# CELL : THE UNIT OF LIFE
# DPP - 1
## [MEDICAL DIVISION]

**1.** Who amongst the following scientists is credited with the discovery of cell which was published in 'Micrographia' ?
(A) Robert Brown (B) Robert Hooke (C) Schleiden (D) Schwann

**2.** PPLO stands for
(A) Pleuro pneumonia like organ (B) Pleuro pneumonia like organism
(C) Pleuro plant like organism (D) Pleuro plastid like organelle

**3.** Cell theory was put forward by
(A) Schleiden and Schwann in 1838-1839 (B) Sutton and Boveri
(C) Watson and Crick (D) Darwin and Wallace

**4.** Who was the first to explain that the cells divide and new cells are formed from the pre-existing cells (*Omnis cellula-e-cellula*) in 1855 ?
(A) Louis Pasteur (B) Rudolf Virchow (C) Nagali (D) Robert Brown

**5.** Small cells are metabolically active as they have
(A) Higher surface area to volume ratio (B) Higher nucleocytoplasmic ratio
(C) Lower nucleocytoplasmic ratio (D) Both (A) & (B)

**6**. Who proposed the term 'cellulae'
(A) Leeuwenhoek (B) Virchow (C) Robert Hooke (D) Negeli

**7.** Different cells have different sizes. Arrange the following cells in an ascending order of their size. Choose the correct option among the following :
(i) Mycoplasma (ii) Ostrich eggs (iii) Human RBC (D) Bacteria
**Options :**
(A) (i), (iv), (iii) & (ii) (B) (i), (ii), (iii) & (iv)
(C) (ii), (i), (iii) & (iv) (D) (iii), (ii), (i) & (iv)

**8.** Metabolically active cells have
(A) Smaller size (B) Elongated form
(C) High surface volume ratio (D) All the above

**9.** Schleiden and Schwann proposed
(A) Phenomenon of brownian movement (B) Cell theory or cell doctrine
(C) Protoplasm as a physical basis of life (D) None of these

**10.** The cell theory is not applicable to
(A) Algae (B) Fungi (C) Virus (D) Lichen

# CELL : THE UNIT OF LIFE
# DPP - 2
## [MEDICAL DIVISION]

**1.** Mesosomes are the infoldings of cell membrane, which
(i) are present in both prokaryotic and eukaryotic cells
(ii) help in cell wall formation, DNA replication and respiration
(iii) increase the surface area of plasma membrane
(A) (i) and (ii) (B) (ii) and (iii) (C) (i) and (iii) (D) (i), (ii) and (iii)

**2.** Glycocalyx (mucilage sheath) of a bacterial cell may occur in the form of a loose sheath called _____ or it may be thick and tough called _____.
(A) capsule, slime layer (B) slime layer, capsule
(C) mesosome, capsule (D) mesosome, slime layer

**3.** Which of the following has one-envelope system ?
(A) Prokaryotic cell (B) Eukaryotic cell (C) Both (A) & (B) (D) None of these

**4.** Gram negative bacteria differ from gram positive bacteria in having
(A) Thick cell wall and is primarily made up of peptidoglycan
(B) Complex cell envelope made up of three layers
(C) The cell wall is 20-80 nm in thickness and also contains tightly bound techoic acids
(D) Absence of cell wall lipids

**5.** Choose the incorrect option
(A) Mycoplasma is the smallest cell (0.3 $\mu$m in length)
(B) Bacteria are 3-5 $\mu$m
(C) The largest cell is the egg of an ostrich
(D) Nerve cells are some of the smallest cells

**6.** The largest isolated single cell is
(A) Egg of ostrich (B) Egg of peacock (C) Egg of duck (D) None of the above

**7.** Which of the following represents prokaryotic cells ?
(A) PPLO (B) Mycoplasma (C) Bacteria (D) All of these

**8.** Which one of the following is not an inclusion body found in prokaryotes ?
(A) Cyanophycean granule (B) Glycogen granule
(C) Polysome (D) Phosphate granule

**9.** What is about the genetic material of prokaryotic cell ?
(A) Possess small circular DNA called plasmids
(B) Not enevloped by nuclear membrane
(C) Composed of a single circular DNA molecule
(D) All of the above

**10.** What is true about mesosomes ?
(A) Help in cell wall formation (B) Help in cellular respiration
(C) Help in DNA replication (D) All of the above

