

Subject Code **0201**

BOTANY DSE-II(Pass)

Question Booklet No.

Signature of Invigilator	To be filled in by candidate by ball-point pen only	OMR Sl. No. _____
	Roll No. _____	_____
Time of Examination	Declaration : I have read and understood the instructions given below.	
Date of Examination	Full Signature of Candidate	Full Marks : 80/50 Time : 1 hour
	Name of Candidate	

Number of Questions in the Booklet } **50/40**



UU 6th Semester Examination, 2020

INSTRUCTIONS TO CANDIDATES

- Immediately after getting the booklet read instructions carefully mentioned on the front and back page of the Question Booklet. Do not open the seals unless asked by the Invigilator.
- Write your Roll No., OMR Response Sheet No., in the specified places given above and put your signature.
- Write the subject code of the booklet in your OMR Sheet.
- Make all entries in the OMR Response Sheet as per the given instructions; otherwise OMR Response Sheet will not be evaluated.
- After opening the seals, ensure that the Question Booklet contains total no. of pages as mentioned above and printing of all the **50 / 40** questions are proper. If any discrepancy is found, inform the invigilator within **15** minutes and get the correct Question Booklet.
- For each question in the Question Booklet choose the correct option from the given four alternatives and darken the same circle in the OMR Response Sheet with Black or Blue ball-point pen.
- Darken the circle of correct answer properly; otherwise answers will not be evaluated. The candidate will be fully responsible for it.
- If more than one option is darkened for a particular question, then it will be treated as wrong answer.
- After completion of the examination, only OMR Response Sheet is to be handed over to the invigilator.

THERE IS NO NEGATIVE MARKING FOR WRONG ANSWER

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(Answer any 25 questions)

1. Living cell can be studied by :
 - (A) Phase contrast microscope
 - (B) Fluorescent microscope
 - (C) Electron microscope
 - (D) Light microscope
2. Bacterial cells were first seen by :
 - (A) Robert Brown
 - (B) Robert Hook
 - (C) A. Leeuwenhook
 - (D) R. Virchow
3. The number of lenses in compound light microscope is :
 - (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
4. The magnification of an object under a compound microscope with 10X eye piece and 40X objectives is :
 - (A) 100 times
 - (B) 200 times
 - (C) 300 times
 - (D) 400 times
5. Plant cell differ from animal cells in the absence of :
 - (A) Endoplasmic reticulum
 - (B) Ribosomes
 - (C) Mitochondria
 - (D) Centrioles
6. Lysosomes are called suicide bags because of :
 - (A) Hydrolytic enzymes
 - (B) Phagocytic activity
 - (C) Proteolytic activity
 - (D) Respiratory enzymes
7. Eukaryotic cells differ from prokaryotic cells in having :
 - (A) Endoplasmic reticulum
 - (B) Ribosomes
 - (C) True nucleus
 - (D) Cytoplasm
8. The power house of cell is :
 - (A) Golgi Complex
 - (B) Mitochondria
 - (C) Chloroplast
 - (D) Lysosomes

9. Which term is more precise to describe protoplasm :
- (A) Colloid
 - (B) Fibrous
 - (C) Cellular
 - (D) Solution
10. Purins found in DNA are :
- (A) Uracil and Guanine
 - (B) Guanine and Adenine
 - (C) Adenine and Cytosine
 - (D) Guanine and Thymine
11. Which of the following found in both in DNA & RNA ?
- (A) Adenine
 - (B) Ribosome
 - (C) Uracil
 - (D) Thymine
12. Nucleoside is made up of :
- (A) Phosphate, pentose sugar and base
 - (B) Pentose sugar and base
 - (C) Pentose sugar and phosphate
 - (D) Only pentose sugar
13. Two rings are there in molecule of :
- (A) Guanine
 - (B) Thymine
 - (C) Uracil
 - (D) Cytosine
14. The base found in RNA but not in DNA is :
- (A) Adenine
 - (B) Uracil
 - (C) Thymine
 - (D) Guanine
15. The diameter of a double helix structure of B model of DNA is :
- (A) 100\AA
 - (B) 10\AA
 - (C) 20\AA
 - (D) 30\AA
16. Fluid mosaic model to explain structure of plasma membrane was proposed by :
- (A) Singer and Nicolson
 - (B) Davson and Danielli
 - (C) Hoffman
 - (D) Robertson
17. The hydrophobic ends of phospholipid molecules are :
- (A) Polar
 - (B) Bipolar
 - (C) Neutral
 - (D) Nonpolar
18. Plasma membrane is made up of :
- (A) Glycoproteins and lipids
 - (B) Phospholipids and glycolipids
 - (C) Phospholipids and proteins
 - (D) Phosphoproteins and phospholipids

