MULTIPLE CHOICE

1. What term refers to the scientific study of hair and its diseases and care?
   a. Trichology
   b. Cosmetology
   c. Selenology
   d. Cartology
   ANS: A  PTS: 1  REF: Page 224

2. The Greek word *trichos* means _____.
   a. skin
   b. fingernails
   c. glands
   d. hair
   ANS: D  PTS: 1  REF: Page 224

3. The hair, skin, nails, and glands are part of the _____ system.
   a. epidermal
   b. integumentary
   c. endocrine
   d. lymphatic
   ANS: B  PTS: 1  REF: Page 224

4. What part of the hair is located below the surface of the epidermis?
   a. Hair shaft
   b. Hair root
   c. Hair cuticle
   d. Hair medulla
   ANS: B  PTS: 1  REF: Page 224

5. The pocket or tube-like depression in the scalp or skin that contains the hair root is the hair _____.
   a. bulb
   b. follicle
   c. shaft
   d. dermal
   ANS: B  PTS: 1  REF: Page 225

6. The thickened, club-like structure that forms the lower part of the hair root is the _____.
   a. cuticle layer
   b. hair bulb
   c. dermal papilla
   d. arrector pili
   ANS: B  PTS: 1  REF: Page 225

7. A small, cone-shaped area located at the base of the hair follicle that fits into the hair bulb is the _____.

8. What structures contain the blood and nerve supply that provide the nutrients needed for hair growth?
   a. Sebaceous glands
   b. Dermal papillae
   c. Hair bulbs
   d. Furuncles
   ANS: B  PTS: 1  REF: Page 225

9. The small, involuntary muscle fiber in the base of the hair follicle is the ______.
   a. inner follicle
   b. angled bulb
   c. arrector pili
   d. dermal papilla
   ANS: C  PTS: 1  REF: Page 225

10. The substance secreted by the sebaceous glands is called ______.
    a. sebum
    b. sulfur
    c. sudoriferous
    d. lymph
    ANS: A  PTS: 1  REF: Page 225

11. What is the oily substance secreted by the skin’s oil glands that lubricates the hair and skin?
    a. Keratin
    b. Sebum
    c. Mucous
    d. Helix
    ANS: B  PTS: 1  REF: Page 225

12. The body naturally produces _____ of the 20 amino acids that make up hair.
    a. 3
    b. 9
    c. 11
    d. all
    ANS: C  PTS: 1  REF: Page 225

13. What is the outermost layer of hair?
    a. Hair Follicle
    b. Hair Medulla
    c. Hair Cuticle
    d. Hair Cortex
    ANS: C  PTS: 1  REF: Page 226

14. Which layer of the hair shaft creates the shine and the smooth, silky feel of healthy hair?
15. A lengthwise section of hair shows that cuticle scales overlap and each individual cuticle scale is attached to the _____.
   a. medulla
   b. melanin
   c. cortex
   d. root

   ANS: C  PTS: 1  REF: Page 226

16. Which term refers to a layer that protects the hair from penetration and prevents damage to hair fibers?
   a. Hair cuticle
   b. Cortex
   c. Hair follicle
   d. Medulla

   ANS: A  PTS: 1  REF: Page 226

17. The fibrous protein core formed by elongated cells that contains melanin pigment is the _____.
   a. cuticle
   b. sebum
   c. cortex
   d. medulla

   ANS: C  PTS: 1  REF: Page 227

18. The changes involved in oxidation haircoloring, wet setting, thermal styling, permanent waving, and chemical hair relaxing take place within the _____.
   a. cuticle
   b. cortex
   c. medulla
   d. dermal papilla

   ANS: B  PTS: 1  REF: Page 227

19. Hair is composed of protein that grows from cells originating within the _____.
   a. hair bulb
   b. hair follicle
   c. dermal papilla
   d. medulla layer

   ANS: B  PTS: 1  REF: Page 227

20. The hair shaft that emerges from the scalp is a nonliving fiber composed of _____.
   a. keratinized acids
   b. hydrogen bonds
   c. melanin protein
   d. keratinized protein

   ANS: D  PTS: 1  REF: Page 227
21. Hair is approximately _____ percent protein.
   a. 30
   b. 50
   c. 70
   d. 90

   ANS: D  PTS: 1  REF: Page 227

22. The major elements that make up human hair are carbon, oxygen, hydrogen, nitrogen, and sulfur, often referred to as _____.
   a. COHNS elements
   b. dermal foundation
   c. amino acids
   d. keratins

   ANS: A  PTS: 1  REF: Page 227

23. The units of structure that build protein and are joined together end to end like pop beads are _____.
   a. oxygenated cells
   b. primary acids
   c. amino acids
   d. lymph glands

   ANS: C  PTS: 1  REF: Page 228

24. A long chain of amino acids linked by peptide bonds is called a _____ chain.
   a. amino-peptide
   b. polymer
   c. keratin
   d. polypeptide

