

M. Sc. DEGREE EXAMINATION, NOVEMBER 2015  
BIOINFORMATICS  
THIRD SEMESTER

COURSE : CORE  
PAPER : GENOMICS AND PROTEOMICS  
TIME : 1½ HOURS

MAX. MARKS: 50

SECTION – A

ANSWER ALL THE QUESTIONS: (20x1=20)  
Choose the best answer

- Which one of the following types of mutation is most likely to lead to premature termination of translation?  
A. Insertion of a single base into DNA      B. Deletion of three bases from DNA  
C. Deletion of an entire gene      D. Single base change in a promoter
- A cDNA library contains clones representing which of the following?  
A. mRNA      B. Genomic DNA  
C. Introns      D. Repeated DNA sequences
- Which of the following repeated sequences includes an open reading frame for reverse transcriptase?  
A. SINE      B. LINE      C. Segmental duplication      D. DNA transposon
- Which bacterial genome was the first to be completely sequenced?  
A. *E. coli*      B. *S. pneumonia*      C. *H. influenza*      D. *M. tuberculosis*
- The minimum set of genes required for life is approximately  
A. 50-100      B. 250-350      C. 400-500      D. 1000-1500
- Small solid supports onto which are spotted hundreds of thousands of tiny drops of DNA that can be used to screen gene expression.  
A. DNA Microarray      B. Cloning      C. Southern Blotting      D. Western Blotting
- The genetic code is  
A. is a triplet code      B. consists of 62 codons  
C. is used in the process of transcription      D. specifies 25 amino acids
- DNA  
A. is a positively charged molecule at neutral pH  
B. is always double-stranded  
C. has a diameter of around 2 µm  
D. is stabilized by base stacking

