

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2015**(UG–CCSS)****Core Course—Biotechnology****BT 6B 02—ANIMAL BIOTECHNOLOGY****Time : Three Hours****Maximum : 30 Weightage****I. Objective type questions. Answer **all** questions :****1 Serum can be sterilized by :**

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|-----------------|-----------------------|
| (a) Autoclave. | (b) Boiling at 60° C. |
| (c) Filtration. | (d) Hot air oven. |

2 Characteristic of cancerous cells :

- | | |
|------------------------------|-------------------------------|
| (a) High contact inhibition. | (b) Loose contact inhibition. |
| (c) Definite life span. | (d) None of these. |

3 Which one is a feeder layer ?

- | | |
|-----------------------|----------------------|
| (a) Mouse fibroblast. | (b) HeLa cells. |
| (c) Kidney cells. | (d) Epidermal cells. |

4 Monoclonal antibody is developed by :

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|----------------------|-----------------------------|
| (a) rDNA technology. | (b) Hybridoma technology. |
| (c) Immunoblotting. | (d) Immuno electrophoresis. |

5 Which among is a natural medium ?

- | | |
|--------------------|---------------------|
| (a) HEPES. | (b) Eagle's medium. |
| (c) Whites medium. | (d) Plasma clot. |

6 Which one is a normal cell line ?

- | | |
|-------------|-------------|
| (a) MRC-5. | (b) HeP-G2. |
| (c) CaCO-2. | (d) MCF-7. |

State True or False :**7 Trypan Blue is a vital stain.****8 Dead cells absorb Evan's blue.****9 Primary cells are anchorage dependent.****Turn over**

- 10 Interleukins are produced by nestcells.
- 11 CMV is an animal virus vector.
- 12 CaCl_2 is a chemical used for somatic cell fusion.

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II. Short Answer Type Questions. Answer all *nine* questions :

- 13 Inverted microscope.
- 14 CO_2 incubator.
- 15 Tryphan blue exclusion.
- 16 SV-40 virus.
- 17 Amniotic fluid.
- 18 Established cell line.
- 19 Hollow-fiber reactor.
- 20 HEPES.
- 21 Pleuripotent.

(9 x 1 = 9 we

III. Short Essay. Answer any *five* questions :

- 22 Give brief account on natural media.
- 23 Explain role of serum in the medium.
- 24 Discuss different animal viral vectors.
- 25 Discuss about cell line chracterization.
- 26 What is cell cloning ? Explain different cell cloning methods.
- 27 List out essential equipments in an animal cell culture lab.
- 28 Explain the principle and method of MTT based cytotoxicity assay.

(5 x 2 = 10 weightag

IV. Essay Questions. Answer any *two* questions :

- 29 Explain the protocol for isolation and preparation of primary cell culture of mouse embryo.
- 30 Discuss the characterization and maintenance of cell lines.
- 31 Describe media components of animal cell culture.

(2 x 4 = 8 weightage)