

SURENDRANATH COLLEGE

INTERNAL ASSESSMENT

SEMESTER-1, 2018-19

SUBJECT- MCBA

CC-2

Time- 2Hr.

Full Marks-50

CU Reg. No.-	SECTION-	ROLL NO.-
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MARKS OBTAINED	Signature of Examiner- With date
MARKS CONVERTED TO 10	Approved by HOD- With date

Question Booklet

<p><u>Answer any twenty questions:-</u></p> <ol style="list-style-type: none"> 1. On the basis of electron requirements how do we classify microbes? 2. Why do bacteria require vitamins? 3. Distinguish between Photographs and chemotrophs. 4. What was the basis of Whitaker's five kingdom concept? 5. Name the gene relevant to modern Taxonomy. 6. What are the different domains of life in modern day Taxonomy 7. What is a phylogenetic tree? 8. Who is the discoverer of microscope? 9. What is empty magnification? 10. What is the wavelength of electron in Electron microscope? 11. What is scanning electron microscope (SEM)? 12. What are the major three groups of archaebacteria? 13. What is crenarcheol? 14. Name two gram negative methanobacterium? 15. What is optimum pH and temperature of <i>Thermoproteus</i> spp. 16. What are extreme halophiles? 17. What is integral protein? 18. What is peripheral protein? 19. What is nucleoid? 20. What kind of ribosome is found in prokaryotic cell? 21. How many subunits are found in 70S ribosome? 22. What is protoplast and sphaeroplast? 23. Name an antibiotic that inhibits the cell wall synthesis of a growing bacterium? 24. What is the function of Transpeptidase enzyme? 25. How does lysozyme cleave the bacterial wall? 	20x1=20
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Answer any three:-

3x10=30

1. What is the aberration of microscope? Write down two name of aberration in microscope. Write down the two differences between light microscope and electron microscope. What is resolving power of microscope? A microscope has 10X eyepiece lens power and 45X objective lens power what is the magnification of the lens? What is the relation of magnification of a compound microscope with the focal length of objective lens and eyepiece lens?

1+2+2+2+1+2

2. What is Taxonomy? What do you mean by polyphasic bacterial Taxonomy? Discuss the things we take into account while preparing polyphasic bacterial taxonomy. Write the differences between eubacteria and archaebacteria.

2+2+3+3

3. i. Define the following: 1X4

- a) Heterotrophs
- b) Enrichment medium
- c) Complex medium
- d) Indicator medium

ii. Distinguish between: 2X2

- a) Disinfection and sanitisation
- b) Bactericide and bacteriostatic

iii. Name 4 chemicals that are used for microbial control $\frac{1}{2}$ X4=2

4. What are extreme halophiles? Name two pigments of cyanobacteria. What is akinetes? Name two common eubacteria. Give example of hyperthermophile bacteria family? Name two better studied genera of crenarcheota? Name two pigments of cyanobacteria. Define Gamma Proteobacteria and give an example.

1.5+1+1+1.5+1+1+2+1

5. What are the differences between Archaeal and bacterial cell membrane? Describe the mechanism; why Gram positive bacteria retain the color of crystal violet while Gram negative bacteria retain Safranin color? Describe the differences between Prokaryotic and Eukaryotic cell? What is spore? Give an example of spore forming bacteria?

2+3+3+1+1

Answer

<i>Q No.</i>	<i>Answer</i>
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