

(4)

7. Describe the methods of gene regulation in eukaryote.

ÜkeäÜees cellpeere efvev\$eCe keär efedÜeeWkeä efleJ Ce oeppeJes

Unit-IV/FkeäF-IV

8. Write short notes on the following : 5½×2

efrecveeKele hej me#ehle efSheCeer efueeKeS :

(i) Transgenic Plants

Švmepesvkeä heeDe

(ii) Applications of tissue culture

efŠMet keäuÜej keä GheÜeesie

9. Describe the applications of Biotechnology in human welfare. 11

ceevele keäuÜeeCe cellveeÜeesŠkeäreesceper keär GheÜeesifete keä efleJ Ce efueeKeS-

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(Printed Pages 4)

Roll No. \_\_\_\_\_

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B.Sc. (Part-III) Examination, 2015

BOTANY

Second Paper

Molecular Biology and Biotechnology

Time Allowed : Three Hours ] [ Maximum Marks : 75

Note : Answer five questions in all. Question No. 1 is compulsory. Attempt one question from each Unit. Attempt all parts of a question together.

keäue heeDe efMveeWkeä Göej oeppeS- efMve me#1 DeefveeÜe&nw efÜkeä FkeäF&mes Skeä efMve keäeppeS- Skeä efMve keä meYee GheKeC[efWkeä Göej SkeämeeLe keäeppeS-

1. Write brief notes on the following : 10×3

efrecveeKele hej me#ehle efSheCeÜeeB efueeKeS

(i) DNA probes

[er. Sve. S. efeyme

(ii) Vitamin B

efleŠeeve B

(2)

- (iii) Reducing Sugars  
eġ [Ķetmelle Mekeġ eS]
  - (iv) Restriction enzymes  
j mŠkeġve SvpeeFme
  - (v) TATA Box  
ŠeŠe yekeġe
  - (vi) Lipids  
eġeġe [the
  - (vii) Plasmids  
hueġeġe [the
  - (viii) Okazaki Fragments  
Dekeġeġeġe KeC [
  - (ix) Holoenzyme  
nešveSvpeeFce
  - (x) DNA Polymerase  
[er Sve S heueeġeġe
- Unit-I / FkeġeF-I

5 1/2 x 2

2. Describe the following :  
eġeġeġeġe keġe eġeġeġe oeppeS :
- (i) Types of RNA  
Deġ. Sve. S. keġe ġeġeġe
  - (ii) Protein Synthesis  
ġeŠeġe meġueeġe

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(3)

- 3. Give an account of genetic code. 11  
peveŠkeġe keġeġe keġe eġeġeġe eġeġeġe  
Unit-II / FkeġeF-II
  - 4. Write notes on the following : 5 1/2 x 2  
eġeġeġeġe keġe heġ eŠheġeġeġe eġeġeġe :  
(i) Storage polysaccharide  
meġeġeġe heueeġeġeġe eF [
  - (ii) High energy compounds  
GŪe Tpeġe ġeġeġe
  - 5. Write short notes on the following : 5 1/2 x 2  
eġeġeġeġe keġe heġ eŠheġeġeġe eġeġeġe :  
(i) Mechanism of enzyme action.  
eġeġeġe keġe eġeġeġe
  - (ii) Effect of substrate on enzyme activity.  
meġeŠŠ keġe eġeġeġe keġe eġeġeġe eġeġe heġ ġeġeġe
- Unit-III / FkeġeF-III
- 6. Write notes on the following : 5 1/2 x 2  
eġeġeġeġe keġe heġ eŠheġeġe eġeġeġe :  
(i) Calcium and Calmodulin  
keġeġeġeġe Šġeġe keġeġeġeġeġe
  - (ii) Hormonal control of gene action.  
peve eġeġeġe keġe meġeġeġe eġeġeġeġe

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P.T.O.