



QUAID-I-AZAM UNIVERSITY ISLAMABAD

Roll No: _____

B.Sc. Annual Examinations--2013
(PART-I)

Answer Book No: _____

SUBJECT: **Biochemistry**

PAPER: **A (Theory)**

Time Allowed: **3 Hours**

June 10, 2013

Max Marks: **40**

Note: Attempt total FIVE questions selecting any FOUR from Section B. All questions carry equal marks. Q. No. 1 is compulsory to be attempted on this page and must be handed over to the Superintendent within first 25 minutes.

SECTION-A (OBJECTIVE) To be attempted in 25 minutes.

Q. No.1

(4+4)

(a) Encircle the correct one.

- All NUCLEIC ACIDS:
 - are polymers of NUCLEOTIDE
 - contain DEOXYRIBOSE
 - are double stranded
 - are double helical
- The order of ENZYME action in replication is:
 - DNA POLYMERASE → HELICASE → PRIMASE → GYRASE
 - DNA POLYMERASE → HELICASE → GYRASE → PRIMASE
 - HELICASE → GYRASE → PRIMASE → DNA POLYMERASE
 - HELICASE → PRIMASE → GYRASE → DNA POLYMERASE
- In NUCLEIC ACIDS a covalently bonded structure with a NITROGENOUS BASE and SUGAR molecule is called a:
 - PEPTIDE
 - NUCLEOSIDE
 - POLYPEPTIDE
 - NUCLEOTIDE
- The process by which RNA is made from DNA is:
 - synthesis
 - translation
 - transcription
 - replication
- ADENINE always pairs with:
 - THYMINE
 - CYTOSINE
 - GUANINE
 - RIBOSE
- The "RUNGS" of the DNA ladder are made of:
 - PHOSPHATES and HYDROGEN
 - GLUCOSE and SUGARS
 - SUGARS and PHOSPHATES
 - BASE PAIRS
- A gene is :
 - a segment of DNA that codes for a PROTEIN
 - a molecule within DNA
 - a set of HOMOLOGOUS CHROMOSOMES
 - a type of PANTS
- The site of a gene where RNA POLYMERASE binds is called a(n):
 - operator
 - terminator
 - promoter
 - none of these.

(b) Fill in the blanks with appropriate words.

- In NUCLEIC ACIDS, a sugar attached with PHOSPHATE and NITROGENOUS BASE is called a _____.
- DNA POLYMERASE needs a short sequence of DNA called _____ to start polymerization.
- A sudden heritable change in DNA sequence is called a _____.
- DNA POLYMERIZATION by the DNA POLYMERASE is always from _____ direction.
- In any given duplex DNA, the amount of PURINES is always _____ to the amount of PYRIMIDINES.
- In PROTEIN SYNTHESIS the adapter molecule that brings AMINO ACIDS to RIBOSOME is called _____.
- The model that explains gene regulation in PROKARYOTES is called _____ model.
- POST-TRANSCRIPTIONAL modifications of mRNA are carried out only in _____ organisms.