

الاسم الثلاثي :

الشهادة المتقدم اليها :

التخصص العام :

MCQ			المادة	ت
رقم الصفحة	الدرجة كتابة	الدرجة رقماً		
1			فسيولوجيا الاحياء المجهرية	1
2				
3			الانزيمات	2
4				
6-5			بكتريا مرضية	3
8-7				
10-9			مناعة	4
12-11				
13			تقنيات احيائية مجهرية	5
14				
15			بايولوجي جزيئي	6
المجموع من 60% =				
S.A			المادة	ت
رقم الصفحة	الدرجة كتابة	الدرجة رقماً		
16			فسيولوجيا الاحياء المجهرية	1
17				
18			الانزيمات	2
19				
21-20			بكتريا مرضية	3
23-22				
25-24			مناعة	4
27-26				
28			تقنيات احيائية مجهرية	5
29				
30			بايولوجي جزيئي	6
المجموع من 40% =				
الدرجة النهائية 100% =				

Choose the correct answer:-

Q1/The best definition of ATP is?

- a. a molecule stored for food use. b. a molecule stored for an energy reserve.
c. a molecule that supplies energy to do work. d. a molecule used as a source of phosphate

Q2/ If *pseudomonas* bacteria are supplied with radioactively labeled cytosine, after 24h. incubation period this cytosine would most likely be found in the cells's?

- a. carbohydrates. b. lipids. c. RNA d. plasma membrane. e. none of them.

Q3/ Secondary metabolites produced by bacterial growth cycle during?

- a- Lag phase b- Death phase c- Stationary phase d- Log phase

Q4/ Generation time is a?

- a- Time per-generations b-Time interval during lag phase c-Time required for cells death
- d-Time required for cells division

Q5/ Km has a relation with?

a-Enzyme concentration

b-Activation energy

c-Substrate concentration

Q6/ lecithinase is a?

a- Proteolytic enzyme

b- Esterase

c-Hydrolytic enzyme

Q7/ Lysozyme?

- a- Break down peptide bonds b-Break down glycosidic bonds c-Disrupt the cell wall of bacteria

Q8/ Glucose isomerase?

- a- Transforms glucose to dextrose b-Hydrolyses glucose c-Transforms glucose to fructose

Q9/ Which of the following test indicates the susceptibility to streptococcal pyrogenic exotoxin?

- a- Schick test
- b-Disk test
- c-ASO test
- d-Precipitation test

Q10/ Types of exotoxin, most commonly associated with botulism in man, is/are?

- a- Type A
- b- Type B
- c- Type E
- d- All of these

Q11/ Human transmission of Brucellae occurs by ?

- a- ingestion of contaminated meat
- b-direct contact with animal tissues
- c-ingestion of infected milk
- d-all of these

Q12/Acute diarrhoeal disease resembling cholera can be caused due to?

- A. *Aeromonas hydrophila*
- B. *Vibrio vulnificus*
- C. *V. alginolyticus*
- D. All of these

Q13/Which of the following *Staphylococcal haemolysins* does not cause lysis of human RBCs?

- A.β haemolysin
- B.γ haemolysin
- C.α haemolysin
- D.δ haemolysin

Q14/ Members of the genus *Mycobacterium* are?

- A. gram-positive
- B. acid-fast
- C. non-motile
- D. all of these

Q15/Heat-labile enterotoxin of *Escherichia coli* activates?

- A. guanylate cyclase
- B. adenylate cyclase
- C. both (a) and (b)
- D. none of these

Q16/ Which of the following genus belongs to family Spirochaetaceae?

- A. *Treponema*
- B. *Spirochaeta*
- C. *Borrelia*
- D. All of these

Q17/The agent(s) which can cause plague is/are?

- A. *Yersinia pestis*
- B. *Proteus mirabilis*
- C. *Pseudomonas aeruginosa*
- D. All of these

Q18/Which of the following serotypes of *Salmonella* can cause gastroenteritis?

