NEET CELL BIOLOGY PYQ MCQS TEST

Q.1 Hydrolytic enzymes are abundantly found in which cell organelles -

(1) Ribosome

(2) Lysosome

(3) Oxysome

(4) Endoplasmic reticulum

Q.2 Which of the following is the site of lipid syntesis -

(1) Rough ER (2) Smooth ER

(3) Golgi bodies (4) Ribosome

Q.3 Ribosomes are produced in -

(1) Nucleolus (2) Cytoplasm

(3) Mitochondria (4) Golgibody

Q.4 Which of the following pair lack the unit membrane -

(1) Nucleus & E.R.

(2) Mitochondria & Chloroplast

(3) Ribosome & nucleolus

(4) Golgi body & lysosome

Q.5 Golgybody is concerned with -

(1) Respiration (2) Secretion

(3) Excertion (4) Degradation

Q.6 Which of the following occurs more than one and less than five in achromosome-

[CPMT - 2002]

(1) Chromatid (2) Chromomere

(3) Centromere (4) Telomere

Q.7 The cells without nuclei are present in -

(1) Vascular cambium

[RPMT - 2002]

(2) Root hair

(3) Companion cell

(4) Members of seive tube

Q.8 Plant with minimum number of chromosomes is - **[RPMT - 2004]**

(1) Haplopappusgracilis

(2) Salix tetrasperma

(3) Poa

(4) Cynodon

Q.9 Heteropycnosis is exhibited by -

(1) Autosome **[RPMT - 2004]**

(2) Chromatoid body

(3) Nucleolus

(4) Sex - chromosome

Q.10 Best material for the study of mitosis in laboratory - **[CPMT 2002]**

(1) Anther (2) Root tip

(3) Leaf tip (4) Ovary

Q.11 Mitosis occurs in - **[RPMT 2002]**

(1) Haploid individuals

(2) Diploid individuals

(3) Both (1) & (2)

(4) IN bacterial only

Q.12 The number of DNA in chromosome at G_2 state of cell cycle - **[RPMT 2002]**

(1) One

(2) Two

(3) Four

(4) Eight

Q.13 Which is correct for meiotic metaphase-I **[RPMT 2002]**

(1) Bivalents are arranged at equator

(2) Univalents are arranged at equator

(3) Non-homologus chromosomes forms pair

(4) Spindle fibers are attached at chromomere

Q.14 In which stage of meiosis the chromosome number reduces to half - **[RPMT 2004]**

(1) Anaphase-I (2) Anaphase-II

(3) Telophase-I (4) Telophase-II

Q.15 Chiasmata are formed as a result of - **[RPMT 2004]**

(1) Exchange of parts of paired homologus chromosome

(2) Exchange to part of unpaired non-homologus chromosome

(3) Duplication of parts of paired homologus chromosome

(4) Loss of parts of unpaired non-homologus chromosome

Q.16 If the n = 16 in plant cell then how many possible bivalent in metaphase - I of meiosis - **[RPMT 2007]**

(1) 32 Bivalents (2) 16 Tetravalents

(3) 16 Bivalents (4) 32 Bivalents

Q.17 The main function of lysosome is - **[UTTARANCHAL PMT 2004]**

(1) Sexual reproduction

(2) Extracellular digestion

(2) Intracellular digestion

(4) Both (2) and (3)

Q.18 Which of the following maintains continuity between the water and lipid phases inside and outside the cells - **[UTTARANCHAL PMT 2004]**

(1) Cell wall

(2) Lecithin
(3) Cell vacuole
(4) Cell membrane of woody plants

Q.19 The membrane surrounding cell vacuole is called - **[UTTARANCHAL PMT 2004]**
(1) Tonoplast
(2) Cell wall
(3)plasma membrane
(4) cell membrane

Q.20 The diagrammatic representation of chromosomes is known as - **[UTTARANCHAL PMT 2006]**
(1) idiogram (2) karyotype
(3) holotype (4) homotype

Q.21 Thread like structures that are composed of the nuclear DNA of eukaryotic cells and are the carrier of genetic information. These structures were known as chromosomes. The term "chromosome" was given - **[UTTARANCHAL PMT 2006]**
(1) Waldeyer (2) Balbiani
(3) Purkinje (4) Sutton

Q.22 Chromosomes, present in prolonged prophase in the salivary glands of Drosophila are - **[UTTARANCHAL PMT 2006]**
(1) Polytene chromosome
(2) B-Chromosomes
(3) Lampbrush chromosome
(4) supenumerary chromosomes

Q.23 Chromosomes at anaphase are of various shapes due to position of- **[UTTARANCHAL PMT 2006]**
(1) Setellite
(2) Chromonema
(3) Centromere

(4) DNA

Q.24 The term 'nucleosome' was given by oudetolins' and olins called these particle as "nu" particles which histone is absent in nucleosome -

[UTTARANCHAL PMT 2006]

(1) H_1 (2) H_2

(3) H_3a (4) H_4

Q.25 Nucleosome given beaded appearance to chromosome. They help in packing of DNA in the chromosomes. A nucleosome has -

