

M. Sc. (Biotechnology) Sem-II (CBCS 2018 Course) : SUMMER - 2019

SUBJECT: - ANIMAL TISSUE CULTURE

Day : **Saturday**
Date : **20/04/2019**

S-2019-1432

Time : **02.00 PM TO 05.00 PM**
Max. Marks. : **30**

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Attempt Section I and Section II in same Answer Book
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SECTION-I

Q.1 Attempt **ANY SEVEN** of the following: (07)

- a) State the working of horizontal laminar flow hood.
- b) Define 'cell strain'.
- c) Write the principle of sterilization using autoclave.
- d) How pH of culture medium is identified?
- e) What is an open culture system?
- f) What is cross contamination?
- g) State the formula for enumeration of cells.
- h) Define 'density dependent inhibition of mitosis'.

Q.2 Attempt **ANY TWO** of the following: (08)

- a) What is balanced salt solution? Explain its role in tissue culture.
- b) Define animal cell culture. Explain its advantages and limitations.
- c) What is primary culture? Explain explant culture method for its preparation.

SECTION-II

Q.3 State the role of following in ATC. (Attempt **ANY SEVEN**) (07)

- a) Stirrer flask
- b) Peniciline and Streptomycin.
- c) EDTA
- d) Dimethyl sulfoxide
- e) Serum free medium
- f) Roller bottles
- g) Propidium iodide
- h) MTT dye

Q.4 Attempt **ANY TWO** of the following: (08)

- a) How anchorage dependent cell lines are subcultured?
- b) What are microcarriers? Explain their use in tissue culture.
- c) Compare the growth characteristics of normal and continuous cell line.

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