# CELL : THE UNIT OF LIFE
# DPP - 3
## [MEDICAL DIVISION]

**1.** Select the correct statement w.r.t. prokaryotes.
(A) Membrane bound organelle are absent
(B) Aerobic respiration by mesosome
(C) Ribosome 70S
(D) All the correct

**2.** Which type arrangement found in prokaryotes of flagella
(A) 9+0 (B) 9+1 (C) 9+2 (D) 9+3

**3**. Which of the following organelle is found in both eukaryotic as well as prokaryotic cells.
(A) Mesosome (B) Ribosome
(C) Golgi-complex (D) Chloroplast

**4.** Which component present only plant cell.
(i) Cell wall (ii) Chloroplast (iii) Centriole (iv) Vacuole
(A) i, ii (B) ii, iii (C) ii, iii, iv (D) i,ii,iv

**5.** Reserve food material of eukaryotic cell
(A) Starch + Oil (B) Glycogen + Oil
(C) Starch + Protein (D) Glycogen + Protein

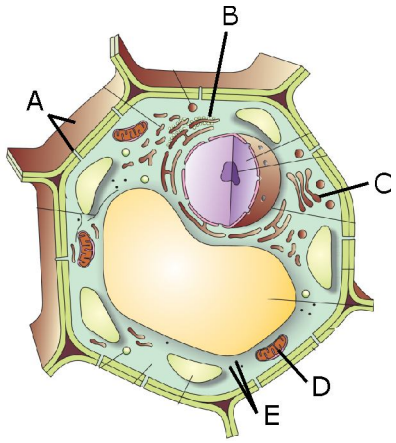
**6.** Which of the following features is common to prokaryotes and eukaryotes ?
(A) Chloroplast (B) Cell wall
(C) Nuclear membrane (D) None of these

**7.** The genetic material is naked in
(A) Prokaryotic cells (B) Eukaryotic cells
(C) Multicellular cell (D) Both (A) and (B)

**8**. Select the incorrect statement about prokaryotic ribosomes.
(A) 50S and 30S subunits unite to form 70S ribosomes
(B) Polysome consists of many ribosomes attached to tRNA
(C) Ribosome is the site of protein synthesis
(D) Polysomes indicate the synthesis of identical polypeptides in multiple copies

**9.** Which of the following statements is false for prokaryotic cell inclusions ?
(A) These are storage granules in the cytoplasm
(B) They are membranous
(C) Phosphate granules, cyanophycean granules and glycogen granules are the examples of cell inclusions
(D) Gas vacuole is found in BGA and purple and green photosynthetic bacteria

**10.** The following diagram shows some of the missing structure in a plant cell (A-E). Identify the structures.




(A) A-Plasmodesmata, B-Rough endoplasmic reticulum, C-Golgi apparatus, D-Mitochondrion, E-Ribosomes
(B) A-Desmosome, B-Rough endoplasmic reticulum, C-Golgi apparatus, D-Mitochondrion, E-Ribosomes
(C) A-Plasmodesmata, B-Smooth endoplasmic reticulum, C-Golgi apparatus, D-Mitochondrion, E-Ribosomes
(D) A-Tight junction, B-Rough endoplasmic reticulum, C-Golgi apparatus, D-Mitochondrion, E-Ribosomes

# CELL : THE UNIT OF LIFE
# DPP - 4
## [MEDICAL DIVISION]

**1.** Cell wall discovered by
(A) Robert brown (B) Robert hook (C) Leeuwen hook (D) Virchow

**2.** The bacterial cell wall is made up of
(A) Cellulose (B) Hemicellulose (C) Peptidoglycan (D) Glycogen

**3.** Cell wall consists of
(A) Lignin, Hemicellulose, Pectin and lipid
(B) Lignin, Hemicellulose, Pectin and cellulose
(C) Lignin, Hemicellulose, Protein and lipid
(D) Hemicellulose, Cellulose, tubulin and lignin

**4.** Middle lamella is composed mainly of
(A) Hemicellulose (B) Calcium pectate
(C) Muramic acid (D) Phosphoglycerides

**5.** Which of the following layers of cell wall is found in tension wood of gymnosperm ?
(A) Middle lamella (B) Primary wall
(C) Tertiary wall (D) Secondary wall

**6.** Which layer of cell wall is triple lagered
(A) Primary (B) Secondary (C) Tertiary (D) Middle lamella

**7.** Which type of substances present on outer exposed part of plant like leaf, stem, flowers
(A) Suberin (B) Cutein (C) Lignin (D) None of these