[UTTARANCHAL PMT 2006]

(1) about 2 turns of DNA

(2) 8 histone molecules of 4 types

(2 mols each of H_2 a, H_2b, H_3 and H_4)

(3) 200 nitrogen base pairs

(4) all of the above

Q.26 Salivary glands chromosome were discovered by Balbiani (1881) from salivary glands of larva of - **[UTTARANCHAL PMT 2006]**

(1) Chironomous (2) Drosophila

(3) Silk worm (4) Lac worm

Q.27 In SAT chromosome, SAT (Satellite) is terminal part of chromosome beyond secondary constriction. It contains -

[UTTARANCHAL PMT 2006]

(1) DNA

(2) RNA

(3) repetitive DNA

(4) None of these

Q.28 Material exchange through nucleopores is faciliate by -

[UTTARANCHAL PMT 2006]

(1) Lamina propria (2) lipid layer

(3) Nucleoplasmin (4) Nucleoles

Q.29 Centriole is - **[UTTARANCHAL PMT 2006]**

(1) Microtubuler and membraneless

(2) Absent in Amoeba, red algae, blue-green algae conifers and angiosperm and made up of peripheral Triplet microtubuls

(4) Basically locomotary and their role in spindle formation is secondary

(4) All of the above

Q.30 Association of m-RNA with several ribosomes is called –

[West Bengal 2007]

(1) Polysome

(2) Informosome

(3) Both (1) and (2)

(4) None of these

Q.31 G_2 phase comes between -

\[West Bengal 2007]

(1) S and M phase

(2) G_1 and S phase

(3) S and D phase

(4) G_1 and M phase

Q.32 Lampbrush chromosome is found in -

[Wes Bengal 2007]

(1) Oocyte of amphibians

(2) Salivary gland of mosquito

(3) Silk gland of silkworm

(4) None of the above

Q.33 Prokaryotic ribosomes are -

[West Bengal 2007]

(1) 50s (2) 60s

(3) 70s (4) 80s

Q.34 Mesosomes of prokaryotes perform function similar to -

[West Bengal 2007]

(1) Mitochondria (2) Peroxysomes

(3) Lysosomes (4) Ribosomes

Q.35 RER is rough bucause of the presence of - **[West Bengal 2007]**

(1) Volutin granules on its

(2) Ribosomes on its surface

(3) Lysosomes on its surface

(4) Mitochondria on its surface

Q.36 Crossing over takes place between - **[West Bengal 2007]**

(1) 2 sister chromatids

(2) 2 non-sister chromatids

(3) 3 homologous chromosomes

(4) 4 non-homologous chromosomes

Q.37 Cellular recognition is fasciliated by components of plasmamembrane. These components are generally - **[West Bengal 2007]**

(1) Protein molecules alone

(2) Lipid molecules alone

(3) Both lipid and protein molecules

(4) Gloycolipids and glycoproteins

Q.38 The significance of meiosis lies in - **[C.G. PMT 2004]**

(1) Maintaining constancy in the number of chromosomes in an organism

(2) Production of genetic variability in the population of species

(3) Reduction of the diploid number of chromosomes to haploid

(4) All of the above

Q.39 Which among the following can be seen only under the electron microscope - **[C.G. PMT 2004]**

(1) Chloroplast (2) Ribosome

(3) Leucoplast (4) Nucleus

Q.40 A mature plant cell has - **[C.G. PMT 2004]**

(1) Cell wall and protoplasm

(2) Protoplasm and vacuole

(3) Vacuole and cell wall

(4) Protoplasm cell wall and vacuole

Q.41 The larger sub-unit in 80 s ribosome is - **[C.G. PMT 2004]**

(1) 50 s (2) 60 s

(3) 40 s (4) zero s

Q.42 Golgi bodies are absent in - **[C.G. PMT 2004]**

(1) Plants (2) Bacteria

(3) Animals (4) Eukaryotic cells

Q.43 Endoplasmic reticulum is more developed in - **[C.G. PMT 2004]**

(1) Green cells (2) Young cells

(3) Mature cells (4) Bacteriophage

Q.44 Mitochondria are related to - **[C.G. PMT 2004]**

(1) Prokaryotic cell (2) Plasmids

(3) Prion (4) Virus

Q.45 The main function of lysosomes is - **[C.G. PMT 2004]**

(1) Digestion

(2) Replication

(3) Translation

(4) Translocation

Q.46 Which of the following has a single membrane - **[C.G. PMT 2004]**

(1) Ribosome (2) Peroxisome
(3) Nucleus (4) Centrosome

Q.47 L-shaped chromosomes are called - **[C.G. PMT 2004]**
(1) Sex-chromosome
(2) Acrocentric
(3) Telocentric
(4) Sub-metacentric

Q.48 Pairing of homologous chromosomes takes place in - **[C.G. PMT 2004]**
(1) Pachytene
(2) Zygotene
(3) Diplotene
(4) None of these

Q.49 How many meiotic divisions will be necessary to produce two hundred pollen grain - **[C.G. PMT 2004]**
(1) 100 (2) 99
(3) 50 (4) 200

