

## FIFTH SEMESTER B. Sc. ZOOLOGY PROGRAMME

ZOOLOGY OPEN COURSE- I (Theory)

### REPRODUCTIVE HEALTH AND SEX EDUCATION

Code: ZOL5D01T

[54 hours] [3 hours per week] [3 credits]

#### COURSE OUTCOMES [COs]

COs	Course Outcome Statements
CO1	Understand the reproductive health, and importance of sex education for teen and youth. (2 hrs)
CO2	Explain the chromosomal mechanism of sex determination and sex chromosomal anomalies. (3 hrs)
CO3	Describe the structural and functional features of human reproductive system, fertilization, implantation, pregnancy, gestation, placenta, parturition and lactation. (17 hrs)
CO4	Explain the scope of reproductive technologies in infertility management and the assisted reproductive techniques. (10 hrs)
CO5	Understand the different methods of prenatal diagnosis and associated ethical issues (4 hrs)
CO6	Describe the different methods of fertility control. (4 hrs)
CO7	Understand the symptoms, mode of transmission, diagnosis and treatment of different sexually transmitted diseases and their socio economic dimensions. (7 hrs)
CO8	Describe sexual orientation, sexual abuse and myths (5 hrs)
CO9	Understand the ethical aspects of sex (2 hrs)

#### Question paper pattern for external examination

[Module 1-3: Short answer 4x2 = 8marks; Paragraph 3x5=15 marks; Essay 1x10 = 10 marks  
Module 4-6: Short answer 3x2 = 6 marks; Paragraph 2x5=10 marks; Essay 1x10 = 10 marks  
Module 7-9: Short answer 5x2 =10 marks; Paragraph 2x5=10 marks.]

#### MODULE 1. Introduction (2 hrs)

Definition; Reproductive health - problems and strategies; reproductive rights; importance of sex education for teen and youth.

*[Short answers/Paragraphs]*

#### MODULE 2. Sex determination and Chromosomal anomalies (3 hrs)

Chromosomal mechanism of sex determination; Barr body; twin studies; sex reversal; Sex chromosomal anomalies: Turner's syndrome and Klinefelter's syndrome.

*[Short answers/Paragraphs]*

#### MODULE 3. Human Reproduction (17 hrs)

Male reproductive system: Structure of testis, male accessory organs; Semen production and composition; ejaculation. Spermatogenesis.

Female reproductive system: Structure of human ovary; development of primary follicle; structure of graafian follicle; fallopian tubes; uterus; external genitalia; mammary glands. Oogenesis.

Menstrual cycle and hormonal control; brief account of fertilization, implantation, pregnancy, gestation, placenta, parturition and lactation (Brief account on hormonal control of lactation).

*[Short answers/Paragraphs/Essays]*

#### **MODULE 4. Infertility and Assisted reproductive technologies (10 hrs)**

Infertility: Causes and problems in male and female. Infertility management: semen collection, preservation and storage, artificial insemination, surrogacy. Cryopreservation and embryo transfer: Collection, care and preservation of embryos. *In vitro* fertilization (IVF) and embryo transfer: Major steps; Test tube babies. Assisted Reproductive Techniques (ART): GIFT, ZIFT, ICSI, oocyte donation and embryo donation.

*[Short answers/Paragraphs/Essays]*

#### **MODULE 5. Prenatal Diagnosis (4 hrs)**

Different methods: Ultrasonography, amniocentesis, chorionic villus sampling and alpha-fetoprotein estimation; female foeticide: ethical issues and laws (Mention-PNDT Act).

*[Short answers/Paragraphs]*

#### **MODULE 6. Fertility Control (4 hrs)**

Natural methods; artificial methods; chemical methods; hormonal methods; contraceptive devices; surgical contraception; abortion, legal termination of pregnancy.

*[Short answers/Paragraphs/Essays]*

#### **MODULE 7. Sexually transmitted infectious diseases (7 hrs)**

Symptoms, mode of transmission, diagnosis, treatment and prophylaxis of AIDS, syphilis, gonorrhea, herpes (genital), human papilloma virus and genital warts, hepatitis, gonococcal vulvo vaginitis, Trichomonal vaginitis. Mention the term venereal disease. Socio economic dimensions of STD.

*[Short answers/Paragraphs]*

#### **MODULE 8. Sexual orientation, sexual abuse and myths (5 hrs)**

Homosexuality and bisexuality (mention LGBT), oral sex, animal sex, cyber sex, sexual abuse, premarital and extramarital sex, sexual perversions, paraphilia, child abuse, prostitution, sexual hygiene, protection of children from sexual offences (POCSO) Act, 2012 (brief account only), sexual myths.

*[Short answers/Paragraphs]*

#### **MODULE 9. Ethical aspects of sex (2 hrs)**

Healthy relationship with opposite sex, role of counseling, gender discrimination in family and society.

*[Short answers/Paragraphs]*

#### **Topics for Assignments/Seminars**

*(Topics allotted for assignments/ seminars should be considered for internal assessments only, and can be subdivided among students)*

1. Sexual counseling
2. Marriage counseling
3. Population explosion and birth control
4. Functions of male and female hormones
5. Hormones of pregnancy