Name:

Roll No.

Time: 30 Minutes

ANSWERS TO THE QUESTIONS
PRACTICAL COURSE- (MBT CC206)
PRACTICAL-MOLECULAR PLANT PHYSIOLOGY AND PLANTTISSUE CULTURE

Q. 1. Which gene is responsible for nodule formation in leguminious plants?

(a) Nod gene
(b) nif gene
(c) cod gene
(d) gag gene

Q. 2. Cholorophyll a absorbs maxima at wavelengths

(a) 429 nm and 659 nm
(b) 455 nm and 642 nm.
(c) 700 nm and 800 nm
(d) 232 nm and 352 nm

Q. 3. Which reagent in the assay reacts with the nitrite to give pinkish color

(a) Sulphinamide
(b) NEDD
(c) Charcoal
(d) None of the above

Q. 4. Which Catalyst solution is used for the estimation of nitrate by chemical hydrazine method

(a) Cu and Zn
(b) Fe and Cu
(c) Mg and Fe
(d) Mg and Zn

Q. 5. Which reagent solution is light sensitive

(a) NEDD
(b) Charcoal
(c) Sulphinamide
(d) None of the above

Q. 6. PNP in its ionized form is

(a) Colorless
(b) Pink
(c) Brown
(d) None of the above

Name :

Roll No. :

Q. 7. PNP absorbs maxima at wavelengths

(a) 409 nm
(b) 405 nm
(c) 450 nm
(d) 432 nm

Q. 8. Most of the phosphate in a seed exists as

(a) Inositiol Monophosphate
(b) Inositiol hexophosphate
(c) Inositiol diphosphate
(d) Inositiol tetraphosphate

Q. 9. Write the formula for the determination of enzyme activity

Q. 10. What is the SI unit for calculating specific activity of enzyme

(a) Kcatal/Kg
(b) Cal/g
(c) Joule/Kg
(d) Kcatal

Q. 11. Change in pH of the reaction mixture will

(a) Affect the enzyme acitivity
(b) Donot affect the enzyme activity
(c) Can depends on other factors
(d) All of above

Q. 12. Large Km value means

(a) More affinity of enzyme towards substrate
(b) Less affinity of enzyme towards substrate
(c) No relation between km value and enzyme affinity
(d) None of the above

Q. 13. Endosperm provides

(a) Provide Nutrition to seed
(b) Provide protection to seed
(c) Provide moisture to seed
(d) None of the above

Name:

Roll No.:

Q. 14. Cholorophyll is more present in

(a) Mature leaves
(b) Young leaves
(c) Diseased leaves
(d) None of the above

Q. 15. Write the arnon equation for the estimation of chlorophyll a

Q. 16. The pair of hormones required for a callus to differentiate are_____.

(a) Ethylene and Auxin
(b) Auxin and cytokinin
(c) Auxin and Abscisic acid
(d) Cytokinin and gibberellin

Q. 17. Haploid plants can be obtained from_____.

(a) Anther culture
(b) Bud culture
(c) Leaf culture
(d) Root culture

Q. 18. In-plant tissue culture, the callus tissues are generated into a complete plantlet by altering the concentration of_____.

(a) Sugars
(b) Hormones
(c) Amino Acids
(d) Vitamins and minerals

Q.19. Which of the following growth hormones induces roots?

(a) Ethylene
(b) Cytokinin
(c) Auxin
(d) Gibberellin

Name: Roll No.:

Q. 20. What is Callus?

(a) Tissues that grow to form an embryoid
(b) An unorganized actively dividing the mass of cells maintained in a culture
(c) An insoluble carbohydrate
(d) A tissue that grows from an embryo

Q. 21. What is an explant?

(a) A part of plant grown under soil
(b) Any part of a plant taken out and grown in a test tube
(c) A specific part of a plant grown in a test tube
(d) Leaves grew under test tube

Q. 22. The technique of obtaining large number of plantlets by tissue culture method is called_____

(a) Organ culture
(b) Micropropagation
(c) Macropropagation
(d) Plantlet culture

Q. 23. Virus free plants are developed from_____

(a) Organ culture
(b) Meristem culture
(c) Protoplast culture
(d) Cell suspension culture

Q. 24. The production of secondary metabolites requires the use of_____.

(a) Meristem
(b) Protoplast
(c) Axillary buds
(d) Cell suspension

Q. 25. Optimum pH for plant tissue culture medium is_____

(a) 7.5
(b) 8
(c) 5.7
(d) 8.5

Name:. Roll No.:

Q. 26. Plants are kept in plant tissue culture room at an optimum temperature of..... ?

(a) 02.4°C
(b) 0.24°C
(c) 024.0°C
(d) 0240°C

Q. 27. Which of the following is not properly matched?

(a) Explant - excised plant part used for callus formation
(b) Cytokinins - root initiation in callus
(c) Somatic embryo - embryo produced from a vegetative cell
(d) Callus - undifferentiated mass of cells

Q. 28. Which of the following is NOT a plant growth hormone?

(a) Auxin
(b) Cytokinins
(c) Abcisic acid
(d) Polyphenols

Q. 29. Solidifying agent used in plant tissue culture is_____

(a) Nicotinic acid
(b) Cobaltous chloride
(c) EDTA
(d) Agar

Q. 30. The time duration for sterilization process by using autoclave is_____minutes and the temperature is_____

(a) 10 to 30 minutes and 125°C
(b) 15 to 30 minutes and 121°C
(c) 15 to 20 minutes and 125°C
(d) 10 to 20 minutes and 121°C