

# BCH 349

Name:

Student no:

## QUIZ #4

### Q 1) Choose the correct answer (6 marks)

- 1- The pentose pathway begins with the glycolytic intermediate
  - a) glucose 6-P
  - b) lactose 6-P
  - c) fructose 6-P
  
- 2- The primary function of pentose pathway are
  - a) Generate reducing equivalents
  - b) provide the cell with ribose-5-phosphate
  - c) All the above
  
- 3- The reactions of the PPP operate
  - a) In the cytoplasm
  - b) In the mitochondria
  - c) In the Golgi complex
  
- 4-  $\text{NADPH} + \text{H}^+$  is formed from the reactions catalyzed by
  - a) glucose-6-phosphate dehydrogenase
  - b) 6-phosphogluconate dehydrogenase
  - c) All the above
  
- 5- The oxidative stage of the Pentose Phosphate Pathway generate
  - a) 1 mole NADPH
  - b) 2 mole NADPH
  - c) 3 mole NADPH

- 6- Glutathione is a tri-peptide composed of
- a) Glutamate, cystein, glycine
  - b) Glutamate, cystein, Histidine
  - c) Glutamate, cystein, Arginine

**Q 2) Name 3 function of Glutathione (3 marks) :**

- 1-
- 2-
- 3-

**Q3 Put ( T ) in front of true statements and ( F ) in front of the false ones and correct the false ones**

- 1. The PPP supplies the RBC with NADPH to regenerates GSSG via glutathione reductase ( )
- 2. The inability to maintain reduced glutathione in RBCs leads to decrease accumulation of peroxides ( )
- 3. Individuals with G6PD deficiency produce lots of GSH to cope with the ROS ( )
- 4. The abnormal gene responsible for G6PD deficiency is located on the Y-chromosome ( )
- 5. In your experiment you determine the level of G6PD in a serum sample ( )
- 6. The first step of the experiment was adding G-6-PD substrate then the rest of the reagent ( )