



RAN - 2203000205026003

**RAN-2203000205026003**

**B.Sc. Microbiology (Sem. V) Examination October - 2023**

**Microbiology : Paper - MB-503**

**Microbial Metabolism**

**Time: 2 Hours ]**

**[ Total Marks: 50**

**સૂચના : / Instructions**

(૧)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.

**Fill up strictly the details of signs on your answer book**

Name of the Examination:

**B.Sc. Microbiology (Sem. V)**

Name of the Subject :

**Microbiology : Paper - MB-503  
Microbial Metabolism**

Subject Code No.: **2203000205026003**

Seat No.:

--	--	--	--	--	--

Student's Signature

- (2) Figures to the right indicate full marks of the question.  
(3) Draw neat and labelled diagrams whenever necessary.

**Q.1 Give Specific answers:**

**08**

- Give full forms of ATP & ETC.
- What carbon source is utilized by Cyanobacteria?
- Give the meaning of the term Phototroph.
- What is entropy?
- Mention the types of lactic acid fermenters.
- What are the most common terminal electron acceptors used in anaerobic respiration?
- What is the first step of amino acid catabolism?
- Give function of RuBisCO.

- Q. 2 Explain/comment on any two of the following 14**
- Fermentation differs from aerobic respiration.
  - Anoxygenic phototrophs are unable to produce  $O_2$  from  $H_2O$ .
  - ETC involves different carriers.
- Q. 3 Discuss any two of the following. 14**
- Discuss the reductive TCA cycle.
  - Explain lactic acid fermentation in detail.
  - Differentiate between chemolithotrophs and phototrophs.
- Q. 4 Write short notes on any two of the following. 14**
- ATP as a coupling agent
  - Carbohydrate catabolism
  - Significance of phototrophs
-