

**PLANT MOLECULAR FARMING (BT- 613)**  
**MID-SEMESTER EXAM**

Date: 4<sup>th</sup> March 2018

Total Marks: 30  
Duration: 2 hrs

7+1 = 8/10  
10

**SECTION A (Tick mark the right answer for any ten questions)**

1. Leukotoxin fusion protein antigen vaccine for shipping fever is successfully farmed in following crops [1]  
(A) alfalfa (B) tobacco (~~C~~) white clover (D) corn
2. Golden rice grains accumulate excess of [1]  
(A) lycopene (B) vitamin E (~~C~~)  $\beta$ -carotene (D) provitamin A
3. Guttation phenomenon is more prevalent in following condition [1]  
(A) low root pressure (B) reduced transpiration  
(~~C~~) low water absorption (D) intense sunlight
4. Recombinant protein expression through chloroplast genome allows [1]  
(A) improper glycosylation  
(~~B~~) high yield of recombinant protein  
(C) risk of gene silencing  
(D) transgene polluting other plant species
5. Following plant organ provides increased stability of expressed recombinant protein [1]  
(A) roots (~~B~~) seeds (C) fruits (D) leaves
6. Efficient secretion of recombinant proteins from transformed plant cell suspension depends on [1]  
(A) appropriate targeting signal  
(B) permeability of the plant cell wall to macromolecules  
(~~C~~) all of the above  
(D) none of the above
7. Following host crop expressing a recombinant protein, allows minimal risk of polluting food or feed chain [1]  
(A) tomato (B) alfalfa (C) maize (~~D~~) tobacco
8. Following plant is best suitable for oral delivery of vaccines for foot and mouth disease [1]  
(A) alfalfa (B) spinach (~~C~~) white clover (D) banana
9. Recombinant proteins will be relatively unstable if they are expressed in [1]  
(A) corn (~~B~~) tobacco (C) soybean (D) cassava
10. Human lactoferrin expressed in plants are used for [1]  
(A) drug delivery (~~B~~) digest food lipids (C) vaccination (D) natural defense
11. Hirudin protein is a known [1]  
(A) collagen (B) digestive enzyme (~~C~~) anticoagulant (D) anti-bacterial agent
12. Following plant is ideal for production of low value recombinant proteins [1]  
(A) tobacco (B) spinach (C) white clover (~~D~~) tomato

Roll no: 174106006

Signature:



8  
10

7/10

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3. Guttation phenomenon is more prevalent in following condition  
(A) low root pressure    ☒ (B) reduced transpiration    (C) low water absorption    (D) intense sunlight    [1] ☒
4. Recombinant protein expression through chloroplast genome allows  
(A) improper glycosylation    ☒ (B) high yield of recombinant protein    (C) risk of gene silencing    (D) transgene polluting other plant species    [1] ☒
5. Following plant organ provides increased stability of expressed recombinant protein  
(A) roots    ☒ (B) seeds    (C) fruits    (D) leaves    [1] ☒
6. Efficient secretion of recombinant proteins from transformed plant cell suspension depends on  
(A) appropriate targeting signal    (B) permeability of the plant cell wall to macromolecules    ☒ (C) all of the above    (D) none of the above    [1] ☒
7. Following host crop expressing a recombinant protein, allows minimal risk of polluting food or feed chain  
(A) tomato    (B) alfalfa    ☒ (C) maize    (D) tobacco    [1] ☒
8. Following plant is best suitable for oral delivery of vaccines for foot and mouth disease  
(A) alfalfa    (B) spinach    (C) white clover    ☒ (D) banana    [1] ☒
9. Recombinant proteins will be relatively unstable if they are expressed in  
(A) corn    ☒ (B) tobacco    (C) soybean    (D) cassava    [1] ☒
10. Human lactoferrin expressed in plants are used for  
(A) drug delivery    ☒ (B) digest food lipids    (C) vaccination    (D) natural defense    [1] ☒
11. Hirudin protein is a known  
(A) collagen    (B) digestive enzyme    ☒ (C) anticoagulant    (D) anti-bacterial agent    [1] ☒
12. Following plant is ideal for production of low value recombinant proteins  
☒ (A) tobacco    (B) spinach    (C) white clover    (D) tomato    [1] ☒

Roll no: 140106009

ANUSUA SARKAR

Signature: Anusua Sarkar