

S. P. College , Chandrapur.
MODEL EXAM- 2016
Microbiology (Part I)Sem II Paper I

Time : 3 hrs

Max marks : 50

Note : All questions are compulsory and carry equal marks.

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|-----------|---|------------------------|
| 1 | Classify lipids with suitable examples. Add a note on significance of lipids | 10 |
| OR | | |
| 2 | Discuss different structural levels of proteins.
Discuss various nutritional requirements of micro-organism in detail. | 10
10 |
| OR | | |
| 3 | Describe growth curve and its phases. | 10 |
| a | Draw ring structure of glucose and fructose. | 2 1/2 |
| b | Write short note on peptide bond. | 2 1/2 |
| c | Why blood agar is differential as well enriched media. | 2 1/2 |
| d | Write short note on Breed's method. | 2 1/2 |
| OR | | |
| e | Write short note on phospholipids. | 2 1/2 |
| f | Give the structure of lysine, arginine and tryptophan. | 2 1/2 |
| g | What are non-synthetic media? Explain. | 2 1/2 |
| h | Give difference between synchronous and continuous culture. | 2 1/2 |
| 4 | Explain various physical conditions required for growth. | 2 1/2 |
| a | Describe in short structure of DNA. | 2 1/2 |
| b | Write short note on selective media. | 2 1/2 |
| c | Derive mathematical expression of growth. | 2 1/2 |
| OR | | |
| e | Give biological significance of carbohydrates. | 2 1/2 |
| f | Give the structure of mRNA. | 2 1/2 |
| g | Classify bacteria on the basis of carbon requirement. | 2 1/2 |
| h | Write short note on Helmstetter - Cumming's apparatus | 2 1/2 |
| 5 | Answer any 10 | |
| a | Give two examples of homopolysaccharides and heteropolysaccharides. | 1 |
| b | What are dextro-rotatory compounds. Give examples. | 1 |
| c | What is hemiacetal? | 1 |
| d | Define essential amino acids. | 1 |
| e | What is cccDNA? | 1 |
| f | Give two examples of phototrophs | 1 |
| g | What are trace elements? | 1 |
| h | Define autotrophs. | 1 |
| i | What is the role of peptone in nutrient media? | 1 |
| j | Define psychrophiles. | 1 |
| k | Define generation time. | 1 |
| l | What is 16s RNA? Give its significance. | 1 |

ALL THE BEST