   ANS: D  PTS: 1  REF: Page 228

25. What substances are comprised of long, coiled, complex polypeptides made of amino acids?
   a. Proteins
   b. Carbohydrates
   c. Keratins
   d. Melanins

   ANS: A  PTS: 1  REF: Page 228

26. The three different types of side bonds that link chains of amino acids together are _____.
   a. oxygen, hydrogen, and salt
   b. hydrogen, ionic, and carbon
   c. ionic, helix, and disulfide
   d. hydrogen, salt, and disulfide

   ANS: D  PTS: 1  REF: Page 228

27. A physical side bond that is easily broken by water and heat is a _____ bond.
   a. nitrogen
   b. hydrogen
   c. disulfide
   d. sulfur
28. What type of bond is broken by wetting the hair with water and is reformed when the hair dries?
   a. Salt bond  
   b. Hydrogen bond  
   c. Disulfide bond  
   d. Peptide bond  
   ANS: B  PTS: 1  REF: Page 228

29. A weak, physical, cross-link side bond between adjacent polypeptide chains that is broken by changes in pH is a _____ bond.
   a. hydrogen  
   b. carbon  
   c. salt  
   d. sulfur  
   ANS: C  PTS: 1  REF: Page 228

30. Permanent waving and hair relaxers change the shape of hair by chemically altering the hair’s _____.
   a. hydrogen bonds  
   b. ionic bonds  
   c. disulfide bonds  
   d. amino acids  
   ANS: C  PTS: 1  REF: Page 228-229

31. Hydroxide chemical relaxers break disulfide bonds and convert them to _____ bonds.
   a. lanthionine  
   b. sulfur  
   c. carbon  
   d. hydrogen  
   ANS: A  PTS: 1  REF: Page 229

32. All natural hair color is the result of pigment called _____.
   a. melanin  
   b. tissue  
   c. sebum  
   d. proteins  
   ANS: A  PTS: 1  REF: Page 230

33. The pigment that provides brown or black color to hair is _____.
   a. ionic  
   b. eumelanin  
   c. pheomelanin  
   d. telogen  
   ANS: B  PTS: 1  REF: Page 230

34. What pigment in hair provides natural colors ranging from red and ginger to yellow and blond tones?
   a. Eumelanin  
   b. Neuromelanin  
   c. Pheomelanin  
   d. Keratin
35. What term refers to the shape of the hair strand?
   a. Whorl
   b. Cowlick
   c. Hair stream
   d. Wave pattern
   ANS: D  PTS: 1  REF: Page 230

36. What is the cross-section shape of curly hair?
   a. Hexagonal
   b. Round
   c. Rectangular
   d. Oval
   ANS: D  PTS: 1  REF: Page 231

37. Vellus hair is also known as _____ hair.
   a. straight
   b. melamine
   c. lanugo
   d. terminal
   ANS: C  PTS: 1  REF: Page 232

38. What type of hair is short, fine, unpigmented, and downy?
   a. Vellus hair
   b. Terminal hair
   c. Androgenic hair
   d. Feathered hair
   ANS: A  PTS: 1  REF: Page 232

39. What are the three growth cycles of human hair?
   a. Anagen, growth phase, and telogen
   b. Catagen, return, and transition
   c. Anagen, catagen, and telogen
   d. Anagen, transition, and mature
   ANS: C  PTS: 1  REF: Page 232

40. What is the growth phase during which new hair is produced?
   a. Genesis
   b. Telogen
   c. Anagen
   d. Catagen
   ANS: C  PTS: 1  REF: Page 232

41. What is the resting phase or final phase of the hair cycle that lasts until the fully grown hair is shed?
   a. Telogen phase
   b. Anagen phase
   c. Catagen phase
   d. Transition phase
42. The sudden falling out of hair in round patches or baldness in spots is known as ______.
   a. postpartum alopecia
   b. androgenic alopecia
   c. alopecia totalis
   d. alopecia areata
   
   ANS: D  PTS: 1  REF: Page 235-236

43. The complete loss of all body hair is known as ______.
   a. alopecia universalis
   b. alopecia totalis
   c. alopecia areata
   d. androgenic alopecia
   
   ANS: A  PTS: 1  REF: Page 236

44. Temporary hair loss experienced at the end of a pregnancy is called ______.
   a. congenital alopecia
   b. postpartum alopecia
   c. involutional alopecia
   d. androgenic alopecia
   
   ANS: B  PTS: 1  REF: Page 236

45. What is the technical term for gray hair?
   a. Alopecia
   b. Canities
   c. Albino
   d. Ringed hair
   
   ANS: B  PTS: 1  REF: Page 237

46. The condition of abnormal hair growth of terminal hair is referred to as ______.
   a. monilethrix
   b. ringed hair
   c. hypertrichosis
   d. trichoptilosis
   
