

1. What is glycoscience the study of?

- ☐ Lipids
- ☒ Carbohydrates
- ☐ Proteins
- ☐ DNA

2. What is the role of enzymes in a biorefinery?

- ☐ To produce carbon dioxide
- ☐ To covert the energy of sunlight into glucose
- ☐ To make complex sugars from monosaccharides
- ☒ To make complex sugars from monosaccharides and to breakdown complex sugars into monosaccharides

3. Which
is an example of a biologic?

- ☐ Glivec
- ☐ Symbicort
- ☒ Herceptin
- ☐ Seretide

4. Which
of the following biological processes is the glycocalyx NOT responsible for?

- ☐ Infection
- ☒ Osmotic lysis
- ☐ Immunity
- ☐ Blood
grouping

5. Why are beta-glucans beneficial for health?

- ☐ Increased
circulation
- ☐ Anti-inflammatory
- ☐ Diuretic
- ☒ Cholesterol lowering properties

6. Which of the following is a carbohydrate polymer used for biomaterials?
- ☐ Polystyrene
 - ☒ Cellulose
 - ☐ Polyvinyl chloride
 - ☐ Polyethylene
7. For which clinical condition is Herceptin used as a therapy?
- ☐ HER2-negative breast cancer
 - ☐ Diabetes
 - ☒ HER2-positive breast cancer
 - ☐ Kidney failure
8. Why are natural blood products NOT normally used as therapeutics?
- ☒ Potential "unknown" contaminants
 - ☐ Intellectual property considerations
 - ☐ Stability in storage
 - ☐ Inability to purify product

9. In the production of a biopharmaceutical, "formulation" describes...

- ☐ Breakdown of product upon storage
- ☐ Competitive product (biosimilar) design
- ☒ Product format for storage/delivery
- ☐ Cell fermentation

10. Which system (cell factory) is normally used for production of a complex biopharmaceutical (e.g an antibody)?

- ☒ Mammalian cell
- ☐ Yeast cell
- ☐ Plant cell
- ☐ Bacterial cell

11. Which design format of antibody would be most commonly manufactured today?

- ☐ Murine
- ☐ Chimeric
- ☐ Humanised
- ☒ Human

12. What advantage does an antibody fragment offer over a full-size antibody?

- ☐ Single polypeptide (amino acid) chain
- ☐ Greater specificity of target recognition
- ☒ Expression in simpler expression systems (factories)
- ☐ Generated by molecular biology techniques

13. Enbrel® is an example of

- ☐ A hormone
- ☐ An affimer
- ☒ A fusion protein
- ☐ A bispecific