1. Match List I with List II **(2024)**

List – I		List – II	
A.	Nucleolus	I.	Site of formation of glycolipid
B.	Centriole	II.	Organization like the cartwheel
C.	Leucoplast	III.	Site for active ribosomal RNA synthesis
D.	Golgi apparatus	IV.	For storing nutrients

Choose the correct answer from the options given below:

(a) D and E only (b) B and C only

(c) A and E only (d) A and B only

2. The DNA present in chloroplast is: **(2024)**

(a) Circular, double stranded

(b) Linear, single stranded

(c) Circular, single stranded

(d) Linear, double stranded

3. Match List I with List II : **(2024)**

	List I		List II
A.	Axoneme	I.	Centriole
B.	Cartwheel	II.	Cilia and flagella pattern
C.	Crista	III.	Chromosome
D.	Satellite	IV.	Mitochondria

Choose the correct answer from the options given below :

(a) A-IV, B-II, C-III, D-I

(b) A-II, B-IV, C-I, D-III

(c) A-II, B-I, C-IV, D-III

(d) A-IV, B-III, C-II, D-I

4. Given below are two statements: **(2024)**

Statement I: Mitochondria and chloroplasts are both double membrane bound organelles.

Statement II: Inner membrane of mitochondria is relatively less permeable, as compared to chloroplast.

In the light of the above statements, choose the most appropriate answer from the options given below:

(a) Both Statement I and Statement II are incorrect.

(b) Statement I is correct but Statement II is incorrect.

(c) Statement I is incorrect but Statement II is correct.

(d) Both Statement I and Statement II are correct.

5. How many different proteins does the ribosome consist of? **(2023)**

(a) 60 (b) 40

(c) 20 (d) 80

6. Which of the following are NOT considered as the part of endomembrane system?

A. Mitochondria

B. Endoplasmic reticulum

C. Chloroplasts

D. Golgi complex

E. Peroxisomes

Choose the most appropriate answer from the options given below: **(2023)**

(a) A. C and E only

(b) A and D only

(c) A, D and E only

(d) B and D only

7. Which of the following functions is carried out by cytoskeleton in a cell? **(2023)**

(a) Protein synthesis
(b) Motility
(c) Transportation
(d) Nuclear division

8. Given below are two statements:

Statement I:- In bacteria, the mesosomes are formed by the extensions of plasma membrane.

Statement II:- The mesosomes, in bacteria, help in DNA replication and cell wall formation.

In the light of the above statements, choose the most appropriate answer from the options given below:

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(a) Statement I is correct but Statement is incorrect
(b) Statement I is incorrect but Statement II is correct
(c) Both Statement I and Statement II are correct
(d) Both Statement I and statement II are incorrect.

9. Which of the following statements are correct with respect of Golgi apparatus?

(A) It is the important site of formation of glycoprotein and glycolipids.
(B) It produces cellular energy in the form of ATP.
(C) It modifies the protein synthesized by ribosomes on ER.
(D) It facilitates the transport of ions.
(E) It provides mechanical support.

Choose the most appropriate answer from the options given below: **(2023)**

(a) (B) and (C) only
(b) (A) and (C) only
(c) (A) and (D) only
(d) (D) and (E) only

10. Match List-l with List-II:

List – I		**LIst – II**	
A	Porins	(i)	Pink coloured nodules
B	leg haemoglobin	(ii)	Lumen of thylakoid
C	H+ accumulation	(iii)	Amphibolic pathway
D	Respiration	(iv)	Huge pores in outer membrane of mitochondria

Choose the correct answer from the options given below. **(2022)**

(a) (A)-(ii), (B)-(iv), (C)-(i), (D)-(iii)
(b) (A)-(ii), (B)-(i), (C)-(iv), (D)-(iii)
(c) (A)-(iv), (B)-(i). (C)-(ii), (D)-(iii)
(d) (A)-(iii), (B)-(iv), (C)-(ii), (D)-(i)

