**Tanta University Faculty of Pharmacy** Department of Microbiology Final Examination for Clinical Pharmacy Fourth Level Students Course Title: Instructor: Course Code: **Public Health & Preventive** Prof. Dr. T. EL-Banna MD 710 كلية الصيدلة Medicine Dr. M. EL-Bouseary Time Allowed: **Total Assessment** Total First Term Date: 2 Hours Marks:75 pages:9 2020 - 2021 27/02/2021

Please mark ONE correct statement at the corresponding number in the attached ANSWER SHEET. Answers elsewhere are NOT going to be considered (100 Points)

1) تأكد من وجود (٩) صفحة بالكراسة.

2) عند اكتشاف أي خطأ في ترتيب الأوراق يجب الرجوع إلى استاذ المادة.

3) امتحان الشفهي لجميع الطلاب بعد التحريري مباشرة في نفس اللجان

Applying health care measures are method(s) of ...... level(s) of preventive medicine

a- Primary

b- Secondary

c- Tertiary

d- All of them

2) Functions of public health include formulation of public policies designed to

a- Identify health problems and priorities

b- Solve identified local and national health problems and priorities

c- Provide appropriate and cost- effective care including health promotion and disease prevention services to all population

d- All of them

3) Which of the following causative agents is NOT matched with the corresponding incubation period?

a- Mycoplasma pneumoniae ...... about 3 weeks

b- Pasteurella pestis (agent of plague) ...... 10 days

c- Influenza A ...... 1-3 days

d- Hepatitis E virus ...... 6 weeks to 6 months

4) Analytic studies aim to

a- Identify casual relationships of factors associated with disease

b- Develop hypotheses about disease transmission

c- Follow secular trends of disease occurrence time

d- Probe cause and effect of disease

5) The ...... present(s) the physical environment which acts as a reservoir of epidemiological cycle

a- Topographic features of a certain location

b- Geographic formations

c- Occupation

d- All of them

6) Out of objectives of epidemiology, the ...... in order to develop a basis for prevention-programs

a- Identification of the etiology of diseases and the risk factors

b- Studying the natural history and prognosis of disease, as a goal of epidemiology

c- Determining the extent of disease found in the community

d- Evaluating new preventive and therapeutic measures and new modes of health care

- 7) Concerning the pathogenicity (from LOW to HIGH) of the infectious agents, which of the following patterns is most probably CORRECT?
  - a- HCV CMVs Mumps- rhinoviruses
  - b- Mumps Rhinoviruses CMVs HBV
  - c- CMVs Mumps HCV Rhinoviruses
  - d- Mumps HCV CMVs Rhinoviruses
- 8) Convalescent persistent carriers DO NOT include infected cases with
  - a- EBV

b- HBV

c- Adenoviruses

d- CMVs

- 9) The exposed individual with the Duffy-negative phenotype is resistant to Plasmodium falciparum malaria invasion
  - a- True

b- False

- 10) Variation in severity among different diseases correlates
  - a- Virulence of causative agent
  - b- Dose of causative agent and site in the body at which it multiplies
  - c Defense mechanisms of exposed host
  - d- All of them
- 11) Concerning the vaccines, which is WRONG?
  - a- BCG vaccine; live attenuated, provides high immunity for 5- 15 years
  - b- Tetanus vaccine; killed, provides high immunity for 5- 15 years
  - c- TAB; live attenuated provides moderately protective immunity for max. 2 years
  - d- diphtheria; toxoid, provides almost absolute protection for 3-5 years
- 12) Recovery from all of the followings results in solid immunity EXCEPT
  - a- Rickettsial diseases

b- Pertussis

c- Measles

d- Poliomyelitis

- 13) The crude death rate is the total number of deaths per year per 1000 people and calculated in % or in ratio out of the total population.
  - a- True

b- False

- 14) Antitoxin sera are currently used for seroprophylaxis of all of the following EXCEPT
  - a- Diphtheria

b- Tetanus

c- Gas gangrene

d- Botulism

- 15) Epizootic diseases with the risk of zoonotic spread in man
  - a- Salmonellosis in rats

b- Brucellosis in cattle

c- Rabies in dogs and cats

d- All of them

- 16) In epidemiology, disease frequency can be measured by
  - a- Prevalence rate

b- Secondary attack rate

c- Case fatality rate

d- All of them

- 17) Single-exposure, common-vehicle outbreak is measured by
  - a- Attack rate

b- Secondary attack rate

c- Incidence rate

d - None of them

- 18) The characteristics of the prevalence rate include all of the following EXCEPT
  - a- It is a statement of probability
  - b- It is the proportion (%) of a population that are cases at a specific point in time or a given time interval
  - c- Measures the persistent disease in a community
  - d- Can be used to determine the health care needs of that community

