

## **SAMPLE QUESTIONS FOR BACTERIOLOGY MCQ's (MAC 221)**

**Q-1** A diagnosis of diphtheria is confirmed by:

- A) Microscopic appearance of organisms stained with methylene blue
- B) Isolation of a typical colony on Tinsdale's agar
- C) Isolation of typical organisms from materials such as blood, showing invasiveness
- D) Detection of  $\beta$  phage plaques in cultures of suspicious isolates
- E) Demonstration of toxin production by a suspicious isolate.**

**Q-2** *Listeria monocytogenes* shows which of the following characteristics?

- A) It can grow at refrigerator temperatures (4°C)**
- B) It is an extracellular pathogen
- C) It is catalase-negative
- D) It is a gram-negative coccus
- E) It is strictly a human pathogen

**Q-3** Which one of the following is characteristic of *N.meningitidis* but not *N.gonorrhoeae*?

- A) Ferments glucose
- B) Contains a polysaccharide capsule**
- C) Is oxidase-positive
- D) Most isolates show resistance to penicillin
- E) No effective vaccines are available

**Q-4** Which of the following is true of *Haemophilus influenzae*?

- A) Invasive infections are most commonly associated with encapsulated strains**
- B) Most invasive infections occur in infants during the neonatal period
- C) Most human infections are acquired from domestic pets
- D) The organism can be readily cultured on sheep blood agar in an environment of elevated CO<sub>2</sub>
- E) Older adults are rarely at risk for infection with this organism because they typically have a high level of immunity.

**Q-5** For which of the following organisms is there no known animal reservoir?

- A) *Francisella tularensis*
- B) *Pasteurella multocida*
- C) ***Bordetella pertussis***
- D) *Brucella melitensis*
- E) *Yersinia pestis*

**Q-6** A distinguishing feature of human mycoplasma species is that they:

- A) Stain well with Giemsa, but not by Gram stain
- B) **Contain no bacterial peptidoglycan**
- C) Are not immunogenic because they mimic host cell membrane components
- D) Cannot be cultivated in vitro
- E) Are dependent on host sources of ATP

**Q-7** Which one of the following is most characteristic of *Mycoplasma pneumoniae* infection?

- A) Infection results in a fever of sudden onset accompanied by a productive cough
- B) **Infection most commonly occurs in the upper respiratory tract**
- C) Infection is definitively diagnosed by direct microscopic examination of sputum
- D) Re-infection is rare and less severe than primary infection
- E) Infection causes extensive scarring and calcification of affected lung tissue

**Q-8** Brucellosis:

- A) *Brucella abortus* is so named because it causes abortion in sheep and cattle (**True**)
- B) Epididymo-orchitis is a feature of infection in men (**True**)
- C) Mitral valve endocarditis is the commonest cardiac complication of infection (**False**)
- D) A 2-week course of tetracycline is adequate treatment in most cases (**False**)
- E) Is a cause of splenic abscess (**True**)