Past Papers

بسم الله الرحمن الرحيم

﴿ وَإِن تَتَوَلَّوْا يَسْتَبْدِلْ قَوْمًا غَيْرَكُمْ ثُمَّ لَا يَكُونُوا أَمْثَالَكُم ﴾

اللهم استعملنا ولا تستبدلنا

MID – Lecture
(1-6) virology

microbiology

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Q1 : Viruses can enter the body directly by all of the following except

A. Skin contact

B. Respiratory aerosols

C. Blood

D.Genital secretions

E. Fomites

Answer : E

Q2 : Which of the following refers to the complete virus particle that able to infect a cell

A. Virus
B. Virion
C. Capsid
D. DNA
E. Protein coat

Answer : B

Q3: The relationship between innate and adaptive immunity can be described by one of the following:

a. Adaptive immune responses are activated several days after innate immunity.

b. Innate immunity can recognize foreign antigens while adaptive immunity cannot.

c. Adaptive immunity can recognize foreign antigens while innate immunity cannot.

d. Innate immune responses are activated following the recognition of antigens by adaptive immunity.

e. Adaptive immunity has evolved before innate immunity in all life forms.

Answer : A

Q4 :viruses are:

A. Larger than cells
B. Acellular
C. Bacteria
D. Can’t live inside cells
E. 2 or more are correct

Answer : B

Q5 : which of the following statements is wrong:

A. Viruses do not contain enzymes or ribosomes
B. Some viruses contain RNA that turns to DNA after entering the host cell
C. Aenveloped viruses are often transmitted in respiratory droplets
D. All the above are correct

Answer : A

Q6 : Which of the following is a characteristic of adaptive immunity in living organisms?

a. Activated immediately upon first antigen encounter

b. Deficiencies in adaptive immunity usually results in no symptoms.

c. Important for eradicating intracellular infections

d. An ancient immune system that can be found in plants and unicellular organisms

e. Recognizes only a small number of conserved molecular patterns associated with pathogens.

Answer : C

Q7: TNF is primarily produced by:
a-Macrophages
b-Plasma cells
c-Endothelial cells
d-NK cel
E.a+b

Answer :a

Q8 :one of the following is ssDNA virus:

A. Parainfluenza
B. Norwalk, Rotavirus
C. Reovirus
D. Adeno-associated virus
E. All are incorrect

Answer : D

Q9 :Herpes simplex virus type 2 is considered a ..... In virus taxonomy:

A. Family
B. Subfamily
C. Genus
D. Species
E. subtype

Answer : E

Q10 :which of the following would not be a nucleic acid found in viral genome:

A. DsDNA
B. SsDNA
C. DsRNA
D. SsRNA
E. RNA DNA hybrid

Answer : E

Q11:the word "phage" is a shortened version of the name of virus that can affect:

A. Bacterial cell
B. Human cell
C. Eukaryotic cell
D. Plant cell
E. Insect cell

Answer : A

Q12 :A 5-years-old child was brought by his parents to the ER after the appearance of bright red macular exanthem on the cheeks as seen in the picture . The parents also reported that their child had fever , malaise. Headache ,myalgia nausea and rhinorrhea one week prior to the appearance of the rash. Knowing that the causative agent of the child illness was parvovirus B10. Which of the following is correct about the causative virus?

A. It is the smallest human virus in term of genome size
B. It is a positive sense single stranded RNA virus
C. Virus replication is totally dependent on the host cell
D. It is an enveloped virus
E. It has a helical capsid

Answer : C

Q13 :The rash seen in the picture is caused by viral infection that has been completely eradicated globally. Which of the following is a characteristic of the causative virus ?

A. Double stranded RNA virus
B. Has a complex capsid
C. It is non enveloped
D. Has a segmented genome
E. Transmitted throug animal bite

Answer : B

Q14 :Which of the following is true about adsorption step in the viral replication?

