7. Write notes on any two of the following:

ekeâvne oe hej eŠhheeCeÙee eueeKeS : 4 + 3½ = 7½

(i) RNA interference

Deej Sve S nmle#ehe

(ii) Translation is prokaryotes

Øeekeâej ÙeeŠme ce ŠevmeueMeve

(iii) Structure of nuclear pore complex.

vÙeekeueÙej heej keâecheuekeme keâe mejÛevee~

Unit-IV / FkeâæF-IV

8. What is oxidative Phosphorylation? Describe F_0-F_1 particle with the help of diagram. 7½

Deekemeekeâle heâemheâejekeâjCe keÙee n? F_0-F_1 keâCe keâe meeÜe$e JÙeeKÙee keâeepeS~

9. Write notes on any two of the following : 4½ + 3 = 7½

ekeâvne oe hej eŠhheeCeÙee eueeKeS :

(i) Endoplasmic Reticulum

Devle:õJÙee peeeuekeâe

(ii) Structure of Plasma membrane

hueepcee ePeuuee keâe mejÛevee

(iii) Cytoskeletion

keâeMeekeâkeâeue

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Roll No. _____

S-664

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

GENETICS & GENOMICS

Third Paper

(Basic Genetics)

Time Allowed : Three Hours] ***[Maximum Marks : 50***

Note : Answer Five questions in all. Question No. 1 is compulsory. Remaining questions to be answered should be one question from each Unit. Illustrate your answers with suitable diagrams.

keâue heeÜe ØeMvee keâ Gòej oeepeS~ ØeMve me. 1 DeeveJeeÙe n Me<e ØeMveeòej ØelÙekeâ FkeâeF me Skeâ ØeMve keâ ne~ Deheve Gòeje keâe GeÛele eÜe$ee Éeje mhe° keâeepeS~

1. Write short notes on the followings :

evecveeueeKele hej mee#ehle eŠhheeCeÙee eueeKeS : 2×10 = 20

(i) Chiasmata

keâeÙeepceše

(ii) Lysosome

ueeFmeemeece

(iii) Law of segregation
heLekekeâjCe keâe eveÙece

(iv) Centromere
mevšeceeÙej

(v) t-RNA
še-Deej Sve S

(vi) Codon
keâe[eve

(vii) Polytene Chromosome
heeueeševe ieCeme$e

(viii) Mitotic spindle
meceme$ee lekeâ

(ix) DNA polymerase
[e Sve S heeueeecejpe

(x) Okazaki fragments
Deekeâepeekeâe KeC[

Unit-I / FkeâeF-I

2. Describe the mechanism of sex determination in drosophila and mammals. 7½
[emeeeheâuee SJe mleveOeeejÙee ce eueie eveOeejCe keâe Øee>eâÙee keâe JeCeve keâeepeS~

3. Write notes on any two of the following : 4 + 3½ = 7½
evecve ce ekeâvne oe hej ešhheeCeÙee eueeKeÙe :
(i) Mendel's law of Independent assortment.
ce[ue keâe mJelev$e DeheJÙenve keâe eveÙece

(ii) Molecular mechanism of Development.
meJeOeve keâe DeeCeeJekeâ e>eâÙeeeJeeOe

(iii) Crossing over.
peeve eJeeveceÙe

Unit-II / FkeâeF-II

4. Give an account of the structure, chemical composition & type of DNA. 7½
[e.Sve.S. keâe mejÛeveelcekeâ, jemeeÙeevekeâ meÙeepeve SJe Øekeâejeeâe JeCeve keâeepeÙe~

5. Write note on any two of the following:
evecveeueeKele ce ekeâvne oe hej ešhheeCeÙee eueeKeS:
4 + 3½ = 7½
(i) Semiconservative method of DNA replication
[e.Sve.S. Øeelekeâele eveceeCe keâe Deæmej#eCe Øee>eâÙee
(ii) Meiotic division of cells
keâeeMekeâeDee keâe DeOeme$ee eJeYeepeve
(iii) Different types of RNA.
Deej Sve S keâ eJeeYeVe Øekeâej~

Unit-III / FkeâeF-III

6. Explain Lac Operon model of gene regulations in prokaryotes. 7½
Øeekeâejeeše ce peeve eveÙeceve keâ uekeâ-Deehejeve cee[ue keâe JeCeve keâeepeÙe~