



BRAINWARE UNIVERSITY
ODD Semester Examinations 2021- 22

Programme – Bachelor of Physiotherapy - 2020 [B.Physiotherapy]

Course Name – Biotechnology and Human Welfare

Course Code – GEPT301

(Semester III)

Time allotted : 1 Hour 15 Minutes

Full Marks : 60

(Multiple choice type question)

60 x 1 = 60

Choose the correct alternative from the following

- (I) In Ti plasmid the opine synthesis gene is located
- A) near the left T-DNA border
B) near the right T-DNA border
C) in between vir region and left T-DNA border
D) near to Ori genes
- (II) Serum sickness is an example of
- A) Type I immune complex disease
B) Type II hypersensitivity
C) Type III immune complex disease
D) Type IV hypersensitivity
- (III) Point mutation refers
- A) Chromosome deletion
B) Chromosome addition
C) DNA base injury
D) None of these
- (IV) Psychrophiles grows in
- A) 15 to 20°C
B) 35 to 45°C
C) 45 to 100°C
D) all of these
- (V) The percentage of nitrogen in the air is
- A) 75%
B) 78%
C) 15%
D) 70%
- (VI) What is a measure of the average additional pounds of milk and fat the bull will transmit to his daughters called?
- A) Age
B) Efficiency
C) Predicted difference
D) Milking capacity
- (VII) Advantage of live vaccines are
- A) Long term protection
B) Both cellular and humoral responses
C) one or few doses normally required
D) All of these.
- (VIII) Method of disposal for dairy product processing
- A) Land filling
B) Land spreading
C) both of these
D) None of these
- (IX) What is percentage of fungal resources used for optimum enzyme production?
- A) 22
B) 60
C) 4
D) 40
- (X) PEG is used in gene transfer in plants by
- A) Biological method
B) Physical method
C) Chemical method
D) Mechanical method
- (XI) Mismatched blood group transfuse causes
- A) Activation of cytotoxic cells
B) Activation of Type II hypersensitivity
C) Activation of IgE
D) Activation of IgM
- (XII) An example of protein engineering is

- A) Co-vaccine
C) Humulin
- B) Covisheald
D) BT- cotton
- (XIII) Which one of the following marker is of co-dominant type?
A) RAPD.
C) both of these
- B) RFLP.
D) None of these
- (XIV) In gluconeogenesis 'glucose 6-phosphate' is converted into 'glucose' by
A) Releasing one phosphate molecule
C) Releasing two phosphate molecule
- B) Adding one phosphate molecule
D) Adding two phosphate molecule
- (XV) In agarose gel DNA fragments move according to their
A) Size
C) charge and size
- B) charge
D) all
- (XVI) Method of disposal for Sugar processing
A) composting
C) none of these
- B) burning
D) Both burning and composting
- (XVII) Alkaloids are
A) Plant hormone
C) Plant primary metabolites
- B) Plant toxin
D) Plant secondary metabolites
- (XVIII) The extension temperature of PCR is --- degree centigrade.
A) 72
C) 95
- B) 50-60
D) 20
- (XIX) Example of somatic cell gene therapy
A) Introduction of genes into bone marrow cells
C) Introduction of genes into skin cells
- B) Introduction of genes into blood cells
D) all of these
- (XX) Monoclonal antibody for Alzheimer's disease
A) Bapineuzumab
C) aducanumab
- B) Solanezumab
D) all of these
- (XXI) HIV virus is unique in the sense that
A) It has got reverse transcriptase enzyme
C) It has got both RNA and DNA
- B) It has got RNA
D) All are correct
- (XXII) Tumor growth in a plant is the symptom of
A) Gall disease
C) Canker disease
- B) Wilt disease
D) Blight disease
- (XXIII) Agrobacterium tumefaciens contains about _____ number of genes.
A) 5000
C) 50,000
- B) 500
D) 5500
- (XXIV) The number of base pairs in primer is
A) 2-3
C) 25-35
- B) . 3-4
D) 100-200
- (XXV) In developmental/reproductive biology 'IVF' refers
A) In vitro fertilization
C) In vitro fusion
- B) In vivo fertilization
D) In vivo fusion
- (XXVI) Simple sequence repeats are
A) 1-6 bp long sequences distributed along the chromosome
C) also called as micro satellites
- B) individual specific in number and position.
D) All of these
- (XXVII) Which of the following is not a variety of cheese?
A) Blue
C) Buttery
- B) Cheddar
D) Cottage
- (XXVIII) Example of chemical stress are

