1. Which best describes a prokaryotic nucleoid?

A. An area where a single molecule of double-stranded circular DNA not surrounded by a nuclear membrane is located.

B. An area where paired molecules of double-stranded linear DNA surrounded by a nuclear membrane are located.

2. Bacterial enzymes involved in in the unwinding, replication, and rewinding of the circular, supercoiled bacterial DNA are called:

A. DNA polymerases

B. DNA topoisomerases

C. transposons

D. plasmids

3. Bacterial and viral genomes contain a high frequency of unmethylated cytosine-guanine dinucleotide sequences. What is the significance of this?

A. DNA can be exchanged between microbes more easily.

B. The nucleoid doesn’t need a nuclear membrane.

C. These function as PAMPs to induce innate immunity.

4. The process in which an organism transfers genetic material to another organism that is not its offspring is called:

A. Mutation

B. Binary fission

C. Horizontal gene transfer

D. Vertical gene transfer