- A. *S enteritidis*
- B. *S newport*
- C. *S typhimurium*
- D. All of these

Q19/ Dysentery may be caused by

- A. enteropathogenic *Escherichia coli*
- B. enteroinvasive *E. coli*
- C. enterotoxigenic *E. coli*
- D. verotoxigenic *E. coli*

Q20/ Sylvatic plague occurs in

- A. mice
- B. squirrels
- C. chipmunks
- D. all of these

Q21/ Members of the genus *Mycobacterium* are?

- a-gram-positive b-acid-fast c-non-motile d-all of these

Q22/ The most popular method for typing of *Pseudomonas aeruginosa* is?

- A. antibiogram
- B. serotyping
- C. bacteriophage
- D. pyocin

Q23/ Which of the following conditions can be caused by *Plesiomonas*?

- A. Septicaemia
- B. Gastroenteritis
- C. Cellulites
- D. All of these

Q24/ Which of the following condition is non-suppurative sequelae of *Streptococcus pyogenes* infections?

- A. Acute rheumatic fever
- B. Acute glomerulonephritis
- C. Erythema nodosum
- D. All of these

Q25/ Which of the following properties are the characteristics of tetanospasmin?

- A.It is a heat-labile protein
- B.It is a neurotoxin
- C.It can be toxoided
- D.All of these

Q26/ The test(s) used for the assay of cholera toxin is/are?

- A.Radioimmunoassay
- B.Enzyme-linked immunosorbent assay
- C.Morphological changes in Chinese hamster ovary cells
- D.All of the above

Q27/ Stormy clot reaction is useful in identification of?

- A.*C tetani*
- B.*C botulinum*
- C.*C perfringens*
- D.*C difficile*

Q28/ The bacteria which is novobiocin resistant is?

- A.*Staphylococcus aureus*
- B.*S epidermidis*
- C.*S saprophyticus*
- D.None of these

Q29/ If a person lacked the ability to form C5, what result of complement function not occur?

- a. opsonization b. cytolysis & chemotaxis c. chemotaxis & antigen recognition d. all

Q30/ The immunoglobulin class which is the least abundant in the normal adult is?

- a-IgA b- IgE c-IgM d-IgG

Q31/The Fab region of an Ig is responsible for?

- a - Complement fixation b- binding to antigen c- Binding to Fc receptors
e- Binding to macrophages

Q32/ Which complement protein is used as opsonin ?

- a. C3b b. C3a c.C5a d. C 4a

Q33/ Individuals unable to make the J protein found in certain immunoglobulin's would be expected to have frequent infections of the

- a- brain b-blood c. intestinal tract. d- live

Q34/ Superantigen?

- a- activate large number of B-cell b-hapten c-not needs degradation d. all

Q35/ All of the following are true with respect to IgM antibodies EXCEPT which one ?

- a. they fix complement b-they occur on the surface of lymphocytes c- They predominate in the primary response to antigen d- they mediate allergic reaction

Q36/ hapten to be immunogen needs?

- a- polysaccharide b-adjuvants c- carrier d-nothing

Q37/ The complementarity determining regions?

- a- Are restricted to light chains. b- Are in the constant part of the Ig molecule c- Bind to Fc receptors
d- Are concerned in antigen recognition

Q38/ Interferons?

- a- Are found only in mammalian species. b- Induce enzyme synthesis in the target cell.
a- Only affect infected cells. d- Are specific for viruses

Q39/ The first immunoglobulin heavy chain class to be expressed on the surface of a newly produced B-cell is?

- a- IgM b- IgA c- IgE d- IgG

Q40/ Epitope?

- a- part of T-cell b- part of antibody c- part of Ag d- all

Q41/ Which one group of the following cells is not phagocytic in nature?

- a. Neutrophil polymorphonuclear leucocytes. b. B lymphocytes. c. Microglial cells.
d. Macrophages.

Q42/ Antigens are usually?

- a- lipids b- Proteins c- Polysaccharides

Q43 / IgM ?

- a- can pass placenta b- may induce hypersensitivity c- is the early immune response.

Q44/ IgE?

- a- plays an important role in hypersensitivity b- is the early response for viral infection
b- is usually found in the mucosal surface

Q45/ Complement is a/ an?

- a- hormone b- Immunoglobulin c- humoral response d- enzyme cascade.

Q46/ Anaphylactic shock is?