11. Match List-l with List-II:

List – I		**LIst – II**	
a	Bacteriophage ϕ x 174	(i)	48502 base pairs
b	Bacteriophage lambda	(ii)	5386 nucleotides
c	Escherichia coli	(iii)	33×10^9 base pairs
d	Haploid content of human DNA	(iv)	4.6×10^9 base pairs

Choose the correct answer from the options given below: **(2022)**

(a) (a) (i) (b)-(ii), (c)-(iv), (d)-(iii)
(b) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
(c) (a) (ii), (b) (iv), (c)-(i), (d)-(iii)
(d) (a) (ii), (b), (c)-(iv), (d)-(iii)

12. Which type of substance would face difficulty to pass through the cell membrane? **(2022)**

(a) Substance soluble in lipids
(b) Substance with hydrophobic moiety
(c) Substance with hydrophilic moiety
(d) All substance irrespective of hydrophobic and hydrophilic moiety

13. If the pH in lysosomes is increased to alkaline, what will be the outcome? **(2022)**

(a) Lysosomal enzymes will be more active
(b) Hydrolytic enzymes will function more efficiently
(c) Hydrolytic enzymes will become inactive
(d) Lysosomal enzymes will be released into the cytoplasm

14. Which of the following statements with respect to Endoplasmic Reticulum is incorrect? **(2022)**

(a) RER has ribosomes attached to ER
(b) SER is devoid of ribosomes
(c) prokaryotes only RER are present in
(d) SER are the sites for lipid synthesis

15. Which of the following is an incorrect statement? **(2021)**

(a) Microbodies are present both in plant and animal cells.
(b) The perinuclear space forms a barrier between the materials present inside the nucleus and that of the cytoplasm.
(c) Nuclear pores act as passages for proteins and RNA molecules in both directions between nucleus and cytoplasm.
(d) Mature sieve tube elements possess a conspicuous nucleus and usual cytoplasmic organelles.

16. Match List-1 with List-2 **(2021)**

List-1		**List-2**	
A.	Cristae	(i)	Primary constriction in chromosome
B.	Thylakoids	(ii)	Disc-shaped sacs in Golgi apparatus
C.	Centromere	(iii)	Infoldings in mitochondria
D.	Cisternae	(iv)	Flattened membranous sacs in stroma of plastids

Choose the correct answer from the options given below.

(a) A-(i) B-(iv) C-(iii) D-(ii)
(b) A-(iii) B-(iv) C-(i) D-(ii)
(c) A-(ii) B-(iii) C-(iv) D-(i)
(d) A-(iv) B-(iii) C-(ii) D-(i)

17. When the centromere is situated in the middle of two equal arms of chromosomes, the chromosome is referred as: **(2021)**

(a) Telocentric
(b) Sub-metacentric
(c) Acrocentric
(d) Metacentric

18. The organelles that are included in the endomembrane system are: **(2021)**

(a) Endoplasmic reticulum, Golgi complex, Lysosomes and Vacuoles.
(b) Golgi complex, Mitochondria, Ribosomes and Lysosomes.
(c) Golgi complex, Endoplasmic reticulum, Mitochondria and Lysosomes.
(d) Endoplasmic reticulum, Mitochondria, Ribosomes and Lysosomes.

19. Which of the following statements about inclusion bodies is incorrect? **(2020)**

(a) These are involved in ingestion of food particles.
(b) They lie free in the cytoplasm
(c) These represent reserve material in cytoplasm
(d) They are not bound by any membrane

20. Which is the important site of formation of glycoproteins and glycolipids in eukaryotic cells? **(2020)**

(a) Peroxisomes
(b) Golgi bodies
(c) Polysomes
(d) Endoplasmic reticulum

21. The biosynthesis of ribosomal RNA occurs in: **(2020 Covid Re-NEET)**

(a) Golgi apparatus
(b) Microbodies
(c) Nucleolus
(d) Ribsosomes

22. Inclusion bodies of blue-green, purple and green photosynthetic bacteria are: **(2020 Covid Re-NEET)**

(a) Gas vacuoles
(b) Centrioles
(c) Microtubules
(d) Contractile vacuoles

23. Match the following columns and select the correct option; **(2020 Covid Re-NEET)**

Column-I		Column-II	
1.	Smooth Endoplasmic Reticulum	(i)	Protein synthesis
2.	Rough endoplasmic reticulum	(ii)	Lipid synthesis
3.	Golgi complex	(iii)	Glycosylation
4.	Centriole	(iv)	Spindle formation