19. The membrane proteins that extend through both side of lipid bilayer is :
- (A) Acedic proteins
 - (B) Glycoproteins
 - (C) Intrinsic proteins
 - (D) Glysosolic acid
20. What organism lacks cell wall ?
- (A) Plant cells
 - (B) Protozoa
 - (C) Bacterial cells
 - (D) Algae
21. Fredrick Griffith's experiment involving Streptococcus pneumonia lead to the discovery of :
- (A) DNA as genetic material
 - (B) RNA as genetic material
 - (C) Protein as genetic material
 - (D) Transforming principle
22. What were the main criteria taken under consideration for the experiment by Hershey and Chase ?
- (A) DNA contains phosphorus, protein contains sulfur
 - (B) Protein contains phosphorus, DNA contain sulfur
 - (C) Both DNA and protein contains phosphorus and not sulphur
 - (D) Both DNA and protein contains sulfur and not phosphorus
23. The division of cytoplasm is known as :
- (A) Mitosis
 - (B) Karyokinesis
 - (C) Cytokinesis
 - (D) Synapsis
24. The best stage at which the total number of chromosomes can be counted in any species is :
- (A) Late prophase
 - (B) Metaphase
 - (C) Late anaphase
 - (D) Telophase
25. This structure tends to vanish always during meiosis and mitosis :
- (A) Plastids
 - (B) Plasma membrane
 - (C) Chromosomes
 - (D) Nucleolus and nuclear membrane
26. Which stage of cell division centrosome duplication takes place ?
- (A) S phase
 - (B) G1 phase
 - (C) G0 phase
 - (D) M phase
27. The characteristic of this stage of mitosis is the separation of the sister chromatids :
- (A) Telophase
 - (B) Anaphase
 - (C) Metaphase
 - (D) Prometaphase

28. Which of the following is true about DNA polymerase ?
- (A) It can synthesize DNA in the 5' to 3' direction
 - (B) It can synthesize DNA in the 3' to 5' direction
 - (C) It can synthesize mRNA in the 3' to 5' direction
 - (D) It can synthesize mRNA in the 5' to 3' direction
29. Which of the following reactions is required for proofreading during DNA replication by DNA polymerase III ?
- (A) 5' to 3' exonuclease activity
 - (B) 3' to 5' exonuclease activity
 - (C) 5' to 3' endonuclease activity
 - (D) 3' to 5' endonuclease activity
30. DNA unwinding is done during replication is by the enzyme :
- (A) Ligase
 - (B) Topoisomerase
 - (C) Helicase
 - (D) Hexonuclease
31. What is the origin of replication ?
- (A) Site which prevents initiation
 - (B) Particular site at which DNA replication starts
 - (C) Random location on the DNA
 - (D) Site at which replication terminated
32. Which of the following protein is required for connecting Okazaki fragments ?
- (A) Scaffold protein
 - (B) Helicase
 - (C) Primase
 - (D) DNA gyrase
33. Which of the following would relax negatively supercoiled DNA ?
- (A) DNA gyrase
 - (B) Topoisomerase
 - (C) Elastin
 - (D) Collagen
34. One end of tRNA matches genetic code in three-nucleotide sequences known as :
- (A) Codon
 - (B) Genetic code
 - (C) Blunt ends
 - (D) Anticodon
35. A DNA sequence is read by an RNA polymerase that produces complementary anti-parallel RNA strand known as :
- (A) Hexa transcript
 - (B) Secondary transcript
 - (C) Primary transcript
 - (D) Tertiary transcript
36. In both prokaryotic and eukaryotic cells, the synthesis of protein chains is initiated with :
- (A) Arginine
 - (B) Methionine
 - (C) Serin
 - (D) Valine

37. The operator gene lac operon 'turned on' when lactose molecules binds to :
- (A) Operator gene
 - (B) Repressor gene
 - (C) Promoter site
 - (D) mRNA
38. In E. coil, presence of tryptophan amino acid causes :
- (A) Closure of operan
 - (B) Activation of operon
 - (C) Both the above
 - (D) None of these
39. In which of the following cases the first base of anticodon pairs with only one codon ?
- (A) When the first base of anticodon is A or C
 - (B) When the first base of anticodon is A or G
 - (C) When the first base of anticodon is inosine
 - (D) When the first base of anticodon is G or U
40. Which position of a codon is said to wobble ?
- (A) First
 - (B) Second
 - (C) Third
 - (D) Fourth