**8.** Which substance provide mechanical support in plant
(A) Protein (B) Lipid (C) Suberin (D) Lignin

**9.** Xylan deposited in _____
(A) Primary wall (B) Middle lamella (C) Secondary wall (D) Tertiary wall

**10.** Bordered pit mainly found in
(A) Bryophyta (B) Gymnosperm (C) Pteridophytes (D) None of these

# CELL : THE UNIT OF LIFE
# DPP - 5
## [MEDICAL DIVISION]

**1.** Integral cell membrane proteins
(A) are partially embedded in lipid layers
(B) are completely embedded in lipid layers
(C) show lateral but not vertical movements within bilayer of lipid
(D) all of these

**2.** Cell membrane is selective permeable. This means that it
(A) allows all materials to pass through
(B) allows only water to pass through
(C) allows only certain materials to pass through
(D) allows only ions to pass through

**3.** Plasma membrane is asymmetric because
(A) Lipids present in the outer and inner side of the bilayer are different
(B) Extrinsic proteins are more abundant on the inner surface than on the outer surface
(C) Oligosaccharides are attached only to the external surface of lipids and proteins of a biomembrane
(D) All of these

**4.** Components of the eukaryotic plasma membrane are
(A) Proteins and lipids
(B) Proteins and carbohydrates
(C) Lipids (20-79%), proteins (20-70%), oligosaccharides (1.5%) and water 20% of its total weight
(D) Lipids (20-70%), proteins (20-79%), carbohydrates (1.5%) DNA

**5.** According to Fluid Mosaic Model of plasma membrane, extrinsic proteins are
(A) Superficially arranged and cannot be separated easily
(B) Peripheral proteins and are loosely connected to membranes and therefore, can be easily removed in aqueous medium
(C) Integral proteins which project beyond the lipid layer on both sides of the membrane and are considered as channel proteins
(D) Tightly attached to lipids and cannot be separated

**6.** The main function of plasma membrane is to

(A) Store cell material

(B) Control of all cellular activity

(C) Maintain the cell shape and size

(D) Regulate the flow of material into and outside the cell

**8.** Cell recognition and adhesion are facilitated by components of plasma membrane. These components are generally

(A) protein molecules alone (B) lipids alone

(C) both lipids and proteins (D) glycolipids and glycoproteins.

**7**. Lipids are arranged within the membrane with

(A) Polar heads towards innerside and the hydrophobic tails towards outerside

(B) Both heads and tails towards outerside

(C) Heads towards outerside and tails towards inside

(D) Both heads and tails towards innerside

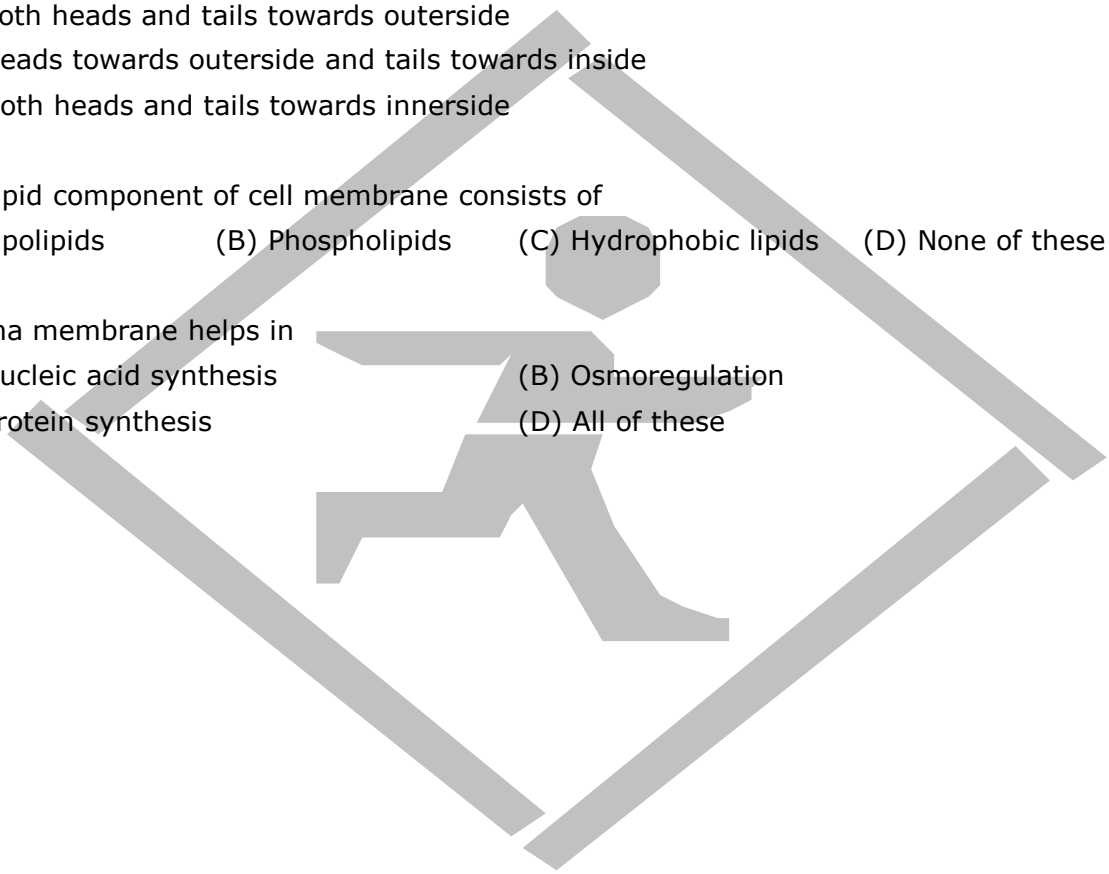
**9.** The lipid component of cell membrane consists of