Q.50 Who coined the term chromosome - **[C.G. PMT 2004]**
(1) Balbiani (2) Waldeyer
(3) Sutton (4) Purkinje

Q.51 A chromosome having sub-terminal centromere is calle **[C.G. PMT 2004]**
(1) Telocentric (2) Acrocentric
(3) Metacentric (4) Sub-metacentric

Q.52 Which is the character of mitosis - **[C.G. PMT 2005]**
(1) Leptotene
(2) Zygotene
(3) Pachytene

(4) None of the above

Q.53 How many types of cells are known - **[C.G. PMT 2005]**

(1) One (2) Two

(3) Three (4) Four

Q.54 In which mitosis does-not occur - **[C.G. PMT 2005]**

(1) Green algae

(2) Fungi

(3) Bacteria

(4) Higher plants

Q.55 A mature plant cell has - **[C.G. PMT 2005]**

(1) Cell wall

(2) Vacuole

(3) Protoplasm

(4) All of the above

Q.56 Repulsion of homologous chromosomes takes place in - **[C.G. PMT 2005]**

(1) Zygotene (2) Leptotene

(3) Diakinesis (4) Pachytene

Q.57 In eukaryotic cell the type of ribosome is -**[C.G. PMT 2005]**

(1) Only 70 s

(2) Only 80 s

(3) 70 s and 80 s both

(4) Only 50 s

Q.58 Synthesis of DNA takes place in - **[C.G. PMT 2005]**

(1) G_1

(2) G_2

(3) S

(4) None of these

Q.59 The genetic material of procaryotic cells is called - **[C.G. PMT 2005]**

(1) Nucleus (2) Nucleolus

(3) Nucleoid (4) Centrosome

Q.60 Which organelle of plant cells secrets polysaccharide to make cell walls - **[C.G. PMT 2005]**

(1) Golgi-bodies (2) Lysosome

(3) Mitochondria (4) Chloroplast

Q.61 RNA contains which of the following base, in place of Thymine of DNA - **[C.G. PMT 2005]**

(1) Thymine

(2) Uracil

(3) Adenine

(4) None of these

Q.62 The main function of lysosomes is in - **[C.G. PMT 2005]**

(1) Only intracellular digestion

(2) Only Extracellular digestion

(3) Both intracellular and extracellular digestion

(4) None

Q.63 Eukaryotic cell has - **[C.G. PMT 2005]**

(1) One chromatin fiber

(2) Definite nucleus

(3) Incipient nucleus

(4) None of these

Q.64 Four daughter cells formed after meiosis are - **[C.G. PMT 2005]**

(1) Genetically similar
(2) Genetically different
(3) Anucleate
(4) Multinucleate

Q.65 The synthesis of lipids and proteins is associated with - **[C.G. PMT 2005]**
(1) Endoplasmic reticulum
(2) Miochondria
(3) Chloroplast
(4) Lysosomes

Q.66 Cell theory was proposed by - **[C.G. PMT 2005]**
(1) Schleiden and Schwann
(2) Watson and Crick
(3) Drawin and Wallace
(4) Mendel and Morgan

Q.67 During meiosis the division of centromere takes place in - **[C.G. PMT 2005]**
(1) First prophase
(2) First anaphase
(3) Second metaphase
(4) Second anaphase

Q.68 Which one of the following is not found in animal cell - **[C.G. PMT 2005]**
(1) Nucleus (2) Golgi bodies
(3) Chloroplast (4) Mitochondria

Q.69 Unit membrane consists of - **[C.G. PMT 2005]**
(1) Lipid + Sugar + Lipid
(2) Protein + Lipid + Protein
(3) Lipid + Protein + Lipid
(4) Protein

Q.70 Principal constituents of chromosomes are - **[C.G. PMT 2005]**

(1) DNA + Protein (2) DNA

(3) RNA (4) tRNA

Q.71 Shape of chromosome is determined by -**[C.G. PMT 2005]**

(1) Telomere (2) Centromere

(3) Chromomere (4) Centrosome

Q.72 In a bacterial cell the respiratory enzymes are found in -

[C.G. PMT 2005]

(1) Mitochondria

(2) Chondrisome

(3) Mesosome

(4) Centrosome

Q.73 The cell wall of Spirogyra is made up of - **[C.G. PMT 2005]**

(1) Cellulose (2) Suberin

(3) Lignin (4) Chitin

Q.74 The main function of Golgi complex is - **[C.G. PMT 2005]**

(1) Translocation

(2) Phosphorylation

(3) Glyco-oxidation

(4) Fermentation

Q.75 In cell division, spindle fibres are made up of protein - **[Jharkhand 2006]**

(1) Myoglobin (2) Tubulin

(3) Albumin (4) Myosin

Q.76 Bulk of histone proteins synthesized in -

[Jharkhand 2006]

(1) G_1-phase (2) G_2-phase

(3) S-phase (4) G_0-phase

Q.77 Choose the incorrect match -

[Jharkhand 2006]