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

(a) (iii) (i) (ii) (iv)
(b) (iv) (ii) (i) (iii)
(c) (i) (ii) (iii) (iv)
(d) (ii) (i) (iii) (iv)

24. The size of Pleuropneumonia - like Organism (PPLO) is: **(2020 Covid Re-NEET)**

(a) 1 - 2 μm (b) 10 - 20 μm
(c) 0.1 μm (d) 0.02 μm

25. The shorter and longer arms of a submetacentric chromosome are referred to as **(2019)**

(a) s-arm and l-arm respectively
(b) p-arm and q-arm respectively
(c) q-arm and p-arm respectively
(d) m-arm and n-arm respectively

26. Which of the following statements is not correct? **(2019)**

(a) Lysosomes have numerous hydrolytic enzymes.
(b) The hydrolytic enzymes of lysosomes are active under acidic pH.
(c) Lysosomes are membrane bound structures.
(d) Lysosomes are formed by the process of Packaging in the endoplasmic reticulum.

27. The concept of "Omnis cellula-e cellula" regarding cell division was first proposed by **(2019)**

(a) Rudolf Virchow
(b) Theodor Schwann
(c) Schleiden
(d) Aristotle

28. Which of the following statements regarding mitochondria is incorrect? **(2019)**

(a) Outer membrane is permeable to monomers of carbohydrates, fats and proteins.
(b) Enzymes of electron transport are embedded in outer membrane.
(c) Inner membrane is convoluted with infoldings.
(d) Mitochondrial matrix contains single circular DNA molecule and ribosomes.

29. Which among the following is not a prokaryote? **(2018)**

(a) Saccharomyces
(b) Mycobacterium
(c) Nostoc
(d) Oscillatoria

30. Which of the following is true for nucleolus? **(2018)**

(a) Larger nucleoli are present in dividing cells.
(b) It is a membrane-bound structure.
(c) It takes part in spindle formation.
(d) It is a site for active ribosomal RNA Synthesis

31. The Golgi complex participates in **(2018)**

(a) Fatty acid breakdown
(b) Formation of secretory vesicles
(c) Respiration in bacteria
(d) Activation of amino acid

32. Which of the following events does not occur in rough endoplasmic reticulum? **(2018)**

(a) Protein folding
(b) Protein glycosylation
(c) Cleavage of signal peptide
(d) Phospholipid synthesis

33. Many ribosomes may associate with a single mRNA to form multiple copies of a polypeptide simultaneously. Such strings of ribosomes are termed as **(2018)**

(a) Polysome
(b) Polyhedral bodies
(c) Plastidome
(d) Nucleosome

34. Select the incorrect match: **(2018)**

(a)	Lampbrush chromosomes	-	Diplotene bivalents
(b)	Allosomes	-	Sex chromosomes
(c)	Submetacentric chromosomes	-	L-shaped chromosomes
(d)	Polytene chromosomes	-	Oocytes of amphibians

35. Which of the following cell organelles is responsible for extracting energy from carbohydrates to form ATP? **(2017)**

(a) Lysosome (b) Ribosome
(c) Chloroplast (d) Mitochondrion

36. Which of the following components provides sticky character to the bacterial cell? **(2017)**

(a) Cell wall
(b) Nuclear membrane
(c) Plasma membrane
(d) Glycocalyx

37. The correct sequence of involvement of cell organelles in secretion of proteins from the cell is: **(2017)**

(a) Nucleus → Endoplasmic reticulum → Ribosomes → Golgi apparatus → Secretory vesicles → Plasma membrane
(b) Nucleus → Ribosomes → Endoplasmic reticulum → Golgi apparatus → Secretory vesicles → Plasma membrane
(c) Nucleus → Ribosomes → Endoplasmic reticulum → Lysosomes → Plasma membrane
(d) Nucleus → Endoplasmic reticulum → Ribosomes → Golgi apparatus → Lysosomes → Plasma membrane

