Choose the best correct answer for the following :-

1- Which of the following is non polar uncharged non essential amino acids?
   a- alanine & glycine.   b- leucine & proline.
   c- leucine & glycine.   d- alanine & proline.
   e- serine & valine.

2- Which of the following pairs of amino acids carry a negative charge on their side chain at pH 8?
   a- asparagus & glutamine.   b- leucine & glycine.
   c- histidine & lysine.   d- aspartate & glutamate.
   e- serine & tyrosine.

3- Which of the following of amino acids can’not form hydrogen bond with their side (R) group?
   a- tyrosine   b- cystein   c- leucine.
   d- serine   e- glycine.

4- The globular proteins are characterized by all the following Except :-
   a- the axial ratio is less than 10.
   b- they include albumin & globulin.
   c- they are less stable than fibrous proteins.
   d- they include keratin & myosin.
   e- is the shape of tertiary structure of proteins.

5- Special arrangement of subunits of proteins that consists of more than one monomer is referred to as :-
a- primary structure of protein.
b- secondary structure of protein.
c- tertiary structure of protein.
d- quaternary structure of protein.
e- coagulated protein.

6- An essential amino acid has one of the following characters :-

a- must be included in diet & can’t not be formed in the body.
b- may be synthesized from metabolic intermediates as pyruvate.
c- there are only( 5 ) essential amino acids.
d- essential amino acids can be stored in liver.
e- tyrosine, leucine & serine are essential amino acids.

7- The type of bonds responsible for formation of β-pleated sheets of protein is :-

a- hydrogen bonds between amino acids in a single polypeptide chain.
b- hydrogen bonds between two extended polypeptide chains.
c- disulphide & hydrogen bonds between two extended polypeptide chains or between two regions in a single polypeptide chain.
d- disulphide bonds between two extended polypeptide chains.
e- disulphide bonds between amino acids in a single polypeptide chains.

8- Gelatin is :-

a- denatured collagen.                       b- boiled globulin.
c- similar to elastin.                      d- conjugated proteins.
e- precursor of scleroproteins.

9- The protein that help in folding protein to get functional native structure called

a- globin                        b- chaperones.      c- myosin.
b- Histones.                     e- scleroproteins.