(1) Nucleus : RNA

(2) Lysosome : protein synthesis

(3) Mitochondria : respiration

(4) Cytoskeleton : microtubules

Q.78 Rough endoplasic reticulum is associated with - **[Jharkhand 2006]**

(1) fat synthesis

(2) steroid synthesis

(3) protein synthesis

(4) all of these

Q.79 Resolving power of electron microscope is - **[Jharkhand 2006]**

(1) 1 □ (2) 10 Å

(3) 100 Å (4) 1000 Å

Q.80 Number of Barr bodies in XXXXY is - **[Jharkhand 2006]**

(1) 1 (2) 2 (3) 3 (4) 4

Q.81 The study related to the structure and function of a cell is called as - **[Jharkhand 2005]**

(1) Physiology (2) Cell biology

(3) Histology (4) Cytology

Q.82 The longest phase of meiosis (I) is - **[Jharkhand 2005]**

(1) metaphse I (2) prophase I

(3) anaphase I (4) telophase I

Q.83 Fluid mosaic model was given by - **[Jharkhand 2006]**

(1) Knoll and Ruska

(2) Singer and Ruska

(3) Singer and Nicolson

(4) Bateson and Punnet

Q.84 Colchicine prevents the mitosis of cell at - **[Jharkhand 2006]**

(1) Prophase stage

(2) Anaphase stage

(3) Telophase stage

(4) Metaphase stage

Q.85 The number of DNA in chromosome at G_2 stage - **[Jharkhand 2006]**

(1) One (2) Two

(3) Four (4) Eight

Q.86 The characteristic of blue-green algae is - **[Jharkhand 2006]**

(1) DNA without histone

(2) Nucleus absent

(3) Nuclear membrane absent

(4) All of the above

Q.87 Cell wall of a cell is removed, the remaining is called - **[Bihar 2005]**

(1) Etioplast (2) Aleuroplast

(3) Amyloplast (4) Protoplast

Q.88 Movement against concentration gradient is called -**[Bihar 2005]**

(1) Osmosis

(2) Active transport

(3) Diffusion

(4) Passive transport

Q.89 Synapsis occurs in ..... phase of meiosis - **[Bihar 2005]**

(1) Zygotene (2) Diplotene

(3) Pachytene (4) Leptotene

Q.90 Which one is present in both prokaryotic and eukaryotic cell - **[Bihar 2004]**

(1) Ribosome

(2) Mitochondria

(3) ER

(4) Nucleus

Q.91 Centromere is also called -
[Bihar 2003]
(1) Chromomere
(2) Secondary constriction
(3) Primary constriction
(4) Chromonema

Q.92 In "singer and Nicolson" model of plasma membrane, the extrinsic proteins are -**[Bihar 2002]**
(1) Tightly associated with intrinsic protein and can be easily separated
(2) Loosely associated with intrinsic protein
(3) Loosely associated with intrinsic protein and can be easily separated
(4) Loosely associated with intrinsic protein and can't be easily separated

Q.93 Ribosomes are associated with -
[Bihar 2002]
(1) RNA synthesis
(2) Protein synthesis
(3) Enzyme mobilisation
(4) DNA synthesis

Q.94 Which organelle is not found in an animal cell - **[Bihar 2001]**
(1) Peroxysome
(2) Ribosome
(3) Lysosome
(4) None of these

Q.95 Actin fibre is present in - **[Bihar 2001]**
(1) Cilia
(2) Flagella
(3) Carbohydrates

(4) Microfilaments

Q.96 Meiosis can be observed in -

[Bihar 2006]

(1) Tapetal cells

(2) Megaspores

(3) Micropores

(4) Spore mother cells

Q.97 Carrier proteins are involoved in -

[Bihar 2006]

(1) Transport of enzymes

(2) Water transport

(3) Active transport of ions

(4) Passive transport of gases

Q.98 The recent model for plasma membrane proposed by Singer and Nicolson is -

[Bihar 2005]

(1) Molecular-lipid model

(2) Lamellar model

(3) Unit membrane model

(4) Fluid mosaic model

Q.99 Significance of meiosis lies in -

[Bihar 2006]

(1) Reduction of chromosome number to one half

(2) Maintaning constancy of
chromosome number during sexual reproduction

(3) Production of genetic variability

(4) All of the above

Q.100 Function of mitochondria is -

[UP CPMT 2002]

(1) Excretion

(2) Respiration
(3) Digestion
(4) Excretion and respiration

Q.101 Term basal body is associated with development of - **[UP CPMT 2003]**
(1) cilia and flagella (2) cell plate
(3) phragmoplast (4) kinetochore

Q.102 Golgi body originates form - **[UP CPMT 2003]**
(1) lysosome
(2) Endoplasmic reticulum
(3) mitochondria
(4) cell memrane

Q.103 Lipid molecules in plasma membrane are arranged in which manner - **[UP CPMT 2003]**
(1) scattered
(2) series
(3) alternate
(4) head parallel

