**Review Worksheet: The Pancreas**

*Do these questions, using your learning resources. Look at the “marks” to give you an idea of the level of detail required in the response (formative only – does not count towards your grade). At the end, mark your work, correct it, and fill in the reflection section. Questions marked \* require you to use reasoning, inferring and application of knowledge, or perhaps extra research to get the answer. It won’t be right there in the text.*

1: Where are the hormones insulin and glucagon produced and what is their role in the body?

(3 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

2: Specialised cells within the pancreas produce insulin. What are these cells called?

(1 mark)

…………………………………………………………………………………………………………………….

3: What happens in the following areas as a result of insulin release?

(4 marks)

Blood glucose levels ………………………………………………………………………………..

The liver …………………………………………………………………………………

…………………………………………………………………………………

Body cells …………………………………………………………………………………

4: What causes the pancreas to stop producing insulin?

(3 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

5: What is the stimulus for glucagon production?

(1 mark)

…………………………………………………………………………………………………………………….

6: Where is glucagon produced?

(2 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

7: How does the liver respond to glucagon and what is the result?

(2 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

8: What is the most common age range of onset for Type 1 Diabetes and what is the common cause?

(2 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

9: What are some common symptoms of untreated Type 1 Diabetes?

(5 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

10: List symptoms of Type 2 Diabetes

(5 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

11: What lifestyle factors may contribute to the development of Type 2 Diabetes, and what changes should someone with Type 2 Diabetes make to their lifestyle?

(3 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

12: What tests would you do to diagnose diabetes, and what results would you expect to find?

(3 marks)

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………….

13: Match the word with the correct definition: *\* you may need to look online for some of these.*

(6 marks)

|  |  |  |
| --- | --- | --- |
| glucose |  | the process, carried out by the liver, of converting glucose into glycogen for storage |
|  |  |  |
| glycogen |  | the process, carried out by the liver, of breaking down glycogen to release glucose |
|  |  |  |
| glycogenesis |  | the process, carried out by the liver, of breaking proteins and fats down into glucose |
|  |  |  |
| glycogenolysis |  | a more complex molecule made from branches of joined glucose molecules |
|  |  |  |
| gluconeogenesis |  | a hormone, produced by the alpha cells in the pancreas, that stimulates the liver to break down glycogen to release glucose |
|  |  |  |
| glucagon |  | a small, simple sugar molecule |

Go back and mark your work using the marking key provided. What score did you get? /40

*I included enough detail in my answers.*



*I was able to find information in the text/powerpoint presentation.*

*I was able to reason and infer where the information wasn’t directly in the text (questions with \*).*

*I marked my work and wrote down any answers where I missed marks.*