BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END-SEMESTER EXAMINATION)

CLASS: BPHARM **SEMESTER: V**
BRANCH: PHARMACY **SESSION: MO/2019**

SUBJECT: BP303T PHARMACEUTICAL MICROBIOLOGY

TIME: 3.00 Hours **FULL MARK: 75**

INSTRUCTIONS:

1. **The missing data, if any, may be assumed suitably.**
2. **Before attempting the question paper, be sure that you have got the correct question paper.**
3. **Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.**
4. **This question paper consists of (03) three parts. Read the part wise instructions before attempting the questions.**

PART-I
Objective types questions (Instruction: Answer all questions)

Q1. (10 x 2 = 20 Marks)

A. What do you mean by conserved domain?

B. What do you mean by orthologs?

C. Name any gram +ve and Gram -ve bacteria?

D. Which type of ribosomes are present in prokaryotes?

E. What is chemical composition of cell wall of gram +ve and gram -ve bacteria?

F. Which enzyme converts hydrogen peroxide into water?

G. Which organism is used as biological indicator for the validation of dry heat sterilization?

H. Which diluent is used according to IP for the sterility test of ointments & creams?

I. Which fungus causes the black wart disease of potato?

J. What do you mean by antiseptic?

PART-II
Short Answers
(Instruction: Answer seven out of nine questions)

(7 x 5 = 35 Marks)

Q1. Summarize the physical parameters affecting growth of bacteria.
Q2. Classify culture media and explain about selective and differential media in detail.
Q3. Explain the spread plate method in detail.
Q4. What do you mean by indole production test and also explain its process in detail?
Q5. Summarize the various types sterilization methods generally employed using moist heat as a physical agent for sterilization.
Q6. Explain the various indicators used for validation of radiation sterilization.
Q7. Explain the lytic life cycle of virus in detail.
Q8. What do you mean by preservation of bacterial cultures? Explain the various types of preservation techniques used in microbiology in detail.
Q9. Outline the factors for rate of disinfection and discuss any one factor in detail.

PART-III
Long Answers
(Instruction: Answer two out of three questions)

(2 x 10 = 20 marks)

Q1. Discuss the methods of sterility testing in detail.
Q2. Discuss one level microbiological assay of antibiotics in detail.
Q3. Classify disinfectants and discuss its mode of action in detail.

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