Q.104 Structure of nuclear membrane helps in - **[UP CPMT 2003]**
(1) organisation of the spindle
(2) synapsis of homologous chromosome
(3) Nucleo-cytoplasmic exchange of material
(4) anaphasic separation of daughter chromosome

Q.105 Hydrolytic enzymes are stored in - **[UP CPMT 2003]**
(1) Golgi bodies
(2) Lysosomes

(3) Endoplasmic reticulum

(4) Mitochondria

Q.106 Ribosome may also called - **[UP CPMT 2002]**

(1) Microsome (2) Dictyosome

(3) Ribonucleoprotein (4) Oxysomes

Q.107 Genes are present in - **[UP CPMT 2003]**

(1) Chromosomes (2) Lamellae

(3) Plasma membrane (4) Mesosomes

Q.108 The cromosome showing L-shaped structure by the presence of centromere is termed as - **[MP PMT 2003]**

(1) Acentric (2) Metacentric

(3) Sub-metacentric (4) Telocentric

Q.109 Chromosomes can be seen best during - **[MP PMT 2003]**

(1) Prophase (2) Metaphse

(3) Anaphase (4) Telophase

Q.110 What will be the gametic chromosome number of a cell, if somatic cell have 40 chromosome - **[MP PMT 2003]**

(1) 10 (2) 20

(3) 30 (4) 40

Q.111 Who coined the term 'cell' - **[MP PMT 2003]**

(1) Purkinje

(2) Robert Brown

(3) Robert Hooke

(4) Hugo von Mohl

Q.112 In which of the following stage chromosomes are arranged at equatorial plate - **[MP PMT 2003]**

(1) Anaphase (2) Metaphase

(3) Prophase (4) Telophase

Q.113 During mitosis number of chromosomes gets - **[MP PMT 2003]**

(1) Change

(2) No change

(3) May be change if cell is mature

(4) May be change if cell is immature

Q.114 Chromosome having centromere in its middle is - **[MP PMT 2005]**

(1) Acrocentric

(2) Telocentric

(3) Metacentric

(4) Submetacentric

Q.115 Single membrance bound is - **[MP PMT 2005]**

(1) Lysosome (2) Plastid

(3) Nucleus (4) Mitochondria

Q.116 Which of the following do not possess lipoproteinaceous membrane - **[MP PMT 2006]**

(1) Lysosomes

(2) Lomasomes

(3) Ribosomes

(4) Sphaerosomes

Q.117 In meiosis chromosome number becomes - **[MP PMT 2006]**

(1) Half of its parent chromosome

(2) Same as that of parent chromosome

(3) One fourth of its parent chromosome

(4) None of the above

Q.118 Centrosome is not present in -
[MP PMT 2003]
(1) Cells of higher plants
(2) Cells of lower plants
(3) Cells of higher animals
(4) Cells of lower animals

Q.119 Site of protein synthesis is -
[MP PMT 2005]
(1) Ribosome (2) SER
(3) Golgi bodies (4) Lysosome

Q.120 To study the living cells without staining, which of the following microscopes can be used ? **[PB PMT 2002]**
(1) SEM (2) Flourescent
(3) Phase contrast (4) TEM

Q.121 Molecular biology is the study of :-
[CET Chd. 2002]
(1) Structure, function and cell reproduction
(2) Physio-biochemiccal studies of biomolecules
(3) studying tissues under microscope
(4) metabolic activitity of life

Q.122 The subcelluar components can be separated by -
[CMC Ludhiyann 2002,2003]
(1) Paper chormatography
(2) autoradiography
(3) gel electrophoresis
(4) differential and density gradient centrifugation

Q.123 The choromosome separation during metaphase can be best studies by -
[CET Chd. 2002,2003]
(1) phase contrast microscope
(2) TEM

(3) X-ray technique

(4) Scannning electron microscope

Q.124 The techniqe chromatography was developed by - **[BVP Pune 2002]**

(1) Wilkins (2) Georgy Gey

(3) Tswett (4) Zernicks

Q.125 Which of the following dye is used for staining cell organalle, mitochondria ?

[PB PMT 2003]

(1) Janus Green (2) Saffranin

(3) Azure B (4) Crystal violet

Q.126 In fluid mosaic model of plasma membrane - **[CBSE - 2002]**

(1) Upper layer is non-polar and hydrophilic

(2) Polar layer is hydrophobic

(3) Phospholipids form a bimolecular layer in middle part

(4) Proteins form a middle layer

Q.127 According to widely accepted ‘‘fluid mosaic model’’ cell membranes are semi-fluid, where lipids and integral proteins can diffuse randomly. In recent years, this model has been modified in several respects. In this regard, which of the following statements is incorrect - **[CBSE - 2005]**

(1) Proteins can also undergo flip-flop movements in the lipid bilayer

(2) Many proteins remain completely embeded within the lipid bilayer

(3) Proteins in cell membranes can travel within the lipid bilayer

(4) Proteins can remain confined within certain domains of the membranes

Q.128 Which one of the following is not a constituents of cell membrane -

[CBSE - 2007]

