



CHRISTIAN SERVICE UNIVERSITY COLLEGE, KUMASI, GHANA

**FACULTY OF HEALTH AND APPLIED SCIENCES
DEPARTMENT OF PHYSICIAN ASSISTANTSHIP STUDIES**

**BSC. PHYSICIAN ASSISTANTSHIP STUDIES (MEDICAL)
END OF FIRST SEMESTER 2018/2019 ACADEMIC YEAR
EXAMINATIONS**

LEVEL 200

COURSE CODE AND TITLE: PACS 211 MICROBIOLOGY 1

May, 2019

Time : 2hrs

INSTRUCTIONS:

Write your Index Number and Date and sign (your Signature) on the space provided at the top of each page of the Question Paper

SECTION: A

30 Marks

Choose the correct answer from the options (a-d) provided

- 1) Medical microbiology is a branch of medical science concerned with the following EXCEPT
 - a. Treatment
 - b. Diagnosis
 - c. Prognosis
 - d. Prevention

- 2) Which of the following is infections protein
 - a. Prion
 - b. Plasmid
 - c. DNA
 - d. RNA

- 3) Which of the following scientist observed strands of fungi among specimens of cells he viewed
 - a. Anton leeuwenhoek
 - b. Robert Hooke
 - c. Fracesco Redi
 - d. John Needham

- 4) Which of the following scientist is regarded as the father of microbiology
 - a. Anton Leeuwenhoek
 - b. Robert Hooke
 - c. John Needham
 - d. Francesco Redi

- 5) Which of the following scientist disputed spontaneous generation
 - a. Anton Leenweenhoek
 - b. Robert Hooke
 - c. John Needham
 - d. Francesco Redi

- 6) Which of the following scientist postulated the germ theory of disease?
 - a. Robert Koch
 - b. Louis Pasteur
 - c. Francesco Redi
 - d. Robert Hooke

- 7) In biological taxonomy, which of the following is regarded as the highest taxonomic rank
- a. Kingdom
 - b. Domain
 - c. Class
 - d. Order
- 8) Eukarya is a
- a. Kingdom
 - b. Domain
 - c. Class
 - d. Order
- 9) Archoea is a
- a. Kingdom
 - b. Superkingdom
 - c. Class
 - d. Order
- 10) All cells share the following components EXCEPT
- a. DNA
 - b. Cytoplasm
 - c. Ribosomes
 - d. Cell wall
- 11) The central part of prokaryotic cell occupied by the DNA is known as
- a. Nucleus
 - b. Organelle
 - c. Nucleoid
 - d. Nuclear region
- 12) All Bacteria cells consist of the following EXCEPT
- a. Cytoplasm
 - b. DNA
 - c. Flagella
 - d. Cell membrane

- 13) Which of the following structure is made up of peptidoglycan
- Cell membrane
 - Cell wall
 - Flagella
 - Pilli
- 14) Which of the following give the Bacteria its shape
- Cell membrane
 - Cell wall
 - Flagella
 - Cytoplasm
- 15) Which of the following structure translate the genetic code from molecular language of nucleic acid to that of amino acids?
- Mesosomes
 - Ribosomes
 - DNA
 - RNA
- 16) Which Of the following is a means of reproduction in fungi
- Binary fission
 - Budding
 - Sexual reproduction
 - Mitosis
- 17) Different cells in the human body can undergo
- Binary fission
 - Budding
 - Sexual reproduction
 - Mitosis
- 18) Glycogenolysis is an example of
- Anabolism
 - Catabolism
 - Endergonic reaction
 - Glucose build up
- 19) Organism that convert inorganic carbon dioxide into organic compound are called
- Autotrophs
 - Heterotrophs
 - Chemotrophs
 - Phototrophs

- 20) Organisms that rely on more complex organic compounds as nutrients are called
- Autotrophs
 - Heterotrophs
 - Chemotrophs
 - Phototrophs
- 21) Microorganisms that grow best in conditions of reduced oxygen are known as
- Obligate aerobes
 - Obligate anaerobes
 - Microaerophiles
 - Facultative anaerobes
- 22) Microorganism that grow in the presence or absent of oxygen are known as
- Aerobic
 - Anaerobic
 - Facultative anaerobes
 - Microaerophiles
- 23) What biochemical test can be used to differentiate staphylococcus and streptococcus
- Coagulase
 - Catalase
 - Optochin
 - Bacitracin
- 24) A disease which is constantly present in a community or region is said to be
- Pandemic
 - Sporadic
 - Endemic
 - Epidemic
- 25) The following are characteristics of epidemic **EXCEPT**
- Acute
 - Derived from point source
 - Derived from propagated source
 - Normal expectancy

26) Which of the following diseases has caused pandemic?

- a. Diabetes
- b. Influenza
- c. Cancer
- d. Typhoid fever

27) Which of the following is Gram negative organism

- a. Enterococcus
- b. Proteus
- c. Staph.aureus
- d. Strept.pyogeny

28) Which of the following is alpha-haemolytic

- a. Streptococcus viridans
- b. Streptococcus pyogeny
- c. Streptococcus algalcatiae
- d. Staph.aureus

29) A Gram positive organism which is cocci in shape and also catalase positive is

- a. Enterococcus
- b. Streptococcus
- c. Staphylococcus
- d. E. coli

30) Which of the following is a lactose fermenter

- a. Proteus
- b. E. coli
- c. Salmonella
- d. Shigella

Section B

[10 marks]

Indicate if the following statements are true / false

- 31) Grams stain can be done within 2 minutes
- 32) The mordant in Gram's stain is the crystal violet
- 33) The counter stain in Gram's method is acetone-alcohol
- 34) Gram positives pick up the neutral red during gram staining
- 35) Crystal violet still occupies the cell wall of gram negatives after Gram's stain
- 36) Staphylococcus are arranged in chains
- 37) Streptococcus are catalase negative
- 38) Malaria parasites are example of helminth
- 39) Arthropods can cause diseases in their own right
- 40) Bacillus anthrax are spore formers

Section C

Answer all questions

- 1) Define the following
 - a. Catabolism [2marks]
 - b. Anabolism [2marks]
 - c. Heterotroph [2marks]
 - d. Chemotrophs [2marks]
 - e. Autotrophs [2marks]

- 2) List the growth phases of bacteria and explain [10marks]

Dr. D