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Reg. No. : .....

**Code No. : 30852 E      Sub. Code : SNM 14 A**

U.G. (CBCS) DEGREE EXAMINATION, APRIL 2021.

Fourth Semester

Microbiology

Non-Major Elective — MICROBES AND INFECTION

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. The incubation period is the interval between
  - (a) The time of infection and death
  - (b) Appearance of clinical symptoms and death
  - (c) The time of infection and appearance of clinical symptoms
  - (d) Time of infection and appearance of antibodies

2. Which of the following factors play a key role in likelihood of infectious disease acquisition?
  - (a) Genetic profile
  - (b) Human Behavior
  - (c) Environmental conditions
  - (d) All of the above
  
3. *Streptococcus pyogenes* can be differentiated from other haemolytic *Streptococci* on the basis of
  - (a) Bacitracin sensitivity
  - (b) Erythromycin sensitivity
  - (c) Aminoglycosides sensitivity
  - (d) Penicillin sensitivity
  
4. Which of the following disease is best diagnosed by serologic means?
  - (a) Pulmonary tuberculosis
  - (b) Gonorrhoea
  - (c) Actinomycosis
  - (d) Q Fever

5. Fungi often colonize lesions due to other causes. Which of the following is least likely to be present as colonizer?
- (a) Candida                      (b) Sporothrix  
(c) Mucor                         (d) Aspergillus
6. Infection with dermatophyte is most often associated with
- (a) intravenous drug abuse  
(b) inhalation of the organism from contaminated bird feces  
(c) adherence of the organism to perspiration moist skin  
(d) Fecal-oral transmission
7. The rabies vaccine
- (a) Is a live vaccine  
(b) Is cell cultured, freeze dried and reconstituted prior to administration  
(c) Is a polysaccharide vaccine derived from culture on human diploid cells  
(d) Can not be given to breast feeding mothers

8. When was smallpox eradicated from the world?
- (a) In 1977 following a WHO campaign
  - (b) In 2000
  - (c) Is not yet eradicated
  - (d) In 1796 after Jenner's first vaccine
9. African sleeping sickness is caused by which of the following protozoa?
- (a) *Entamoeba histolytica*
  - (b) *Trypanosoma gambiense*
  - (c) *Leishmania donovani*
  - (d) *Plasmodium vivax*
10. Most commonly \_\_\_\_\_ causes malaria in humans.
- (a) *Plasmodium ovale*
  - (b) *Plasmodium malariae*
  - (c) Both (a) and (b)
  - (d) None

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) What are the five routes of transmission?

Or

- (b) How is a culture and sensitivity test done?

12. (a) What are common bacterial diseases?

Or

- (b) What are the symptoms of streptococcal infections?

13. (a) What happens if fungal infection is left untreated?

Or

- (b) Write notes on Candida.

14. (a) What is the best treatment for viral infection?

Or

- (b) How is pox virus transmitted?

15. (a) What is parasitic protozoa?

Or

(b) What is the signs of malaria?

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) What are the ten standard infection control precautions?

Or

(b) Why is Koch postulates important? Can Koch's postulates be used for viruses? Justify.

17. (a) What causes salmonellosis? What is the first sign of salmonellosis?

Or

(b) What are the characteristics of Mycobacterium? Give its clinical significance.

18. (a) Is there a cure for aspergillosis? Add notes.

Or

(b) What are the groups of dermatophytes?  
Write down its importance.

19. (a) How long is the contagious period for rabies?  
Write down the treatment method.

Or

(b) Give the pathogenicity of HIV. What is the  
best treatment of HIV?

20. (a) What causes yellow fever? And how serious  
is yellow fever?

Or

(b) What are the impacts of a parasitic infection  
of the colon with the Entamoeba histolytica?

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