This question paper contains 4 printed pages]

Your Roll No .....

1031

B.Sc. (Hons.)/II C

MICROBIOLOGY Paper VII

(Algae and Fungi)

(Admissions of 2004 and onwards)

Time : 3 *Hours* *Maximum Marks* : 60

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt *five* questions in all,

selecting at least *two* questions from each Section.

All questions carry equal marks.

Section A

1. (a) Discuss the various types of reserve food materials in algae of different classes studied by you. 5

(b) Define the following terms (any *seven*) : 7×1=7

(*i*) Auxospore

(*ii*) Synzoospore

P.T.O.

(*iii*) Amylum stars

(*iv*) Coenobia

(*v*) False branching

(*vi*) Palmella stage

(*vii*) Spermocarp

(*viii*) Girdles

2. Differentiate between the following (any *four*) : 4·3=12

(*i*) Carposporophyte and Tetrasporophyte

(*ii*) Heterocyst and Akinete

(*iii*) Macrandrous and Nannandrous forms

(*iv*) Plurilocular and Unilocular sporangia

(*v*) Haplontic and Diplontic life cycle

3. (*a*) Discuss the development of globule in *Chara*. 5

(*b*) Illustrate with the help of suitable well-labelled diagrams only, the stages involved in any *two* of the following :

(*i*) Scalariform conjugation in *Spirogyra*

(*ii*) Cap formation in *Oedogonium*

(*iii*) Life cycle of *Acetabularia*. 2·3=6

(*c*) Give an example of an alga used in food industry. 1

Section B

4. (*a*) Classify and write the economic importance of the following genera (any *three*) :

(*i*) *Fusarium*

(*ii*) *Albugo*

(*iii*) *Neocallimastix*

(*iv*) *Erysiphe* 3×3=9

(*b*) With the help of suitable diagrams explain clamp formation in Basidiomycetes. 3

5. (*a*) Define the following terms giving a suitable example (any *five*) : 5×2=10

(*i*) Dimorphism

(*ii*) Phragmobasidium

(*iii*) Paraphyses

(*iv*) Capillitium

(*v*) Holocarpic

(*vi*) Perithecium

(*b*) Give an example of the following (any *two*) : 2×1=2

(*i*) Unicellular fungus

(*ii*) Biotroph

(*iii*) Edible fungus

6. Differentiate between any *three* of the following : 4×3=12

(*i*) Acervulus and Apothecium

(*ii*) Zoospore and Zygospore

(*iii*) Protoplasmodium and Aphanoplasmodium

(*iv*) Homothallic and heterothallic fungus

(*v*) Crustose and fruticose lichens