19) Studying the Iceberg concept of a disease helps in determining the pathogenicity of disease and relation of cell immunity to host responses

a- True

b- False

- 20) Segregation is applied to contacts of diphtheria, measles and mumps cases a- True b- False
- 21) Concerning the release as control measures, which of the following is NOT matched with corresponding disease?
  - a- case is satisfactory general condition for ...... tuberculosis b- case is satisfactory general condition for ...... hepatitis A
  - c- case is clinically free yellow fever d- case is bacteriologically free typhoid
- 22) An infection is spread in a community as outbreaks if the
  - a- protective immunity is decreased to less than that of herd immunity
  - b- protective immunity is decreased to less than that of elimination
  - c- basis reproduction number (R<sub>0</sub>) is lowered to near zero
  - d- only a and c
- 23) Follow up of clinically free cases is recommended for

a-typhoid

b- hepatitis B

c- tuberculosis

d- all of them

- 24) Regarding common cold, All of the following are correct EXCEPT
  - a- Spreads year-round but are most frequent during the cooler as sporadic (mostly) or outbreaks
  - b- Contaminated articles and fumets are the major mode of transmission
  - c- Incubation period is 1 to 3 days
  - d- The common clinical signs nasal mucous secretions, watery eyes, and sneezing
- 25) Which of the following is involved in limiting of rhinoviruses- coryza?

a- IgA

b- IgM

c- IgG

d- None of them

## 26) Major mutation (antigenic shift) in influenza- A viruses

- a- Usually occur every 10-15 years
- b- Involves the H and /or the Np antigen
- c- It results new types with pandemics/ epidemics spread
- d-Only a & c

### 27) Concerning influenza-A H<sub>1</sub>N<sub>1</sub>

- a- is pandemic in bigs
- b- agent has higher pathogenicity than H<sub>5</sub>N<sub>1</sub>
- c- rarely results in pneumonia and broncho-pneumonia
- d- all of them

## 28) The clinical findings of adenoviruses include

- a- Keratoconjunctivitis fever, most often among school-age children
- b- Pharyngoconjunctival fever outbreaks, often seen among old children & young adults
- c- Non bloody diarrhea mainly in children younger than 2 years old
- d- All of them

#### 29) Concerning the Chlamydophila pneumoniae

- a- is a major cause of atypical pneumonia mainly in adolescents and young children
- b- the diagnosis is based mainly a 4-fold increase in IgG titer by immunofluorescence
- c- infections require long term treatment
- d- all of them

### 30) Pneumonia is more common in measles cases than in influenza ones

a- True

b- False

#### 31) Developed antibody against ...... may increase the severity upon reinfection a- Mycoplasma pneumoniae b- RSV c- parainfluenza viruses d- all of them

# 32) Concerning M. pneumoniae infections, which of the following is CORRECT?

- a- it occurs worldwide throughout the year with no consistent seasonal activity increase
- b- the incubation period is 1-3 days and infectivity is prolonged to 3-4 weeks
- c- is common in children less than 5 years old and adults more than 20 years old
- d- effectively diagnosed by epidemiology and clinical signs

# 33) Developed antibody has a limited role in preventing ..... reinfection

a-polioviruses b- RSV c- parainfluenza viruses d- all of them

# 34) Signs are more severe in adults than in children in case of

a- rubella b- Chlamydophila pneumoniae c- RSV infection d- only a and b

# 35) Measles is characterized by

- a-The virus is transmitted from both clinical and sub clinical cases
- b- Period of infectivity extends from the start of the proteome and 2 days after the rash
- c- Clinical signs include Koplik's spots, high fever (39°C or above), watery red eyes, joint pain and lymphadenopathy
- d- All of them

# 36) Urine of infants with congenital syndrome is a source of infection by

a- rubella virus b- CMVs c- mumps virus d- all of them

# 37) Concerning rubella virus, All of the following are correct EXCEPT

- a- It spreads in spring and early summer, in Egypt
- b- The incubation period is 2 to 3 weeks
- c- It can be transmitted translucently and contact to urine and feces infected cases
- d- The rash usually fades after 5 -7 days, however swollen glands or lymph nodes can persist for up to 2 weeks

# 38) Concerning mumps, which of the following is WRONG?

- a- The clinical, sub- clinical cases are able to transmit the disease
- b- After droplet infection virus is deposited form the blood into various organs; such as meanings, salivary glands, ovaries, testes
- c- Deafness is a common complication
- d- Virus can be detected in the saliva, urine, stool and blood late incubation period

