

## Microbiology

**1- Which of the following toxins can cause scarlet fever?**

- a. DNase
- b. Streptolysin S
- c. Hyalase
- d. C5a protease
- e. Erythrogenic toxin

**2- Which of the following statements concerning antigenic drift in influenza viruses is correct ?**

- a. It results in major antigenic changes
- b. It is exhibited only by influenza A viruses
- c. It is caused by frameshift mutations in viral genes
- d. It results in new subtypes over time
- e. It affects predominantly the matrix protein

**3- Highly pathogenic H5N1 avian influenza HPAI can infect humans with a high mortality rate, but it has not yet resulted in pandemic. The following are characteristics of HPAI, except for one. Which one is not?**

- a. Efficient human-to-human transmission
- b. Presence of avian influenza genes
- c. Efficient infection of domestic poultry
- d. Contains segmented RNA genome
- e. Both high pathogenicity and low pathogenicity avian influenza viruses can cause disease in human beings

**4- All of the following are true about *S. pyogenes* except :**

- a. Can't be diagnosed by smear
- b. Available vaccine against its capsule
- c. Treated by penicillin with no resistance
- d. The capsule is an important virulence factor

**5- Which of the following sentences is wrong :**

- a. Antibiotics prevent glomerulonephritis and rheumatic fever .
- b. Strep. pyogenes is Bacitracin sensitive .
- c. Untreated pharyngitis may results in otitis media .
- d. People who are infected by GAS and develop later on AGN , will not develop this again if they're reinfected again by GAS .

**6- Wrong about genetic reassortment :**

- a. It is happened in Influenza A virus .
- b. Leads to Antigenic drift .

**7- All of the following are associated with Group A streptococci EXCEPT :**

- a. Necrotizing fasciitis .
- b. Impetigo
- c. Neonatal sepsis .
- d. Erysipelas .
- e. Cellulitis .

**8- A patient with egg allergy and should not be given influenza vaccine, to protect them from Influenza A and B you can use :**

Answer : Oseltamivir or zanamivir .

**9- A boy present to the ER with strawberry tongue, rash on the chest and fever, his mother noticed whitish exudate on his tonsils 3 days ago, the causative microorganism ??**

- a. Strep. agalactiae
- b. Strep. pyogenes
- c. Strep. bovis

**10- Which of the following statements about the neuraminidase of Influenza virus is not correct ?**

- a. Is embedded in the outer surface of the viral envelope
- b. Forms a spike structure composed of four identical monomers , each with enzyme activity
- c. Facilitates release of virus particles from infected cells

d. Lowers the viscosity of the mucous film in the respiratory tract

e. Is antigenically similar among all mammalian influenza viruses

1	E	4	B	7	C
2	D	5	A	8	Answer
3	A	6	B	9	B
10			E		

Good Luck