REV-01
BMLT/13/17

2022/12

BACHELOR IN MEDICAL LABORATORY TECHNOLOGY
THIRD SEMESTER
MICROBIOLOGY-III
BMLT-304

SET A

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs. **Full Marks: 70**

Objective

Time: 30 mins. **Marks: 20**

Choose the correct answer from the following: *1×20=20*

1. Which immunoglobulin class can pass through placenta?
   a IgM b IgG
   c. IgD d IgA

2. Which is the first immunoglobulin to appear in response to an antigen?
   a IgD b IgA
   c. IgM d IgG

3. Classical pathway of the complement is activated by
   a Antigen b Antigen-Antibody complex
   c. Antibody d None of the body

4. Natural killer cells play an important role in
   a. Antiviral activity b Antitumour activity
   c. Allograft rejection d All the of the above

5. Which of the following hypersensitivity reactions has cell mediated immune response?
   a. Type I b Type II
   c. Type III d Type IV

6. Father of immunology is
   a Edward Jener b Louis Pasteur
   c. Robert hook d Shiv ram Kashyap

7. Which class of immunoglobulin mediates type I hypersensitivity reactions?
   a IgD b IgG
   c. IgE d IgM

8. Chemical mediators released during type I hypersensitivity reactions may be :
   a Histamine b Serotonin
   c. Both a &b d None of the above

9. All are example of autoimmue disease except
   a Diabetes b Grave's disease
   c. Autoimmune haemolyticanaemia d Rheumatoid arthritis

10 Grafts between two genetically non-identical members of the same species are known as:
   a Autografts b Isografts
   c. Allografts d Xenografts

11 Prozone Phenomenon means

a Excess of Antigen
b Excess of Antibody
c. Same amount of antigen and antibody
d It's a hypersensitivity reaction

12 Haptens are

a Incomplete Ag
b. Unable to induce antibody formation on its own
c. Complete Ab
d Both a & b

13 Father of vaccination is

a. Edward Jenner
b Louis Pasteur
c. Robert hook
d None of the above

14 WIDAL test is done for

a Syphilis
b Typhoid
c. Hepatitis
d HIC

15 Class II MHC antigens are present on

a Macrophages
b Activated T lymphocytes (CD4)
c. Monocyte
d All of the above

16 Arthus reaction is an example of:

a. Type I hypersensitivity reaction
b Type III hypersensitivity reaction
c. Type II hypersensitivity reaction
d Type IV hypersensitivity reaction

17 Lens protein of eye is an example of:

a Sequestered antigen
b Cross-reacting foreign antigen
c. Neoantigen
d None of the above

18 Ag present in the

a Surface of WBC
b Surface of RBC
c. Both a & b
d Surface of platelet

19 Which one is not types of Transplant are

a Autograft
b Isograft
c. Xenograft
d Hemograft

20 HbsAg standS for

a Hepatis b surface antigen
b Haeto b surface antigen
c. Hepatitis b suffixe antigen
d Hepatitis b surface antigen

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Descriptive

Time : 2 hrs. 30 mins. **Marks : 50**

[Answer question no.1 & any four (4) from the rest]

1. Explain the innate and acquired immunity in details 5+5=10

2. Draw a structure of antibody. Write the function of different types of immunoglobulin. 5+2+3=10

3. Define hypersensitivity reaction. Discuss briefly about type 1 and type 4 hypersensitivity reaction. 2+8=10

4. Write a short note on classical pathway of complement system. 10

5. a) What do you mean by quality control? Explain quality control of serology in details. 5+5=10
   b) Explain Widal test in detail.

6. a) Write a short note on vaccine. 4+6=10
   b) Explain antigen and antibody reactions in details

7. a) Explain major histocompatibility complex with diagram. 6+4=10
   b) Write a short note on immunodeficiency disease

8. a) Explain the cellular components of immune system. 6+4=10
   b) Explain the types of graft.

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