiotic division-I, Prophase-I**
 - Meiotic division-II, Prophase-I
 - Meiotic division-I, Metaphase-I
 - Meiotic division-II, Metaphase-I
- The hormone enhances the production of "Androgen Binding Protein" and helps in the process of Spermiogenesis.
 - LH
 - FSH**
 - Testosterone
 - TSH
- A fluid filled space, the antrum develops in the follicle, and gets transformed into –
 - Tertiary follicle**
 - Sperm cell
 - Primary follicle
 - Sertoli cells
- The formation of fertilization membrane
 - Follicular cells
 - Acrosome
 - Corpus luteum
 - Cortical granules**

Part – B

II. Very Short Answer.

1. What is Gametogenesis?
2. What is cryptorchism?
3. What is inhibin? Mention its functions.
4. What are the accessory glands of the male reproductive system?
5. Write the components of Semen.

Part – C

III. Short Answer.

1. How the scrotum acts as a thermoregulator?
2. Write the components of seminal plasma?
3. Describe the acrosomal reaction.

Part – D

IV. Write in detail.

1. Describe male reproductive system.
2. Explain about mammary gland.
3. Explain the structure of sperm cell with diagram.
4. Describe the structure of ovum.

3. REPRODUCTIVE HEALTH

Part - A

I. One Mark Questions

- A contraceptive pills prevents ovulation by:
 - Blocking fallopian tube
 - Stimulating release of FSH & LH
 - Inhibiting release of FSH & LH
 - Causing immediate degeneration of released ovum
- Match the Column-I with Column-II and select the correct option from the codes given below:

Column-I		Column-II	
A	Copper releasing IUD	i	LNG-20
B	Hormone releasing IUD	ii	Lippe sloop IUD
C	Non-medicated IUD	iii	Saheli
D	Minimum-pills	iv	Multiload-375

- A(iv), B(ii), C(i), D (iii)
 - A(iv), B(i), C(iii), D (ii)
 - A(i), B(iv), C(ii), D (iii)
 - A(iv), B(i), C(ii), D (iii)
- Select the incorrect action of hormonal contraceptive pills from the following:
 - Inhibition of ovulation
 - Inhibition of spermatogenesis
 - Changes in cervical mucus impairing its ability to allow passage and transport of sperms
 - Alternation in uterine endometrium to make it unsuitable for implantation
 - Assertion: LNG-20 are often called as hormone releasing intrauterine systems (IUS)
Reason: They increase the viscosity of cervical mucus and thereby prevent sperms from entering the cervix
 - 'A' is true, 'R' is false
 - Both 'A' and 'R' are true, 'R' is the correct explanation of 'A'
 - 'A' is false, 'R' is true
 - Both 'A' and 'R' are true, but 'R' is not the correct explanation of 'A'
 - Which of the following is not a step in IVF treatment?
 - Testes stimulation
 - Ovarian stimulation
 - Egg retrieval
 - Fertilization and embryo culture
 - The family planning programme was initiated by India in
 - 1951
 - 1953
 - 1963
 - 1972
 - _____ are the ideal contraceptives for female who want to delay pregnancy
 - Oral contraceptive pills
 - Intrauterine Devices

- c) Diaphragms, cervical caps & vaults d) Tubectomy
- c) Hepatitis-B d) Syphilis
- 8. This prevents the children from sexual offences
 - a) PCPNDT b) POCSO
 - c) Reproductive and Child Health Care RCH d) UNDPs
- 9. Placental tissue to test for chromosomal abnormalities
 - a) *In vitro* fertilization b) GIFT
 - c) ZIFT d) Chorionic Villus Sampling
- 10. Identify the correct statement from the following:
 - a) 10000 to 100000 motile sperms are needed for *in vitro* fertilization
 - b) By simple surgery sperms are collected from male for *in vitro* fertilization
 - c) By using special media eggs are prepared
 - d) HCG injection is not need for *in vitro* fertilization.

Part – B

II. Very Short Answer.

1. Differentiate foeticide and infanticide
2. Explain about non-medicated IUDS
3. Differentiate GIFT from ZIFT
4. What is Saheli?
5. What is Mayer Rokitansky Syndrome?
6. Explain about chorionic villus sampling (CVS).
7. Mention the uses of fetoscope.
8. What is meant by ART (Assisted Reproductive Technology)?

Part – C

III. Short Answer.

1. What is statutory ban imposed on amniocentesis in India?
2. Mention the preventive measures taken by our Government to control population growth in our country.
3. Define: Tubectomy.
4. What is cryopreservation?
5. What is meant by surrogacy?
6. Explain about hormone releasing IUDS.
7. Define Azoospermia.

Part – D

IV. Write in detail.

1. Test-tube baby is the solution for many forms of Infertility. Explain this technique.
2. What is ART? Write any two techniques.
3. Define birth control. Explain about temporary birth control methods

Unit-II

4. Principles of Inheritance and Variation

Part - A

I.One Mark Questions

1. The ABO blood group was discovered by _____
a) De Castelle
b) Carl Landsteiner
c) Wiener
d) Bernstein
2. The blood group _____ is called universal donor
a) AB
b) A
c) B
d) O
3. The XX-XY type of sex determination is seen, in
a) Butterflies
b) Birds
c) Cockroaches
d) Drosophila
4. Cooley's anaemia refers to
a) Phenyl ketonuria
b) Haemophilia
c) Thalassemia
d) Turner's syndrome
5. Kin selection is seen in
a) Honey bees
b) Grasshopper
c) Cockroaches
d) Gypsy moth
6. Rh factor was discovered in the blood of _____
a) Frog
b) Crab
c) Rhesus monkey
d) Crocodiles
7. 21-Trisomy refers to _____
a) Patau's Syndrome
b) Down's Syndrome
c) Klinefelter's syndrome
d) Turner's syndrome
8. Which of the enzyme lack for Albinism?
a) Tyrosinase
b) Phenylalanine hydroxylase
c) Amylase
d) Peptitase
9. Co-dominant blood group is
a) B
b) A
c) AB
d) O
10. How many chromosome groups classified in Karyotyping
a) 7
b) 8
c) 9
d) 6

Part – B

II. Very Short Answer.

1. What are secretors?
2. Define - Null alleles
3. Give a example for Heterogametic female
4. Define - Barr body.

5. What are sex linked inheritance?
6. What are karyotyping?
7. Describe the family tree.
8. What are the major disease of Autosomal aneuploidy in human being?
9. Draw the Pedigree chart symbols: i) Consanguineous marriage, ii) Monozygotic twins.
10. Write a two disease of inborn error of metabolism disease.
11. Define - Idiogram.
12. What are syndrome?

Part – C

III. Short Answer.

1. What are multiple alleles? Give example.
2. Define - Holandric gene.
3. What are the Karyotyping?
4. Describe - Huntington's Chorea.
5. Write a list on mendelian disorder occurring in human beings?
6. What are the turner's syndrome and their symptoms.
7. Write a type of human blood groups and their six types of genotypic structure.
8. Write a notes on criss-cross pattern of inheritance.
9. Describe hypothesis of Lyon's?
10. What do you mean Kin selection?

Part – D

IV. Write in detail.

1. What are the application of Karyotyping?
2. Explain the mode of sex determination in honeybees.
3. Explain the genetic basis of ABO blood grouping man.
4. What is Haemolytic Disease of the New born (HDN) or Erythroblastosis foetalis?
5. How is XX-XY sex determination in human beings?
