M.Sc Botany sem III internal-1

Paper-I

Cell biology and Genetics QB

1.Which of the following is a functional unit of a body (d)

a) mitochondria b) cytoplasma c) spleen d) cell

2.In which of the following type of cells the gap junctions are absent (a)

a) sperm cells b) brain cells c) reproductive cells d) cardiac cells

3.What is epithelial mesenchymal transistion (c)

a) loss of migration & gain ofadhesion b) formation of mesenchymal cells

c) loss of ofadhesion & gain of migration d) lysis of cells

4.Which of the following are phagocytic cells (d)

a) neutrophils,mast cells b) mast cells,macrophages

c) mast cells,antibodies d) neutrophyls,macrophages

5.Which of the following is known as the powerhouse of a cell (a)

a) mitochondria b) cytoplasm c) lysosome d) nuclei

6.Which of the following is a known as the suicide bag of a cell (c)

a) mitochondria b) cytoplasm c) lysosome d) nuclei

7.Who is the father of cell biology (b)

a) George N.papanicolaou b) George emil palade

c) Robert hook d) non of the above

8.DNA is stored in (c)

a) cell wall b) cell membrane c) nucleus d) cytoplasm

9.RNA is present in (b)

a) cell wall b) ribosome c) nucleus d) golgi complex

10.Protein synthesis is takes place in (d)

a) cell wall b) ribosome c) nucleus d) cytoplasm

11.The tendency of an offspring to resemble its parent is known as (c)

a) variation b) resemblance c) heredity d) inheritance

12.Who is known as the father of genetics (a)

a) mendal b) morgan c) betson d) Watson

13.The alternate form a gene is (c)

a) recessive characters b) alternate type c) allele d) dominant characters

14.The genotypic ratio of a monohybrid cross is (b)

a) 3:1 b) 1:2:1 c) 9:3:3:1 d) 2:1:1

15.An exception to mendal s law is (a)

a) linkage b) independent assortment c) purity of gametes d) dominance

16.Mendels findings rediscoverd by (d)

a) correns b) tschermark c) de vries d) all

17.What is the by which progeny differ from their parent (c)

a) mutation b) inheritance c) variation d) mendelism

18. Which of the following crosses will result in a 9:3:3:1 ration (b)

a) monohybrid cross b) dihybrid cross c) back cross d) test cross

19.Homozygosity and heterozygosity of an individual can be determind by (c)

a) back cross b) self fertilization c) test cross d) all the above

20.Allelres are (a)

a) Alternate form of gene b) linkage genes c) chromosomes that's have crossed over d) homologous chromosomes

II.

1. The term cell was given by……
2. In plant cells,by-products of the metabolic pathway are stored in…….....(nuclueus)
3. Tonoplast is a ……(membrane)
4. Water enters the vacuole by ……..(osmosis)
5. Protoplasm of the cell comprises of ……(nucleus)
6. ……..acts as a seat for protein(ribosomes)
7. ATP is synthesized in mitochondria by ……..(kerbs cycle)

8. ……..given colour to flower and fruits(plastids)
9. Chloroplasts containing chlorophyll absorbs carbon dioxide from air and release ……(oxygen)
10. The crossing of F1 to either of the parents is known as ……..(back cross)
11. Genes that show tendency to be inherited together is known as ……..(linkage group)
12. An example of co-dominance is ……(human ABO blood group system)
13. Loops in lampbrush chromosomes represent site of ……(transcription)
14. The method of DNA replication is ……(semi-conservative)
15. The DNA binding proteins bind at the ……..(major groove)
16. ……is a genetic changes that occur in more than 1 percent of the population(polymorphism)
17. ……..portion of chromosomes that stain lightly and partially condensed(euchromatin)
18. The triplet code of CAT in DNA is represented as……in mRNA and ……..in tRNA(GUC,CAU)
19. Those mutation that arise in the absence of known mutagen are known(spontaneous mutations)
20. When cancer cells gain the ability to move independently and invade other tissues,they are said to have……..(metastasized)

III.

1.What is transcription

2.Interphage

3.Karyokinesis

4.Zygotene

5.Linkage

6.Crossing over

7.RNA polymerase

8.Gene mutation

9.Inversion

10.Test cross