(A) Lipolipids (B) Phospholipids (C) Hydrophobic lipids (D) None of these

**10.** Plasma membrane helps in

(A) Nucleic acid synthesis (B) Osmoregulation

(C) Protein synthesis (D) All of these



# CELL : THE UNIT OF LIFE
# DPP - 6
## [MEDICAL DIVISION]

**1.** Active transport is considered importance for the transport of substance
(A) Because material is transported from higher concentration to lower concentration
(B) Because material is transported from lower concentration to higher concentration
(C) Because it increases diffusion coefficient
(D) Because it does not use ATP

**2.** Which statement is correct regarding to passive transport
(A) ATP is not required
(B) Higher concentration ⟶ lower concentration
(C) Lower concentration ⟶ higher concentration
(D) A & B both

**3.** Which of the following organelle is concerned with generation of ATP trough electron transport and oxidative phosphorylation ?
(A) Chloroplast (B) Mitochondria (C) Glyoxysome (D) Both (A) & (B)

**4.** The presence of DNA in mitochondria and chloroplast supports the hypothesis that
(A) Glycolysis occurs in both mitochondria and chloroplast
(B) Mitochondria and chloroplast both originated as independent free living organisms
(C) ATP is prduced in mitochondria as well as in chloroplast
(D) Mitochondria and chloroplast undergo meiosis and mitosis independent of nucleus

**5.** Synthesis of ATP in mitochondria takes place
(A) In the matrix (B) In the intracristal space
(C) At the cristae (D) At the outer membrane

**6.** Oxysomes are submicroscopic particles present on the
(A) Surface of the inner membrane of mitochondrion
(B) Thylakoid membrane of chloroplasts
(C) Outer membrane of mitochondrion
(D) Rough endoplasmic reticulum

**7.** The organelle associated with aerobic respiration is
(A) Chloroplast (B) Centriole (C) Nucleus (D) Mitochondria

**8.** What is mitoplast
(A) Membraneles mitochondria (B) Mitochondria without inner membrane
(C) Another name of mitochondria (D) Mitochondria without center membrane

**9.** Mitochondria are semiautonomous as they passes
(A) DNA (B) DNA+ RNA (C) DNA+ RNA + Ribosome (D) Protein

**10.** Quantasomes are found in
(A) Mitochondria (B) Chloroplast (C) Nucleus (D) Lysosome

# CELL : THE UNIT OF LIFE
# DPP - 7
## [MEDICAL DIVISION]

**1.** Which of the following organelle stores proteins ?
(A) Amyloplasts (B) Aleuroplasts (C) Plastids (D) Elaioplasts (oleosomes)

**2.** Grana in chloroplast is formed by the piling of
(A) Cristae (B) Thylakoids (C) Oxisomes (D) Dictyosomes

**3.** The symbiont hypothesis suggests that there are similarities between prokaryotes, mitochondria and chloroplasts like
(A) Presence of circular DNA associated with histones and 70 S ribosomes
(B) Presence of circular DNA not associated with histones and 70 S ribosomes present
(C) 50 S ribosomes and DNA
(D) 30 S ribosomes and DNA

