

A

S. No. 10010

Roll No.

ETO-1343

Ph. D. Entrance Test, Nov. 2013

Bio. Engg.

First Paper

(Objective Type Questions)

Maximum Marks : 100

Time : 60 Minutes

SEAL

NOTE :

- (i) This question booklet comprises of 50 questions.
- (ii) Write your Roll No. on Question Booklet as well as OMR sheet.
- (iii) Each question has four options (a), (b), (c) and (d) out of which one is correct. The candidate is required to darken completely the correct option in the OMR Answer Sheet supplied separately.
- (iv) Each correct answer carries 2 marks.
- (v) There is no negative marking.
- (vi) Rough work may be done in this question booklet itself where the space provided.
- (vii) The question booklet along with the OMR answer sheet is to be handed over by the candidate to the Invigilator at the end of the examination.
- (viii) Use HB Pencil or blue ball pen to dark the answer boxes.

Ph. D. (Biotechnology Engg.) Entrance Test, Nov., 2013

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1. What does a protein loses when it denatures ?
(a) Its primary structure (b) Its peptide bonds
(c) Its sequence of amino acids (d) Its three dimensional shape
2. Which of the following has a quaternary structure ?
(a) α -chymotrypsin (b) Hemoglobin
(c) Insulin (d) Myoglobin
3. A double stranded DNA has 30% Thymine. The percentage of cytosine is :
(a) 30% (b) 20%
(c) 70% (d) 15%
4. The end product of purine catabolism in normal humans is :
(a) Urea (b) Uric Acid
(c) Creatine (d) Xanthine
5. The chitin in the fungal cell wall is :
(a) A protein (b) A glycoprotein
(c) A polysaccharide (d) A lipopolysaccharide
6. Glucose and galactose are two isomeric monosaccharide known as :
(a) Anomers (b) Epimers
(c) Enantiomers (d) Conformers

7. Catalytic antibodies function as enzymes on the principle of :
- (a) Enzymatic conversion of antibodies
 - (b) Stabilizing transition state analogue of substrates
 - (c) Antigen-antibody affinity
 - (d) Monoclonal antibodies with chemical capability
8. Which one of the following is a cofactor and not a coenzyme ?
- (a) Biotin
 - (b) Tetrahydrofolic acid
 - (c) Copper
 - (d) Methylcobalamin
9. Approximately how many okazaki fragments are synthesized during one round of replication of the E. coli genome ?
- (a) 5000 to 10000
 - (b) 4×10^6
 - (c) 2500 to 5000
 - (d) 2
10. Okazaki fragments :
- (a) Require the activity of only a DNA polymerase for synthesis
 - (b) Require only RNA polymerase activity for synthesis
 - (c) Are made when DNA is exposed to UV radiation
 - (d) Are composed of both DNA and RNA
11. Satellite DNA consists of :
- (a) Extra chromosomal DNA
 - (b) Short repetitive nucleotide sequence
 - (c) Ribosomal RNA genes
 - (d) Single gene regions

