

54. When is a leaf said to be *fugacious*? and when *deciduous*?

55. Name the reproductive organs in a phanerogamic plant.

56. What is the botanical name for the staminal whorl? what for the pistilline whorl?

57. Explain the terms gamopetalous, apopetalous, dialysepalous, synsepalous and eultheropetalous.

58. Distinguish a symmetrical from a regular flower.

59. What are staminodes?

60. Define phyllodium and pulvinus.

61. Explain the force of the terms retuse, aristate, repand, crenate, cuspidate and sinuate.

62. What fractions express the *angular* divergence of the house-leek and oak, respectively?

63. Name the parts (1) of a *complete* stamen, and (2) of a *complete* pistil.

64. Describe a grain of pollen.

65. Distinguish between pollination and fertilization.

66. Shew by diagrams the principal modes of attachment of the anther to the filament; give the names by which these different modes are designated, and state which sort is of common occurrence in grasses and which in sedges.

67. What is fovilla?

68. Define syngenesious and monadelphous, giving an example of each.

69. What are the *essential* parts of the pistil?

70. Mention and describe the chief forms of the irregular gamopetalous corolla.

PHYSIOLOGY AND ANATOMY.

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40. Name two sets of absorbent vessels in the intestine, and shew the difference in function between them.

41. Contrast the blood of the hepatic vein with that of the portal vein.

42. State the average temperature of human blood in a healthy individual.

43. What is the "buffy" or "buffe coat?" and what is the cause of its formation?

44. What percentage of solid matters does the blood usually contain?

45. Give an account of the spleen and its functions.

46. Write a description of the larynx and trachea, giving their relations.

47. Prove that carbon dioxide gas is given off from the lungs.

48. How would you determine the quantity of carbon dioxide gas present in expired air?

49. What is the average amount of carbon expelled from the lungs every twenty-four hours?

50. Give an account of tidal, residual, complemental and supplemental air.

51. Describe the lungs and give their relations.

52. Give a description of the process of respiration.

53. State the average number of respirations to the minute in an ordinary adult.

54. What are the chemical and physical differences between inspired and expired air?

55. About how much pure air is required per hour for a healthy person?

56. Tell exactly what is meant by "vital capacity."

57. What is the minimum proportion of oxygen requisite for the support of human respiration?

58. Describe the respiratory movements in hiccoughing, sighing and sneezing.

59. Give a sketch of the sudoriparous glands and their functions.

60. What is meant by asphyxia?

61. Where are the Meibomian glands situated? What is their function?

62. State position and use of the ceruminous glands.

63. From which division of the integument, and in what way are hairs developed?

64. Describe the structure of the nails.

65. In what parts of the body-surface are the sebaceous glands completely wanting?