(1) Cholesterol (2) Glycolipids

(3) Proline (4) Phospholipids

Q.129 The main organelle involved in modification and routing of newly synthesized proteins to their destinations is - **[CBSE - 2005]**

(1) Endoplasmic Reticulum
(2) Lysosome
(3) Mitochondria
(4) Chloroplast

Q.130 Chlorophyll in chloroplasts is located in -
[CBSE - 2005]

(1) Grana
(2) Pyrenoid
(3) Stroma
(4) Both grana and stroma

Q.131 Which of the following statements regarding mitochondrial membrane is **not** correct ?
[CBSE - 2006]

(1) The outer membrane resembles a sieve
(2) The outer membrane is permeable to all kinds of molecules.
(3) The enzymes of the electron transfer chain are embedded in the outer membrane.
(4) The inner membrane is highly convoluted forming a series of infoldings

Q.132 Polysome is formed by -
[CBSE - 2008]

(1) A ribsome with several subunits
(2) Ribosomes attached to each other in a linear arangement
(3) Several ribsomes attached to a single mRNA
(4) Many ribsonmes attached to a strand of endoplasmic reticulum

Q.133 Vacuole in a plant cell -
[CBSE - 2008]

(1) Lack membrane and contains air
(2) Lacks membrane and contains water and excretory substances
(3) Is membrane-bound and contains stroage protein and lipids
(4) Is membrane-bound and contains water and excretory substances

Q.134 In germinating seeds fatty acids are degraded exclusively in the -
[CBSE - 2008]

(1) Peroxisomes (2) Mitochondria

(3) Proplastids (4) Glyoxysomes

Q.135 Keeping in view the fluid mosaic model for the structure of cell membrane, which one of the following statements is correct with respect to the movment of lipids and proteins from one lipid monolayer to the other (described as flipflop movement)? **[CBSE - 2008]**

(1) While proteins can flip-flop, lipids can not

(2) Neither lipids, nor proteins can flip-flop

(3) Both lipids and proteins can flip-flop

(4) While lipids can rarely flip-flop, proteins can not

Q.136 Three of the following satements regarding cell organelles are correct while one is wrong. Which one is wrong - **[AIMS- 2005]**

(1) Lysomes are double membraned vesicles budded off form golgiappratus and contain digestive enzymes

(2) Endoplasmic reticulum consists of a network of membranous tubules and helps in transport, sytehsis and secretion

(3) Leucoplasts are bound by two membranes lack pigment but contain their own DNA and protein synthesizing machinery

(4) Spharosomes are single membrane bonds and are associated with synthesis and storage of lipids

Q.137 In which one of the following would you expect to find glyoxysomes - **[AIMS- 2005]**

(1) Endosperm of wheat

(2) Endosperm of castor

(3) Palisade cells in leaf

(4) Root hairs

Q.138 Which of the following statements regarding cilia is **not** correct - **[CBSE- 2006]**

(1) Cilia contain an outer of nine doublet microtubules surrounding two single microtubules

(2) The organized beating of cilia is controlled by fluxes of Ca^{2+} across the membrane

(3) Cilia are hair-like cellular appendages.

(4) Microtubules of cilia are composed of tubulin

Q.139 The contractile protein of skeletal muscle involving ATPase activity is - **[CBSE- 2006]**

(1) □-Actinin (2) Troponin

(3) Tropomyosin (4) Myosin

Q.140 Select the wrong statement from the following- **[CBSE- 2007]**

(1) Both chloroplasts and mitochondria contain an inner and outer membrane

(2) Both chloroplast and mitochondria have an internal compartment, the thylakoid space bounded by the thylakoid membrane.

(3) Both chloroplasts and mitochondria contain DNA

(4) The chloroplasts are generally much larger than mitochondria

Q.141 The telomeres of euaryotic chromosomes consists of short sequences of – **[CBSE- 2004]**

(1) Cytosine rich repeats

(2) Adenine rich repeats

(3) Guanine rich repeats

(4) Thymine rich repeats

Q.142 If you are provided with root-tips of onion in your class and are asked to count the chromosomes which of the following stages can your most convnintly look into - **[CBSE- 2004]**

(1) Telophase (2) Anaphase

(3) Prophase (4) Metaphase

Q.143 **Protein synthesis in an animal** cell occurs- **[CBSE- 2005]**

(1) On ribosomes present in cytoplasm as well as in mitochondria

(2) On ribosomes present in the nucleolus as well as in cytoplasm

(3) Only on ribosomes attached to the nulecar envelope and endoplasmic reticulum

(4) Only on the ribosomes present in cytosol

Q.144 Telomerase is an enzyme which is a -

[CBSE- 2005]

(1) RNA

(2) Ribonucleoprotein

(3) Repetitive DNA

(4) Simple protein

Q.145 The length of DNA moelcule greatly exceeds the dimensions of the nucleus in eukaryotic cells. How is the DNA accomodated ? **[CBSE- 2007]**

(1) Deletion of non-essential genes

(2) Supper-coiling in nucleosomes

(3) DNase digestion

(4) Through elimination of repetitive DNA

Q.146 Which one of the following proceeds re-formation of the nuclear envelope during M phase of the cell cycle - **[CBSE 2004]**

