

B.Sc. Sem.-6 Examination

CC - 309

Health-Hygiene

July 2021

Time : 2-00 Hours]

[Max. Marks : 50

1. (A) Write various mode of action of antibiotics and explain any one in detail. 7
(B) Discuss Historical developments in Chemotherapy of diseases. 7
 2. (A) Discuss mechanism of drug resistance in microorganisms. 7
(B) Explain principle and application of Bioassay. 7
 3. (A) Describe history of Physiotherapy and various physiotherapy treatment in Orthopedic conditions. 7
(B) Describe Physiotherapy and exercise recommended for respiratory system. 7
 4. (A) Write the benefits and needs of aerobic exercise. 7
(B) What is Rehabilitation? Explain the role of Physiotherapy in rehabilitation. 7
 5. (A) Explain principle of gene therapy giving suitable example. 7
(B) Describe sources of stem cells and their therapeutic units. 7
 6. (A) Write a note on drug delivery using nanoparticles. 7
(B) Explain micro RNA and any one molecular scissor as therapeutic agent. 7
 7. (A) Describe types of counseling and stress interpretation. 7
(B) Write note on Psychotropic drugs and their effects. 7
 8. (A) Write indications, procedures and risk associated with brain stimulation treatment. 7
(B) Write a detailed note on Euthanasia. 7
 9. Answer the following (Any eight) 8
1. What is meant by antibiotic resistance?
A. It means our body has become resistant to the antibiotic
B. It means the bacteria have developed antibiotic resistance
C. Both (a) and (b)
D. None of the above
 2. Which of the following techniques cannot be used to determine the minimum inhibitory concentration of an antimicrobial drug against a particular microbe?
A. Etest
B. microbroth dilution test
C. Kirby-Bauer disk diffusion test
D. macrobroth dilution test
 3. Which hormone is known as emergency hormone?
A. Insulin
B. Thyroxin
C. Estradiol

(P.T.O)

- D. Adrenaline
4. The antibiotic penicillin was discovered by which of the following researchers?
- A. Emmerich and Low
 - B. Gratia and Dath
 - C. Alexander Flemming
 - D. Vuillemin
5. The major molecules responsible for rejection of transplant is
- A. B cells
 - B. T cells
 - C. MHC molecule
 - D. antibodies
6. _____ is one of the most important aspects of biomaterial-tissue interactions.
- A. Biocompatibility
 - B. Bioavailability
 - C. Bioequivalence
 - D. Bioluminescence
7. Which of the following has the maximum transplantation success rate
- A. autograft
 - B. xenograft
 - C. allograft
 - D. syngeneic graft.
8. Somatic cell gene therapy is used for following types of cell Except:
- A. Bone marrow cells
 - B. Blood cells
 - C. Skin cells
 - D. Sperm cells
9. Which media is used in Multiple inhibitory concentration ?
- A. Ellinghausen and McCullough Medium
 - B. Mueller Hinton Broth
 - C. Mannitol Salt Agar
 - D. Modified Korthoff's Medium
10. The method of post transcriptional gene silencing is particularly useful in _____
- A. plants
 - B. animals
 - C. insects
 - D. microorganisms
11. Radiation is used to _____.
- A. Destroy healthy tissues surrounding a tumor, preventing the conversion of those cells
 - B. Kill cancer cells directly via the induction of DNA damage and cell death
 - C. Prevent cancer growth by destroying nearby blood vessels
 - D. Force normal cells to kill nearby cancer cells

M128-3

12. The commonly used vector in gene therapy to carry target gene into host cells is _____

- A. Bacteria
- B. Fungi
- C. Virus
- D. Eukaryotic cell

13. What is a stem cell?

- A. cell that can make copies of itself and make more specialized types of cell
- B. cell that helps to fight against infections
- C. cell that is specialized
- D. cell that can produce all the cell types of the body

14. _____ is the first process involved in Biomaterial-Tissue interaction.

- A. Foreign Body Response
- B. Elongation
- C. Adhesion
- D. Replication

15. ELISA (enzyme-linked immunosorbent assay) allows for rapid screening and quantification of the presence of _____ in a sample.

- A. Protein
- B. Enzyme
- C. Antigen
- D. Amino acid

16. Bailey and Sarah have been trying to have a baby for over a year. They just found out that

Sarah's ova are viable, but she is not ovulating on a regular basis. What fertility method are they candidates for?

- A. donor ivf
- B. artificial insemination
- C. embryonic transfer
- D. in vitro fertilization

17. Procedures used to treat infertility are...

- A. ICSI - Intracytoplasmic Sperm Injection
- B. IVF - In Vitro Fertilization
- C. IUI - Intrauterine insemination
- D. All of these

18. _____ are supportive structures used in tissue engineering, these allow the cells to propagate and form a tissue.

- A. Scaffolds
- B. Blood
- C. Endoderm
- D. Bones

(P.T.O)

M128-4

19. Cell-wall biosynthesis is inhibited by antibiotics by inhibiting the biosynthesis of which of the following?

- A. lipopolysaccharide
- B. cellulose
- C. peptidoglycan
- D. proteins

20. Which of the following statements is false?

- A. Antibodies bind to foreign objects introduced into an organism.
- B. Antibodies can bind to proteins on cancer cells.
- C. Antibodies are composed of four proteins joined in a structure that resembles a "Y".
- D. Antibodies stimulate cancer cells to produce immunotoxins.