   ANS: C  PTS: 1  REF: Page 238

47. Trichoptilosis is the technical term for ______.
   a. split ends
   b. hair loss
   c. knotted hair
   d. beaded hair
   
   ANS: A  PTS: 1  REF: Page 238

48. What is a condition that is characterized by brittleness and the formation of nodular swellings along the hair shaft?
   a. Fragilitas crinium
   b. Trichorrhexis nodosa
   c. Alopecia areata
   d. Hypertrichosis
49. What is the technical term for beaded hair?
   a. Canities
   b. Hyperkeratosis
   c. Trichinosis
   d. Monilethrix
   ANS: D  PTS: 1  REF: Page 238

50. What is the technical term for brittle hair?
   a. Hypertrichosis
   b. Pityriasis capitis simplex
   c. Pruritis
   d. Fragilitas crinium
   ANS: D  PTS: 1  REF: Page 238

51. What is the medical term used to describe dandruff?
   a. Alopecia
   b. Selenium
   c. Pityriasis
   d. Pyrithione
   ANS: C  PTS: 1  REF: Page 239

52. Current research confirms that dandruff is the result of a fungus called _____.
   a. pyrithione
   b. steatoides
   c. capitis
   d. malassezia
   ANS: D  PTS: 1  REF: Page 239

53. What is a severe type of dandruff characterized by an accumulation of greasy or waxy scalp scales mixed with sebum?
   a. Pityriasis capitis
   b. Tinea favosa
   c. Pityriasis papules
   d. Pityriasis steatoides
   ANS: D  PTS: 1  REF: Page 240

54. What severe form of dandruff is accompanied by redness and inflammation?
   a. Pityriasis capitis simplex
   b. Pityriasis steatoides
   c. Seborrheic dermatitis
   d. Folliculitis
   ANS: C  PTS: 1  REF: Page 240

55. What is the medical term for ringworm?
   a. Tinea
   b. Candidiasis
   c. Aspergilloma
d. Pneumocystosis  
ANS: A  PTS: 1  REF: Page 240

56. Tinea is characterized by itching scales and sometimes painful circular lesions and is caused by _____.  
   a. seborrheic dermatitis  
   b. parasites  
   c. subcutaneous tissue  
   d. fungal organisms  
ANS: D  PTS: 1  REF: Page 240

57. What is a scalp disorder characterized by dry, sulfur-yellow, cup-like crusts on the scalp?  
   a. Tinea capitis  
   b. Pediculosis furuncle  
   c. Tinea favosa  
   d. Tinea barbae  
ANS: C  PTS: 1  REF: Page 240

58. What term refers to an infestation of the hair and scalp with head lice?  
   a. Pediculosis capitis  
   b. Pediculosis furuncle  
   c. Alopecia areata  
   d. Vesicles parasites  
ANS: A  PTS: 1  REF: Page 241

59. What term refers to an acute, localized bacterial infection of the hair follicle that produces constant pain?  
   a. Alopecia  
   b. Furuncle  
   c. Capitis  
   d. Tinea  
ANS: B  PTS: 1  REF: Page 242

61. The thickness or diameter of the individual hair strand is referred to as hair _____.  
   a. dryness  
   b. texture  
   c. elasticity  
   d. porosity  
ANS: B  PTS: 1  REF: Page 242

62. Which type of hair has the largest diameter and usually requires more processing?  
   a. Terminal hair  
   b. Coarse hair
c. Medium hair
  d. Gray hair

ANS: B           PTS: 1           REF: Page 243

63. The measurement that describes the number of individual hair strands on one square inch of the scalp is hair _____.
    a. porosity
    b. diameter
    c. elasticity
    d. density

ANS: D           PTS: 1           REF: Page 244

64. The ability of the hair to absorb moisture is hair _____.
    a. porosity
    b. elasticity
    c. density
    d. saturation

ANS: A           PTS: 1           REF: Page 244

65. Chemical services performed on hair with low porosity require a _____ solution.
    a. less alkaline
    b. more acidic
    c. neutral
    d. more alkaline

ANS: D           PTS: 1           REF: Page 244

66. The ability of hair to stretch and return to its original length without breaking is referred to as hair _____.
    a. density
    b. elasticity
    c. porosity
    d. resistance

ANS: B           PTS: 1           REF: Page 245

67. Hair flowing in the same direction, as the result of follicles sloping in the same direction, is known as a _____.
    a. section
    b. hair stream
    c. hair whorl
    d. cowlick

ANS: B           PTS: 1           REF: Page 246

68. Dry hair and scalp should be treated with products that contain moisturizers and _____.
    a. sulfur
    b. dessicants
    c. alcohol
    d. emollients

ANS: D           PTS: 1           REF: Page 246