## SMART EXAM RESOURCES TOPIC QUESTIONS: NUCLEIC ACID AND PROTEIN

## SYNTHESIS SUB-TOPIC: ROLE OF RIBOSOMES IN PROTEIN SYNTHESIS SET-1-QP-MS

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## **MARK SCHEME:**

- 1 translation (in correct context) / genetic code used to make a sequence of amino acids / AW ·
- 2 attach / assemble around / moves along / AW, mRNA; A ref. to bind mRNA / mRNA 'lies within' the ribosome R mRNA enters ribosome
  - tRNA(s) carrying amino acid(s), bind to / AW, mRNA;
    A provides two sites for tRNAs carrying amino acids to bind to mRNA
- 4 binding / pairing / AW, between anticodon on tRNA to codon on mRNA;
- 5 (catalyse) formation of peptide bond (to form polypeptide);
- 6 any further detail of translation;
  - e.g. peptidyl transferase ribosome moves along one codon at a time start codon is AUG stop codon in context correct roles of P and A sites

[max 3]