

30/9/15

VCD / / BIOCHEMISTRY- II- F.Y.B.S.c-SEM II - 75 MARKS - 2 1/2 HRS 25**Note:** 1. Figures to right indicate marks.

2. All questions are compulsory.

3. Draw appropriately labeled diagrams wherever necessary.

Q I) A. Explain the following (any Four)

[8]

- i. Chromatin fiber.
- ii. Kinetochore
- iii. Equational division
- iv. G₀ phase of cell cycle.
- v. During meiosis in which sub-stage can observed?
- vi. Sat chromosome.
- vii. Sister chromatid
- viii. Synaptonemal complex

B. Explain the following terms: (any Two)

[6]

- i. Write short note on nucleolus?
- ii. Write down the characteristics of G₁- phase of cell cycle?
- iii. How dose meosis cell division help in evolution?
- iv. State difference between metaphase I and metaphase II of meosis cell division.

C. Write Short note on: (any One)

[6]

- i. Meosis I ii. Nuclear membrane and nucleolus .

Q II) .A. Explain the following terms : (Any Four)

[8]

- i. Juxtramedullary nephron
- ii. Endopeptidase
- iii. How does rennin help in protein digestion?
- iv. State the unique nature of glomerular capillary.
- v. What is glomerulus filtration co-efficient?
- vi. Which type of cell present in descending limb of squamous epithelium?
- vii. Glycosidic enzyme.
- viii. Distal convoluted tubule

B. Explain the following: (Any Three)

[6]

- i. Describe the structure of Glomerular membrane.
- ii. Describe the digestion of lipid in stomach.
- iii. Note on Na⁺ dependendent glucose transporter.
- iv. Briefly describe water reabsorption during urine formation

C. Describe in brief :(Any One)

[6]

- i. Absorption of protein. ii. Reabsorption and secretion in proximal tubule.

Q III] A. Answer the following questions: (Any Four)

[8]

- i. Name the two groups present in dyes.
- ii. Name the enzyme utilized in PCR derived from from T.aquaticus.
- iii. Give two examples of simple stains.
- iv. Name any 2 of microorganisms which belong to Heterotrophs.
- v. What is the difference between bacteria and a pathogenic bacteria?
- vi. Peritrichous bacteria?
- vii. What are autotrophic microbes?
- viii. Draw the microbial growth curve in a closed system.