

SEAT No. _____

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Sardar Patel University

Semester-III

Saturday, 02nd January 2021

US03CBIT-02

(Application of Biotechnology-I)

Time: 02: 00 P.M to 04:00 P.M

Marks: 70

Q-1 Multiple Choice Question (Attempt all)

[10]

1. Disaggregation of epithelium tissue requires ?
 - a) EtBr
 - b) SDS
 - c) EDTA
 - d) BSA
2. Most normal untransformed cells survive and proliferate to produce
 - a) Primary culture
 - b) Secondary culture
 - c) Continuous cell lines
 - d) None of the above
3. Surface available for attachment of culture is called as ?
 - a) Stage
 - b) Media
 - c) Substrate
 - d) None of the above
4. Which vitamin is not seen in MS medium?
 - a) Niacin
 - b) Riboflavin
 - c) Thiamine
 - d) None
5. Which of the following cell is said to be totipotent?
 - a) Parenchyma
 - b) Scherenchyma
 - c) Sieve Cells
 - d) Cork cells
6. Which of the following is artificial medium?
 - a) Coconut milk
 - b) Fruit Juice
 - c) LS medium
 - d) All of the above
7. In the process of electroporation the current used is _____.
 - a) One Discharge
 - b) Pulse
 - c) Continuously
 - d) All of the abvoe
8. Which among the following is first clone sheep?
 - a) Dolly
 - b) Rolly
 - c) Polly
 - d) Molly
9. Also known as fungal foot.
 - a) Lichens
 - b) Mycorhizza
 - c) Frankia
 - d) Rhizobium
10. _____ is a free living nitrogen fixing bacterium surrounds rhizosphere.
 - a) *Rhizobium*
 - b) *Spiruilium*
 - c) *Azotobacter*
 - d) All of the above

Q-2 Answer the following (Attempt All)

[08]

1. _____ is used as surface sterilization of root nodules is done by _____.

2. *Agaricus bisporus* is an edible mushroom. State True or False.
3. Liposome fusion takes place in _____ ions.
4. A chimera is an individual which has in its body cell of two or more genotype. State true or false.
5. Continuous culture is also know as closed system,. State true or false.
6. _____ is obtained from Marine red algae.
7. Defined media are usually supplemented with 5-20% of serum. State true or false.
8. Mycoplasma contamination can be detected by _____.

Q-3

Short Question (Attempt any ten)

{20}

1. What are defined media?
2. Give advantages of serum free medium.
3. What are stem cells? Enlist types of stem cells.
4. Define somatic organogenesis.
5. On what principle does autoclave works.
6. Give use of gibberallic acid in PTC
7. Define liposome and virosome
8. Give account on DEAE-dextan mediated transfect ion
9. Why mouse is preferred animal for gene transfer?
10. What is spawn?
11. Give advantage of SCP
12. Define : Biofertilizer and Biopesticide

Q-4

Long Question (Attempt any four)

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1. Discuss in detail Mushroom Cultivation.
2. Explain Mycorrhizal fungi as Biofertilizer.
3. Describe the embryonic stem cell transfer technology for mice and discuss its various application and limitation.
4. Discuss the application of transgenic fish and their production.
5. Give detail composition of MS medium.
6. Discuss various sterilization process in PTC.
7. Explain natural media in detail.
8. Explain Mechanical and Enzyme Disaggregation.

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