7. Write notes on the following : 4+3½

(i) Bacterial transformation

(ii) Phototrophic bacteria

evecveeueeKele hej eŠhheeCeÙee eueeKeÙe :

(i) peeJeeCe ™heevlejCe

(ii) HeâeŠeŠeeHeâkeâ peeJeeCe

Unit-IV / FkeâeF-IV

8. Describe the various spore forms produced in the life cycle of fungi causing rusts and smuts. jmš SJe mceš GlheVe keâjve Jeeue keâJekeâe keâ peeJeve Ûe>eâ ce yeveve Jeeue yeepeeCeDee keâe heCe eJeJejCe oeepeÙe~ 7½

9. Differentiate between the following : 4+3½

(i) Agaricus and Polyporus

(ii) Asexual reproduction in Albugo and Aspergillus

evecveeueeKele keâ ceOÙe Devlej yeleeFÙe :

(i) Sieejkeâme SJe heeueehee jme

(ii) SueyÙeiee SJe Smhejepeueme ce Deueeiekeâ Øepeveve

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S-631

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

BOTANY

First Paper

(Diversity of Viruses, Bacteria and Fungi)

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

Note : Answer five questions in all. Question No.1 is compulsory and carries 20 marks. Attempt one question from each unit. These questions carry 7½ marks each. All parts of a question should be attempted together. keâue heeÙe ØeMvee keâ Gòej oeepeS~ ØeMve me.1 DeeveJeeÙe n SJe 20 Dekeâe keâe n~ ØelÙekeâ FkeâeF me Skeâ ØeMve keâeepeS~ Fvece ØelÙekeâ ØeMve 7½ Dekeâe keâe n~ Skeâ ØeMve keâ meYee Yeeie Skeâ meeLe keâeepeS~

1. Write brief notes on : 10×2=20

evecveeueeKele hej mee#ehle eŠhheeCeÙee eueeKeÙe :

(i) Apothecium

SheeLeeemeÙece

(ii) Hfr bacteria

Hfr peeJeeCe

(iii) Circulative virus transmission

eJe<eeCeDee keâe heejÛeeeueIe heejieceve

(iv) Pasteurization

heemÛejekeâjCe

(v) Nutrient agar

hee<ekeâ Sieej

(vi) Sporodochium

mheejeÙeeKeâÙece

(vii) Viroid

JeeÙejeS[

(viii) Bacterial genome

peeJeeCeDee keâe Øeehe$ekeâ

(ix) Bacteriophage

peeJeeCeYeepee

(x) Enation

FveMeve

Unit-I / FkeâeF-I

2. Draw a typical bacterial cell and describe the functions of its various cell components. 7½

Skeâ Øe™hee peeJeeCe keâeeMekeâe keâe eÛe$e yeve e IeLee Gmekeâ eJeeYeVe meIeškeâ Yeeiee keâ keâeÙee keâe eJeJejCe oeepeÙe~

3. Write notes on : 4+3½

(i) Structure of plant virus particles

(ii) Economic importance of fungi

evecveeueeKeIe hej eš hheCee eueeKeÙe :

(i) heeohe eJe<eeCeDee keâe mejÛevee

(ii) keâJekeâe keâ DeeeLekeâ cenIJe

Unit-II / FkeâeF-II

4. Describe the genome and replication of the tobacco mosaic virus. 7½

šeyekeâe ceepeFkeâ eJe<eeCe keâ Øeehe$ekeâ S Gmekeâ ieCeve keâe eJeJejCe oeepeÙe~

5. Write notes on : 4+3½

(i) ELISA

(ii) Visualization of plant viruses by transmission electron microscopy.

evecveeueeKeIe hej eš hheeCeÙee eueeKeÙe:

(i) ELISA

(ii) heeohe eJe<eeCeDee keâe šeemceMeve FuekeŠeve Éeje Âe° ieIe keâjvee

Unit-III / FkeâeF-III

6. Describe the role played by bacteria in the nitrogen cycle. 7½

veeFšepeve Ûe›eâ ce peeJeeCeDee keâe Yeecekeâe keâe eJeJejCe oeepeÙe~