

Sangam SKM College- Nadi

Year 13

BIOLOGY

Worksheet 5

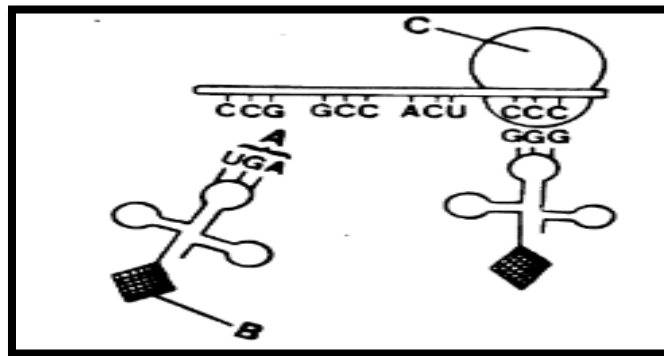
Q1. Below is the list of events that take place during the synthesis of a specific protein.

- a. Messenger RNA attaches to a ribosome.
- b. DNA serves as a template for RNA production.
- c. Transfer RNA bonds to a specific codon.
- d. Amino acids are bonded together.
- e. RNA moves from the nucleus to the cytoplasm.

The correct order of these events is

- A. d a e c b
- B. b e a c d**
- C. b c e d a
- D. c b a e d

Q2. Identify the labelled structures on the following diagram of translation.



Part A – **anticodon/tRNA**

Part B – **amino acid**

Part C- **ribosome**

Source: <https://mi01000971.schoolwires.net/cms/>

Q3. Amino acids are organic compounds that combine to form proteins.

- i) How many codons are needed to specify three amino acids? 3
- ii) Describe the **four** levels of protein structure.

- 1. **Primary** – chain/sequence of amino acids
- 2. **Secondary** - alpha helix and Beta-pleated sheets held together by hydrogen bonds
- 3. **Tertiary** - globular or fibrous structure, held together by R-groups
- 4. **Quaternary** - complex of multiple proteins held together by hydrophobic interactions, and disulfide bridges