**بسم الله الرحمن الرحيم**

**2.** Which of the following viruses causes an acute febrile rash and produces

disease in immunocompetent children but has been associated with

transient aplastic crises in persons with sickle cell disease?

a. Rubeola

b. Varicella-zoster

c. Parvovirus\*\*\*\*\*

d. Rubella

e. Herpes simplex

**3.** Infection with herpes simplex virus, a common human pathogen, is

best described by which of the following statements?

a. The CNS and visceral organs are usually involved

b. It rarely recurs in a host who has a high antibody titer

c. It can be reactivated by emotional disturbances or prolonged exposure to sunlight\*\*\*\*\*

d. Initial infection usually occurs by intestinal absorption of the virus

e. Infection with type 1 virus is most common

**15.** The most sensitive test for the diagnosis of herpes simplex (HSV)

meningitis in a newborn infant is

a. HSV IgG antibody

b. HSV polymerase chain reaction (PCR)\*\*\*\*\*\*

c. HSV culture

d. Tzanck smear

e. Cerebrospinal fluid (CSF) protein analysis

**19.** A 3-year-old child presents at the physician’s office with symptoms of

coryza, conjunctivitis, low-grade fever, and Koplik’s spots. The causative

agent of this disease belongs to which group of viruses?

a. Adenovirus

b. Herpesvirus

c. Picornavirus

d. Orthomyxovirus

e. Paramyxovirus\*\*\*\*\*

**20.** One of the most common sexually transmitted diseases that may lead

to cervical carcinoma is caused by which of the following viruses?

a. Cytomegalovirus

b. Papillomavirus\*\*\*\*\*

c. Epstein-Barr virus

d. Herpes simplex virus

e. Adenovirus

**27.** Adults who have had varicella as children occasionally suffer a recurrent

form of the disease, shingles. The agent causing these diseases is a

member of which of the following viral families?

a. Herpesvirus\*\*\*\*\*

b. Poxvirus

c. Adenovirus

d. Myxovirus

e. Paramyxovirus

**29.** German measles virus (rubella), a common cause of exanthems in

children, is best described by which of the following statements?

a. Measles (rubeola) and German measles (rubella) are caused by the same virus

b. Incubation time is approximately 3 to 4 weeks

c. Vesicular rashes are characteristic

d. Onset is abrupt with cough, coryza, and fever\*\*\*\*\*

e. Specific antibody in the serum does not prevent disease

**32.** According to recommendations issued by the U.S. Public Health Service,

which of the following statements regarding vaccination against

smallpox is true?

a. Pregnant women should be vaccinated in the first trimester

b. Persons who have eczema should be vaccinated soon after diagnosis

c. Persons who have immune deficiencies should be vaccinated every 5 years

d. Persons traveling abroad need not be vaccinated\*\*\*\*\*

e. Children should be vaccinated before they begin school

**38.** An immunocompromised person with history of seizures had an MRI

that revealed a temporal lobe lesion. Brain biopsy results showed multinucleated

giant cells with intranuclear inclusions. The most probable cause of

the lesion is

a. Hepatitis C virus

b. Herpes simplex virus\*\*\*\*\*

c. *Listeria monocytogenes*

d. Coxsackievirus

e. Parvovirus

**42.** An obstetrician sees a pregnant patient who was exposed to rubella

virus in the eighteenth week of pregnancy. She does not remember getting

a rubella vaccination. The best immediate course of action is to

a. Terminate the pregnancy

b. Order a rubella antibody titer to determine immune status\*\*\*\*\*

c. Reassure the patient because rubella is not a problem until after the thirtieth

week

d. Administer rubella immune globulin

e. Administer rubella vaccine

**48.** Erythema infectiosum (fifth disease), a self-limited disease of children,

is caused by

a. Measles

b. Parvovirus\*\*\*\*\*

c. Rubella

d. Human herpesvirus type 6

e. Norwalk virus

**49.** Which one of the following viruses may be human tumor virus?

a. Epstein-Barr virus (EBV)

b. HIV

c. Papillomavirus\*\*\*\*\*

d. Varicella-zoster virus (VZV)

e. Herpes simplex virus, type 2 (HSV)

**56.** Human papillomavirus is most commonly associated with

a. Rectal polyps

b. Prostate cancer

c. Condyloma acuminatum

d. Hepatic carcinoma\*\*\*\*\*

e. Carcinoma of the lung

**79.** The vaccine for measles is best characterized as a

a. Bacterin

b. Killed virus vaccine

c. Inactivated virus vaccine

d. Live virus vaccine\*\*\*\*\*

e. Recombinant viral vaccine

**80.** Which one of the following would be the treatment of choice for HSV

infection?

a. Acyclovir\*\*\*\*\*

b. Killed virus vaccine

c. Herpes immune globulin

d. Azythromycin

e. Recombinant viral vaccine

**82.** Chicken pox is a common disease of childhood. It is caused by which

of the following viruses?

a. Cytomegalovirus

b. Rotavirus

c. Varicella-zoster virus\*\*\*\*\*

d. Adenovirus

e. Papillomavirus

**84.** Human warts are not only cosmetically unsightly but may lead to cancer

of the cervix. They are caused by which one of the following viruses?

a. Cytomegalovirus

b. Rotavirus

c. Varicella-zoster virus

d. Adenovirus

e. Papillomavirus\*\*\*\*\*

**Questions 92–96**

Assume you are asked by a resident what the most appropriate specimen is

for the detection of a particular virus.