**4.** Choose the incorrect pair
(A) Chloroplast — Traps light energy
(B) Chromoplast — Imparts colours to the plant
(C) Leucoplast — Stores nutrients
(D) None of the above

**5.** The colourless plastids are
(A) Chloroplast (B) Chromoplast (C) Leucoplast (D) Lymphoplast

**6.** The leucoplasts, that store oils and fats
(A) Amyloplasts (B) Elaioplasts (C) Alauroplasts (D) Glyceroplasts

**7.** Which of the following statements is correct about chloroplast ?
(A) They are single membraneous structures
(B) They contain ds circular DNA
(C) The ribosomes in stroma of chloroplast are 80S
(D) Inner membrane is relatively more permeable

**8.** Flattened membranous sacs present in the stroma of chloroplast are
(A) Thylakoids (B) Grana (C) Mesophyle (D) Stroma lamella

**9.** The stroma of chloroplast contains enzyme required for synthesis of
(A) Carbohydrates (B) Protein (C) Fats (D) Both (A) & (B)

**10.** Choose the incorrect pair
(A) Stromal lamellae—interconnects the grana
(B) Thylakoid—singular unit of grana
(C) Stroma of chloroplast—contains small ds circular DNA
(D) Ribosomes of chloroplast - 80S

# CELL : THE UNIT OF LIFE
# DPP - 8
## [MEDICAL DIVISION]

**1.** Which of the following is associated with detoxification of drugs and muscle contraction by the release and uptake of Ca2+ ions ?
(A) Golgi complex (B) RER (C) SER (D) Free ribosomes

**2.** The main organelle involved in modification and routing of newly synthesized proteins to their destination is
(A) Chloroplast (B) Mitochondria (C) Lysosome (D) Endoplasmic reticulum

**3.** Ribosomes when associated with ER, are attached with their
(A) Small subunit (B) Large subunit (60s)
(C) 80S subunit (D) Either by smaller subunits or by the larger subunits

**4.** Goli apparatus/apparato reticulare is specialised for all except
(A) Glycosidation and glycosylation of lipids and proteins
(B) Recycling of the plasma membrane pinched off by pinocytosis and phagocytosis
(C) Secretion
(D) Intracellular digestion

**5.** Which of the following statements is incorrect about the Golgi apparatus ?
(A) The sacs on the forming face (cis-face) are associated with ER
(B) Golgi apparatus was studied by Camillo Golgi in the nerve cells of owl by metallic impregnation techniques
(C) Golgi apparatus in plants is called as dictyosome and secretes mucilage in root cap cells
(D) Golgi apparatus has no role in modification of Proinsulin

**6.** Choose the incorrect pair
(A) Golgi bodies—densily stained reticular structure near the nucleus.
(B) Cisternae—circular, fixed in number.
(C) Forming face—Convex cis
(D) Maturing face—Concave trans

**7.** Which of these is not a function of golgi apparatus ?
(A) Material packaging (B) Secretion
(C) Membrane transformation (D) Site of protein synthesis

**8.** Plasmodesmata often has ER (endoplasmic reticulum) tubule called as
(A) Symplasm (B) Desmotubule (C) Apoplasm (D) Intermediate filaments

**9.** RER is well developed in cells engaged in the synthesis of
(A) Nucleotides (B) Proteins (C) Lipids (D) Secretory products

**10.** Important site for the formation of glycoprotein and glycolipid is
(A) Lysosome (B) Golgi apparatus (C) Vacuoles (D) Plastids

# CELL : THE UNIT OF LIFE
# DPP - 9
## [MEDICAL DIVISION]

**1.** Ribosomes when associated with ER, are attached with their
(A) Small subunit (B) Large subunit (60s)
(C) 80S subunit (D) Either by smaller subunits or by the larger subunits

**2.** Ribosomes are attached to the endoplasmic reticulum through
(A) Ribophorins (B) r-RNA (C) t-RNA (D) Hydrophobic interaction

**3.** Lysosomes are formed by budding off vesicles from golgi apparatus and contain
(A) Oxidising enzymes (B) Acid hydrolases
(C) Respiratory enzymes (D) Basic hydrolases

**4.** Which of the following organelles show polymorphism ?
(A) Golgi apparatus (B) Lysosome (C) Mitochondria (D) Chloroplast

