

Yashwantrao Chavan College of Science, Karad
B.Sc. – III
Paper X – Animal cell culture

Question Bank

Q 1) Answer the following questions choosing the correct alternatives given below them

- 1)----- is not the major function of the serum
 - a) Promotion of tuber and bulb formation
 - b) stimulate cell growth
 - c) Enhance cell attachment
 - d) provide transport protein
- 2) The production of complete animals from somatic cell of an animal is called -----
 - a) Gene cloning
 - b) animal cloning
 - c) cll cloning
 - d) all of these
- 3) The first successfully cloned animal was -----
 - a) monkey
 - b) gibbon
 - c) sheep
 - d) rabbit
- 4)----- are the techniques used for embryo culture
 - a) Organ culture on plasma clots
 - b) Organ culture on agar
 - c) Whole embryo culture
 - d) All of these
- 5) The technique of organ culture may be divide on the basis of employing -----
 - a) Solid medium
 - b) liquid medium
 - c) both solid and liquid medium
 - d) semi solid
- 6) The first vaccine developed from animal cell culture was -----
 - a) Hepatitis B vaccine
 - b) influenza vaccine
 - c) small pox vaccine
 - d) polio vaccine
- 7) In late 1040's ----- grew poliomyelitis virus in culture.
 - a) Enders, Weller and Robbins
 - b) Alecs carrel
 - c) Ross Harisson
 - d) Jolly
- 8) ----- is added in medium to reduce oxygen toxicity
 - a) Boron
 - b) Silicon
 - c) Phosphorous
 - d) selenium

- 9) The term ----- is used when each colony grows from a single clone.
- a) Seeding efficiency b) cloning efficiency
c) plating efficiency d) Population efficiency
- 10) In clonogenic assay, cell viability is determined by --- -----
- a) Plating efficiency b) labeled chromium
c) nigrosine green d) trypan blue
- 11) Low serum ,high cell density and availability of growth factors in medium leads to --

- a) Cell proliferation b) cell differentiation
c) Cell growth d) cell doubling
- 12) Avian cells are cultured at -----temperature
- a) 32°c b) 4°c
c) 40 °c d) 38.5°c
- 13) Doubling time for finite cell line ranges from -----hrs
- a) 24-96 b) 12-14
c) 20-25 d) 4-11
- 14) Animal used for large scale production of recombinant protein is called as -----
- a) biostrater b) biocatalyst
c) bioreactor d) bioamplifire

Q 2) Long Answer

- 1) Explain different types of methods used for gene transfer?
- 2) What is stem cell culture?
- 3) Define organ culture and give its types?
- 4) Explain monoclonal antibody production by Hybridoma technology
- 5) Give details account of enzymatic method for tissue disaggregation
- 6) What is animal cell culture? Describe natural media used for culturing animal cells

Q 3) Short notes

- 1) Serum containing media
- 2) Haemocytometer
- 3) Culture based vaccines
- 4) Transgenic animal

- 5) Suspension culture
- 6) Application of animal cell culture
- 7) Electroporation
- 8) Types of stem cell
- 9) Karyotyping
- 10) Application of animal cell culture