# 39) Immunoglobulin for contacts to measles cases, within few days of exposure (during incubation period) and some days later, is seroprotective

# 40) RSV infections is effectively diagnosed by all of the following EXCEPT

a- microscopic detection of multinucleated giant cells syncytia

b- virus detection by immunofluorescence- AB on smears of respiratory epithelium

c- virus detection by RT-PCR

d- rising in antibody (IgM) titer, seroconversion

# 41) For the pathogenesis and clinical findings of parainfluenza viruses

- a- Types 1 and 2 are major causes of group (mild URT infections)
- b- Type 3 rarely causes disease, except for the common cold signs.
- c- Type 4 is the most common parainfluenza virus isolated from children with lower respiratory tract infection.
- d- All of them

# 42) Vaccination is disappointed as a preventive measure in case of

a- RSV- infection

b- Chlamydophila pneumoniae

c- Parainfluenza- infection

d- All of them

# 43) Runny nose is a clinical sign of ...... infection(s)

a- rhinoviruses

b- adenoviruses

c-RSV

d- all of them

## 44) Cytopathic effect (CPE) is diagnostic tool of

a- RSV- pneumonia

b- measles

c- CMVs infections

d- influenza A

# 45) Detection of IgM indicates primary (acute, recent) infection with

a- VZV

b- HSV- gingivectomies

c- CMVs

d- none of them

## 46) The vesicles of chicken pox are polymorphic and clustered together in a group on the same red base

a- True

b- False

# 47) The diagnosis of neonatal herpes is based on

a- viral detection in culture

b- (+ve) Tzanck smear

c- rise in Ab

d- only a and c

# 48) Patients are a source of infection along with the presence of rash or rash vesicles in all of the following EXCEPT

a- measles

b- rubella

c- syphilis

d- herpes simplex

### 49) Concerning shingle

- a- It appears as painful vesicles along the course of a sensory nerve of the upper limbs or
- b- A rise in antibody titer is diagnostic
- c- It is common in adults more than 45 years old

d- All of them

# 50) Immunity against chicken pox infections resulted from

a- curing after infection

b- maternal immunity and ZIG Ig

c- vaccination

d- all of them

# 51) Prevention of CMVs- infection is a problematic due to all the following EXCEPT

a- it is transmitted by all modes

- b- vaccine has limited role in protection
- c- most cases are asymptomatic
- d- acyclovir has limited role in treatment

## 52) Infectious mononucleosis is characterized by

- a- Transmitted by contact to saliva but not by blood transfusion
- b- Detection of heterophil antibody is specific diagnostic for active case
- c- Life-time immunity against re-infection is based on viral membrane antigen and heterophil antibodies

d- All of them

# 53) Active phase of EBV infection (up to a few months) suggested by detecting Ig of

a- VCA

c- EBNA

d- All of them

## 54) Concerning HAV, which of the following is WRONG?

- a- Fecal oral route is the common mode of transmission
- b- Replication induces CPE in liver cells resulting in arthritis, rash and liver fulminate
- c- Course of disease is at least one month, recovery results in solid- lifelong immunity
- d- Boosting dose of killed or live attenuated vaccine provides solid protection, for 20- 25 vears

55) Detection of HBeAg (with absence of anti-HBcAg and anti-HBsAg) indicates pre-early stage (less than 2 months) of VBH a- True

b- False

# 56) Detection of anti-HbcAg (IgM) and HBsAg indicates

- a- Early state at least 2-3 months of VBH
- b- Chronic active carrier state of VBH
- c- Recent state at least 4-5 months
- d-Only b & c
- 57) Recovery from primary attack of hepatitis B or vaccination provides immunity for maximum 10 years and gives highly to almost absolute protection (90-99%) a- True

b- False

# 58) Concerning the incidence of clinical outcomes of VBH and VCH, which of the following is WRONG?

- a- Symptomatic cases is higher in VBH
- b- Chronicity is higher in VBH
- c- Liver fulminate is higher in VCH
- d-Liver cirrhosis is higher in VCH

# 59) Acute cases with hepatitis C are diagnosed based on

- a- Clinical findings
- b- Increases of liver enzymes
- c- Detection of raising of viral antibodies
- d- None of them

## 60) Regarding HCV

- a-The incubatory period ranged from one weak and 6 months
- b- Most acute cases are of atypical signs
- c- In Egypt, genotype 4, specially 4b presents more than 90% of infected cases d- All of them

