

Model Test Paper

GLA UNIVERSITY, MATHURA

(M.Sc. Microbiology & Biotechnology)

Q.No.1. A gene is made up of-

- (a) DNA, RNA and Protein
- (b) (b) DNA and Protein
- (c) (c) DNA only
- (d) (d) DNA and RNA

Q.No.2- Bacterial which retain purple colour after staining with Gram stain is-

- (a) Gram +ve (b) Gram –ve
- (c) Spirillum (d) None of the other

Q.No.3- Blood colour of arthropods is-

- (a) Colourless (b) Reddish
- (c) Bluish (d) Yellow

Q.No.4- Branch of biology dealing with the study of birds-

- (a) Anthropology (b) Herpetology
- (c) Ornithology (d) Onchology

Q.No.5- Chromosome replication occurs during-

- (a) Metaphase (b) Interphase
- (b) (c) Anaphase (d) None of these

Q.No.6- Cistron is the functional unit of-

- (a) DNA (b) RNA
- (c) Non functional unit of DNA
- (d) None functional unit of RNA

Q.No.7- Collagen is-

- (a) Protein (b) Fat
- (c) Sugar (d) Starch

Q.No.8- Common bread mould is-

- (a) Aspergillus (b) Penicillium
- (c) Erisiphe (d) Rhizopus

Q.No.9- Loss of H₂O in vapour form from aerial parts of plants is called -

- (a) Transpiration (b) Guttation
- (c) None (d) Both (a) and (b)

Q.No.10- Difference between DNA and RNA is that of-

- (a) Sugar and base
- (b) Sugar and phosphate
- (c) Phosphate and Base
- (d) Sugar only

Q.No.11- Distance between two base pairs of DNA is-

- (a) 34nm (b) 3.4nm
- (b) (c) 0.68nm (d) 0.34nm

Q.No.12- DNA occurs in-

- (a) Nucleus and some organelles
- (b) Cell organelle (c) Cytoplasm
- (d) Nucleus

Q.No.13- Each carpel is made up of -

- (a) Ovary (b) Stigma (c) Style
- (d) All above

Q.No.14- Electron Transport System is present in-

- (a) Chloroplast (b) Ribosome
- (c) Mitochondria (d) Nucleus

Q.No.15- Father of microscopy is-

- (a) Theophrastus (b) Janssen
- (c) Leeuwenhoek (d) Hooker

Q.No.16- Five kingdom classification was proposed by-

- (a) Linnaeus (b) Whittakar
- (c) John Ray (d) Lamark

Q.No.17- Flagella is made up of protein-

- (a) Keratin (b) Myosin
- (c) Flagellin (d) Flagin

Q.No.18- Fluid mosaic model was given by-

- (a) Singer and Nicolson
- (b) Robert Brown
- (c) Watson and Crick
- (d) Beadle and Tatum

Q.No.19- Formation of RNA over the DNA template is-

- (a) Replication (b) Translation
- (c) Transversion (d) Transcriptio

Q.No.20- How many whorls are there in a complete flower-

- (a) 4 (b) 3
- © 2 (d) 6

Q.No.21- In plants function of water conduction is performed by-

- (a) Phloem (b) Cortex
- © Xylem, tracheids and vessels
- (d) Cambium

Q.No.22- Initiation codon for protein synthesis in eukaryotes is-

- (a) GUA (b) GCA
- © CCA (d) AUG

Q.No.23- Interfascicular cambium is situated-

- (a) Between xylem and phloem
- (b) Between vascular bundles
- © Outside the vascular bundle
- (d) Innerside of vascular bundles

Q.No.24- Late blight of potato is due to-

- (a) Alternaria solani (b) Albugo candida
- (c) Fusarium moniliforme
- (d) Phytophthora infestens

Q.No.25- Muscles get fatigue due to accumulation of-

- (a) Adenosine triphosphate
- (b) Carbon dioxide
- (c) Lactic acid (d) Phosphate Molecules

Q.No.26- Muscles involved in movement of arm are-

- (a) Striated (b) Unstriated
- (c) Cardiac (D) Smooth

Q.No.27- Number of mitotic divisions required to produce 128 cells from a single cell-

- (a) 7 (b) 14 (c) 16 (d) 32

Q.No.28- Okazaki segments are-

- (a) Small segments of RNA
(b) Small peptides
(c) Small DNA segments
(d) Small DNA segments formed over DNA template running in 3' - 5' direction

Q.No.29- Organisms made up of single cell are called-

- (a) Monocellular (b) One celled
(c) Unicellular (d) None

Q.No.30- Plant cell wall is mainly composed of-

- (a) Lipids (b) Proteins
(c) Chitin (d) Cellulose

Q.No.31- Plant cells are generally without-

- (a) Lysosomes (b) Cell wall
(c) Plastids (d) Vacuoles

Q.No.32- Plants which grows on other plant is termed as-

- (a) Lithophytes (b) Epiphytes
(c) Psammophytes (d) Mesophytes

Q.No.33-The carrier which is used for transferring selected DNA into cells is known as-

- (a) Transposons (b) Endonuclease
(c) Vector (d) None of these

Q.No.34- The cells having the ability to divide are-

- (a) Specialised (b) Peramanent
(c) Meristmatic (d) Glandular

Q.No.35- Among the following which one is terminating codon for protein synthesis-

- (a) UAA (b) UAG (c) UGA
(d) All of them

36- Reverse transcriptase is present in-

- (a) Polio virus (b) Retro virus
(b) (c) Adeno virus (d) Herpes virus

Q.No.37- Which of the classes of RNA molecules carries the genetic information as it is needed for the construction of a protein-

- (a) r-RNA (b) t-RNA
(c) m-RNA
(d) Primary m-RNA transcript

Q.No.38- Cells of leydig produce-

- (a) Progesterone (b) Testosterone
(c) Adrenalin
(d) None of the above

Q.No.39- Estrogen is secreted by -

- (a) Theca interna (b) Zona pellucida
(c) Corona radiata (d) Graafian follicle

Q.No.40-GnRH is secreted by -

- (a) Anterior lobe of pituitary gland
(b) Cerebellum
(c) Cerebral hemisphere
(d) None

Q.No.41-Chromosome with equal arms is-

- (a) Acrocentric
- (b) Metacentric
- (c) Submetacentric
- (d) Telocentric

Q.No.42-Clover leaf structure is found in-

- (a) DNA
- (b) RNA
- (c) t- RNA
- (d) m-RNA

Q.No.43-Cytoplasmic structures involved in cell division are-

- (a) Mitochondria
- (b) Ribosomes
- (c) Lysosomes
- (d) Centrioles

Q.No.44-Fungal cell wall is composed of-

- (a) Chitin
- (b) Cellulose
- (c) Hemicellulose
- (d) None of the above

Q.No.45-In which the number of chromosomes is halved-

- (a) Mitosis
- (b) Amitosis
- (c) Meiosis
- (d) Fertilisation