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 β 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 CO₂
   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-ochitis 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)