38. Which of the following pathways is involved for packaging of secretory proteins? **(2017)**

(a) RER → Trans face of Golgi body → Cis face of Golgi body → Secretory vesicles
(b) Trans face of Golgi body → Cis face of Golgi body → RER → SER → Secretory veiscles
(c) RER → Cis face of Golgi body → Trans face of Golgi body → Secretory vesicles
(d) Cis face of Golgi body → Trans face of Golgi body → RER → Secretory vesides

39. The type of ribosomes is same in **(2017)**

(a) Eukaryotic cytoplasm, mitochondria and endoplasmic reticulum
(b) Cytoplasm of eukaryotic cells, their mitrochondria and chloroplasts
(c) Cytoplasm of eukaryotic cells, their chloroplasts and microbodies
(d) Prokaryotes, mitochondria and Chloroplasts

40. Reserved material in prokaryotic cells is stored as: **(2017)**

(a) Basal body
(b) Inclusion bodies
(c) Mesosome
(d) Polysome

41. A complex of ribosomes attached to a single strand of mRNA is known as: **(2017)**

(a) Okazaki fragment
(b) Polymer
(c) Polyribosome
(d) Polypeptide

42. A cell organelle containing hydrolytic enzymes is: **(2016 - II)**

(a) Ribosome
(b) Mesosome
(c) Lysosome
(d) Microsome

43. Select the wrong statement: **(2016 - II)**
(a) Cyanobacteria lack flagellated cells.
(b) Mycoplasma is a wall-less microorganism
(c) Bacterial cell wall is made up of peptidoglycan.
(d) Pilli and fimbriae are mainly involved in motility of bacterial cells

44. Select the mismatch: **(2016 - II)**
(a) Protists - Eukaryotes
(b) Methanogens - Prokaryotes
(c) Gas vacuoles - Green bacteria
(d) Large central vacuoles - Animal cells

45. Microtubules are the constituents of: **(2016 - I)**
(a) Cilia, Flagella and Peroxisomes
(b) Spindle fibres, Centrioles and Cilia
(c) Centrioles, Spindle fibres and Chromatin
(d) Centrosome, Nucleosome and Centrioles

46. Spindle fibres attach on to: **(2016 - I)**
(a) Telomere of the chromosome
(b) Kinetochore of the chromosome
(c) Centromere of the chromosome
(d) Kinetosome of the chromosome

47. Mitochondria and chloroplast are
(A) Semi-autonomous organelles
(B) Formed by division of pre-existing organelles and they contain DNA but lack protein synthesizing machinery
Which one of the following options is correct? **(2016 - I)**
(a) Both (A) and (B) are correct
(b) (B) is true but (A) is false
(c) (A) is true but (B) is false
(d) Both (A) and (B) are false

48. Which one of the following is not an inclusion body found in prokaryotes? **(2015)**
(a) Glycogen granule
(b) Polysome
(c) Phosphate granule
(d) Cyanophycean granule

49. The chromosomes in which centromere are situated close to one end are: **(2015)**
(a) Telocentric (b) Sub-metacentric
(c) Metacentric (d) Acrocentric

50. Select the correct matching in the following pairs: **(2015)**
(a) Rough ER – Synthesis of glycogen
(b) Rough ER – Oxidation of fatty acids
(c) Smooth ER – Oxidation of phospholipids
(d) Smooth ER – Synthesis of lipids

51. The structures that are formed by stacking of organized flattened membranous sacs in the chloroplasts are: **(2015)**
(a) Stroma lamellae
(b) Stroma
(c) Cristae
(d) Grana

