

| | question type | question | answer | distractor |
|----|-----------------|---|---|--|
| 1 | Multiple choice | What is the best definition for an antigen? | a protein found on the surface of a cell that can trigger an immune response | a Y-shaped protein that can bind to invading pathogens a chemical produced by a fungus that can kill bacteria a chemical released by a gland that can cause an effect elsewhere in the body |
| 2 | Multiple choice | Which statement best explains why a person cannot suffer from measles twice in their lifetime? | Memory cells produced in the primary response allow a much quicker, larger response to the measles virus on subsequent infections | Antibodies produced in the primary response are still in the blood and so can remove measles virus rapidly from the body Once the cells have been infected with measles virus their cell membrane changes so that the virus cannot enter. Antibodies are long-lived structures in the blood and so are always there ready to bind to measles antigens in future. |
| 3 | Multiple choice | The disease Malaria is caused by a pathogen belonging to which kingdom of living thing? | Protoctista | Bacteria Fungi Viruses |
| 4 | True or False | Antibodies have a specific shape that allows them to bind to antigens on the surface of an invading microorganism. | True | |
| 5 | Multiple choice | Where in the digestive system is the food churned up with concentrated hydrochloric acid and an enzyme to digest proteins | Stomach | Large intestine Small intestine Mouth |
| 6 | Multiple choice | This part of the intestine is where faeces is stored is called the | rectum | stomach small intestine large intestine |
| 7 | Multiple choice | Which of the following enzymes can digest starch? | Amylase | Protease Lipase Pepsin |
| 8 | Multiple choice | Which of the following is a function of the stomach? | to kill bacteria in the food using acid | to continue the digestion of starch that was started in the mouth to absorb glucose and other products of digestion to produce bile |
| 9 | Multiple choice | What term means to turn large fat droplets into smaller fat droplets? | emulsification | chemical digestion hydrolysis lipase |
| 10 | Multiple choice | Where is Oestrogen produced? | Ovaries | Pituitary Gland Pancreas Liver |
| | Multiple choice | What does FSH do? | Stimulates the development of the egg cell in the ovary in days 0-14 of the menstrual cycle | Causes ovulation on day 14 of the cycle Stimulates the uterus lining to |

| | | | | |
|----|-----------------|--|--|---|
| 11 | | | | build up to receive the embryo a few days after fertilisation Causes the corpus luteum to form in the ovary and progesterone to be released |
| 12 | Multiple choice | Which hormone stimulates ovulation? | LH | FSH Oestrogen Progesterone |
| 13 | Multiple choice | Which of these hormones could be used as a contraceptive? | progesterone | LH FSH adrenaline |
| 14 | Multiple choice | What is the function of the corpus luteum? | to produce progesterone to stop the uterus lining from breaking down | to produce oestrogen in the ovary to cause the uterus lining to break down in menstruation to cause ovulation on day 14 of the cycle |
| 15 | Multiple choice | Where in the body is the Pituitary Gland? | base of the brain | on top of the kidneys in the neck close to the heart in the thorax |
| 16 | Multiple choice | Which of the following molecules can be made by a plant in photosynthesis? | all of the above | glucose starch proteins |
| 17 | Multiple choice | Which tissue in the leaf is where most of the photosynthesis takes place? | palisade mesophyll | upper epidermis lower epidermis spongy mesophyll |
| 18 | True or False | Stomata are pores in the lower epidermis that can let carbon dioxide into the leaf for photosynthesis. | True | |
| 19 | Multiple choice | By which process does water get reabsorbed from the nephrons in the kidney back into the blood? | osmosis | active transport diffusion pumping |
| 20 | Multiple choice | Where in the body is ADH made? | pituitary gland | adrenal gland thyroid gland pineal gland |
| 21 | Multiple choice | What is the best definition of homeostasis? | the systems that act in the body to maintain a constant internal environment | the regulation of body temperature to ensure the body gets neither too hot nor too cold the movement of blood flow to different parts of the body depending on conditions a series of waves of muscle contraction that push food along the alimentary canal |
| 22 | True or False | Plants can absorb urea, ammonium ions and nitrate ions through their roots. | False | |
| 23 | Multiple choice | Which of the following bacteria can convert ammonium ions into nitrate ions? | Nitrifying bacteria | Decomposers Nitrogen-fixing bacteria Denitrifying bacteria |
| 24 | Multiple choice | Which of the following bacteria can form a symbiotic relationship with leguminous plants? | Nitrogen-fixing bacteria | Denitrifying bacteria Nitrifying bacteria Decomposers |
| 25 | Multiple choice | Which of the following bacteria will thrive in a water-logged soil? | Denitrifying bacteria | Nitrifying bacteria Decomposers Nitrogen-fixing bacteria |
| | Multiple | Nitrogen-fixing bacteria that live in | ammonium | urea |

| | | | | |
|----|-----------------|--|---|---|
| 26 | choice | the soil can convert nitrogen gas into which substance? | | glucose starch |
| 27 | Multiple choice | Which statement about platelets is correct? | Platelets are small cell fragments with no nucleus that play a role in blood clotting | Platelets can cause blood to clot when they secrete fibrin into the blood plasma. Platelets are smaller than white blood cells but larger than red blood cells. Platelets are made in the liver from the breakdown of old red blood cells. |
| 28 | Multiple choice | Which of the following does not result in the production of a clone? | cell division in the testis of a mammal to produce millions of sperm cells | a lymphocyte is selected by the presence of antigen and then caused to divide many times the zygote divides many times as it moves down the Fallopian tube to form an embryo the root tip of a plant contains a meristem where rapid cell division occurs |
| 29 | Multiple choice | What is the main function of the amnion? | it secretes a fluid that protects the developing foetus from physical trauma when it is in the uterus | it is a layer of cells in the placenta that secretes progesterone into the blood it is a digestive enzyme responsible for the breakdown of protein it is a part of an enzyme near to the active site where other molecules can bind |
| 30 | Multiple choice | Why are rates of enzyme reactions affected by changes in pH? | extreme pH can denature the enzyme causing its shape to change | extremes of pH kill enzymes and stop them working pH can determine the optimum temperature of an enzyme no enzymes work well in acidic pHs |