**5.** Protein synthesis in an animal cell occurs
(A) Only on the ribosomes present in the cytosol
(B) Only on ribosomes attached to the nuclear envelope ER
(C) On ribosomes present in the cytoplasm as well as in mitochondria
(D) On ribosomes present in the nucleolus as well as in cytoplasm

**6.** The membrane covering the vacuole is known as
(A) Desmosomes (B) Tonoplast (C) Plasmodesmata (D) Tyloses

**7.** Autolysis is associated with
(A) Ribosome (B) Kinetosome (C) Lysosome (D) Golgi apparatus

**8.** Which one is enzyme bag.
(A) Chloroplast (B) Lysosome (C) Mitochondrion (D) E.R.

**9.** Lysosoms are formed by
(A) Endoplasmic reticulum (B) Golgi bodies
(C) Mitochondria (D) Both (A) & (B)

**10.** Identify the true statement for vacuoles.
(A) It contains water, sap, excretory product and other unwanted materials
(B) It is bound by a single membrane called tonoplast in plant cell
(C) It's content forms cell sap and maintains turgor pressure
(D) All of the above

# CELL : THE UNIT OF LIFE
# DPP - 10
## [MEDICAL DIVISION]

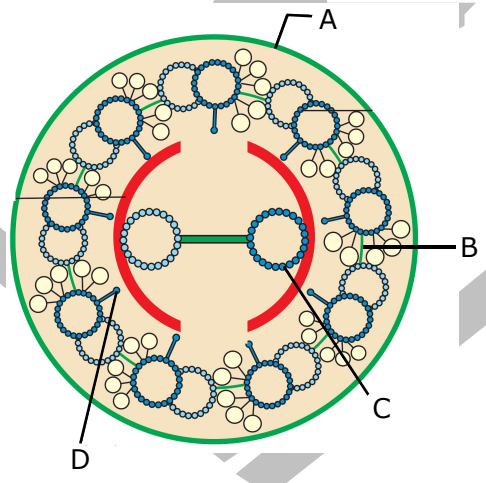
**1.** Cillia and flagella arise from
(A) Basal Bodies (B) Basal Granules (C) Blepharoplasts (D) All of the above

**2.** Cilia and flagella both have
(A) 9+2 arrangement of microbules (B) Protective structure of cells
(C) Only present in protozoa annimals (D) Only outgrowth structure of cytoplasm

**3.** Centrioles is not present in
(A) Cells of higher plants (B) Cells of lower plants
(C) Cells of higher animals (D) Cells of lower animals

**4.** Choose the incorrect pair
(A) Cilium or flagellum-9+2 morphology
(B) Axonema- core of cilium or flagellum
(C) Basal body-Centriole like structure
(D) Radial spokes-connect two central microtubules

**5.** Identify A to D in the diagrammatic representation of internal structure of centrioles.




(A) A-Interdoublet bridge, B-Central microtubule, C-Plasma membrane, D-Radial spoke
(B) A-Plasma membrane, B-Central microtubule, C-Interdoublet bridge, D-Radial spoke
(C) A-Plasma membrane, B-Interdoublet bridge, C-Central microtubule, D-Radial spoke
(D) A-Plasma membrane, B-interdoublet bridge, C-Radial spoke, D-Central microtubule

