## **Examination October 2020**

# B.Sc. T.Y (Sem-V)

### 2163 Botany Paper- XV (Cell Biology & Molecular Biology)

#### Time: One Hour

Instructions

• Solve any 25 questions from Q1 to Q30

• Solve any 25 questions from Q31 to Q60

1 Cell is discovered by \_\_\_\_\_

Cell is discovered by					
(A)Robert Hooke	(B)Flemming	(C)Bateson	(D)Correns		
2 Cell theory is introduced by					
(A)Virchow	(B)Schleiden and Schwann	(C)Sedgwik	(D)Weissman		
3 Following is not prokaryotic cell.					
(A)Bacteria	(B)Blue-green algae	(C)Chara	(D)Mycoplasma		
4 Characteristic feature of eukaryotic		(0)70.0 1			
(A)Membrane bound cell organelles	(B)circular DNA	(C)70 S ribosomes	(D)capsid		
5 Cell wall in Plant cell contains					
(A)Vaccuoles	(B)Centrioles	(C)Amino acids	(D)Cellulose		
<ul> <li>6 Function of Golgi apparatus is</li> <li>(A)Secretion</li> </ul>	(B)muscle contraction	(C)RNA synthesis	(D)Protein synthesis		
7 Nucleus does not contains		(C)RIA Synthesis			
(A)Nucleases	- (B)Ligases	(C)DNA Polymerase	(D)RNA polymerase		
8 Nuclear membrane is			(B)RW polymeruse		
(A)Single layered	(B)double layered	(C)Triple layered	(D)multi layered		
9 Endoplasmic reticulum contains					
(A)70 S ribosomes	(B)80 S ribosomes	(C)linear DNA	(D)vesicles		
10 Function of nucleolus					
(A)transcription of the genes that code for r-RNA	e (B)carbohydrate synthesis	(C)translation	(D)fatty acid synthesis		
11 Following is a function Endoplasmic reticulum.					
(A)Synthesis of ribosomes	(B)Synthesis of DNA	(C)Synthesis of RNA	(D)Detoxify the drug		
12 Following is not a part Golgie comp	blex				
(A)cisternae	(B)small vesicles	(C)large vesicles	(D)thylakoid		
13 Acrosome or sperm head is related	d to				
(A)ribosomes	(B)lysosome	(C)centriole	(D)mitocondria		
14 Intercellular communication is done	e by				
(A)plasmodesmata	(B)vesicles	(C)cisternae	(D)peroxisome		
15 Chromatin is made up of					
(A)DNA	(B)Fatty acids	(C)ribosomes	(D)lysosome		
16 function of Nucleus is					
(A)Transcription	(B)translation	(C)amino acid synthesis	(D)glycolysis		
17 Nucleus is discovered by					
(A)Miescher	(B)Waldeyer	(C)O.T.Avery	(D)Robert Brown		
18 In Bacteria rod like structure of the					
(A)coccus 19 In bacterial cell circular DNA is pac	(B)spherical	(C)bacillus	(D)spirilla		
(A)nucleus	(B)chromatin	(C)chromosomes	(D)nucleoid		
20 Chromatophores in cyanobacteria					
(A)mitochondrion	(B)endoplasmic reticulum	(C)chloroplast	(D)chromosomes		
21 Orderly sequence of events happe			(=)00		
(A)Cell division	(B)cell multiplication	(C)cell cycle	(D)cyclosis		
22 G1 phase is responsible for					
(A)Synthesis of DNA	(B)Synthesis of glucose	(C)synthesis of RNA	(D)Synthesis fats		
23 Following is the longest phase in the		-			
(A)metaphase	(B)interphase	(C)anaphase	(D)telophase		
24 In case of mitosis what is true					
(A)equational division	(B)it takes place in vegetative cell	(C)ploidy level remains same	(D)all the above are true		
25 Nucleolar organizer is active in					
(A)prophase	(B)metaphase	(C)anaphase	(D)telophase		
26 In anaphase chromatids are					

