

BSN 124 : EXAM

SECTION A: MCQS 20 MARKS

1. Gram staining procedure in microbiology use the following reagents EXCEPT?
- A. Crystal violet
 - B. Grams iodine
 - C. Acid-alcohol
 - D. Malachite green

ANSWER: D

2. *Corynebacterium diphtheriae* bacteria
- A. Is a non-pathogenic bacteria in humans
 - B. Is associated with congestive heart failure
 - C. Blood is the specimen of choice in respiratory diphtheria
 - D. Pseudomembrane production is not a key feature

ANSWER: B

3. Virulence factors of *Bacillus anthracis* include the following EXCEPT?
- A. Capsule
 - B. Oedema factor
 - C. Vi antigen
 - D. Lethal factor

ANSWER: C

4. An initial blood culture result submitted by laboratory scientist indicating gram positive diplococci from pediatric cerebrospinal fluid is suggestive of?
- A. Pneumococcal meningitis
 - B. Meningitis associated with *E.coli*
 - C. Gonococcal meningitis
 - D. Meningitis associated with *E.coli*

ANSWER: A

5. In human microbiota, resident microbial community is associated with the following EXCEPT?
- A. Acquired in early stages of life

- B. Re-establish if disturbed
- C. Only found in diseased population
- D. Found in specific anatomical sites

ANSWER: C

6. Intrinsic bacterial antibiotic resistance
- A. Occurs due to lack target of action
 - B. Require Lysogenic bacteriophage for activation
 - C. Occurs as a result of mutations and acquisition of new genes
 - D. Can be transferred from patient to another during nursing care

ANSWER: A

7. Toxic shock syndrome is
- A. Commonly associated with women using tampons
 - B. Is mediated by exfoliative toxin
 - C. Resolves within 24 hours
 - D. Is associated with coagulase negative staphylococcus (CoNS)

ANSWER: A

8. *Shigella dysenteriae*?
- A. Is a gram positive rod
 - B. Infections can be prevented by vaccination
 - C. Associated with haemolytic uremic syndrome
 - D. Pathogenesis is similar to Enterotoxigenic *E. coli*

ANSWER: C

9. *Malassezia furfur*:-
- A. Infects dry areas of the skin
 - B. Is lipophilic
 - C. Can cause tinea capitis
 - D. Amphotericin B is the drug of choice

ANSWER: B

10. Tinea cruris is a dermatophytes infection of?
- A. Finger nails
 - B. Hair scalp

- C. Groin
- D. Bearded part of the face

ANSWER: C

11. Pseudomembrane is a manifestation of disease associated with
- A. *Clostridium botulinum*
 - B. *Clostridium perfringens*
 - C. *Corynebacterium diphtheriae*
 - D. *Clostridium tetani*

ANSWER: C

12. Bacterial capsule is not one of the pathogenicity properties in species of
- A. Haemophilus
 - B. Escherichia
 - C. Streptococcus
 - D. Corynebacterium

ANSWER: D

13. A gram-positive, catalase negative and esculin-positive coccus that commonly causes urinary tract infection is
- A. *Staphylococcus saprophyticus*
 - B. *Enterococcus faecium*
 - C. *Escherichia coli*
 - D. *Streptococcus agalactiae*

ANSWER: B

14. An antimicrobial agent whose activity is limited to gram-positive bacteria
- A. Amoxicillin
 - B. Colistin
 - C. Vancomycin
 - D. Metronidazole

ANSWER: C

15. The following statements are true of normal flora EXCEPT
- A. Resident flora are usually re-established in their niche
 - B. Transient flora have potential to cause disease
 - C. Sterile sites in a healthy individual include the stomach
 - D. Intestinal normal flora is essential for vitamin K synthesis

ANSWER: C

16. Most likely source of human infection by *Clostridium tetani* is

- A. Untreated water
- B. Soil
- C. Asymptomatic carriage
- D. Sea food

ANSWER: B

17. Causative agent of opportunistic fungal infection which is most likely to involve the peritoneum is a species of

- A. Cryptococcus
- B. Coccidioides
- C. Candida
- D. Aspergillus

ANSWER: C

18. Lock-jaw is a manifestation of disease associated with

- A. *Clostridium botulinum*
- B. *Clostridium difficile*
- C. *Clostridium perfringens*
- D. *Clostridium tetani*

ANSWER: D

19. *Treponema pallidum*

- A. Are non-motile
- B. Release exotoxins
- C. Cause zoonotic illnesses
- D. Are susceptible to penicillin

ANSWER: D

20. Human transmission of Brucellosis occurs via

- A. Dog bite
- B. Ingestion of infected milk
- C. Cat scratch
- D. Person to person transmission

ANSWER: B

AMMU

SECTION B: 30 MARKS

1. Write short notes on:
 - a) Virulence factors associated with *Pseudomonas aeruginosa* bed sore infection (2 marks)
 - b) Cutaneous anthrax (3 marks)

2. Briefly discuss *Pityriasis versicolor* under the following:
 - a) Causative agent (1 mark)
 - b) Epidemiology (1 mark)
 - c) Clinical presentation (2 mark)
 - d) Treatment (1 mark)

3. Briefly discuss specimen type, collection and transportation in a suspected *Clostridium tetani* wound infection (5 marks)

4. Discuss *Salmonella* Typhi under the following sub-headings:
 - a) Clinical pathogenesis (2 marks)
 - b) Clinical features (1.5 marks)
 - c) Laboratory diagnosis (mention the test and specimen of choice) (1.5 mark)

5. Outline the various infections caused by *Escherichia coli* (5 marks)

6. List 5 bacterial infections that can be prevented through vaccines (5 marks)

SPOTS EXAM: attached PPT