NORTH SOUTH UNIVERSITY
Dept. of Biochemistry & Microbiology

Course: BIO103 (Biology)
Fall semester 2015
MCQ-I, Marks: 15, Time: 30 min

	Answer all of the following questions	Marks
1.	An ionic bond is most likely to form between: A. two negatively charged ions. B. two positively charged ions. C. a negatively and a positively charged ion. D. D. two uncharged atoms.	0.5
2.	A covalent bond is most likely to form between: A. two salts B. a negatively and a positively charged ion C. two atoms, both of which typically become stable by losing an electron; **D.** two atoms, both of which typically become stable by gaining an electron	0.5
3.	Which of the following is an organic molecule? **A.** Water **B.** Hydrogen gas (H_2) **C.** A hydrocarbon **D.** Ammonia (NH_3)	0.5
4.	The chemical behavior of an atom depends on the number of A. valence shells in the atom. B. orbitals found in the atom. C. electrons in each orbital in the atom. D. electrons in the outer valence shell in the atom.	0.5
5.	Which of the following requires energy? A. O_2 going from your lungs to your blood cells B. CO_2 leaving your blood cells and entering your lungs C. Synthesizing glucose from CO_2 and H_20 **D.** Converting ATP to ADP	0.5
6.	Photosynthesis generally takes place in which parts of the plant? A. Leaf and other chloroplast bearing parts B. Steam and leaf C. Roots and chloroplast bearing parts D. Bark and leaf	0.5
7.	Plants synthesis protein from A. Starch; B. Sugar; C. Amino acids; D. Fatty acids	0.5
8	Plants absorb dissolved nitrates from soil and convert them into: A. free nitrogen; B. urea C. ammonia D. proteins	0.5
9	Plants absorb most part of water needed by them through their A. embryonic zone B. growing point; C. root hairs D. zone of elongation	0.5
10	Plants receive their nutrients mainly from A. chlorophyll ; B. atmosphere C. light D. soil	0.5
11	A compound that, when placed in water, causes the concentration of protons (H^+) to increase is called— A. Acid B. Base C. Electron D. Molecule	0.5
12	O_2 released in the photosynthesis process comes from A. CO_2 ; B. water ; C. sugar D. pyruvic acid	0.5
Fill in the blank		
13	If the pH of stomach acid and oven cleaner were measured, the pH of stomach acid would be _____below_____ 7.0, but the pH of oven cleaner would be _____above_____ 7.0.	0.5

14	The energy needed to initiate a chemical reaction called --activation energy	
15	Enzymes are organic catalysts/proteins that can be affected by _____and ----------.	0.5
16	The substance in which a solute is dissolved to form a solution is called ----------solvent	0.5
17	A substance that cannot be broken down to simpler components by chemical processes is known as ----------atom	0.5
18	Plants that grow in saline water are called ----------halophyte	0.5
19	Compared to ----------carbohydrates, lipids contain more carbon–hydrogen bonds per unit of weight.	0.5
20	A substance with a pH of 4.5 is called _____acid. and a substance with pH 9.7 is called----------base,	0.5
21	Starch, glycogen, and cellulose are all examples of _____polysaccharide	0.5
True/False		
22	**Photosynthesis** takes place faster in white light. **True/false**	0.5
23	**N_2 content** is kept constant in the biosphere due to N_2 fixation. **True/false**	0.5
24	**A hydrocarbon** is an organic molecule. **True/false**	0.5
25	**Carbohydrates** are unable to dissolve in water. **True/false**	0.5
26	**Viruses** require a host to replicate because they do not contain DNA. **True/false**	0.5
27	**Metabolism** has two distinct phases, anabolism and catabolism. **True/false**	0.5
28	**Asexual reproduction** which producing offspring without the use of gametes. **True/false**	0.5
29	**All organisms** need energy for their metabolic activities. **True/false**	0.5
30	**Adaptations** are traits giving an organism an advantage in a certain environment. **True/false**	0.5