ADMISSSION TEST
MS (Bioinformatics)
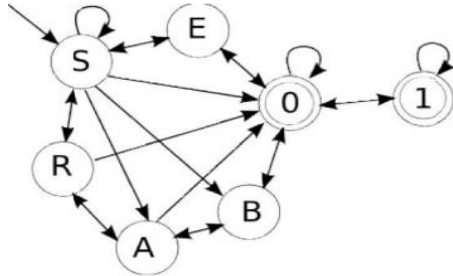

SAMPLE TEST

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SECTION I

Analytical Reasoning (Questions 1 – 15)

1. Engineers build rafts. For river traffic control, all rafts should be registered. It means that each raft should have a license plate with unique text. The text is composed of letters and digits according to below diagram: start with the letter B and end with digit 0 or 1.

Which of the following license plates cannot be registered?

A) SS0001   C) SSS001
B) SSS100   D) SBA001

2. You have a long roll of colored paper for a party you are hosting. The paper has three different colors (yellow, red, blue) in a regularly repeating pattern. Your sister has cut out a section of the paper, as shown in the diagram below.

Your sister will give you back the missing piece of paper (shown as ...) if you can correctly guess the size of the piece she cut out. Your sister tells you the piece of paper she cut out is one of the following lengths. Which one is it?

A) 31
B) 32
C) 33
D) 34

3. Twelve men take 6 hours to finish a piece of work. After the 12 men have worked for 1 hour, the contractor decides to call in 8 more men. How many more hours would 20 men take to complete the remaining work?

A) 2
B) 3
C) 4
D) 5

SECTION II

Subject Based (Questions 16 – 100)

16. Deficiency of which of the following causes chlorosis?
a. Nitrogen
b. Magnesium
c. Iron
d. Both a and b

2. Spread of tumor cells and establishment of secondary areas of growth is:
a. Benign tumors
b. Cancer
c. Metastasis
d. Epistatis

3. Feature of cancer cells in common?

a. High nucleus to cytoplasmic ratio
b. Prominent nucleoli
c. Many mitosis
d. All of these

4. An activated enzyme consisting of polypeptide chain and a cofactor is called:
a. Apoenzyme
b. Holoenzyme
c. Activated enzyme
d. Both b and c

5. Enzymes _____ the activation energy of a chemical reaction:

a. Increases
b. Decreases
c. Does not effect
d. Increases or decreases depending upon individual enzyme

6. **Which statement is valid?**
   a.   1 KB = 8 bytes
   b.   1 MB = 8 KB
   c.   1 KB = 1024 bytes
   d.   1 MB = 1024 bytes

7. **What is the output of the following program?**
#include<stdio.h>

int* f()
{
   int x = 5;

   return &x;
}
main()
{
   printf("%d", *f());
}

   a.   5
   b.   9
   c.   131
   d.   Error

8. **To create an output stream, we must declare the stream to be of class _____ .**
   a.   ofstream
   b.   ifstream
   c.   iostream
   d.   None of the above

   9.   _____ is a primary protein structure database.

   a.   PDB.
   b.   PubChem.
   c.   ChemBank
   d.   SCOP

■■