- a- allergic response
b- Inflammatory reaction
c- Caused by IgG and IgE.

Q47/ Cells which are matured in the thymus are called?

- a- T cells
b- B cells
c- Megakaryocytes.
c- Macrophage

Q48/ T cells ?

- a- have Ig receptors on their surface
b- has IgD on their surface
c- synthesis immunoglobulins
d- do not have Ig receptors on their surface.

Q49/ B cells ?

- a- are responsible for hypersensitivity
b- secrete Ig
c- are long lived
d- when activated called plasma cells.

Q50/ Hybridoma is ?

- a- specific Ig
- b- cytokine
- c- technique for Ig purification
- d- source for monoclonal antibodies.

Q51/ Innate immunity is?

- a- specific
- b- Not specific
- c- Induced by infection
- d- acquired during life

Q52/Humoral immune response is?

- a- inherited
- b- Specific
- c- Long duration
- d- Short duration

Q53/ Autoimmune diseases are mostly due to?

- a- genetic factors
- b- viral infection
- c- bacterial infection
- d- complement deficiency

Q54/ B cells are matured in?

- a- thymus
- b- epithelial tissue
- c- lymphoid organs
- d- bone marrow

Q55/ Yeast is used in the production of ?

- a- ethyl alcohol b- acetic acid c- cheese d-Curd

Q56/ The fermenter can be sterilized by?

- a- keeping it in the oven b-steam under pressure c-boiling d-all of these

Q57/A clone is a group of organisms produced by ?

- a- asexual method and genetically similar
- b- asexual method and genetically dissimilar
- c- sexual method and genetically similar
- d- sexual method and genetically dissimilar

Q58/ Transgenic organisms are ?

- a- produced by gene transfer technology
- b- extinct organisms
- c- naturally occurring and endemic
- d- produced by traditional plant breeding technique

Q59/ Among types of mutation occurred to genes is?

- a- Transformation b-transgenic c- transition

Q60/ Frame shift mutation mean?

- a- Changes in the reading frame of the gene b- Change in the direction of polymerase.
c- Change in repairing of DNA segments

Answer the following questions briefly:-

Q1/ Why are the UV radiations useful in destroying microorganisms on the surfaces?

Q2/ What are the Inclusions bodies?

Q3/ compare between enzymes and proteins?

Q4/ define the enzyme unit?

Q5 / What are the prions?

Q6 / Why listeriosis is a serious problem?

Q7/ What is MRSA?

Q8/ *Staphylococcus aureus* is more likely to form abscesses than the organism *Streptococcus pyogenes*, explain?

Q9/ What are the major virulence factors in EAEC?

Q10/ How are Shigella bacteria spread?

Q11/ What is campylobacteriosis?

Q12/ How is E. coli O157:H7 infection diagnosed?

Q13/Mention the Koch postulates?

Q14/ Mention three bacterial spp. Which caused UTI ?

Q15/ Mention the main bacterial virulence factor ?

Q16/ define LD50, how can measuring?

Q17/ what is the meaning of vertical transmission ?

Q18/ mention disease caused by E.coli ?

Q19/ define normal flora ?

Q20/ mention types of pathogens ?

Q21/ What is the structure and function of IgG?

Q22/ List only function of complement system?

Q23/Adjuvant and its mechanisms with examples?

Q24/ mention the types of hypersensitivity and explain one?

Q25/ list in a table the main differences between T dependent and T independent antigen?

Q26/ Define superantigen with examples?

Q27/ Mention the gradual steps of phagocytosis?

Q28/ Explain the principle of ELISA test?

Q29/ What is the difference between cytokines and hormones?

Q30/ Define: positive selection?

Q31/ Who does interferon prevent viral infection?

Q32/ What do you know about rheumatoid factor?

• Q33/ What do we mean by latency?

Q34/ What are the main properties of antigen?

Q35/ List some of the immunogenic factors in bacteria?

Q36/ Name all immunoglobulin's?

Q37/ What is the meaning of Cigarettes biotechnology?

Q38/ What do you mean by insertion of DNA into the host cell?

Q39/ Define the plasmids and mention their essential roles?

Q40/ Mention the main differences between stringent plasmid and relaxed plasmids?