

(Control of blood glucose (insulin, glucagon, diabetes))

Q1.a)(2018)

pancreas

Q1.b)(2018)

liver

glycogen

Q1.c)(2018)

would be digested / broken
down (by enzymes / protease /
pepsin / acid or to amino acids)

Q2.a)(2018)

use of 14.2 and 6.8

7.4

Q2.b)(2018)

any **one** from:

- (person A's) results are higher
- (A) increases for a longer time **or** peaks later
- (A) takes longer to decrease **or** takes longer to return to normal

Q3.a)(2018)

a negative correlation

Q3.b)(2018)

less carbohydrate / sugar / fat
in diet

or

lose weight **or** maintain a
healthy weight

(more) exercise

Q4.(2021)

liver

Q5.(2021)

glycogen

Q6.a)(2021)

2.6

7.6 (mmol/dm³)

Q6.b)(2021)

30 (minutes)

Q6.c)(2021)

points too far apart

or

no reading between 30 and 50
mins

or

points joined by straight lines

or

values could have fallen to zero
change before 50 mins

Q6.d)(2021)

higher values of y than given
line

returning to(wards) zero change
later than given line

Q7.a)(2022)

an answer in the range
1.1 to 2(.0) (hours)

Q7.b)(2022)

effect : lowered

explanation:

glucose taken in

or

glucose converted to glycogen

or

glucose used in respiration

by cells / liver / muscles

Q8.a)(2022)

underweight

Q8.b)(2022)

(from) 67.5 (kg to) 90 (kg)

Q8.c)(2022)

(person **C** has) higher glucose
(than mean)

(person **C** has) higher insulin
(than mean)

Q8.d)(2022)

(more) exercise

eat less carbohydrate / sugar
or eat a low carbohydrate diet

Q9.(2024)

pancreas

Q10.a)(2024)

the body cells take in a low
amount of glucose from the
blood

Q10.b)(2024)

any **two** from:

- (same) diet
- (same diet for same) duration
- (same / 30-minute) time
before being given glucose
- (same) volume of water and
drug **X**
- (same) volume of glucose
(solution)

Q10.c)(2024)

20 and 30

(30 – 20 =) 10 (minutes)

Q10.d)(2024)

any **two** from:

(with drug **X**)

- lower **throughout**
- lower maximum
(concentration)
- slower increase (in
concentration)
- slower decrease (in
concentration)
- returns to original
(concentration) (sooner)

Q10.e)(2024)

use different concentrations of
drug **X**