

PARUL UNIVERSITY
PARUL INSTITUTE OF APPLIED SCIENCES
MID SEMESTER INTERNAL EXAMINATION, Summer 2020
B. Sc. Semester II

Subject: Microbiology

Paper Code: 11101154

Title of the paper: Basic Principles of microbiology

Date: 4/3/2020

Time: 10:00 am

Maximum Marks: 40

Instructions:

- 1. All questions are compulsory and options are given in first and second question only.**
 - 2. Numbers to the right of question indicate the marks of respective question.**
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Q. 1 Attempt any one question of the following. **(08)**

- (i) Describe the differences between the various modes of cell division in bacteria
- (ii) Explain Pure culture Techniques in detail

Q. 2 Attempt any three questions of the following. **(12)**

- (i) Write a short note on Pasteurization.
- (ii) Describe characteristics of an ideal disinfectant.
- (iii) Write a short note on sterilization by physical agents
- (iv) Write a short note on sterilization by chemical agents
- (v) Short note on filtration

Q. 3 Do as directed. Attempt all five questions. **(05)**

- (i) Define Differential media
- (ii) Define Enrichment media
- (iii) Define Synthetic media
- (iv) Define antiseptic
- (v) Define sterilization

Q. 4 Write correct option in your answer sheet for following 15 multiple choice questions. **(15)**

MCQ 1 The cell reproduction in bacteria may occur by

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|--------------------|----------------------|
| (A) binary fission | (B) budding |
| (C) fragmentation | (D) All of the above |

MCQ 2 Which method of gene transfer involves direct contact between the bacteria?

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|------------------|----------------------|
| (A) Conjugation | (B) Transformation |
| (C) Transduction | (D) All of the above |

MCQ 3 The transfer of genetic material from one bacterium to another via virus is called

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|------------------|--------------------|
| (A) Conjugation | (B) Transformation |
| (C) Transduction | (D) None of these |

MCQ 4 The uptake of DNA fragments from surroundings by a bacterium is termed as

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|------------------|--------------------|
| (A) Transduction | (B) Transformation |
|------------------|--------------------|

- MCQ 5 (C) Conjugation (D) None of these
Bacteria reproduce vegetatively by
(A) Conjugation (B) Transformation
(C) Budding (D) None of these
- MCQ 6 The cocci which mostly occur in pairs are
(A) Streptococci (B) Diplococci
(C) tetracocci (D) None of these
- MCQ 7 The cocci which forms a bunch and irregular pattern are
(A) *Staphylococci* (B) Diplococci
(C) *Tetracocci* (D) *Streptococci*
- MCQ 8 The common word for bacteria which are spherical in shape is
(A) Cocci (B) Bacilli
(C) Spirilla (D) Pleomorphic
- MCQ 9 _____ contains the single species of organisms.
(A) Mixed culture (B) Pure culture
(C) Stock culture (D) None of the above
- MCQ 10 The bacilli which forms a chain pattern are
(A) *Streptobacilli* (B) diplobacilli
(C) Tetrabacilli (D) *Streptococci*
- MCQ 11 Which microorganism(s) is/are responsible for photosynthesis in the aqueous environment?
(A) virus (B) cyanobacteria
(C) algae (D) B and C both
- MCQ 12 Identify the term that can describe a disinfectant that can inhibit the growth of fungi:
(A) Fungicidal (B) Fungisepsis
(C) Fungistatic (D) Fungigenic
- MCQ 13 Which of the following is best to sterilize heat labile solutions?
(A) Dry heat (B) Autoclave
(C) Membrane filtration (D) Pasteurization
- MCQ 14 Lag phase is also known as_____
(A) period of initial adjustment (B) exponential period
(C) generation time (D) none of these
- MCQ 15 Identify the term that describes a disinfectant that can kill bacteria
(A) Bactericidal (B) Bacteriostatic
(C) Pathogenic (D) all of these

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