

[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

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

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

Q.1 D) Answer in one sentence: 05

- a) What is blastodisc?
- b) Name the organism responsible to cause Gonorrhoea
- c) Give full form of PCOS.
- d) Give full form of CFC.
- e) What is soil erosion?

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

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

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