7. Write notes on any two of following: 11

(i) 2D-electrophoresis

(ii) Transcriptome

(iii) Microarray technology

evecveeueeKele ekeâvne oe hej eŠhheeCeÙee keâeepeS:

(i) 2D-peue FuekeŠeHeâe jememe

(ii) Ševmee>eâhŠece

(iii) ueleJÙen ØeeÅeeeiekeâe

Unit-IV / FkeâæF-IV

8. Define pharmacogenetics. Discuss the effects of genetic polymorphism on drug metabolizing enzyme system with an example. 11

Ye<epepeveeeevekeâe keÙee n? GheÙeòeâ GoenjCe me Dee<eeOe GheeheÛeÙee ekeâCJekeâ ØeCeeuee ce DeeveJeeMekeâ yen™helee keâ ØeYeeJe keâe eJeJeÛevee keâeepeS~

9. Write notes on any two of the following: 11

(i) Gene chips in disease profiling

(ii) Effect of SNPs on drug targets

(iii) Optimized drug therapy

evecveeueeKele ekeâvne oe hej eŠhheeCeÙee eueeKeS:

(i) Dee<eOe ue#Ùe hej DeeveJeeeMekeâ yen™helee keâe ØeYeeJe

(ii) jeie ØeeHeâeFeueie ce peeve eÛehme keâe ØeÙeeie

(iii) DeeehŠceeFp[[ie eLejhee

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Roll No. _____

S-668

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

GENOMICS

Paper-III

Time Allowed : Three Hours] ***[Maximum Marks : 75***

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

keâue heeÛe ØeMvee keâ Gòej oeepeS~ ØeMve me. 1 DeeveJeeÙe n~ ØelÙekeâ FkeâeF me Skeâ ØeMve keâeepeS~

1. Describe the following in brief : 3×10=30

evecveeueeKele keâe mee#ehle JeCeve keâeepeS :

(i) Genome size

peeveece Deekeâej

(ii) Proteome

ØeeeŠÙeece

(iii) Prokaryotic genome

ØeekeâejÙeeeŠkeâ peeveece

(iv) Linkage

menueivelee

(v) Gene mapping

peeve ceeveeÛe$eCe

(vi) Pseudogenes

keâšpeeve

(vii) Gene density

peeve levelJe

(viii) CpG islands

CpG Éehe

(ix) NCBI

Sve mee yee DeeF

(x) Single nucleotide polymorphisms

DeeveJeeMekeâ yen™helee

Unit-I / FkeâeF-I

2. What is genome? Differentiate between prokaryotic and eukaryotic genomes. 12

peeveece keÙee n? Øeekeâej ÙeeeškeâSJe ÙekeâejÙeeeškeâ peeveece keâ yeeÛe Delej mhe° keâeepeS~

3. Write notes on any two of following: 12

(i) Benefits of human genome project

(ii) Gene families and superfamilies

(iii) Mitochondrial genome

evecveeueeKele ekeâvne oe hej eŠhheeCeÙee eueeKeS:

(i) ¢eceve peeveece Øeepekeš keâ HeâeÙeo

(ii) peeve Heâeceuee SJe mehejHeâeceuee

(iii) me$ekeâeCekeâe peeveece

Unit-II / FkeâeF-II

4. Give an account of comparative genomics as an aid to study the human disease genes. 11

leueveelcekeâ peeveeecekeme keâe eJeJejCe keâeepeS, ¢eceve e[peepe peeve keâ mecyevOe ce eJeÛeej keâjve keâ eueÙe~

5. Write notes on any two of following: 11

(i) C-value paradox

(ii) Organization of genes in genomes

(iii) Conservation of genomes

evecveeueeKele ekeâvne oe hej eŠhheeCeÙee eueeKeS :

(i) mee-ceeve hej e[ekeme

(ii) peeveece ce peeve keâe meie"ve

(iii) peeveece mej#eCe

Unit-III / FkeâeF-III

6. Discuss the methods of prediction of gene and protein functions. 11

peeve SJe ØeeŠeve keâeÙe keâe YeeJe<ÙeJeeCee keâe eJemleej ce JeCeve keâeepeS~