



Department of Biotechnology
Dayananda Sagar College of Engineering, Bengaluru
Shavige Malleshwara Hills, Kumaraswamy Layout, Bangalore – 560 078
(An Autonomous Institute affiliated to VTU, Approved by AICTE & ISO 9001:2008 Certified)
Accredited by National Assessment and Accreditation Council (NAAC) with 'A' grade

Alternate Assessment Tool (AAT-1): Quiz -2

Semester: IV
Subject: Structural Biology
Total Marks: 10

Date: 28-03-2017
Subject Code: BT42

Note: Select the correct answer from the given options

S. No	Question	Marks	CO
1.	Which of the following is NOT a stabilizing interaction present in DNA (a) Phospho di-ester bond (b) Glycosydic bond (c) Hydrogen bond (d) Peptide bond	01	1
2.	Name the scientist who first demonstrated X-ray crystallographic studies of DNA (a) James Watson (b) Rosland Franklin (c) Maurice Wilkins (d) Francis Crick	01	1
3.	Name following is NOT a modified nitrogenous base (a) Methylcytosine (b) Psuedouracil (c) Dihydrouracil (d) None of these	01	1
4.	Select the molecular formula of Guanine (a) C ₅ H ₅ ON ₅ (b) C ₅ H ₅ N ₅ (c) C ₅ H ₆ ON ₃ (d) C ₄ H ₄ O ₂ N ₂	01	1
5.	Choose the base pairs that have the lowest stacking energy (a) AC–GT (b) TA–TA (c) AT–AT (d) GC–GC	01	1
6.	Which are the atoms fixed in a ribose plane (a) C1-O4-C4 (b) C1-C4-O4 (c) O4-C1-C4 (d) O4-C4-C1	01	1
7.	The helix diameter of a B DNA is _____ (a) 25.5 Å (b) 18.4 Å (c) 24.7 Å (d) 23.7 Å	01	1
8.	The size of <i>t</i> -RNA is (a) 73- 95 nucleotides (b) 73- 93 nucleotides (c) 75- 95 nucleotides (d) 75- 93 nucleotides	01	1
9.	The first <i>t</i> -RNA (phenyl alanine tRNA) was discovered from ____ (a) <i>E. coli</i> (b) <i>Saccharomyces</i> sps. (c) <i>Plasmodium</i> sps. (d) <i>Homo sapiens</i>	01	1
10.	The melting temperature (T _m) of the oligo-nucleotide sequence “GCATGCATGCCATGCAT” is _____ (a) 48 °C (b) 52°C (c) 50 °C (d) 56 °C	01	1

Signature of Course Coordinator

Signature of HOD