University of Mumbai
Examination 2020 under cluster 3 (FCRIT)

Program: BE Biotechnology

Curriculum Scheme: Revised 2016

Examination: Third Year Semester VI

Course Code: BTC 602 and Course Name: Cell and Tissue Culture

Time: 1 hour Max. Marks: 50

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Note to the students: - All the Questions are compulsory and carry equal marks.

Q1.	Which of the following hormones is used for rooting?
Option A:	Auxin
Option B:	Cytokinin
Option C:	Gibberellic Acid
Option D:	Ethylene
Q2.	Murashige and Skoog Plant Tissue Culture media has a pH of _____
Option A:	4.2
Option B:	4.5
Option C:	5.8
Option D:	7.7
Q3.	Which of the following plant hormone control fruit ripening?
Option A:	Ethylene
Option B:	Auxin
Option C:	Gibberellins
Option D:	Abscisic acid
Q4.	Which of the following is an Auxin?
Option A:	6-Benzylaminopurine
Option B:	Kinetin
Option C:	2,4 Dichlorophenoxyacetic acid
Option D:	Zeatin
Q5.	Artificial Cells are encapsulated in
Option A:	Sodium Alginate
Option B:	Sephadex
Option C:	Calcium Chloride
Option D:	Poly Vinyl Chloride
Q6.	Scale up of Plant Tissue Culture is Commonly Employed in
Option A:	Artificial Seeds preparation

Option B:	Organogenesis
Option C:	Organ Culture
Option D:	Single Cell culture
Q7.	Cytoplasmic Hybrids are called as
Option A:	Cybrids
Option B:	Cbrids
Option C:	C-Hybrids
Option D:	Fusion Hybrids
Q8.	Which of the following method is NOT a part of Single Cell Culture technique?
Option A:	The Paper Raft Nurse Technique
Option B:	The Micro-chamber Technique
Option C:	The Micro-droplet Technique
Option D:	The Shake Culture Technique
Q9.	Which technique is used to introduce genes into dicot?
Option A:	Microinjection
Option B:	Particle acceleration
Option C:	Electroporation
Option D:	Ti plasmid infection
Q10.	Because of large size of Ti-plasmid, intermediate vectors (IV) are developed in which T DNA has been subcloned into
Option A:	pRN3
Option B:	pRK 2013
Option C:	pCR 322 based plasmid vector
Option D:	pBR 322 based plasmid vector
Q11.	Which of the following chemical enhances vir gene expression?
Option A:	Cyanidin
Option B:	Glutenin
Option C:	Acetosyringone
Option D:	Dextran
Q12.	What is plantibodies?
Option A:	The products of plants that have been genetically engineered to express antibodies
Option B:	The products of plants that have been genetically engineered to express antigen
Option C:	The products of plants that have been genetically engineered to express antibodies and antigen
Option D:	The products of plants that have not genetically engineered to express antibodies
Q13.	The size of virulent plasmid of *Agrobacterium tumefaciens* is
Option A:	140-235kb
Option B:	80-120kb
Option C:	100kb

Option D:	>250kb
Q14.	The left segment of octopine T-DNA (TL) is necessary for
Option A:	Agropine biosynthesis
Option B:	Tumour formation
Option C:	Conjugative transfer
Option D:	Binary transfer
Q15.	According to Eagle, the growth of L-strain and Hela-strain cultures require to have mandatory presence of
Option A:	6 amino acids
Option B:	8 amino acids
Option C:	10 amino acids
Option D:	12 amino acids
Q16.	What is the concentration of CO_2 required for culturing animal cells?
Option A:	2-5%
Option B:	1-10%
Option C:	10-15%
Option D:	15-20%
Q17.	Name the type of culture which is prepared by inoculating directly from the tissue of an organism to culture media?
Option A:	Primary cell culture
Option B:	Secondary cell culture
Option C:	Cell lines
Option D:	Transformed cell culture
Q18.	Trypsin is a
Option A:	Amylolytic
Option B:	Cellulolytic
Option C:	Proteolytic
Option D:	Bacteriolytic
Q19.	Cell surface proteins that promote cell-cell contact cause cells to do which of the following?
Option A:	Find other cells
Option B:	Anchor to plastic surfaces
Option C:	Stop growing due to contact inhibition
Option D:	Allow cells to know where they are located
Q20.	The point of adhesion between two chromatids in a chromosome is
Option A:	Adhesin
Option B:	Spindle fibre

Option C:	Centromere
Option D:	Chromatin
Q21.	VNTR stands for
Option A:	Variable Number Tandem Repeat
Option B:	Variable Nucleotide Tandem Repeats
Option C:	Variable Normal Tandem Repeats
Option D:	Variable Non-Random Tandem Repeats
Q22.	The highly repetitive, not transcribed regions of the DNA that are used in the DNA Fingerprinting are:
Option A:	Transposons
Option B:	Satellite DNA
Option C:	Polymorphic DNA
Option D:	Repetitive DNA
Q23.	Genetically engineered Human insulin is called
Option A:	Hybridoma
Option B:	Haematin
Option C:	Humulin
Option D:	Hybrid
Q24.	Vaccines prepared through recombinant DNA Technology are called
Option A:	First generation vaccines
Option B:	Second generation vaccines
Option C:	Third generation vaccines
Option D:	Forth generation vaccines
Q25.	Which of the following cell lines is commonly used for production of Interferon molecules
Option A:	Hela cell line
Option B:	CHO cell line
Option C:	Namalwa cell line
Option D:	PC3 cell line

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Question	Correct Option
Q1.	A
Q2.	C
Q3.	A
Q4	C
Q5	A
Q6	A
Q7	A
Q8.	D
Q9.	D
Q10.	D
Q11.	C
Q12.	A
Q13.	A
Q14.	B
Q15.	D
Q16.	B
Q17.	A
Q18.	C

Q19.	C
Q20.	C
Q21.	A
Q22.	B
Q23.	C
Q24.	C
Q25.	C