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**A Level Biology: Summer Task**

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| Q1 | What organelle is used in protein synthesis? | A The mitochondria | The correct answer is… |
| B The ribosome |
| C The vacuole |
| D The cytoplasm |
| Q2 | Which of the following won’t affect the rate of an enzyme controlled reaction? | A The temperature | The correct answer is… |
| B The pH |
| C The surface area |
| D The concentration |
| Q3 | DNA is a polymer, what are the monomers of DNA? | A Sugars | The correct answer is… |
| B Amino acids |
| C Nucleotides |
| D Fatty acids |
| Q4 | In order to grow and reproduce our cells divide, what type of cell division forms gametes? | A Meiosis | The correct answer is… |
| B Miteosis |
| C Mitosis |
| D Meitosis |
| Q5 | Characteristics are controlled by our genes and our environment. Some genes are always expressed, what kind of genes are these? | A Strong | The correct answer is… |
| B Weak |
| C Dominant |
| D Recessive |
| Q6 | One form of transport between cells requires energy from ATP, which is it? | A Osmosis | The correct answer is… |
| B Active transport |
| C Diffusion |
| D Facilitated diffusion |
| Q7 | Our bodies have several mechanisms they use to defend themselves against infection, what is the process of engulfing a pathogen called? | A Eating | The correct answer is… |
| B Vaccination |
| C Antibody action |
| D Phagocytosis |
| Q8 | Transport systems are essential to the survival of large animals, which is not an adaptation of most transport systems? | A Good blood supply | The correct answer is… |
| B Large surface area |
| C Large diffusion pathway |
| D Moist |
| Q9 | The circulatory system has 3 types of vessel in it. What is always true about arteries? | A Go away from the heart | The correct answer is… |
| B Carry deoxygenated blood |
| C Carry Oxygenated blood |
| D Go towards the heart |
| Q10 | Evolution cannot occur without mutations, when a mutation gives an organism an advantage they are more likely to survive and breed. What did Darwin call this process? | A Artificial selection | The correct answer is… |
| B Natural selection |
| C Acquired inheritance |
| D Survival of the fittest |

Research essay (Handwritten on one side of A4):

The structure of water and its role in organisms.