

University of Mumbai
Examination 2020 under cluster 3 (FCRIT)

Program: BE Biotechnology

Curriculum Scheme: Revised 2016

Examination: Third Year Semester VI

Course Code: BTE 6023 and Course Name: Elective-II Cancer Biology

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 is a part of interphase?
Option A:	Synthesis phase
Option B:	Prophase
Option C:	Metaphase
Option D:	Telophase
Q2.	Tumor suppressor genes are also known as
Option A:	Proto oncogenes
Option B:	Oncogenes
Option C:	Anti-oncogenes
Option D:	Mutator genes
Q3.	The division of cytoplasm is known as
Option A:	Mitosis
Option B:	Cytokinesis
Option C:	Karyokinesis
Option D:	Meiosis
Q4.	p53 is activated by
Option A:	Phosphorylation
Option B:	Carboxylation
Option C:	Methylation
Option D:	Dephosphorylation
Q5.	Retinoblastoma tumor suppressor gene is
Option A:	p53
Option B:	Proto oncogene
Option C:	pRb
Option D:	p21
Q6.	Cyclin is associated with

University of Mumbai
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Option A:	Glycolysis
Option B:	Leptospirosis
Option C:	Cyclosis
Option D:	Mitosis
Q7.	A carcinogen is
Option A:	A type of blood disease
Option B:	A type of cancer
Option C:	A cancer causing agent
Option D:	A gene
Q8.	Most important biochemical effect of UV radiation is the formation of
Option A:	Adenine dimers
Option B:	Guanine dimers
Option C:	Purine pyrimidine dimers
Option D:	Pyrimidine dimers
Q9.	Ionizing radiation does not cause
Option A:	Chromosome breakage
Option B:	Translocations
Option C:	Point mutations
Option D:	Pyrimidine dimers
Q10.	The repair mechanism for replication errors is
Option A:	Base Excision Repair
Option B:	Mismatch Repair
Option C:	Nucleotide Excision Repair
Option D:	Recombinational Repair
Q11.	The main protein involved in non homologous end joining is
Option A:	Amylase
Option B:	Protease
Option C:	Ligase
Option D:	Kinase
Q12.	The following viruses are associated with human cancers
Option A:	RSV
Option B:	HIV
Option C:	Adenovirus
Option D:	Rubella
Q13.	Rous Sarcoma is a form of cancer which infects

University of Mumbai
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Option A:	Monkeys
Option B:	Goats
Option C:	Chickens
Option D:	Cows
Q14.	NF- κ B regulates the genes that control
Option A:	Transcription
Option B:	Cell proliferation and cell survival
Option C:	Cell apoptosis
Option D:	Translation
Q15.	Binding of EGF ligand to its receptor is facilitated by which domains?
Option A:	Extracellular domains I and IV
Option B:	Extracellular domains I and II
Option C:	Extracellular domains II and III
Option D:	Extracellular domains I and III
Q16.	Oncogenes do not encode for
Option A:	Trans-membrane protein receptors
Option B:	Growth factors
Option C:	DNA-dependent RNA polymerase
Option D:	Cytoplasmic G-proteins and protein kinases
Q17.	Programmed cell death is termed as
Option A:	Metastasis
Option B:	Apoptosis
Option C:	Proliferation
Option D:	Mitotic termination
Q18.	Which property of p53 enables it to prevent the development of cancer?
Option A:	It is a transcription factor that causes protein production which stimulates the cell cycle
Option B:	It prevents replication of cells with damaged DNA
Option C:	It prevents cells from triggering apoptosis
Option D:	It stimulates synthesis of DNA repair enzymes that replace telomere sequence lost during cell division
Q19.	Which process is most closely associated with the majority of cancer deaths?
Option A:	Uncontrolled cell division during hyperplasia
Option B:	New mutations that lead to the enlargement of a cancer in its initial location
Option C:	Angiogenesis to the primary tumor
Option D:	Metastasis
Q20.	The process of destroying cancer cells with the help of radiation is
Option A:	Radiotherapy
Option B:	Physiotherapy

University of Mumbai
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Option C:	Uroplasty
Option D:	Rehabilitation
Q21.	Through what systems can a cancer cell travel during metastasis?
Option A:	Nervous and Lymphatic
Option B:	Circulatory and Nervous
Option C:	Musculoskeletal and Circulatory
Option D:	Circulatory and Lymphatic
Q22.	Name the chemical carcinogen which causes prostate cancer
Option A:	Radon
Option B:	Arsenic
Option C:	Cadmium
Option D:	Asbestos
Q23.	What is the origin of the cancerous cells?
Option A:	Monoclonal
Option B:	Polyclonal
Option C:	Stem cells
Option D:	Mesodermal cells
Q24.	p53 gene is located on
Option A:	14 th Chromosome
Option B:	15 th Chromosome
Option C:	16 th Chromosome
Option D:	17 th Chromosome
Q25.	How were retroviruses discovered?
Option A:	In chickens as Rous sarcoma
Option B:	In humans as HTLV-1
Option C:	In mice causing leukaemia
Option D:	In cats causing leukaemia

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

University of Mumbai
Examination 2020 under cluster 3 (FCRIT)

Q18.	B
Q19.	B
Q20.	A
Q21.	D
Q22.	C
Q23.	A
Q24.	D
Q25.	A