

[Time: 3 Hours]

[Marks: 100]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
 2. Figures to the right indicate full marks.
 3. Draw a neat labeled diagram wherever necessary.

Q.1 A) Fill in the blanks by choosing the correct options from the bracket. 05

- Inside the egg, the area of heavy deposition of yolk is known as _____.
(animal pole, vegetal pole, nuclear pole)
- _____ of the sperm contains proteolytic enzymes which help in the entry into the ovum during fertilization. (Mid piece, Principle piece, Acrosome)
- The first menstruation begins at puberty and is called as _____.
(menarch, ovulation, gestation)
- Absence of sperms in semen is called as _____.
(oligospermia, azoospermia, teratozoospermia)
- PUC test is related to _____ (eutrophication, vehicular emission, salinity)

Q.1 B) Match the column I with column II & rewrite 05

| Column I | Column II |
|-------------------------|--------------------------------|
| a) Mosaic egg | i) LH surge |
| b) Rotational cleavage | ii) Klinefelter syndrome |
| c) Primary hypogonadism | iii) Predetermined development |
| d) Green House Gas | iv) Isolecithal mammalian egg |
| e) Ovulatory phase | v) Methane |

Q.1 C) State whether true or false: 05

- Protostomes are inclusive of invertebrates in which the mouth develops from blastopore.
- Non cleidoic eggs have calcareous shell.
- Salpangitis is the inflammation of testis in human.
- RU-486 contains high doses of steroids.
- Industrial effluent pipes can be considered as non-point source of pollution.

Q.1 D) Answer in one sentence: 05

- What is blastodisc?
- Name the organism responsible to cause Gonorrhea
- Give full form of PCOS.
- Give full form of CFC.
- What is soil erosion?

Q.2 A) Answer **any one** of the following: 10

- Describe types of holoblastic cleavage.
- What is coelom? Describe its formation.

- Q.2 B) Answer **any two** of the following: 10
- Describe epiboly
 - Describe meroblastic cleavage
 - Describe oligolecithal eggs
 - Describe different types of sperms in animals
- Q.3 A) Answer **any one** of the following: 10
- Describe the anatomy of female reproductive system in human.
 - Describe the hormonal regulation of male reproductive system in human.
- Q.3 B) Answer **any two** of the following: 10
- Describe andropause
 - Write short note on Syphilis
 - Write note on abortion
 - Describe ZIFT
- Q.4 A) Answer **any one** of the following: 10
- Describe effects of water pollution.
 - Describe types and sources of air pollutants.
- Q.4 B) Answer **any two** of the following: 10
- Describe radioactive pollution.
 - Describe health hazards of noise pollution.
 - Describe control measures of soil pollution.
 - Describe control measures of solid wastes.
- Q.5 Write short notes on **any four** of the following: 20
- Gastrulation in protochordates
 - Discoblastula
 - Hormonal methods of contraception
 - Accessory glands and external genitalia in male
 - E-waste
 - Control measures of air pollution
