Animal Reproduction

Chapter 46

Asexual reproduction

 Mitosis:

 Fission: (**Fig 46.2**)

 Budding:

 Fragmentation:

 Advantage:

 Disadvantage:

Sexual reproduction

 Gamete:

 Ovum:

 Sperm:

 Zygote:

 Advantage:

 Disadvantage:

 Reproductive cycles:

 Parthenogenetic reproduction:

 Hermaphroditism:

 Sequential hermaphroditism:

Fertilization:

 External fertilization (**Fig 46.5**)

 Internal fertilization

Humans:

Female: (**Fig 46.9**)

 External reproductive structures: vulva

 Clitoris:

 Labia:

 Internal reproductive structures: (**Fig 46.9**)

 Ovary:

 Oviduct:

 Uterus:

 Cervix:

 Vagina:

 Ovary:

 Follicle:

 Ovulation:

 Corpus luteum:

 Mammary glands

Male (**Fig 46.10**)

 Testes:

 Seminiferous tubule

 Leydig cells:

 Seritoli cells:

 Scrotum:

 Ducts & glands: (**Fig 46.10**)

 Epididymus:

 Vas deferens:

 Seminal vesicle:

 Ejaculatory duct:

 Prostate:

 Bulbourethral gland:

 Urethra:

Gamete development:

Spermatogenesis: (**Fig 46.12**)

 Spermatogonium

 Primary spermatocyte

 Secondary spermatocyte

 Spermatid

 Sperm

Oogenesis: (**Fig 46.11**)

 Oogonium

 Primary oocyte

 Secondary oocyte

 Polar body – first

 Ovum

 Polar body – second

Reproductive cycles

 Menstrual cycle

 Estrous cycle

Human female reproductive cycle

 Ovarian cycle

 Follicular phase:

 hypothalamus GnRH

 FSH:

 LH:

 Estrogen:

 Ovulation:

 LH:

 Luteal phase:

 Corpus luteum

 Progesterone:

 Relaxin:

 Inhibin:

 Uterine cycle

 Proliferative phase:

 Secretory phase:

 Menstrual flow phase:

Human male reproductive control

(**Fig 46.14**)

Hypothalamus:

GnRH

 FSH

 LH

 Pregnancy

 (**Fig 46.15**)

 Conception:

 Cleavage:

 Blastocyst:

 Embryo:

 HCG:

First trimester:

 Trophoblast: (**Fig 46.16**)

 Organogenesis: (**Fig 46.17a**)

 Fetus:

 Mother:

Second trimester: (**Fig 46.17b,c**)

Third trimester:

Labor: (**Fig 46.18**)

Parturition: birth (**Fig 46.19**)

 Thinning & dilation of cervix

 Expulsion

 Delivery of placenta

