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Roll No..... Total No. of Questions : 05

Total No. of Printed Pages : 02

**Code No. : B-291(A)**

**Annual Examination - 2017**

**B.Sc.-III**

**BIOCHEMISTRY**

**Paper-I**

**MOLECULAR BIOLOGY**

**Max.Marks : 50**

**Time : 3 Hrs.** **Min.Marks : 17**

¹¦ãq ß Zà¾u§ý ¢§ýà¢ y¦ ¥§ý ZàÎÂà Ñv §ýLâk¥ ñ ysã ZàÎÂàà §ý ¡§ý ytàÂà Ñ¦ ñ

**Note :** Attempt one question from each unit. All questions carry equal marks.

## Unit-I

ZàÎÂà - 1. yâÕàÂm â¹¦Âq½àã âvâh¥ :

¡) r) »¦ã.¥Âà.¥. §ýL ZàànâtÊ§ý yÊj Âàà

Write short notes on :

a) b) Primary structure of DNA

**OR**

âÂàÈÂàâvâhm §ýà ytlà¢¥ :

¡) áÊqãâ¹¦â¹¦w »¦ã.¥Âà.¥.

r) u§ýáÊuàâ¹¦§ý, ZààÊ§ýáÊuàâ¹¦§ý ¥w wà¢Êy kãÂàà t ¡ÂmÊ

y) »¦ã.¥Âà.¥. §ýL âõmãu§ý yÊj Âàà

Describe the following :

a) Repetitive DNA

b) Differences among Eukaryotic, Prokaryotic and viral genome

c) Secondary structure of DNA

**P.T.O.**

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**Note :** Attempt one question from each unit. All questions carry equal marks.

## Unit-I

*Tm*

ZàÎÂà - 1. yâÕàÂm â¹¦Âq½àã âvâh¥ :

¡) *Tm* r) »¦ã.¥Âà.¥. §ýL ZàànâtÊ§ý yÊj Âàà

Write short notes on :

a) b) Primary structure of DNA

**OR**

âÂàÈÂàâvâhm §ýà ytlà¢¥ :

¡) áÊqãâ¹¦â¹¦w »¦ã.¥Âà.¥.

r) u§ýáÊuàâ¹¦§ý, ZààÊ§ýáÊuàâ¹¦§ý ¥w wà¢Êy kãÂàà t ¡ÂmÊ

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Describe the following :

a) Repetitive DNA

b) Differences among Eukaryotic, Prokaryotic and viral genome

c) Secondary structure of DNA

**P.T.O.**

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## Unit-II

ZàÎÀà-2. »¡ã.¥Àà.¥. §ýt âÀàoàÊ½à §ýL yªàÊâwâo §ýà w½àÀà §ýLâk¥ ñ

Explain Sanger's method of DNA sequencing.

**OR**

§ýà¹¦ tàÂà ¥w y¹¦và¢¹¦ »¡ã.¥Àà.¥. ytlà¢¥ ñ

Explain cot-value and satellite DNA.

## Unit-III

ZàÎÀà-3. »¡ã.¥Àà.¥. q¡ÀàÊàwâÙà §ý ¥Âkà¢tà ¥w â§ýuàâwâo §ýà w½àÀà §ýLâk¥ ñ

Explain the enzymes of DNA replication and its mechanism.

**OR**

Zàà§ýáÊuà¹¦ t ¡ÀàvhÂà §ýà w½àÀà §ýLâk¥ ñ

Explain Transcription in prokaryotes.

## Unit-IV

ZàÎÀà-4. Zàà§ýáÊuà¹¦ t ¹¦àyvÎàÂà â§ýuàâwâo §ýà w½àÀà §ýLâk¥ ñ

Explain mechanism of translation in prokaryotes.

**OR**

kàÂà £½ZàÊ½à ¨uà Ñ? v§ý ¡àqÊàÂà §ýà ytlà¢¥ ñ

What is gene induction? Explain Lac operon?

## Unit-V

ZàÎÀà-5. áÊ§ýà0ÈrÂà¹¦ »¡ã.¥Àà.¥. m§ýÂàã§ýL §ý ¡ÀàZàuàªà âvâh¥ ñ

Write application of recombinant DNA technology.

**OR**

»¡ã.¥Àà.¥. áÊquÊ §ýà ytlà¢¥ ñ

Describe DNA repair.

---x---

(2) **Code No. : B-291(A)**

## Unit-II

ZàÎÀà-2. »¡ã.¥Àà.¥. §ýt âÀàoàÊ½à §ýL yªàÊâwâo §ýà w½àÀà §ýLâk¥ ñ

Explain Sanger's method of DNA sequencing.

**OR**

§ýà¹¦ tàÂà ¥w y¹¦và¢¹¦ »¡ã.¥Àà.¥. ytlà¢¥ ñ

Explain cot-value and satellite DNA.

## Unit-III

ZàÎÀà-3. »¡ã.¥Àà.¥. q¡ÀàÊàwâÙà §ý ¥Âkà¢tà ¥w â§ýuàâwâo §ýà w½àÀà §ýLâk¥ ñ

Explain the enzymes of DNA replication and its mechanism.

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