

(8 pages)

Reg. No. :

Code No. : 6512

Sub. Code : ZMBM 32

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Third Semester

Microbiology – Core

MEDICAL AND PHARMACEUTICAL
MICROBIOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

- Each of the following organisms is an important cause of urinary tract infections, Except.
 - Klebsiella pneumoniae*
 - Escherichia coli*
 - Bacteriodes fragilis*
 - Proteus mirabilis*

- All, except one, are the examples of protein present in the antigenic structure of *N. gonorrhoeae*.
 - Por proteins
 - Rmp proteins
 - Opa proteins
 - IgM proteins
- Which of the following Dermatophytes does not have the spore form characteristic called microconidia?
 - Microsporium spp*
 - Epidermophyton spp*
 - Trichophyton spp*
 - Blastomyces spp*
- The most common of the human infecting malarial parasite is?
 - Plasmodium ovale*
 - Plasmodium vivax*
 - Plasmodium falciparum*
 - Plasmodium malariae*

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- What is the major mode of transmission of dengue fever?
 - Bite of male *Culex* mosquito
 - Bite of female sand fly
 - Bite of the female *Aedes* mosquito
 - Bite of female *Anopheles* mosquito
- Which of the following is an emerging infection with the greatest global impact?
 - H1N1 infection
 - SARS covid 2
 - Human papilloma virus infection
 - Both (a) and (b)
- The "Rideal walker coefficient is used to identify the strength of a
 - Antiseptic
 - Antibiotic
 - Antiviral
 - All of the above

- Halogens are known irritants, the only halogen used for "Disinfection" is _____
 - Iodine
 - Chlorine
 - Bromine
 - Fluorine
- Membrane filtration method can be used for sterility testing of _____
 - Ophthalmics
 - Parenterals
 - Antibiotics
 - All of the above
- The chairman of Indian Pharmacopoeial commission is _____
 - Chairman – Scientific body
 - The drugs controller general
 - Directorate general of health services
 - The secretary, Ministry of health and family welfare.

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[P.T.O.]

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Write short note on
(i) shigellosis
(ii) Gonococcus
Or
(b) Make a note on rotaviral diarrhea.
12. (a) Explain different pathological conditions caused by Dermatophytic fungi.
Or
(b) Portray the clinical manifestations of rabies.
13. (a) Record about the pathogenesis and diagnosis of Chikungunya.
Or
(b) Sketch a note on epidemiology and clinical conditions of Zika.
14. (a) What are the selection criteria followed to select disinfectants? Add note on disinfection Kinetics.
Or
(b) Comment the following :
(i) Rabbit pyrogen test
(ii) Invitro pyrogen test

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18. (a) Describe briefly about H1N1 influenza.
Or
(b) Write an essay on SARS – Covid 2 variants and mutations and Add note on impact of variants on diagnosis.
19. (a) Differentiate between disinfectants and antiseptics. How does it destroy the micro organisms. List out the types of disinfectants and antiseptics.
Or
(b) Explain the sterility and toxicity testing of pharmaceutical products.
20. (a) Explain the importance of the following
(i) BP
(ii) IP
(iii) EP
(iv) USP

Or

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15. (a) Describe the sterility testing of parental products.

Or

- (b) What are the culture media used in sterility testing? Add note WHO sterility testing guidelines.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Describe the pathogenesis, clinical manifestations and diagnosis of tuberculosis.
Or
(b) Discuss the etiologic agents, pathogenesis, clinical manifestations and laboratory diagnosis of urinary tract infections.
17. (a) Document the etiology, transmissions, pathogenesis, clinical manifestations and laboratory diagnosis of bacterial meningitis.
Or
(b) Give short notes on the following
(i) benign malaria
(ii) malignant tertian malaria
(iii) malaria vector control strategies

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- (b) Discuss about sterility testing of the following pharmaceutical products.
(i) Surgical devices
(ii) Surgical dressings
(iii) Hemostats
(iv) Surgical ligatures and catgut

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