**92.** Human papillomavirus

a. Cervical tissue\*\*\*\*\*

b. Synovial fluid

c. Blood

d. Skin

**95.** Varicella-zoster virus (VZV)

a. Cervical tissue

b. Synovial fluid

c. Blood

d. Skin\*\*\*\*\*

e. Cerebrospinal fluid

**107.** Which of the following is the causative agent of a variety of cutaneous

warts (plantar, common, and flat) and is associated with cervical neoplasia?

a. Human papillomavirus\*\*\*\*\*

b. West Nile virus

c. Tick-borne encephalitis virus

d. *Polyomavirus*

e. Subacute sclerosing panencephalitis virus (SSPE)

**112.** This virus is a single-stranded RNA paramyxovirus. The rash known

as Koplik’s spots is pathognomonic.

a. Measles virus\*\*\*\*\*

b. Influenza virus

c. Respiratory syncytial virus

d. Parainfluenza virus

e. Adenovirus

**156.** Acute hematogenous osteomyelitis is often diagnosed by isolation of

the organism from the blood and is caused most often by

a. *Proteus mirabilis*

b. *Streptococcus faecalis*

c. *Staphylococcus epidermidis*

d. *S. aureus\*\*\*\*\**

e. *E. coli*

**158.** The patient described in the case above most likely has

a. Scalded skin syndrome

b. Toxic shock syndrome\*\*\*\*\*

c. Guillain-Barré syndrome

d. Chickenpox

e. Staphylococcal food poisoning

**159.** Culture of the menstrual fluid in the case cited would most likely

reveal a predominance of

a. *S. aureus\*\*\*\*\**

b. *S. epidermidis*

c. *C. perfringens*

d. *C. difficile*

e. *Gardnerella vaginalis*

**160.** The most characteristic finding not yet revealed in the case just presented

would be

a. Travel to Vermont

b. Recent exposure to rubella

c. A retained tampon\*\*\*\*\*

d. Heavy menstrual flow

e. A meal of chicken in a fast-food restaurant

**171.** Recently, there have been sensational media reports of patients

infected with invasive, “flesh-eating” bacteria that spread rapidly through

the tissues. This necrotizing fasciitis is usually caused by

a. *S. aureus*

b. Group A streptococci\*\*\*\*\*

c. *Micrococcus*

d. *Bacillus cereus*

e. *Clostridium tetani*

**180.** The most common portal of entry for *C. tetani,* the cause of tetanus,

is the

a. Skin\*\*\*\*\*

b. Gastrointestinal tract

c. Respiratory tract

d. Genital tract

e. Nasal tract

**181.** The most common way in which tuberculosis is acquired is via the

a. Skin

b. Gastrointestinal tract

c. Respiratory tract\*\*\*\*\*

d. Genital tract

e. Nasal trac

**205.** *M. tuberculosis* can be found in the sputum of patients with tuberculosis.

After digestion of the sputum, isolation is best accomplished using

a. Sheep blood agar

b. Löffler’s medium

c. Thayer-Martin agar

d. Thiosulfate citrate bile salts sucrose medium

e. Löwenstein-Jensen medium\*\*\*\*\*

**206.** *C. diphtheriae* may be difficult to isolate from the nasopharynx without

the use of special media. The medium of choice is

a. Sheep blood agar

b. Löffler’s medium\*\*\*\*\*

c. Thayer-Martin agar

d. Thiosulfate citrate bile salts sucrose medium

e. Löwenstein-Jensen medium

**207.** *S. aureus* has a distinctive appearance on which one of the following

media?

a. Sheep blood agar\*\*\*\*\*

b. Löffler’s medium

c. Thayer-Martin agar

d. Thiosulfate citrate bile salts sucrose medium

e. Löwenstein-Jensen medium

**Questions 208–211**

In order to recognize abnormal bacteria, it is necessary to know which

bacteria are predominant normal flora of certain body sites.

**208.** Which of the following is the predominant organism on skin commonly

seen as a blood culture contaminant?

a. -hemolytic streptococci

b. *Lactobacillus*

c. *S. epidermidis\*\*\*\*\**

d. *Escherichia coli*

e. *B. fragilis*

**209.** Which of the following is the predominant flora of the mouth that is

the major cause of dental caries?

a. -hemolytic streptococci\*\*\*\*\*

b. *Lactobacillus*

c. *S. epidermidis*

d. *E. coli*

e. *B. fragilis*

**216.** *C. diphtheriae* causes diphtheria, a rare disease in the United States.

*C. diphtheriae* is best characterized by which of the following statements?

a. It secretes erythrogenic toxin that causes the characteristic signs of scarlet fever

b. It produces toxin that blocks protein synthesis in an infected cell and carries a

lytic bacteriophage that produces the genetic information for toxin production\*\*\*\*\*

c. It produces at least one protein toxin consisting of two subunits, A and B, that

cause severe spasmodic cough usually in children

d. It requires cysteine for growth

e. It secretes exotoxin that has been called “verotoxin” and “Shiga-like toxin”;

infection is mediated by specific attachment to mucosal membranes

**220.** *Streptococcus pyogenes* is a toxigenic bacterium causing a variety of diseases.

Which of the following statements best characterizes this organism?

a. It secretes erythrogenic toxin that causes the characteristic signs of scarlet fever\*\*\*\*\*

b. It produces toxin that blocks protein synthesis in an infected cell and carries a

lytic bacteriophage that produces the genetic information for toxin production

c. It produces at least one protein toxin consisting of two subunits, A and B, that

cause severe spasmodic cough usually in children

d. It has capsules of polyglutamic acid, which is toxic when injected into rabbits

e. It secretes exotoxin that has been called “verotoxin” and “Shiga-like toxin”;

infection is mediated by specific attachment to mucosal membranes