Max. Marks: 50

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(A)arranged on equatorial plate 27 Spindle fibres are made up of	(B)dragged towards pole	(C)highly coiled	(D)degenerate
(A)tubulins	(B)insulin	(C)tryptophan	(D)adenine
28 Cell plate formation related with			
(A)prophase	(B)metaphase	(C)anaphase	(D)telophase
29 Homologous chromosomes pairs to	-		
(A)Synapsis	(B)symbiosis	(C)cytokinesis	(D)karyokinesis
30 rossing over takes place between			
(A)homologous chromosomes	(B)non- homologous chromosomes	(C)extra chromosomes	(D)none of the above
31 Chiasmata appear in which of the f	following phase?		
(A)leptotene	(B)zygotene	(C)diplotene	(D)diakinesis
32 At the end of meiosis II products an	re		
(A)two daughter cells	(B)four daughter cells	(C)eight daughter cells	(D)none of the above
33 The process of meiosis is responsi	ble for		
(A)keep chromosome number constant	(B)double the chromosome number	(C)change the chromosome number	(D)none of the above
34 In DNA suger contains			
(A)six carbon	(B)five carbon	(C)twelve carbon	(D)four carbon
35 In DNA Adenine is pairs with			
(A)Guanine	(B)Cytosine	(C)Urasil	(D)Thymine
36 Following is a purine type of nitroge			
(A)urasil	(B)thymine	(C)cytosine	(D)adenine
37 t-RNA is known as a			(=)44011110
(A)soluble RNA	(B)messanger RNA	(C)ribosomal RNA	(D)insoluble RNA
38 m-RNA is involved in		(O)Ibosonia rava	
(A)transcription	(B)translation	(C)transduction	(D)transfer of amino acids
39 RNA in eukaryotic organisms is		(C)transduction	
	(D) double strended	(C)non genetic DNA	(D)mana of the above
(A)genetic RNA	(B)double stranded	(C)non- genetic RNA	(D)none of the above
40 Flow of information from RNA to DI		(C) reverse transcription	(D)mana of the should
(A)Protein synthesis	(B)transcription	(C)reverse transcription	(D)none of the above
41 Spherical bead like structure found			
(A)nucleosome	(B)chromatids	(C)nucleoid	(D)chromonema
42 following is not part of core of nucle			
(A)H1	(B)H2a	(C)H2b	(D)H3
43 Classification of Chromosomes is b			
(A)position of secondary constriction		(C)position of centromere	(D)width of chromosom
44 Chromosome is longitudinally split	into two parts those are		
(A)chromonema	(B)chromomers	(C)chromatids	(D)telomers
45 Barr body is an example of			
(A)heterochromatin	(B)hyperchromatin	(C)euchromatin	(D)none of the above
46 Polytene chromosome is also know		(0)0001101112011	
(A)adrenal gland chromosome	(B)long chromosome	(C)salivary gland chromosome	(D)tiny chromosome
47 Lampbrush chromosome is found i		(c)salivary gland shi shi sonici	
(A)chironomous larvae	(B)buccal cavity of larvae	(C)oocyte of amphibeans	(D)none of the above
48 Euchromatin in chromosome is			
	(P)transprintionally active	(C)translationally non-active	(D)tranalationally active
(A)transcriptionally non active	(B)transcriptionally active	(C)translationally non active	(D)translationally active
49 A chromosome in which centromer			
(A)telocentric	(B)acrocentric	(C)metacentric	(D)submetacentric
50 Nucleosomes are made up of DNA			
(A)RNA	(B)Non histon proteins	(C)histone proteins	(D)lipids
51 Down's syndrome is an example of			
(A)Trisomy	(B)tetrasomy	(C)polyploidy	(D)haploidy
52 Bread wheat is an example of			
(A)Triploidy	(B)tetraploidy	(C)diploidy	(D)hexaploidy
53 Duplication is takes place between			
(A)same chromosome	(B)homologous chromosome	(C)different chromosome	(D)none of the above
54 A part of chromosome breaks and	attaches to another non homologous cl		
(A)deletion	(B)translocation	(C)inversion	(D)none of the above
55 When number of sets of chromoso	mes is changes it is		

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(A)aneuploidy	(B)euploidy	(C)inversion	(D)none of the above		
56 2n-1 is an example of					
(A)deletion	(B)translocation	(C)inversion	(D)monosomy		
57 Inversion is an example of					
(A)euploidy	(B)aneuplody	(C)structural aberrations	(D)none of the above		
58 following is the function of the chromosome					
(A)to carry information from one generation to next	(B)to carry information from one cell another cell	to (C)to carry information from one part another	to(D)none of the above		
59 Ends of the chromosome are known as					
(A)telomers	(B)telocentres	(C)chromotids	(D)none of the above		
60 Coloured bodies appears at the time of cell division are known as					
(A)Chromosomes	(B)chromomers	(C)chromotids	(D)none of the above		