# 61) For Hepatitis G virus

- a- Is single stranded RNA and of high detection rate in homosexuals
- b- Can be transplacentally transmitted and by blood transfusion
- c- Diagnosis is based on viral serology or PCR technique to detect viral genome
- d- Infection could results in chronicity

# 62) Concerning venereal syphilis, which is WRONG?

- a- The incubation period is in average 3 weeks
- b- Chancre persists for 3-12 weeks and inguinal lymph nodes on both sides become enlarged and hard
- c- Primary lesions are relatively more common in male than in women
- d- Secondary stage (rash) appears 2 to 6 months after the chancre heals

## 63) For endemic syphilis

- a- Common in childhoods and characterized by mucous patches in mouth
- b- Can turned into tertiary stage with development of neuro-syphilis and cardiovascular
- c- Recovery results in lifelong immunity
- d- All of them

# 64) Pinta is differentiated from yaws by

- a- Clinically, infected areas of pinta are red raised papillae on the uncovered parts of the body, upon healing leave areas with loss of normal pigment
- b- Serology to detect antibody
- b- Detection of etiology by dark field microscopy
- d- None of them

### 65) The most suitable test for diagnosis of congenital syphilis is

- b- VDRL test a-RPR - test
- c- Wasserman test d- TPHA test

### 66) Concerning VDRL test, All of the following are correct EXCEPT

- a- Chemically synthesized cardiolipin is used
- b- Heated plasma at 56°C for 30 min. is used
- c- Result is obtained in about 35 min
- d- The test is recorded as reactive or non-reactive and can be used to estimate the antibody titer.

## 67) Conjunctivitis in sexually active adults is resulted from ...... infection

a- HSVs

b- Ch. trachomatis biovar LGV

c- adenoviruses

d- all of them

### 68) All of the following cause nongonococcal urethritis EXCEPT

- a- Escherichia coli
- b- Ch. trachomatis biovar LGV

- c- M.urealyticum
- d- Ch. trachomatis biovar trachoma (D K)

#### 69) Obstacles to control of gonorrhea include

- a-long incubation period (usually 3 5 weeks)
- b- frequent asymptomatic infection female and male homosexual
- c- vaccine prevents only primary infection
- d- all of them

### 70) Third stage of AIDS is characterized by

- a- individuals have persistent clinical abnormalities such as fever, diarrhea, weight loss and fatique.
- b- rising circulating antibody to HIV with lymphadenopathy
- c- the ratio of T-helper to T-suppressor (T4:T8) cells has lower values as low as 0.2
- d- reactivation of latent infections

### 71) For human papillomaviruses infections

- a- Serotypes 1- 4 usually cause skin and plantar warts
- b- Serotypes 6-11 usually cause genital warts that are turned into cancer of cervix (the more common), and of vulva, vagina, anus and penis (the less common)
- c- Diagnosis based on serology for detecting virus antigen or virus isolation from a patient's tissue
- d- All of them

#### 72) Cell-mediated immunity is essential for elimination of

a- HSVs infections

b- CMVs- infections

c- Hepatitis A

d- all of them

#### 73) All the following viruses are transmitted by faecal-oral route EXCEPT

- a- Hepatitis A virus
- b- Cytomegalovirus

c- Rotavirus

d- Poliovirus

#### 74) Which of the following is TRUE about Rotavirus?

- a- It belongs to Family Reoviridae
- b- Single-stranded RNA viruses
- c- In temperate areas, infections occur throughout the year
- d- There are four species of rotavirus

#### 75) Herpangina is caused by which of the following viruses

a-Rotavirus

- b- Adenovirus
- c- Consackie virus A
- d- Poliovirus

#### 76) Coxsackie B virus is associated with

- a- Bornholm disease
- c- Isotonic diarrhoea

b- Meningomyeloencephalitis d- Constipation

### 77) Which of the following is FALSE about sabin vaccine?

- a- Attenuated vaccine
- b- Causes disease in immunodeficient persons
- c- Must be kept refrigerated
- d- Gives only humeral immunity

#### 78) All of the following are related to wool sorter's disease EXCEPT

- a- Occupational disease
- b- Spreads by droplets infection
- c- Characterized by malignant pustules
- d- Penicillin is a drug of choice

#### 79) Orf is caused by

- a- cow pox b- sheep pox
- c- horse pox
- d- monkey pox

#### 80) Concerning Listeriosis

- a- Caused by Gram-positive non motile bacterium
- b- Only transmitted by ingestion of unpasteurized infected milk
- c- Early-onset sepsis is acquired via vagina & results in premature birth
- d- No reliable serological or stool tests

