BRAINWARE UNIVERSITY

ODD Semester Examinations 2021- 22

Programme – Master of Science in Microbiology - 2019 [M.Sc.(MB)]

Course Name – Microbe Identification and Cell Culture

Course Code – MMB304

(Semester III)

Time allotted : 1 Hour 15 Minutes | Full Marks : 60

(Multiple choise type question) | 60 x 1 = 60

Choose the correct alternative from the following

(I) Toxin , serum, sugar, and antibiotic solutions are sterilized by

A) Hot –air oven
B) Autoclaving
C) Gamma radiation
D) Filtration

(II) Batch culture is categorised based on

A) the type of medium used
B) the part used for culture
C) the aseptic condition
D) None of these

(III) Media used for anther culture

A) White`s medium
B) MS medium
C) B5 medium
D) Nitsch's medium

(IV) Penicillin is used as

A) Medium
B) antibiotics
C) temperature
D) None of these

(V) How can microorganisms be killed?

A) Denaturation of proteins
B) Interruption of DNA synthesis/repair
C) Disruption of cell membranes
D) All of these

(VI) Plant tissue culture depends on

A) Totipotency
B) Plasticity
C) Both Totipotency and Plasticity
D) None of these

(VII) Plant Growth regulators are

A) auxin
B) water
C) magnesium
D) None of these

(VIII) In Mackonkey agar Lactose fermenters form

A) green colonies
B) pink colonies
C) black colonies
D) White colonies

(IX) Stains used for bacterial identification are

A) Gram Stain
B) Acid Fast Stain
C) Albert's stain
D) All of these

(X) laminar airflow cabinet maintains

A) Plant material
B) Equipments and Glasswares
C) Aseptic Condition
D) None of these

(XI) Shape of Cocci bacteria is

A) Rod shaped
B) Spiral
C) Round
D) None of these

(XII) Physical sterilization includes

A) Heat
B) filtration
C) radiation
D) All of these

(XIII) Media used for protoplast culture
A) White`s medium
B) MS medium
C) B5 medium
D) All of these

(XIV) Father of Tissue Culture is known as
A) Haberlandt
B) Crosswood
C) Kepler
D) Saritius

(XV) Low ratio of cytokinin to auxin leads to
A) Shoot development
B) Root development
C) Leaf development
D) All of these

(XVI) Example of simple media
A) Blood agar
B) Peptone water
C) Nutrient broth
D) All of these

(XVII) Example of gram negative bacteria
A) Enterobacteriaceae
B) Clostridum
C) Corynebacterium
D) Staphylococcus

(XVIII) Advantage of somatic embryogenesis
A) Germplasm conservation
B) Somaclonal variation
C) High propagation rate
D) All of these

(XIX) Suitable specimens for anaerobic culture
A) Abscesses
B) Blood
C) Cerebrospinal fluid
D) All of these

(XX) Organic nutrients for PTC are
A) Vitamins
B) Amino acids
C) Nitrogen source
D) All of these

(XXI) Disadvantages of tissue culture are
A) High level of expertise is required
B) A small error may lead to complete collapse of product/plant
C) Instability
D) All of these

(XXII) CLED is a
A) Cysteine Lamine Electrolyte Deficient Agar
B) Cytosol Lactose Electrolyte Deficient Agar
C) Cysteine Lithium Electrolyte Deficient Agar
D) Cysteine Lactose Electrolyte Deficient Agar

(XXIII) The ability of plant cells to regenerate into a whole plant is called
A) Totipotency
B) Regeneration
C) Plasticity
D) All of these

(XXIV) The plant growth can be achieved in
A) shoots directly by appropriate media
B) By somatic embryogenesis
C) Both shoots directly by appropriate media and By somatic embryogenesis
D) None of these

(XXV) Importance of somatic embryogenesis
A) Low Propagation rate
B) Artificial seed production
C) Labour savings
D) Both Artificial seed production and Labour savings

(XXVI) Cystoscope and endoscope are sterilized by
A) Hot –air oven
B) Autoclaving
C) Gamma radiation
D) Glutaraldehyde

(XXVII) Skin are sterilized by
A) Hot –air oven
B) Autoclaving
C) Gamma radiation
D) Alcohol

