1. Structure A contains a (1.) genetic code (2.) messenger RNA molecule (3.) single nucleotide, only (4.) small polysaccharide

2. Structure B represents (1.) a ribosome (2.) recombinant DNA (3.) transfer RNA (4.) a male gamete

3. The technique illustrated in the diagram is known as (1.) cloning (2.) protein synthesis (3.) genetic engineering (4.) in vitro fertilization

4. Explain why this technique is also called recombinant DNA technology?

5/7. List three practical applications of this technology to human health and/or agriculture

- Making insulin
- Making clotting factor
- Making plants that taste bad - to save crops

6. Some geneticists are suggesting the possibility of transferring some of the genes that influence photosynthesis from an efficient variety of crop plant to a less efficient crop plant to produce a new variety with improved productivity. To produce this new variety, the project would most likely involve (1.) amniocentesis (2.) genetic engineering (3.) genetic screening (4.) inbreeding

7. Some geneticists are suggesting the possibility of transferring some of the genes that influence photosynthesis from an efficient variety of crop plant to a less efficient crop plant to produce a new variety with improved productivity. Which technique would most likely be used to produce large numbers of genetically identical offspring from this new variety of plant? (1.) cloning (2.) cross-pollination (3.) karyotyping (4.) chromatography

8. Using special enzymes, scientists have successfully removed the gene that controls the production of interferon and have inserted this gene into the DNA of certain bacteria. These bacteria can now produce interferon. This technique is known as (1.) amniocentesis (2.) genetic engineering (3.) differentiation (4.) karyotyping

9. What was the human genome project?

A project in which scientists mapped all the genes found in human chromosomes