#### 81) Brucella abortus causes

- a- Dengue fever b- Malta fever
- c- Parrot fever
- d- Yellow fever

## 82) Disease transmitted by contact to injured skin, ingestion & inhalation

- a- Anthrax b- Listeriosis
- c- Psittacosis
- d- All of them

#### 83) Orf is characterized by

- a- Irritating hemorrhagic papule
- b- Human infection is greatest in the winter
- c- No systemic spread
- d- Spreads by droplets infection

#### 84) Acute infections that caused by Leptospira include

- a- Canicola fever b- Trench fever c- Q fever
- d- Night fever

## 85) Concerning Psittacosis

- a- Occupational viral Disease
- b- Pulmonary signs include a nonproductive cough
- c- Penicillin is a drug of choice
- d- No reliable serological tests

## 86) All of the following match between disease and its corresponding animal EXCEPT

- a- Weil's syndrome → Rat
- b- Psittacosis → Parrot
- c- Typhus disease → Cattle
- d- Orf disease → Sheep

### 87) Concerning Trachoma

- a- Viral infection
- b- Causes reversible blindness
- c- Children are chief reservoirs
- d- Men suffer much more frequently than women

### 88) The causative agent of scabies is

- a- Male Sarcoptes scabiei
- c- Male Aedes africanus

- b- Female Sarcoptes scabiei
- d- Female Aedes africanus

### 89) Clinical diagnosis is the key point of diagnosis in case of

- a-Trachoma.
- b- Scabies
- c- Tetanus
- d- All of them

#### 90) Micro-immunofluorescence (MIF) is a gold standard technique for confirmation of infection by

- a- Listeria spp.
- b- Chlamydia spp. c- Leptospira spp
- d- All of them

## 91) Which of the following is TRUE about Lyssa-virus?

- a- Non enveloped
- b- Bullet-shaped
- c- Segmented, negative-sense, ssRNA virus
- d- All of them

#### 92) Concerning Rabies

- a- Transmitted by contact to the blood, urine, or faeces of a rabid animal
- b- RT-PCR of blood samples is now the test of choice for rapid diagnosis
- c- Rapid virus antigen detection before the onset of clinical symptoms
- d- Negri bodies are 100% diagnostic for rabies

#### 93) Which of the following is related to yellow fever?

- a- Half of the patients recover without significant organ damage
- b- Urban yellow fever transmitted by biting of mosquito Aedes africanus
- c- Sylvatic yellow fever transmitted by biting of mosquito Aedes aegypti
- d- All of them

#### 94) The spread of the virus is due to migration patterns of birds

- a- Dengue fever b- West Nile virus
- c- Relapsing fever
- d- Q fever

### 95) All rickettsiae are transmitted to humans through arthropods vector EXCEPT

a- Rickettsia rickettsii

b- Rickettsia prowazekii

c- Coxiella burnetii

d- Rochalimeas quintana

### 96) Which of the following causes disseminated intravascular coagulation?

a- Dengue fever

b- Relapsing fever

c- West Nile virus

d- Q fever

### 97) The vector of sandfly fever is

- a- Aedes africanus
- c- Culex pipiens

b- Phlebotomus papatasii d- Anopheles gambiae

### 98) Relapsing fever

- a- Arthropod- born rickettsial diseases
- b- Louse-borne relapsing fever caused by Borrelia duttoni
- c- No animal reservoir exists for tick-borne relapsing fever
- d- Tick-borne disease has more multiple episodes of fever than louse-borne

#### 99) Weil - Felix reaction is negative in case of

a- Rickettsial pox

- b- Scrub typhus
- c- Rocky mountain Spotted fever
- d- Epidemic typhus

# 100) All of the following match between disease and its corresponding causative agent

- a- Murine fever→ Rickettsia typhi
- b- Rocky mountain Spotted fever → Rickettsia rickettsii
- c- Night fever → Rickettsia akari
- d- Mediterranean sea fever → Rickettsia conorii

Good Luck



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86 AB DE

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45 A B C E

60 A O O D E	75 AB DE
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122 A B C D E	137 A B C D E
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124 A B C D E	139 A B C D E
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132 A B C D E	147 A B C D E
133 A B C D E	148 A B C D E
134 A B C D E	149 A B C D E
135 A B C D E	150 A B C D E

70 A 6 C D E

71 6 B C D E

72 ABC E

73 A C C D E

74 6 B C D E

55 B C D E

56 B C D E

57 6 B C D E

58 A O C D E

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