1.14 Male Reproductive System

530. Primordial germ cells of both males and females first appear in the:
   (a) celomic epithelium
   (b) mesenchyme that surrounds the sex cords
   (c) wall of the yolk sac
   (d) allantois
   (e) amnion

531. The interstitial tissue of the testis contains:
   (a) a rich blood supply
   (b) fenestrated capillaries
   (c) an extensive network of lymphatic vessels
   (d) Sertoli cells
   (e) Leydig cells

532. Leydig cells:
   (a) develop from epithelium
   (b) are rich in smooth endoplasmic reticulum
   (c) secrete testosterone
   (d) respond to hypophyseal gonadotropin
   (e) often contain proteinaceous crystals

533. Spermatogenesis is:
   (a) possible in cases of cryptorchidism
   (b) possible at normal body temperature
   (c) achieved under the influence of testosterone
   (d) independent of Sertoli cell activity
   (e) possible to a certain degree even in old age

534. Sertoli cells are:
   (a) present in interstitial tissue
   (b) large, irregular cells
   (c) phagocytic
   (d) very sensitive to high temperature, malnutrition and X-rays
   (e) supportive cells for developing spermatozoa

535. Sertoli cells
   (a) are found in the seminiferous tubules
   (b) develop into spermatozoa
   (c) are derived from the embryonic sex cords
   (d) produce androgen-binding protein (ABP)
   (e) respond to FSH

536. Myoid cells of the testis:
(a) are true muscle cells
(b) contain actin microfilaments
(c) are present in the tunica albuginea
(d) surround the seminiferous tubules
(e) are present in loose connective tissue

537. Following vasectomy:
(a) fertility is impaired
(b) leydig cells degenerate
(c) spermatozoa production continues normally
(d) spermatozoa may be found in the ejaculate for up to 90 days
(e) penile erection is impossible

538. Spermiogenesis is:
(a) identical to spermatogenesis
(b) the process that transforms spermatids into spermatozoa
(c) a process involving cell division
(d) involved in shape changes without cell division
(e) only possible if Sertoli cells are intact

539. Spermatozoa:
(a) develop in seminiferous tubulels
(b) develop in efferent ductuli
(c) are stored in the seminal vesicles
(d) are stored in the epididymis
(e) are stored in the prostate gland

540. Spermatozoa:
(a) can travel actively in the seminiferous tubules
(b) move passively through the spermatic ducts
(c) undergo maturation in the epididymis
(d) are stored between ejaculations in the seminal vesicles
(e) are actively motile immediately after ejaculation

541. The acrosome:
(a) contains chromatin
(b) contains hyaluronic acid
(c) is membrane-limited
(d) stains PAS-positive
(e) possesses enzymes that are important in the fertilization process

542. The epididymal duct (ductus epididymis) is lined with:
(a) pseudostratified columnar epithelium
(b) ciliated epithelium
(c) epithelium with stereocilia
(d) epithelium with goblet cells
(e) cells with very large Golgi bodies

543. The epithelium lining the efferent ductules (ductuli efferentes) of the epididymis is:
(a) identical to that of the epididymal duct
(b) composed of alternating groups of cuboidal cells and columnar ciliated cells
(c) coated with stereocilia
(d) a stratified epithelium
(e) surrounded by smooth muscle fibers

544. Seminal vesicles are:
(a) evaginations of the ductus deferens
(b) basically similar in structure to the ductus deferens
(c) usually lined with transitional epithelium
(d) usually lined with pseudonstratified epithelium
(e) found with smooth muscle in their walls

545. Seminal vesicles are:
(a) paired structures
(b) sites of spermatozoa storage
(c) a source of sugars that provide energy for spermatozoa
(d) rich in glucose
(e) rich in fructose

546. The prostate gland:
(a) secretes hormones
(b) secretes acid phosphatase
(c) contains myoepithelial cells
(d) responds to testosterone
(e) often contains concretions

547. The prostate gland:
(a) has a muscular stroma
(b) has many tubuloalveolar glands
(c) has secretory ducts lined with transitional epithelium
(d) opens into the epididymal duct
(e) is well developed in childhood

548. The prostate gland:
   (a) surrounds part of the urethra
   (b) discharges its secretions into the urethra
   (c) is the site of spermatozoa storage
   (d) has glands with simple columnar epithelium in healthy, sexually mature males
   (e) is surrounded by a thin capsule containing connective tissue cells and smooth muscle cells

549. The erectile tissue of the penis:
   (a) is surrounded by the connective tissue of the tunica albuginea
   (b) has vascular spaces that fill during the process of erection
   (c) has trabeculae that penetrate the vascular spaces
   (d) possesses helicine arteries that run in the trabeculae

550. In the penis:
   (a) the tunica albuginea is composed of dense, connective, collagenic tissue
   (b) erection begins with the loss of tonus in the muscle fibers of the arterial walls
   (c) the corpus spongiosum becomes hard at the time of erection to the same degree as that of the paired erectile bodies (corpora cavernosa)
   (d) the veins draining the blood from the corpora cavernosa run parallel to the tunica albuginea
   (e) the lacunae (cavernous sinuses) of the erectile bodies constitute a special sort of blood vessel.

551. The bulbourethral glands (Cowper's glands):
   (a) are paired structures
   (b) discharge into the membranous urethra
   (c) are compound tubuloaleveolar glands
   (d) produce a mucoid secretion
   (e) contribute in part to the production of seminal fluid

552. The male urethra:
   (a) is a paired structure
   (b) originates in the kidneys
   (c) is lined throughout with transitional epithelium
   (d) passes through the prostate gland
   (e) is found in the unpaired corpus spongiosum of the penis

553. The glands of Litte:
   (a) secrete mucus
   (b) are serous gands
   (c) secrete into the male urethra
   (d) secrete into the female urthra
   (e) provide lubrication for the urethra