

NERVOUS SYSTEM (Ch. 12)

1. Identify the structure & function of neurons; and the electrical & chemical events in nerve impulses.
2. Identify sensory & motor neuron, white & grey matter, & their location in the spinal cord & brain.
3. Identify central, peripheral, somatic, autonomic, sympathetic, parasympathetic nervous systems.
4. Identify the components of spinal reflex arc, and describe 2 spinal injuries and 2 clinical reflexes.
5. Identify the location & function of the meninges, c-s fluid, spinal & cranial nerves, hypothalamus, brain stem, cerebellum (arbor vitae), cerebrum (cortex, hemisphere, lobe, fissure, functional area).
6. Compare the sheep and human brains; and discuss the relative importance of instincts in humans.

SENSES (Ch. 13)

1. Identify the receptor for light, sound, equilibrium, olfaction, temperature, pressure, pain, position.
2. Identify the receptors in the skin; and describe the differences between smell and taste receptors.
3. Identify the location & function of eye muscles, conjunctiva, lacrimal gland, tears, cornea, sclera, iris, pupil, lens, choroid, retina, fovea centralis, rod, cone, blind spot, & aqueous & vitreous humor.
4. Describe the physiology of virtual image, depth perception, peripheral vision, colorblindness, accommodation, near-sightedness, far-sightedness, astigmatism, and cross-eyedness
5. Interpret the measurements for normal visual acuity (20/20), and for poor and superior vision.
6. Identify the location and specific function of the pinna, external auditory canal, eardrum, malleus, incus, stapes, eustachian tube, vestibule, cochlea, and semicircular canals.

ENDOCRINE SYSTEM (Ch. 14)

1. Identify the two regulatory systems in the body, and discuss how they differ.
2. Distinguish endocrine & exocrine glands, hormone, tropic hormone, pheromone, and target organ.
3. Discuss the general medical treatment for the oversecretion and undersecretion of hormones.
4. Identify the endocrine glands, their location, and the general functions of the major hormones.

REPRODUCTIVE SYSTEM (Ch. 15-16)

1. Discuss the functions of reproduction, and identify the different sex hormones, gonads, and gametes.
2. Compare the size and numbers of sperm & ova produced; and the secondary sexual characteristics.
3. Identify the location and function of the scrotum, testis, epididymus, vas deferens, seminal vesicle, ejaculatory duct, prostate, urethra, urogenital duct, Cowper's gland, corpus, glans penis, & prepuce.
4. Describe the different regions of sperm cells, and the different components of semen.
5. Identify the location and function of the ovary, Fallopian tube, uterus, endometrium, myometrium, cervix, vagina, vulva, mons veneris, labia majora & minora, clitoris, urethral & vaginal orifices.
6. Discuss the physiology and schedule in the ovarian and menstrual cycles, and during menopause.
7. Describe the physiology of erection, ejaculation, orgasm, fertilization, sterility, and impotency.
8. Compare the cause, symptoms, immunity, and cure for syphilis, herpes, gonorrhea, and chlamydia.

DEVELOPMENT (Ch. 17)

1. Describe the stages in development (fertilization, zygote, cleavage, morula, blastocyst, embryonic disc, germ layer, ecto/meso/endoderm, differentiation, yolk sac, amniotic sac, and implantation.
2. Identify the difference between an embryo & fetus; and the substances exchanged by the placenta.
3. Describe the physiological changes during pregnancy; and various sources of maternal pollution.
4. Describe the stages of birth (labor, delivery, afterbirth); & the function & advantage of lactation.
5. Describe infertility, artificial insemination, external fertilization, surrogate birth, amniocentesis, quickening, episiotomy, cesarean section, and vertex and breech delivery.
6. Compare the conditions for identical & fraternal twins; and spontaneous and induced abortion.
7. Identify the functions of contraception and the characteristics of an ideal contraceptive.
8. Compare the effectiveness and problems of abstinence, rhythm, withdrawal, douche, spermicide, condom, diaphragm, vaginal sponge, birth control pill, norplant, IUD, vasectomy, & tubal ligation.