1- **The major bacterial virulence factor that prevents phagocytosis is:**

a- pili

b- exotoxins

c- capsule

d- endotoxins

e- all of the above

2- In gram-negative bacteria, there's a unique structure that's called endotoxin. Which of the following describes the endotoxin?

Answer → its lipid moiety is responsible for endotoxic shock

3- One of the following is considered as a normal body flora in the vagina :

a- Staphylococcus aureus

b- staph. Epidermidis

c- Group B streptococci

d- Group A streptococci

e- none of the above

Note : Both lactobacilli and Group B streptococci are present in the vagina. Lactobacillus is present in the vagina of all young ladies and its presence keeps the pH low enough to inhibit the growth of candida species. Group B streptococci is present in (5-20%) of women. It causes neonatal meningitis in the newborn and puerperal sepsis in the mother.

4- Which of the following isn't present in the bacteriophage?

a- DNA

b- RNA

c- DNA and RNA together

d- tail fibers

e- protein coat

5- All of the following statements are true about Group A streptococci EXCEPT :

a- catalase negative

b- sore throat

c- watery diarrhea

6- One of the following is an endospore forming bacteria :

Answer → *Clostridium tetani*

7- Which of the following is mismatched :

a- Staphylococcus aureus = Impetigo
b- Enterococci = Neonatal meningitis
c- Streptococcus pneumonia = pneumonia
d- Clostridium difficile = pseudomembranous colitis
e- none of the above

8- The drug of choice againt MRSA is :

Answer → Vancomycin

9- Which of the following belongs to macrolides:

a- Azithromycin
b- amikacin
c- Streptomycin
d- Neomycin

10- One of the following isn't a method used by bacteria to develop drug resistance:

a- mutation
b- Mesosomal changes
c- gene transfer
d- transduction

11- One of the following is a penicillinase-resistant drug :

a- Oxacillin
b- carbapenem
c- ampicillin

12- Which of the following explains why gram-negative bacteria are less susceptible to beta-lactam antibiotics ?

a- Gram-negative bacteria have hydrophilic outer-membrane that prevents the entry of the antibiotic
b- Gram-negative bacteria have a high concentration of beta-lactamases in the periplasmic space and thus inactivate beta-lactam agents.
c- Gram-negative bacteria have less peptidoglycan layers

- I think A

13- Which of the following inhibits the formation of an essential metabolite in bacteria:

Answer → sulfonamides

Matching :

14- Facultative anaerobes → e

15- Differential media → b

16- Heat-stable toxin → a

17- Selective media → c

18- Group A streptococci → d

a- Food poisoning related to Bacillus cereus

b- the medium used to distinguish between different types of bacteria

c- the medium that supports the growth of one type of bacteria and inhibits the growth of others.

d- erythrogenic

e- can grow in the presence and absence of oxygen.

19- All of the following are characteristics of pathogenic bacteria in humans except :

a- They are facultative anaerobes
b- they produce enterotoxins
c- form endospores
d- grow at neutral pH

I think A

20- All of the following are characteristics of group A streptococci except :

a- they cause watery diarrhea
b- catalase negative
c- cause sore throat

21- A bacterial product that's used to kill or inhibit other bacteria is :
a- Antibiotic
b- Bacteriocin
c- exotoxin

e- none of the above

22- Which of the following can be used as antiseptic agents:

a- alcohol 80%

b- iodine

c- phenol

d- A+B

e- none of the above

23- The genetic material that's present in bacteria and can be integrated into the plasmid or the chromosome is called :

Answer → transposons

24- Which of the following is coagulase positive:

Answer → Staphylococcus aureus

25- Which of the following should be made to prevent nosocomial infections :

Answer → washing hands after each medical procedure

26- Which of the following is true about Clostridium tetani :

Answer → released neurotoxins + present is soil and dust .

Virology

Dr. Sameer Naji questions :

1- Which of the following isn't a characteristic of viruses :
a- obligate intracellular parasites
b- inert filterable agents
c- they make energy independent on the host cell
d- they contain DNA or RNA surrounded by a protein coat
e- none of the above

2- One of the following isn't a characteristic of viruses :

Answer → They divide by binary fission

3- Which of the following is true about prions :

a- they contain circular DNA and replicate autonomously

b- they are entirely protein

c- they cause infection depending on the presence of a helper virus

d- they contain nucleic acids and proteins

e- none of the above

4- Which of the following prion-caused illnesses is a human illness :

a- Feline spongiform encephalopathy

b- Bovine spongiform encephalopathy

c- Kuru

d- A+C

e- B+C

5- All of the following are virus-induced cytopathic effects except :

a- changes in cell size and shape

b- formation of cytoplasmic inclusions

c- formation of nuclear inclusions

d- transformation of cancerous cells into normal cells

e- fusion of cells to form multinucleated giant cells.

6- All of the following patterns of viral infection except :

a- acute infection

b- chronic infection

c- persistent infection

d- virulent

e- slow virus infection

7- One of the following is a route of vertical transmission of viral infections:

a- ingestion

b- inoculation

c- animal bites

d- through the placenta

e- none of the above

Dr. Ashraf Khasawneh

1- Which of the following mechanisms is employed by ssRNA(+ve sense) to overcome the problem of monocistronic mRNA ?

a- its genome is segmented and each segment is translated separately as a monocistronic mRNA.

b- the genome is translated to form a polyprotein that will be subsequently cleaved to form mature proteins.

c- its genome is transcribed to make a primary transcript

that will be spliced to form monocistronic mRNA.
d- its genome transcription is regulated by promoters that will start transcription at the beginning of the gene and stop at its end
e- all of the above

2- Which of the following is true about attachment and adsorption :

a- antibodies directed against glycoproteins of the virus can neutralize them and inhibit the entry of the virus.
b- binding to a receptor doesn't facilitate the entry of naked viruses.
c-
d-
e-

3- All of the following statements are true about viral infections except :

Answer → viropexis occurs only in naked viruses.

4- <u>Uncoating and assembly</u>

a- parvoviruses uncoat in the nucleus.
b-

I can't remember the rest of choices and the question stem. Just know that there was a question about uncoating and assembly and everything was mentioned either in the slides or during the lecture.

5- <u>Maturation and release</u>
- there was a question about maturation and release of viruses.

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