(1) Transcription from chromosomes and reassembly of the of the nuclear lamina

(2) Formation of the contractile ring and formation of the phragmoplast

(3) Formation of the contractile ring and transcription from chromosome

(4) Decondensation from chromosomes and reassembly of the nuclear lamina

Q.147 Crossing over that results in genetic recombination in higher organisms occurs between - **[CBSE 2004]**

(1) Non-sister chromatids of a bivalent

(2) Two daughter nuclei

(3) Two different bivalents

(4) Sister chromatids of a bivalents

Q.148 In the somatic cell cycle - **[CBSE 2004]**

(1) DNA replication takes place in S-phase

(2) A short interphase is followed by a long mitotic phase

(3) G_2 phase follows mitotic phase

(4) In G_1 phase DNA content is double the amount of DNA present in the orginal cell

Q.149 When synapsis is complete all along the chromosome, the cell is said to have entered a stage called - **[CBSE 2004]**

(1) Zygotene (2) Pachytene

(3) Diplotene (4) Diakinesis

Q.150 Many cells function properly and divide mitotically though they do not have - **[AIIMS 2005]**

(1) Plasma membrane

(2) Cytoskeleton

(3) Mitochondria

(4) Plastids

Q.151 Centromere is required for - **[AIIMS 2005]**

(1) Movement of chromosomes towards poles

(2) Cytoplasmic cleavage

(3) Crossing over

(4) Transcription

Q.152 At what stage of the cell cycle are histone proteins synthesized in a eukaryotic cell - **[CBSE 2005]**

(1) During telophase

(2) During S-phase

(3) During G_2-stage of prophase

(4) During entire prophase

Q.153 Plasmodesmata are - **[CBSE 2009]**

(1) Connections between adjacent cells

(2) Lignified cemented layers between cells

(3) Locomotary structures

(4) Membranes connecting the nucleus with plasmalemma

Q.154 Synapsis occurs between -**[CBSE 2009]**

(1) Two homologous chromosomes

(2) A male and a female gamete

(3) mRNA and ribosomes

(4) Spindle fibres and centromere

Q.155 Middle lamella is composed mainly of -

[CBSE 2009]

(1) Phosphoglycerides

(2) Hemicellulose

(3) Muramic acid

(4) Calcium pectate

Q.156 Cytoskeleton is made up of -

[CBSE 2009]

(1) Proteinaceous filaments

(2) Calcium carbonate granules

(3) Callose deposits

(4) Cellulosic microfibrils

Q.157 The cell junctions called tight, adhering and gap junctions are found in -

[CBSE 2009]

(1) Neural tissue

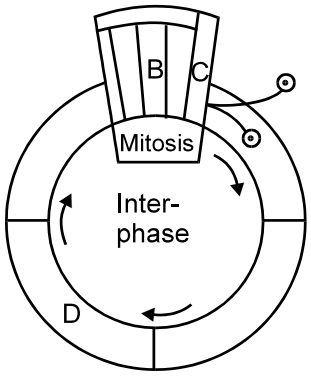
(2) Muscular tissue

(3) Connective tissue

(4) Epithelial tissue

Q.158 Given below is a schematic break-up of the phases/stages of cell cycle –

[CBSE 2009]



Which one of the following is the correct indication of the state/phase in the cell cycle -

(1) A - Cytokinesis

(2) B - Metaphse

(3) C - Karyokinesis

(4) D - Synthetic phase

Q.159 There is no DNA in - **[CBSE 2009]**

(1) Hair root

(2) An enucleated ovum

(3) Mature RBCs

(4) A mature spermatozoan

Q.160 A student wishes to study the cell structure under a light microscope having **10X** eye piece and **45X** objective. He should illuminate the object by which one of the follwoing colours of light so as to get the best possible resolution ? **[CBSE 2005]**

(1) Yellow (2) Grren

(3) Red (4) Blue

Q.161 A major breakthrough in the studies of cell came with the development of electron microscope. This is because **[CBSE 2006]**

(1) electron beam can pass through thick mater als, whereas light microscopy requires thin section.

(2) the electron microscope is more powerful than the light microscope as it uses a beam of electrons which has wavelength much loger than that of photons

(3) the resolution power of the electron microscope is much higher than that of the light microscope

(4) the resolving power of the electron microscope is 200-350 nm as compared to 0.1-0.2 nm for the light microscope

Q.162 During mitosis ER and nucleolus begin to disappear at – **[CBSE 2010]**

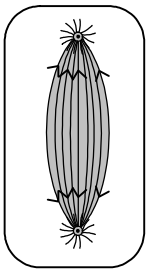
(1) Late prophase

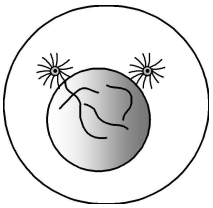
(2) Early metaphase

(3) Late metaphase

(4) Early prophase

Q.163 Which stages of cell division do the following figures A and B represent respectively ? **[CBSE 2010]**