**6.** Section of cilia/flagella shows

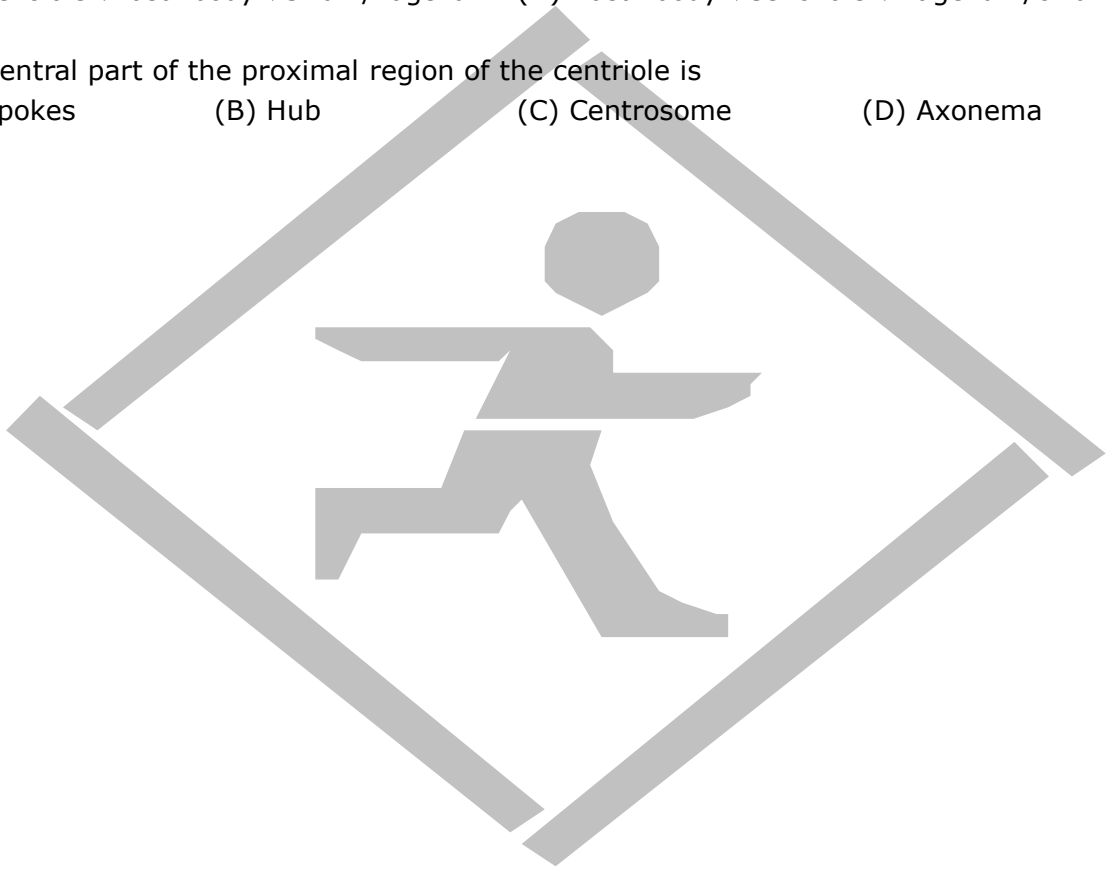
| | Peripheral microtubules (Doublet) | Central microtubules (Singlet) | Radial spoke | Central sheath |
|---|---|---|---|---|
| (A) | 9+0 | 2 | 8 | 1 |
| (B) | 9+0 | 9+0 | 9 | 1 |
| (C) | 9 | 2 | 9 | 1 |
| (D) | 3 | 6 | 9 | 1 |

**7.** Which of the following statements is false ?
(A) Both the centrioles in a centrosome lie perpendicular to each other
(B) Centrioles form the basal body of spindle fibres only
(C) Each centriole has an organisation like that of a cartwheel
(D) Centrosome usually contains two cylindrical centrioles

**8.** Choose the false statement
(A) Centrosome-Cytoplasmic structure of animal cells
(B) Centrioles form spindle poles
(C) Centriole - Membraneless, but surrounded by amorphous pericentriolar bodies
(D) Centrosome occurs in all eukaryotic cells

**9.** Which of the following sequence is correct ?
(A) Basal body→Cilium/flagellum→Centriole (B) Cilium/flagellum→Basal body→Centriole
(C) Centrole→Basal body→Cilium/flagellum (D) Basal body→Centriole→Flagellum/cilium

**10.** The central part of the proximal region of the centriole is
(A) Spokes (B) Hub (C) Centrosome (D) Axonema



# CELL : THE UNIT OF LIFE
# DPP - 11
## [MEDICAL DIVISION]

**1.** Which of the following cytoskeletal element plays an important role in movement of chromosomes ?
(A) Microfilaments (B) Microtubules (C) intermediate filaments (D) All of these

**2.** Which of the following organelle takes part in photorespiration ?
(A) Glyoxisome (B) Peroxisome (C) Dictyosome (D) ER

**3.** Find out the incorrect statement w.r.t. Glyoxysomes
(A) It is reported from endosperm of germinating seeds
(B) Usually occurs in fat rich plant cells
(C) Associated with glyoxylate cycle
(D) It is formed from mitochondria

**4.** Peroxisomes contain peroxide producing enzymes. These are found in
(A) Plant cells (B) Animal cells
(C) Both (A) & (B) (D) Bacteria and blue green algae

**5.** The main site for ribosomal RNA synthesis is
(A) Nucleus (B) Nucleolus (C) Endoplasmic reticulum (D) Golgi apparatus

