

SEAT No. _____

No. of Printed Pages : 2

[A-11]

SARDAR PATEL UNIVERSITY
B.Sc.(4th Semester) EXAMINATION 2018
Monday, April 9th, 2018
10:00 a.m. TO 1:00 p.m.
SUBJECT: MICROBIOLOGY US04CMIC01
(Fundamentals of Microbiology)

Maximum Marks: 70

Q.1. Each question below gives a multiple choice of answers. Choose the most appropriate one. [10]

1. Which of the following capsulated bacteria is responsible for dental caries?
(a) *Lactobacillus bulgaricus* (b) *E.coli*
(c) *Corynebacterium diphtheriae* (d) *Streptococcus mutan*
2. The stomach usually contains a very low count of bacteria due to _____.
(a) Neutral pH (b) High pH
(c) Low pH (d) Inhibitory action of bile
3. _____ among the following is air borne disease.
(a) Tuberculosis (b) Cholera
(c) Syphilis (d) Malaria
4. Which of the following is used to prevent vortex formation in fermenter?
(a) Sparger (b) Agitator
(c) Baffle (d) DO probe
5. Which of the following instrument works on the principle of saturated steam under pressure?
(a) Autoclave (b) Steam Arnold
(c) Hot Air Oven (d) Pasteurization
6. An agent that kills growing forms of disease producing microorganism is called _____.
(a) Sterilizer (b) Disinfectant
(c) Sanitizer (d) Antiseptic
7. Which of the following has largest microbial population in human body?
(a) Skin (b) Large intestine
(c) Eye (d) Stomach
8. Botulinum toxin is classified as _____.
(a) Neurotoxin (b) Cytotoxin
(c) Enterotoxin (d) Leukocidin
9. Which of the following is a method of disinfection and not sterilization?
(a) Steam under pressure (b) Hot air oven
(c) Pasteurization (d) Tyndallisation

CPs To O.)

10. Evaporation of droplets in warm, dry climate results in to which of the following?
 (a) Spore nuclei (b) Droplet nucei
 (c) Infectious nuclei (d) Air nuclei
- Q-2 Give Short Answers to Following Questions (Any six) [12]**
1. Why lower respiratory track does not have normal flora? Justify.
 2. Write about antiphagocytic factor with at least one example.
 3. Define (a) Droplet (b) Droplet nuclei
 4. Enlist at least four characteristics of industrially important microorganisms.
 5. Define (a) Thermal Death Point (b) Decimal Reduction Time
 6. Define (a) Sanitizer (b) Antiseptic
 7. What is Bordeaux mixture? What is its significance?
 8. Write about desiccation to control the microorganisms.
- Q-3 [A] Write a note on- Normal flora of skin [04]**
[B] Write a note on- Normal flora of gastrointestinal track. [04]
 OR
- Q-3 Define gnotobiotic life? Discuss in detail about process of rearing germ free animals with their uses. [08]**
- Q-4 [A] What do you mean by natural resistance? Discuss about racial resistance and individual resistance in detail. [04]**
[B] Write a note on-Active and Passive penetration. [04]
 OR
- Q-4 [A] Differentiate between endotoxin and exotoxin. [04]**
[B] Write a note on-Species resistance [04]
- Q-5 [A] Enlist various methods to control air born microorganisms and discuss any two methods in detail. [04]**
[B] Write a note on- Significance of Microflora in air. [04]
 OR
- Q-5 Write a detail note on- Enumeration of Air microflora. [08]**
- Q-6 [A] Explain basic design of fermentar with neat and labeled diagram. [04]**
[B] Write a note on-Role of microorganisms in industry. [04]
 OR
- Q-6 Enlist major classes of fermentation products and discuss about fermentative production of Ethanol (Alcohol). [08]**
- Q-7 [A] Discuss various factors influencing action of antimicrobial agents. [04]**
[B] Write a note on- Filtration as a sterilizing agent. [04]
 OR
- Q-7 Justify- Moist heat is better than dry heat. Discuss the role of temperature as an antimicrobial agent. [08]**
- Q-8. Discuss in detail Mode of action and Practical applications of (a)Gaseous agents (b) Halogen compounds [08]**
 OR
- Q-8 Write a detail note on-Evaluation of antimicrobial chemical agents. [08]**

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