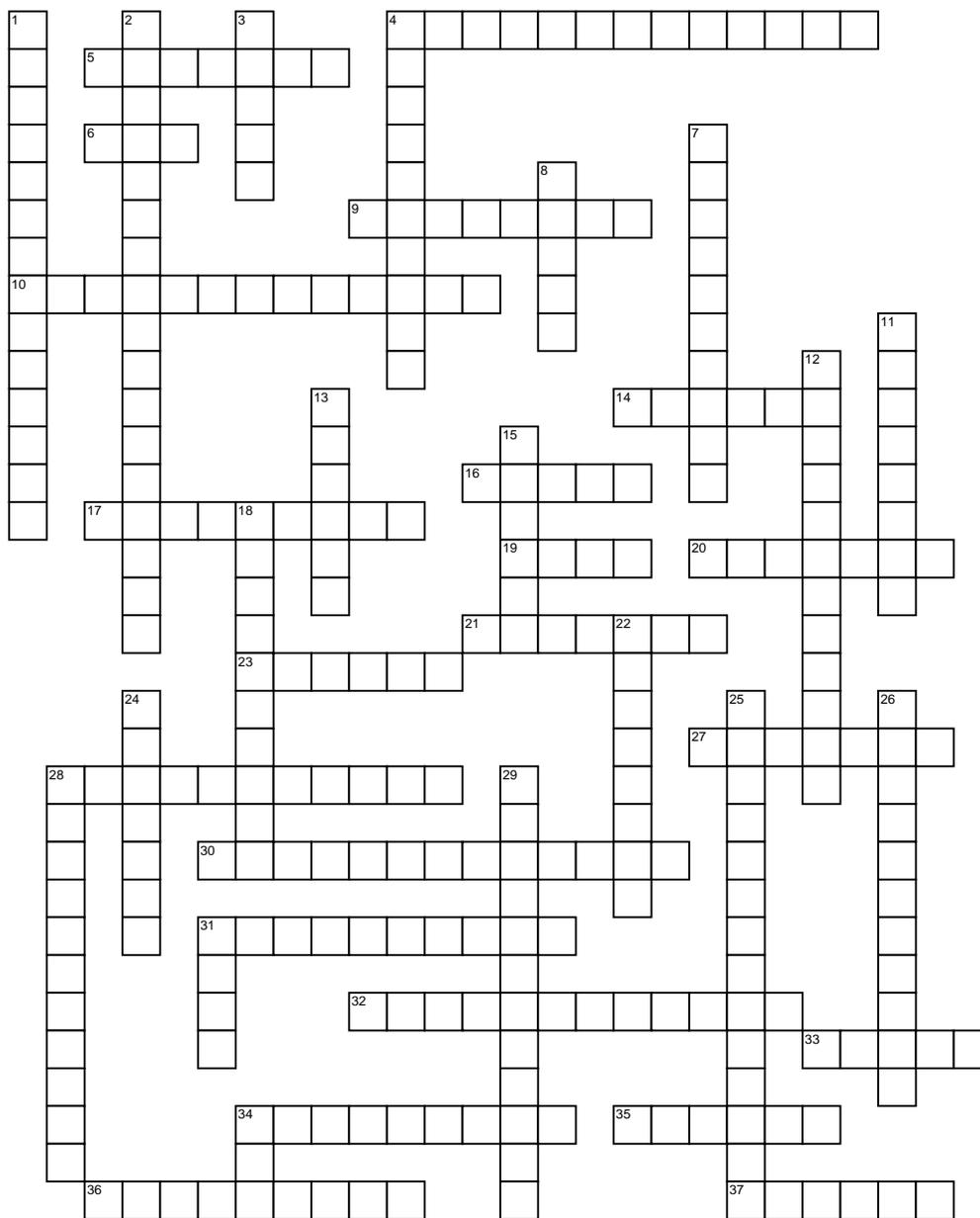


Blood



ACROSS

- 4** _____ is the formation of blood cellular components.
- 5** The _____ effect is a property of hemoglobin that leads to deoxygenated blood's increased ability to carry carbon dioxide.
- 6** The _____ blood group system is the most important blood type system (or blood group system) in human blood transfusion.
- 9** _____s or thrombocytes are the cell fragments circulating in the blood involved in the cellular

mechanisms of primary hemostasis leading to the formation of blood clots.

