

**MARCH - 2022 (Summer session) Examination****Subject Code: 81682**

(विद्यार्थ्यांनी हा विषय कोड OMR वर लिहावा / Student should fill this code on OMR sheet)

**Subject Name: B.Sc\_81682\_58073/65844/81682/81884 - Botany Paper XV\_22.07.2022\_1.00 PM****Date: 22-07-2022****Time: 13:00:00 to 14:00:00****QP Code: 7987QP****Total Marks : 50 Each Question 2 Marks, Total 25 Ques, Duration 1 Hr****1. Plant biotechnology involves-**

- |  |  |
|--|--|
| a. production of valuable products in plants | b. rapid clonal multiplication of desired genotype |
| c. production of virus free plants           | d. all of these                                    |

**2. The vectors commonly used for sequencing human genome---**

- |                |                |
|----------------|----------------|
| a. YAC         | b. plasmid     |
| c. CMV vectors | d. M13 vectors |

**3. Use of biology in industrial process and for improving quality of life is called**

- |                        |                  |
|------------------------|------------------|
| a. Eugenics            | b. Biotechnology |
| c. Genetic engineering | d. Microbiology  |

**4. All the cells in a callus are ----**

- |                               |                             |
|-------------------------------|-----------------------------|
| a. genetically homogenous     | b. genetically heterogenous |
| c. inefficient to grow organs | d. similar in size          |

**5. Development of organ of primordial from callus in tissue culture is called**

- |                  |                    |
|------------------|--------------------|
| a. embrogenesis  | b. organogenesis   |
| c. somatogenesis | d. parthenogenesis |

**6. Micropropagation involves multiplication of plants by using-**

- |                   |                |
|-------------------|----------------|
| a. microorganisms | b. microspores |
| c. explants       | d. megaspores  |

**7. Which of the following plant cells shows totipotency?**

- |               |                  |
|---------------|------------------|
| a. Cork cells | b. Meristem      |
| c. Sieve tube | d. Xylem vessels |

**8. --- type of fossil shows negative replica of the plant part .**

- |                |                   |
|----------------|-------------------|
| a. Casts       | b. Petrifications |
| c. Compression | d. Impression     |

- a. the ability of a plant cell to arrest the growth of a plant  
c. the ability of a plant cell to develop into a complete plant

- b. the ability of a plant cell to develop disease in plant  
d. the inability of a plant cell to develop into a callus

10. A recombinant DNA molecule is produced by joining together

- a. one mRNA with a DNA segment  
c. two mRNA molecules
- b. one mRNA with a tRNA segment  
d. Two DNA segments

11. Restriction Endonuclease are ---- enzymes.

- a. Bacterial  
c. fungal
- b. viral  
d. algal

12. Southern blotting is

- a. Attachment of probes to DNA fragments  
c. Comparison of DNA fragments to two sources
- b. Transfer of DNA fragments from electrophoretic gel to a nitrocellulose sheet  
d. Transfer of DNA fragments to electrophoretic gel from cellulose membrane

13. In gel electrophoresis, DNA molecules migrate from \_\_\_\_\_ ends of the gel.

- a. negative to positive  
c. basic to acidic
- b. long to short  
d. positive to negative

14. A radioactive probe used in blotting technique is

- a.  $^{32}\text{P}$   
c.  $^{12}\text{N}$
- b.  $^{14}\text{C}$   
d. PUC18

15. Fossil is a--

- a. type of rock  
c. living organisms
- b. a form of sediment  
d. preserved remains of ancient life

16. Three dimension view are seen in --- types of fossils.

- a. Compression  
c. Impression
- b. Casts  
d. Petrifications

17. ---- fossil is a fruit genus

- a. Kaloxylon  
c. Sphenopteris
- b. Enigmocarpon  
d. Lyginopteris

18. Cybrids are ---

- a. hybrids plants derived from cross pollination  
c. cytological hybrids
- b. cytoplasmic hybrids  
d. nuclear hybrids

Which of the following technique is suitable for identifying DNA molecule in a sample—

- a. Western blotting
- b. Northern blotting
- c. Eastern blotting
- d. Southern blotting

20. Glucose is added to the tissue culture media as

- a. growth regulator
- b. an antibiotic
- c. carbon source
- d. solidifying agent

21. Restriction endonucleases cut DNA at a specific site called-

- a. ligation site
- b. Ori
- c. replication site
- d. recognition sequence

22. Who is known as the father of tissue culture?

- a. Gautheret
- b. Laibach
- c. Bonner
- d. Haberlandt

23. Which group of enzymes are popularly called “Molecular stitchers”

- a. restriction Endonuclease
- b. ligases
- c. RNA polymerase
- d. DNA polymerase

24. Any DNA molecule that has the ability to replicate in an appropriate host cell to which the desired genes are integrated for cloning is called as-

- a. plasmid
- b. linker
- c. Adapter
- d. vector

25. An amorphous mass of loosely arranged thin walled parenchyma cells developing from explant is called

- a. thallus
- b. Callus
- c. Embryoids
- d. Callose