(XXVIII) Sterilization is done using

A) laminar B) Incubator

C) microscope D) Refrigerator

(XXIX) Composition of culture media include

A) Water B) Carbon source

C) Energy source D) All of these

(XXX) Example of facultative anaerobes

A) E. coli B) H. pylori

C) B. subtilis D) S. coccus

(XXXI) Thermophile bacteria grows in temperature range of

A) 10-30 degree celsius B) 30-55 degree celsius

C) 40-85 Degree celsius D) None of these

(XXXII) XLD is a

A) Xyline Lysine Deoxycholate Agar B) Xylose Lamine Deoxycholate Agar

C) Xylose Lysine Deoxy Agar D) Xylose Lysine Deoxycholate Agar

(XXXIII) Classification of protozoa include

A) Amoeba B) Mastigophora

C) Sporozoa D) All of these

(XXXIV) Classification of microbes include

A) Protozoa B) Bacteria

C) Both Protozoa and Bacteria D) None of these

(XXXV) A population of cells or multicellular organisms growing in the absence of other species or types

A) Pure Culture B) Aseptic culture

C) Mixed culture D) All of these

(XXXVI) When to suspect Anaerobic infections?

A) Foul smelling discharge B) Necrotic gangrenous tissue

C) Black discoloration of exudates D) All of these

(XXXVII) Autoclave is used to sterilize

A) Plant material B) Equipments and Glasswares

C) Aseptic Condition D) None of these

(XXXVIII) Phenols and Halogens are methods of

A) Physical sterilization B) b) biological sterilization

C) chemical sterilization D) semi-physical sterilization

(XXXIX) Earliest plant tissue culture media

A) White`s medium B) MS medium

C) B5 medium D) All of these

(XL) Gibberelins

A) Stimulate cell elongation B) Promote cell division

C) Elongate internode D) None of these

(XLI) Bacteria multiplies by

A) Sexual Reproduction B) Binary Fission

C) Both Sexual Reproduction and Binary Fission D) None of these

(XLII) Factors Affecting Tissue Culture Efficiency

A) source of the cultured tissue B) age and health of the donor plant

C) plant species, D) All of these

(XLIII) pH of plant tissue culture medium ranges from

A) 5.6-5.9 B) 5.6-6.00

C) 5.6-6.5 D) 5.6-7.00

(XLIV) On the basis of oxygen requirements bacteria are classified into

A) Aerobic
B) anearobic
C) capnophilic
D) Both Aerobic and anearobic

(XLV) Example of bacilli bacteri

A) Mycobacterium leprae
B) Corynebacterium diphtheria
C) Both of these
D) None of these

(XLVI) Stains used in gram staining are

A) Crystal violet
B) Safranin
C) Both Crystal violet and Safranin
D) None of these

(XLVII) Alcohols and Aldehydes are methods of

A) Physical sterilization
B) biological sterilization
C) chemical sterilization
D) semi-physical sterilization

(XLVIII) Culture media containing serum and egg are sterilized by

A) Hot –air oven
B) Autoclaving
C) Gamma radiation
D) Tyndallisation

(XLIX) GMEM is used as

A) Medium
B) antibiotics
C) temperature
D) None of these

(L) Organ that serve as tissue source

A) source of explant
B) Nutrient media
C) culture environemnt
D) all of these

(LI) Inoculated cultures are kept at

A) laminar
B) Incubator
C) microscope
D) Refrigerator

(LII) Successful root culture of tomato was established by

A) Murashige
B) Haberlandt
C) Skoog
D) White

(LIII) Stuart`s medium is a

A) complex medium
B) transport medium
C) simple medium
D) compound medium

(LIV) EMEM is used in cell culture as

A) Medium
B) antibiotics
C) temperature
D) None of these

(LV) Types of filters are

A) Candle filters
B) Sintered glass filters
C) Asbestos disc filters
D) All of these

(LVI) Cytokinins

A) Stimulate cell elongation
B) Promote cell division
C) Elongate internode
D) None of these

(LVII) Synthetic or defined medium are classified based on

A) Physical state
B) Chemical state
C) Energy state
D) None of these

(LVIII) Surface sterilization of plant was done by

A) Sodium hypochlorite
B) Calcium hypochlorite
C) Both A and B
D) None of these

(LIX) Factors that influence efficacy of disinfection/sterilization

A) Temperature
B) Type of microorganism
C) Number of microorganisms
D) All of these

(LX) Types of somatic embryogenesis

A) Direct

B) Both Direct and Indirect

C) Indirect

D) None of these