**6.** Ribonucleic acid occurs in
(A) Nucleus (B) Cytoplasm
(C) Nucleus and cytoplasm (D) Mitochondria and chloroplast

**7.** Nucleuus is
(A) Single layered structure (B) Three layered structure
(C) Four layered structure (D) Two layered structure

**8.** Microtubules are unbranched, hollow, submicroscopic tubules made up of
(A) Actin (B) Keratin (C) Tubulin (D) Dyenin

**9.** Microtubules are constituents of
(A) Centrosome, nucleosome and centriole (B) Cilia, Flagella and peroxisome
(C) Spindle fibrus, centrioles and cilia (D) Centrioles, spindle fibrus and chromatin

**10**. Function of microfilaments
(A) Helps in exocytosis (B) Helps in cylosis
(C) Inter cellular junction formation (D) All of the above

# CELL : THE UNIT OF LIFE
# DPP - 12
## [MEDICAL DIVISION]

**1.** Bacterial genome or nucleoid is made up of
(A) A single double stranded chromosome with histone
(B) RNA and histones
(C) A single double stranded DNA, not complexed with histoneprotein, nor it is packed in the chromosome
(D) A single stranded circular DNA

**2.** In bacterial cell DNA is extensively looped and coiled with the help of
(A) Acid proteins
(B) Histones
(C) Basic nucleoid protein called as polyamines
(D) Actin

**3.** Organelle lacking DNA, but is capable of duplication is
(A) Ribosome (B) Centriole (C) Chloroplast (D) Nucleus

**4.** The chromatinn material which takes darker stain in interphase is called
(A) Euchromatin (B) Heterochromatin
(C) Primary connstriction (D) Satellite body

**5.** Which of the following statement(s) is/are true for nucleus ?
(A) First described by Robert Brown
(B) It was called chromatin by flamming
(C) Nucleoli isspherical body present in nucleoplasm
(D) All of the above

**6.** Select the correct statement for nucleolus
(A) It is a site for mRNA synthesis
(B) Large and more numerous nucleoli are present in cells actively carrrying out protein synthesis
(C) Nucleolus contains nucleoplasm
(D) Nucleolus is a single membrane bound structure

**7.** Master organelle of the cell is
(A) Plasma membrane (B) Cytoplasm (C) Nucleus (D) Ribosome

**8.** Which of the following is true of nucleolus
(A) It takes part in spindle formation
(B) It is a membrane bound structure
(C) Larger nucleoli are present in dividing cells
(D) It is a site for active ribosomal RNA synthesis

**9.** Nucleus is enclosed by
(A) A non porous double membrane (B) A non porous single membrane
(C) A porous double membrane (D) A porous single membrane

**10.** A cell lacking nucleus would also lack
(A) Plasma membrane (B) Mitochondria
(C) Chromosomes (D) Vacuolesa

# CELL : THE UNIT OF LIFE
# DPP - 13
## [MEDICAL DIVISION]

**1.** Telomeres
(A) Initiate RNA synthesis (B) Seal ends of chromosomes
(C) Have guanine rich repeats (D) Both (B) & (C)

**2.** Kinetochore is
(A) Fibrous granular structure on the surface of centromere
(B) Surface of centromere
(C) Constriction near chromosome end
(D) End of chromosome

**3.** Structural element of chromatin is
(A) Histone (B) Acid protein and DNA
(C) Nucleosome (D) Nuclear matrix

**4.** Chromosomes are composed of
(A) DNA (B) Protein (C) RNA (D) All of these

**5.** Chromosomes can be stained with are of the following chemicals
(A) Light green (B) Eosine (C) Safranine (D) Acetocarmine

**6.** In which region of the interphase chromosome does transcription take place ?
(A) Telomere (B) Heterochromatine (C) Euchromatin (D) Centromere

**7.** A chromosome having centromere at the middle is
(A) Meta centric (B) Acrocentric (C) Telocentric (D) Dicentric

**8.** Choose the incorrect pair
(A) Histone—Basic proteins
(B) Centromere—Primary constriction
(C) Kinetochore—Disc —Shaped structure
(D) None of the above

**9.** L-shaped chromosomes are also called
(A) Acrocentric (B) Telocentric (C) Sub-metacentric (D) None of the above

**10.** The structures present in chromosomes include
(A) Matrix, grana, thylakoids, cristae
(B) Centromere, secondary constriction, telomeres, satellites
(C) Secondary constriction, telomeres, satellites grana
(D) Ribosomes, cristae, centromere, grana