52. Nuclear envelope is a derivative of: **(2015)**
(a) Microtubules
(b) Rough endoplasmic reticulum
(c) Smooth endoplasmic reticulum
(d) Membrane of Golgi complex

53. DNA is not present in: **(2015)**
(a) Nucleus (b) Mitochondria
(c) Chloroplast (d) Ribosomes

54. Match the columns and identify the correct option. **(2015 Re)**

Column I		Column II	
A.	Thylakoids	(i)	Disc-shaped sacs in Golgi apparatus
B.	Cristae	(ii)	Condensed structure of DNA
C.	Cisternae	(iii)	Flat membranous sacs in Stroma
D.	Chromatin	(iv)	Infoldings in mitochondria

(a) A-(iii), B-(iv), C-(i), D-(ii)
(b) A-(iii), B-(i), C-(iv), D-(ii)
(c) A-(iii), B-(iv), C-(ii), D-(i)
(d) A-(iv), B-(iii), C-(i), D-(ii)

55. Cellular organelles with membranes are: **(2015 Re)**

(a) Chromosomes, ribosomes and endoplasmic reticulum
(b) Endoplasmic reticulum, ribosomes and nuclei
(c) Lysosomes, Golgi apparatus and mitochondria
(d) Nuclei, ribosome and mitochondria

56. Balbiani rings are sites of: **(2015 Re)**

(a) Nucleotide synthesis
(b) Polysaccharide synthesis
(c) RNA and protein synthesis
(d) Lipid synthesis

57. Chromatophores take part in: **(2015 Re)**

(a) Growth (b) Movement
(c) Respiration (d) Photosynthesis

58. The structures that help some bacteria to attach to rocks and / or host tissues are: **(2015 Re)**

(a) Fimbriae (b) Mesosomes
(c) Holdfast (d) Rhizoids

59. Which of the following structures is not found in a prokaryotic cell? **(2015 Re)**

(a) Ribosome
(b) Mesosome
(c) Plasma membrane
(d) Nuclear envelope

60. Which of the following is not membrane-bound? **(2015 Re)**

(a) Ribosomes (b) Lysosomes
(c) Mesosomes (d) Vacuoles

61. The motile bacteria are able to move by: **(2014)**

(a) Pili (b) Fimbriae
(c) Flagella (d) Cilia

62. The solid linear cytoskeleton elements having a diameter of 6 nm and made up of a single type of monomer are known as: **(2014)**

(a) Lamins
(b) Microtubules
(c) Microfilaments
(d) Intermediate filaments

63. The osmotic expansion of a cell kept in water is chiefly regulated by: **(2014)**

(a) Ribosomes (b) Mitochondria
(c) Vacuoles (d) Plastids

64. Which structures perform the function of mitochondria in bacteria? **(2014)**

(a) Mesosomes (b) Nucleoid
(c) Ribosomes (d) Cell wall

65. Match the following and select the correct answer: **(2014)**

A.	Centriole	i.	Infoldings in mitochondria
B.	Chlorophyll	ii.	Thylakoids
C.	Cristae	iii.	Nucleic acids
D.	Ribozymes	iv.	Basal body cilia or flagella

(a) A-iv B-iii C-i D-ii
(b) A-iv B-ii C-i D-iii
(c) A-i B-ii C-iv D-iii
(d) A-i B-iii C-ii D-iv

66. Which one of the following organelle in the figure correctly matches with its function? **(2013)**

(a) Rough endoplasmic reticulum, protein synthesis
(b) Rough endoplasmic reticulum, formation of glycoproteins
(c) Golgi apparatus, protein synthesis
(d) Golgi apparatus, formation of Glycolipids

67. A major site for synthesis of lipids is: **(2013)**

(a) Nucleoplasm (b) RER
(c) SER (d) Symplast

68. The Golgi complex plays a major role: **(2013)**

(a) In post translational modification of proteins and glycosidation of lipids
(b) In trapping the light and transforming it into chemical energy
(c) In digesting proteins and carbohydrates
(d) As energy transferring organelles