(1) Metaphse - Telophase

(2) Telophase - Metaphse

(3) Late Anaphase - Prophase

(4) Prophase - Anaphase

Q.164 The main area of variuos types of activites of a cell is – **[CBSE 2010]**

(1) Plasma membrane

(2) Mitochondrian

(3) Cytoplasm

(4) Nucleus

Q.165 Carrier ions like Na^+ facilitate the absorption of substances like – **[CBSE 2010]**

(1) amino acids and glucose

(2) glucose and fatty acids

(3) fatty acids and glycerol

(4) fructose and some amino acids

Q.166 The plasma membrane consists mainly of – **[CBSE 2010]**

(1) phospholipids embedded in a protein bilayer

(2) proteins embedded in a phospholipid bilayer

(3) proteins embedded in a polymer of glucose molecules

(4) proteins embedded in a carbohydrate bilayer

Q.167 An elaborate network of filamentous proteinaceous structures present in the cytoplasm which helps in the maintenance of cell shape is called - **[AIPMT MAINS 2010]**

(1) Endosplasmic Reticulum

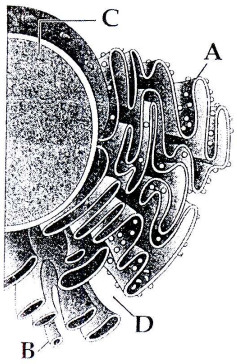
(2) Plasmalemma

(3) Cytoskeleton

(4) Thylakoid

Q.168 Identify the components labelled A, B, C and D in the diagram below from the list (i) to (viii) given along with –

[AIPMT MAINS 2010]



Components :

(i) Cristae of mitochondria

(ii) Inner membrane of mitochondria

(iii) Cytoplasm
(iv) Smooth endoplasmic reticulum
(v) Rough endoplasmic reticulum
(vi) Mitochondrial matrix
(vii) Cell vacuole
(viii) Nucleus
The correct components are

	A	B	C	D
(1)	(i)	(iv)	(viii)	(vi)
(2)	(vi)	(v)	(iv)	(vii)
(3)	(v)	(i)	(iii)	(ii)
(4)	(v)	(iv)	(viii)	(iii)

Q.169 In eubacteria, a cellular component that resembles eukaryotic cell is : **[AIPMT Pre- 2011]**
(1) Cell wall
(2) Plasma membrane
(3) Nucleus
(4) Ribosomes

Q.170 Which one of the following organisms is **not** an example of eukaryotic cells ?**[AIPMT Pre- 2011]**
(1) Amoeba proteus
(2) Paramcciumcaudatum
(3) Escheria coli
(4) Euglena viridis

Q.171 Select the correct opition with respect to mitosis **[AIPMT Pre- 2011]**
(1) Chromosomes move to the spindle equator and get aligned along equatorial plate in metaphase

(2) Chromatids separate but remain in the centre of the cell in anaphase
(3) Chromatids start moving towards opposite poles in telophase
(4) Golgi complex and endoplasmic reticulum are still visible at the end of prophase

Q.172 Important site for formation of glycoproteins and glycolipids is : **[AIPMT Pre- 2011]**
(1) Lysosome (2) Vacuole
(3) Golgi apparatus (4) Plastid

Q.173 Peptide synthesis inside a cell takes place in : **[AIPMT Pre- 2011]**
(1) Ribosomes (2) Chloroplast
(3) Mitochondria (4) Chromoplast

Q.174 In land plants, the guard cells differ from other epidermal cells in having : **[AIPMT Pre- 2012]**
(1) Chloroplasts
(2) Cytoskeleton
(3) Mitochondria
(4) Endoplasmic reticulum

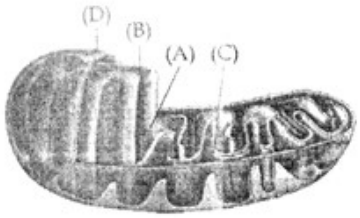
Q.175 What would be the number of chromosomes of the aleurone cells of a plant with 42 chromosomes in its root tip cells ? **[AIPMT Pre- 2013]**
(1) 21 (2) 42 (3) 63 (4) 84

Q.176 At metaphase, chromosomes are attached to the spindle fibres by their : **[AIPMT Mains- 2015]**
(1) Centromere
(2) Satellites
(3) Secondary constrictions
(4) Kinetochores

Q.177 Which one of the following is not considered as a part of the endomembrane system ?
[AIPMT Mains- 2016]

(1) Lysosome (2) Golgi complex
(3) Peroxisome (4) Vacuole

Q.178 The figure below shows the structure of a mitchondrion with its four parts labelled (A), (B), (C). and (D) Select the part correctly matched with its function –
[AIPMT Mains- 2017]



(1) Part (A) : Matrix – major site for respiratory chain enzymes
(2) Part (D) : Outer membrane – gives rise to inner membrane by splitting
(3) Part (B) : Inner membrane – forms infoldings called cristae
(4) Part (C) : Cristae – possess single circular DNA molecule and ribosome