



NAW-003-038203 Seat No. _____

B. Voc. (MLMDT) (Sem. II) (CBCS) Examination

March / April - 2017

MLMDT - 2.3 : General Microbiology

Faculty Code : 003

Subject Code : 038203

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory.
(2) The paper is divided in two sections.
(3) Figures on right indicate marks

SECTION - I

1 Answer the following : **20**

- (1) Define capsule of bacteria. Give one example of bacteria with capsule.
- (2) What are metachromatic granules?
- (3) What do you mean by amphitrichous flagella? Draw the structure.
- (4) Give two examples of gram negative bacteria.
- (5) Name the endospore forming bacteria.
- (6) In which phase of growth curve the bacteria are actively dividing?
- (7) For continuous culture Turbidostat device is used.
(True/ False)
- (8) Define phototrophs.
- (9) An organism having 25°C minimum, 37°C optimum and 40°C maximum temperature is _____.
(Mesophile/ Thermophile)

- (10) Moist heat sterilization is carried out at _____ temperature and pressure.
- (11) Define antiseptic agents. Give one example.
- (12) Give examples of cold sterilization method.
- (13) Mode of action of streptomycin is protein synthesis inhibition. (True/ False)
- (14) Give two examples of differential media.
- (15) Mordant used in Gram staining is _____.
- (16) _____ is used for the collection of samples from alimentary canal. (Intubation/ Swab)
- (17) Sharp wastes are discarded in _____ colored bags.
- (18) Full form of GPCB.
- (19) As per CDC criteria, the specimen should be collected _____ administration of antimicrobial agents. (before/after)
- (20) Define Generation time.

SECTION - II

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| 2 | <p>(A) Answer specifically : (Any 3)</p> <ol style="list-style-type: none"> (1) Enlist the structures found outside the cell wall of bacteria. (2) Define: Thermal Death Time, Decimal reduction time. (3) What is thermophile and psychrophile? (4) Define facultative anaerobes and obligatory anaerobes. (5) Enlist the methods of isolation of bacteria. (6) Define CFU on agar plate. | 6 |
| | <p>(B) Answer specifically : (any 3)</p> <ol style="list-style-type: none"> (1) Enlist nutritional types of bacteria. (2) Write a note on turbidostat. | 9 |

- (3) Write a note on alcohol as disinfectant.
- (4) Differentiate between gram positive and gram negative bacteria.
- (5) Write the mode of action of penicillin.
- (6) Discuss selective media.

(C) Write short notes : (Any 2) **10**

- (1) Discuss radiation as sterilizing agent.
- (2) Write a note on bacterial flagella.
- (3) What are the different colony characteristics of bacteria?
- (4) Write selective methods for pure culture
- (5) Give detailed outline on categories of biomedical wastes as per government of India.

3 (A) Answer specifically : (Any 3) **6**

- (1) Define: Protoplast
- (2) Name any two culture collection centre.
- (3) What is pasteurization?
- (4) Write the applications of gases agents as disinfectant.
- (5) Write about the color codes of biomedical waste containers.
- (6) What is catheter? Write its use.

(B) Answer specifically : (Any 3) **9**

- (1) Write the principle of acid fast staining.
- (2) Explain the sterility testing in autoclave.
- (3) Write a note on nutritional classification of microbes.
- (4) Write about arrangements of Bacteria

- (5) Explain Intubation technique of specimen collection.
- (6) Enlist the steps of Gram staining.

(C) Write short notes : (Any 2) **10**

- (1) What are the various methods of sample or specimen collection?
 - (2) Discuss in growth curve of bacteria.
 - (3) Write a note on techniques of preservation of pure culture.
 - (4) Describe in detail transport of specimen.
 - (5) Write a note on Streptomycin and Tetracycline.
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