- A) herbicides
C) chilling
- (XXIX) The pigment present in Root nodule
A) hemoglobin
C) Myoglobin
- (XXX) Holo enzyme made up of
A) Apo enzyme and co enzyme
C) quaternary peptide structure with substrate
- (XXXI) First approved gene therapy experiment
A) Ashanti DeSilva was treated for alzheimer
C) Ashanti DeSilva was treated for ADA-SCID
- (XXXII) Fields of forensic science
A) Forensic Optometry
C) Forensic Pathology
- (XXXIII) Environmental stress includes
A) Abiotic stress
C) both of these
- (XXXIV) Name the start codon of amino acid synthesis
A) UUA
C) UUU
- (XXXV) Natural biodegradable polymers are
A) Collagen
C) Gelatin
- (XXXVI) Ligation refers
A) Joining of DNA molecules
C) Amplification of DNA molecule
- (XXXVII) Meat tenderizer enzyme is
A) Cellulase
C) Papain
- (XXXVIII) DNA fingerprinting can cure diseases like
A) Huntington's disease
C) thalassemia
- (XXXIX) Examples of agrowaste
A) fats
C) cellulose
- (XL) The codon responsible for methionine amino acid is
A) UUA
C) GCU
- (XLI) Example of Non biodegradable polymers
A) poly vinyl chloride,
C) both of these
- (XLII) The first industrial enzyme was discovered in
A) 1896
C) 1869
- (XLIII) What do nonstructural carbohydrates consist of?
A) Plant proteins, pectin, and sugar
C) Plant starch, pectin, and sugar
- (XLIV) Molecular markers are used to construct
- B) wind
D) Radiation
- B) Leg-hemoglobin
D) carbamino haemoglobin
- B) Apo enzyme and co factor
D) Bubble like structural protein
- B) Ashanti DeSilva was treated for multiple sclerosis
D) Ashanti DeSilva was treated for Huntington`s disease
- B) Forensic DNA Analysis
D) All of these
- B) Biotic stress
D) None of these
- B) AUG
D) AGU
- B) Dextran
D) All of these.
- B) Cutting of DNA molecules
D) Cloning of gene
- B) Amylase
D) Pectinase
- B) sickle cell anemia
D) All of these
- B) oil waxes
D) all of these
- B) AUG
D) AUA
- B) polyethylene
D) None of these
- B) 1986
D) 1969
- B) Protein
D) Plant sugar

- A) chromosome maps
C) physical maps
- B) cytogenetic maps
D) All of these
- (XLV) Biological samples for DNA fingerprinting
- A) Blood
C) Saliva
- B) Hair
D) All of these
- (XLVI) Paternity test is best determined by
- A) RAPD.
C) SSR.
- B) AFLP
D) non repetitive DNA.
- (XLVII) Full form of PEG is
- A) Polyethylene glycol
C) Polyethylene glucose
- B) Polyester glycol
D) Polyester glucose
- (XLVIII) antibiotic generally kill bacteria by
- A) Inhibition cell wall synthesis
C) perforate plasma membrane
- B) inhibition protein synthesis
D) all of them
- (XLIX) How much more energy do fats contain per unit than carbohydrates and proteins?
- A) 3.0
C) 3.5
- B) 2.25
D) 1.5
- (L) Example of in vivo gene therapy involved in
- A) cystic fibrosis transmembrane regulator (CFTR)
C) both of these
- B) Multiple sclerosis
D) None of these
- (LI) Alpha helix and beta sheet of amino acid chain can NOT visible in
- A) Quaternary structure
C) Primary structure
- B) Secondary structure
D) Tertiary structure
- (LII) Suffix for monoclonal antibodies is
- A) mbB
C) mAb
- B) Maa
D) Mob
- (LIII) Which statement is true?
- A) The origin of T and B cells is different
C) T and B cells are found at different places in the lymphoid pool
- B) The origin of T and B cells is different
D) Actually there is no difference between T and B cells.
- (LIV) Bacteria contributes _____ % of total commercial enzyme production;
- A) 5%
C) 60%
- B) 24%
D) 15%
- (LV) *Saccharomyces cerevisiae* is used for
- A) Alcohol production only
C) both alcohol production and bread production
- B) bread production only
D)
- (LVI) Amino acids are connected with
- A) H-bond
C) Hydrophilic bond
- B) Covalent bond
D) Peptide bond
- (LVII) Nylon/Nitrocellulose membrane are used for
- A) Transfer of DNA
C) Cutting of DNA fragments
- B) Lysis of cell
D) All of these
- (LVIII) What is the name of one of the 4 compartments of a ruminant's stomach?
- A) Rumen
C) Udder
- B) Calf
D) Hind
- (LIX) The length of RAPD primer is
- A) 10-15 bp
C) 40-50 bp.
- B) 30-40 bp.
D) none

(LX) Which one is the example of delayed type hypersensitivity

- A) Acute contact dermatitis
- C) Pollen allergic response

- B) Positive tuberculin test
- D) Allergic reaction against food