Integumentary System

1) A [1]
2) E [1]
3) G [1]
4) H [1]
5) B [1]
6) C [1]
7) D [1]
8) B [1]
9) E [1]
10) Reticular Layer [1]
11) Papillary Layer [1]
12) Reticular Layer [1]
13) Subcutaneous Layer [1]
14) Subcutaneous Layer [1]
15) B [1]
16) C [1]
17) A [1]
18) E [1]
19) Stem Cells [1]
20) Keratinocytes [1]
21) Melanocytes [1]
22) Hair root [1]
23) C [1]
24) E [1]
25) Albinism [1]

26) Award [1] if the answer includes one of the three following prevention methods: wearing sunscreen, hats, or sunglasses.

27) Melasma [1]

28) Award [1] if the answer includes the mention of sunscreen, Example: Sunscreens and avoiding sun exposure can prevent melasma from becoming worse OR Award [1] if the answer includes a description of prescription creams along with mention of either hydroquinone or tretinoin, Example: Other treatment may include prescription creams containing hydroquinone and tretinoin to lighten the patches.

29) Vitiligo [1]

30) Award [1] point if the answer includes two of the following treatments: Treatment may include covering smaller patches with long-lasting dyes, light-sensitive medicines, UV light therapy, corticosteroid creams, surgery, and removing the remaining pigment from the skin (depigmentation).
Skeletal System

Answers to questions 31-40:
31) Skull [1]
32) Mandible [1]
33) Sternum [1]
34) Humerus [1]
35) Rib Cage [1]
36) Pelvis [1]
37) Radius [1]
38) Femur [1]
39) Tibia [1]
40) Fibula [1]
41) C [1]
42) A [1]
43) C [1]
44) B [1]
45) B [1]
47) B and C (award [1] if only these two answers are chosen)
48) D [1]
49) A [1]
50) D [1]
51) Osteoporosis [1]
52) Provide [1] if one of the following descriptions is included: Increased protein intake, maintaining an appropriate body weight, consuming 1,000-1,2000 milligrams of calcium a day, increasing the amount of Vitamin D
53) Scoliosis [1]
54) Provide [1] if one of the following descriptions is included: a brace being worn around the rib cage and lower back, surgery ranging from spinal fusion to metal rods used as a spinal straightening mechanism
55) Osteoarthritis [1]
56) Provide [1] if one of the following descriptions is included: Medication (provide the point if one of the three medicines is also mentioned in the response: Acetaminophen, Nonsteroidal Anti-Inflammatory Drugs (NSAIDs), or Duloxetine (Cymbalta)), Physical Therapy, Occupational Therapy, Cortisone injections, Lubrication injections, Realigning bones, Joint replacement
57) Disc Herniation [1]
58) Provide [1] if **one** of the following descriptions is included: Medications (provide the point if one of the four medications is also mentioned in the response: Over-the-counter pain medications (such as Acetaminophen, Ibuprofen, or Naproxen Sodium), cortisone injections, muscle relaxers, opioids), Physical therapy, Disketomy

**Muscular System**

59) Cardiac and skeletal muscles: [1] if both muscle groups are mentioned. If only one or neither is mentioned, do not award the point.

60) Cardiac muscles [1]

61) Smooth Muscles [1]

62) Cardiac and smooth muscles: [1] if both muscle groups are mentioned. If only one or neither is mentioned, do not award the point.

63) Smooth muscles [1]

64) B [1]

65) D [1]

66) A [1]

67) C [1]

68) C [1]

69) B [1]

70) D [1]

71) E [1]

72) E [1]

73) A [1]

74) B [1]

75) D [1]

76) Gluteus Medius [1]

77) Gluteus Maximus [1]

78) Gracilis [1]

79) Biceps Femoris [1]

80) Semitendinosus [1]

81) Semimembranosus [1]

82) Poliomyelitis (Polio) [1]

83) Provide [1] if the answer is includes a description of an immunization, like the following sentence: It can only be prevented by immunization.

84) Tetanus [1]

85) Provide [1] if the answer includes a description of a vaccine being administered like the following sentence: A vaccine is given to prevent this disease.

86) Myositis [1]
87) Provide [1] if one of the following descriptions is mentioned: (1) high doses of a corticosteroid (2) physical therapy and exercise (3) heat therapy (3) assistive devices

88) Point Breakdown, 5 points total:
a) Provide [1] if all three bones are mentioned in the response: 1) Tibia 2) Femur 3) Patella
b) Provide [1] if all three muscles are mentioned in the response: 1) Gastrocnemius 2) Sartorius 3) Semitendinosus
c) Provide [3] for a correct response
   i) Sample Correct Response: The femur rests on top of the tibia, and the patella (knee cap) connects the two. The gastrocnemius attaches to the femur and extends down the tibia. The sartorius attaches to the top of the hip (ilium), and extends down, attaching to the top of the tibia, contracting to pull the tibia up, which causes the knee to bend. The semitendinosus attaches at the bottom of the hip (ischium), and extends to the tibia. Its contractions help to extend the knee.