- 10** _____ is a form of the oxygen-carrying protein hemoglobin, in which the iron in the heme group is in the Fe³⁺ state instead of the Fe²⁺ of normal hemoglobin.
- 14** _____ factor, also called thromboplastin, factor III or CD142, is a protein present in subendothelial _____, platelets, and leukocytes necessary for the initiation of thrombin formation from the zymogen prothrombin.

16 _____ is a specialized biological fluid consisting of erythrocytes, leukocytes, and thrombocytes suspended in a complex fluid medium known as plasma.

- 17** A _____ is a heterocyclic macrocycle derived from four pyrrole-like subunits interconnected via their alpha carbon atoms.
- 19** The _____ effect states that in the presence of carbon dioxide, the oxygen affinity of respiratory pigments such as hemoglobin decreases.

- 20** Human serum _____ is the most abundant protein in human blood plasma.
- 21** _____ pressure is the difference between the colloidal osmotic pressure exerted by blood plasma proteins and that exerted by tissue fluid proteins.
- 23** Blood _____ is the liquid component of blood, in which the blood cells are suspended.
- 27** C _____ is a major physiological anticoagulant, a vitamin K-dependent serine protease that is activated by thrombin to degrade Factor Va and Factor VIIIa (with protein S as a cofactor).
- 28** _____ is a complex process by which blood forms solid clots.
- 30** A _____ is a plasma globulin of high molecular weight.
- 31** Fetal _____ is the main oxygen transport protein in the fetus during the last seven months of development in the uterus.
- 32** The oxygen-haemoglobin _____ curve plots on the vertical axis the proportion of haemoglobin in its saturated form against the prevailing oxygen tension on the horizontal axis.
- 33** Chloride _____ is a process which occurs in a cardiovascular system and refers to the exchange of bicarbonate and chloride across the membrane of red blood cells.
- 34** Methemoglobin _____ is an enzyme which converts methemoglobin to hemoglobin.
- 35** The _____ blood group system refers to the five main Rh antigens (C, c, D, E and e) as well as the many other less frequent Rh antigens.
- 36** Carbonic _____ is a family of metalloenzymes that catalyze the rapid conversion of carbon dioxide to bicarbonate and protons.
- 37** _____-cell disease is a group of genetic disorders caused by an abnormal form of hemoglobin.

DOWN

- 1** _____ is the protein complex for the conversion of prothrombin into thrombin consisting of negatively charged phosphatidylserine, prothrombin, and Factors Va and Xa.
- 2** _____ is a stable complex of carbon monoxide and hemoglobin that forms in red blood cells when carbon monoxide is inhaled.
- 3** _____ globulins, or Ig's, are a prominent type are immunoglobulins.
- 4** _____ is the iron-containing oxygen-transport metalloprotein in red blood cells.
- 7** _____ refers to a process whereby bleeding is halted.
- 8** The term _____ granules is used to describe granules within platelets containing several growth factors, platelet factor 4, which is a heparin-binding chemokine, and other clotting proteins.
- 11** _____ is one of the two types of serum proteins, the other being albumin. This term encompasses a heterogeneous series of families of proteins.
- 12** _____s are immature red blood cells, typically composing about 1% of the red cells in the human body.
- 13** _____ is a protein involved in the clotting of blood which is polymerised to form a mesh that forms a hemostatic plug or clot over a wound site.
- 15** The _____ fold is a common three-dimensional fold in proteins typically consisting of eight alpha helices, although some proteins have additional helix extensions at their termini.
- 18** _____ is the name of a family of hereditary genetic illnesses that impair the body's ability to control coagulation.
- 22** _____ is a serine protease that converts soluble fibrinogen into insoluble strands of fibrin, as well as catalyzing many other coagulation-related reactions.
- 24** _____ is an important enzyme present in blood that degrades many blood plasma proteins, most notably fibrin clots.
- 25** _____ is the process by which red blood cells are produced.
- 26** _____ is a high-molecular-weight glycoprotein containing about 5% carbohydrate that binds to membrane spanning receptor proteins called integrins as well as extracellular matrix components.
- 28** _____ binding is exhibited by a macromolecule if its affinity for a ligand increases with the amount of ligand already bound.
- 29** _____ is the process where a fibrin clot, the product of coagulation, is broken down.
- 31** A _____ is a prosthetic group that consists of an iron atom contained in the center of a large heterocyclic organic ring called a porphyrin.
- 34** _____ blood cells are the most common type of blood cell and the body's principal means of delivering oxygen from the lungs to body tissues via the blood.