A. In naked viruses, adsorption doesn't facilitate virus penetration
B. Virus entry into the host cell requires a spike-receptor complex only in all viruses
C. Influenza virus has three glycoprotiens that help in viral penetration into target cell
D. Different viruses can use similar receptors on target cells to gain entry
E. Neutralization of receptors by antibodies is an effective way to prevent viral entry

Answer : D

Q15 :In a single -stranded positive sense RNA virus such as rhinovirus the monocistronic mRNA problem is overcome by:

A. Cleavage of the polyprotien product by proteases to form mature individual protiens
B. The virus has a segmented genome
C. The viral mRNA has special features which enable ribosomes to bind internally instead of (or as well as)at the 5’ end
D. The virus makes primary transcripts which are processed by the host splicing machinery to give more than one monocistronic RNA
E. All of the above

Answer : A

Q16: Clinical viral disease

A. Is most frequently due to toxin production
B. Usually follows virus infection
C. Can result without infection of host cells
D. Is associated with target organs in most disseminated viral infections

Answer : D

Q17 :Linear, single-stranded DNA is the genetic material of

A. Calciviruses
B. Flaviviruses
C. Papillomaviruses
D. Parvoviruses

Answer : D

Q:18 Which one of the following statements concerning the viral replication is correct?

A. Most RNA viruses assemble in the nucleus, whereas most DNA viruses develop solely in cytoplasm.
B. DNA viruses must provide virtually all enzymatic and regulatory molecules needed for a complete replication cycle.
C. Viral (+) single-stranded RNA serves as the template for complementary (–) strand synthesis using host RNA-dependant RNA polymerase.
D. In a virus with a single-stranded (ss) RNA genome of (–) polarity, (–) ssRNA is translated into viral proteins.
E. In a virus with a double-stranded RNA genome, (+) RNA strands serve both as mRNA and template for complementary (–) RNA strand synthesis.

Answer : E

Q19: The early genes of DNA viruses code primarily for proteins whose functions are required for:

A. transcription of viral mRNA.
B. translation of the capsid proteins.
C. replication of the viral DNA.
D. final uncoating of the infecting virions.
E. processing of the mRNA precursors

Answer : C

Q20: which of the following best describes protein shell of viral genome:

A. Capsid
B. Envelope
C. Matrix
D. Virion
E. capsomere

Answer : A

Q21 :a 2-year-old child suffering from a sore throat for anti streptococcal antibody. The child is found to have only IgG antibodies with no IgM this means an

A. immunodeficiency disease which only IgM is lacking
B. Natural maternal immunity across placenta
C. The child was exposed to streptococcus in the past
D. Current active infection
E. Focal infection with streptococcus

Answer : C

Q22 :which of the following can be considered a distinctive feature of viruses:

A. Genome consisting of a sole type of nucleic acid
B. Universal presence of plasma membrane-derived envelope
C. Variability in size
D. Ability to infect humans
E. Facultative intracellular parasitism

Answer : A

Q23 : the method that is used for definitive diagnosis of influenza is:

A. Flow cytometry
B. Antigen testing
C. PCR
D. Radioimmunoassay
E. ELISA

Answer : C

Q24 :one of the following methods of detecting virus infection is not used in clinical practice, however it is referral and gold standard:

A. Serology
B. Virus culture
C. Antigen detection
D. Molecular detection

Answer : B

Q25 :one of the following is true about IgM, IgG respectively:

A. In the first 2 weeks, in the first 2 months
B. Indicates new infection, indicated past infection
C. After few weeks from the infection IgM disappear and IgG stays
D. All of the above

Answer : D

Q26 :the most common method that used in molecular detection:

A. PCR
B. Recombinant DNA
C. Histopathologic examination
D. None of the above

Answer : A

Q27: If u were to define the envelope of a virus which would you choose?

A. A series of interconnected glycoproteins enveloping the viral genome
B. A hijacked lipid bilayer with some interconnected glycoproteins
C. Proteins arranged helically or in a icosahedral manner around the viral genome
D. You can't define it for its variability

Answer : B

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Corrections from previous versions:

Versions	Question #	Before Correction	After Correction
V1 → V2			
V2 → V3			