Quiz – GFP

Part A: True/False Questions

1. Aequorin emits blue light.
2. Jelly fish grows blue because of Aequorin.
3. GFP absorbs blue light from Aeqorin and releases green light.
4. GFP allows the microscopic study of live cells.
5. GFP alters the physiology of targeted protein.
6. GFP is non-toxic.
7. GFP allows high level of expression.
8. The story of GFP starts with the curiosity of a Japanese scientist into jellyfish's ability to glow in the dark.
9. Formaldehyde is usually used in fixation of cells.
10. GFP allows the study of all organelles in cells.

Part B: Multiple Choice Questions

1. What does GFP stand for?
   A. Green Fluorescent Protein
   B. Good Fatty Protein
   C. Both A and B
   D. None of the above

2. Which of the following procedures do cells usually have to undergo in traditional microscopy?
   A. Being fixed
   B. Being sectioned
   C. Being stained
   D. All of the above

3. In 1988, who proposed the idea that GFP can be an ideal cellular beacon?
   A. Martin Chalfie
   B. Martin Brown
   C. Osamu Shimomura
   D. Roger Tsien

4. Who slightly adjusted the structure of GFP in 2000s to make it more stable and emit different colors?
   A. Roger Tsien
   B. Martin Chalfie
   C. Martin Brown
   D. Osamu Shimomura

5. How did scientists from Harvard University create a rainbow in a mouse's brain?
   A. Introducing GFP variants to neuronal cells of the rodents
   B. Introducing a combination of GFP variants to neuronal cells of the rodents

C. Introducing a combination of cells from worms to neuronal cells of the rodents
D. None of the above

6. GFP was first introduced into what organism by Martin Chalfie as to study the characteristic of GFP?
   A. Worm
   B. Dog
   C. Oyster
   D. Crown fish

7. GFP in Martin Chalfie's transpartent worm emits fluorescence spontaneously under what type of light?
   A. Sunlight
   B. X-ray
   C. UV
   D. None of the above

8. What is the name of the jellyfish which Osamu Shimomura extracted and purified the protein called Aequoria?
   A. Aequoria Victoria
   B. Canonball Jellyfish
   C. Aurelia Aurita
   D. Box Jellyfish

9. Where does GFP tag the targeted protein?
   A. The head
   B. The end
   C. The middle part
   D. None of the above

10. How can GFP tag the targeted protein?
    A. Genetic engineering
    B. Acidulation
    C. Alkalization
    D. None of the above