



# Yakeen NEET 2.0 2026

The Living World,  
Cell - The Unit of Life &  
Cell Cycle and Cell Division  
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## Combined Practice Sheet

1. Systematics differ from taxonomy in considering
  - (1) Identification
  - (2) Phylogeny
  - (3) Nomenclature
  - (4) Classification
2. Which of the following represents correct binomical name of mango?
  - (1) *mangifera indica* Linn
  - (2) Mangifera Indica L
  - (3) *Mangifera indica* Linn.
  - (4) Mangifera indica L.
3. Scientific name of Bengal tiger has been standardised by
  - (1) ICBN
  - (2) ICZN
  - (3) ICNCP
  - (4) ICNB
4. Choose **correct** option for given below statements:
  - (a) Specific epithet begin with a.
  - (b) Biological names are printed in b.
  - (1) a – Capital letter,      b – Latin
  - (2) a – Small letter,      b – Greek
  - (3) a – Small letter,      b – Italics
  - (4) a – Capital letter,      b – Roman
5. Which one is **incorrect** statement w.r.t. *indica*, *tuberosum*, *leo*?
  - (1) These all are specific epithets
  - (2) It is the lowest unit of classification
  - (3) It is the basic unit of classification
  - (4) These all are interfertile
6. Among all seven obligate categories of taxonomic hierarchy, mango and wheat are similar in how many categories?
  - (1) Two
  - (2) Three
  - (3) One
  - (4) None of the category
7. Among Kingdom, Division, Class, Order, Family, Genus and Species, how many categories can be referred as units of classification?
  - (1) Any two categories
  - (2) Last two categories
  - (3) All categories
  - (4) Only species
8. *Solanum*, *Petunia* and *Datura* are similar in
  - (1) Genera
  - (2) Taxon
  - (3) Family
  - (4) Species
9. Which one of the following taxa/group have more common characters?
  - (1) *Petunia*
  - (2) Polymoniales
  - (3) Angiosperm
  - (4) Monocotyledonae
10. Arrange the following taxonomic categories in increasing number of common characteristics w.r.t. plant mango?
  - a. Dicotyledonae
  - b. Sapindales
  - c. *Mangifera*
  - d. Angiospermae
  - e. Anacardiaceae
  - (1) d → a → b → e → c
  - (2) c → e → a → d
  - (3) d → a → e → c
  - (4) d → a → c → e
11. Match the following and choose the **correct** option.

	Column-I		Column-II
a.	Genus	(i)	Carnivora
b.	Order	(ii)	Convolvulaceae
c.	Kingdom	(iii)	<i>Musca</i>
d.	Family	(iv)	Plantae

- (1) a-(iii), b-(i), c-(iv), d-(ii)
- (2) a-(i), b-(iii), c-(iv), d-(ii)
- (3) a-(iii), b-(ii), c-(iv), d-(i)
- (4) a-(ii), b-(iv), c-(i), d-(iii)

12. *Panthera* and *Solanum* represent:

- (1) Taxons of different category level
- (2) Polytypic genera
- (3) Different taxons of same kingdom
- (4) Monotypic genera

13. Which of the following option represents taxa at three different category levels?

- (1) Insects, Mammals, Fishes
- (2) Plants, Dicots, Monocots
- (3) Tiger, Dog, Lion
- (4) Plants, Monocots, Maize

14. Select the **incorrect** match.

Taxon	Category
(1) Grasses	– Family
(2) Tiger	– Species
(3) Insect	– Order
(4) Mammals	– Class

15. In case of animals classes with a few similar characters are assigned to a higher category called:

- (1) Division
- (2) Family
- (3) Phylum
- (4) Order

16. Select **incorrect** statement:

- (1) Order has fewer common characters than family
- (2) Variety is the lowermost Linnean category
- (3) Class is a group of closely related phyla with few general characters
- (4) There are seven obligate taxonomic categories

17. The first step of taxonomic study is:

- (1) Identification
- (2) Characterisation
- (3) Nomenclature
- (4) Classification

18. Based on characteristics, all living organisms can be classified in to different taxa. This process is called

- (1) Taxonomy
- (2) Identification
- (3) Nomenclature
- (4) Characterisation

19. **Assertion** : Biological names are generally in italics and written in Latin.

**Reason** : Name of author is written in Latin language in the end of the Biological name.

- (1) If both Assertion & Reason are true and the reason is the correct explanation of the assertion
- (2) If both Assertion & Reason are true but the reason is not the correct explanation of the assertion
- (3) If Assertion is true statement but Reason is false
- (4) If both Assertion and Reason are false statements

20. Scientific name of wheat is based on agreed principles and criteria which are mentioned in

- (1) ICBN
- (2) ICZN
- (3) ICNB
- (4) More than one option is correct

21. A group of individual-organisms with fundamental similarities is called

- (1) Species
- (2) Genus
- (3) Family
- (4) All of the above

22. *Canis*, *Felis* and *Homo* belong to:

- (1) Same order
- (2) Same class
- (3) Same family
- (4) Same genus

23. Match the column I with column II and select the correct option.

	Column I		Column II
a.	Convolvulaceae	(i)	Assemblage of families
b.	Polymoniales	(ii)	Group of related genera
c.	Mammalia	(iii)	Related classes are assigned to this category
d.	Chordata	(iv)	Category includes related orders

- (1) a-(ii), b-(i), c-(iv), d-(iii)
- (2) a-(i), b-(ii), c-(iii), d-(iv)
- (3) a-(ii), b-(iii), c-(i), d-(iv)
- (4) a-(ii), b-(i), c-(iii), d-(iv)

24. In taxonomic hierarchy of housefly, which of the following group of taxa will have less number of similarities than the other ones?
- (1) Muscidae (2) Diptera  
(3) *Musca* (4) Insecta
25. Read the following statements :
- (a) Lower the taxa, less are in characteristics that the members within the taxon share.  
(b) Fishes & Amphibians are placed in same phylum  
(c) Families are characterised on the basis of both vegetative and reproductive features of plant species.  
(d) Classification is a single step process.
- How many of the given statement/s is/are **correct**?
- (1) One (2) Two  
(3) Three (4) Four
26. Lion, Tiger, Leopard (Genus - Panthera) and Cats (Genus – Felis) are placed in family-
- (1) Canidae (2) Homindae  
(3) Felidae (4) Muscidae
27. The number of species that are known and described range between-
- (1) 1.2-15 Million (2) 7 Million  
(3) 1.7-1.8 Million (4) 2.5-3 Million
28. In case of plants, classes with a few similar characters are assigned to a higher category called
- (1) Kingdom (2) Family  
(3) Phylum (4) Division
29. Select the wrong pair-
- (1) House fly – Order-Diptera  
(2) Wheat – Class- Dicotyledonae  
(3) Human – Order-Primata  
(4) Dog – Family-Canidae
30. **Assertion** : Each genus may have one or more than one specific epithets representing different organisms, but having morphological similarities.  
**Reason** : Genus comprises a group of related species.
- (1) If both Assertion & Reason are true and the reason is the correct explanation of the assertion  
(2) If both Assertion & Reason are true but the reason is not the correct explanation of the assertion  
(3) If Assertion is true statement but Reason is false  
(4) If both Assertion and Reason are false statements
31. The process by which anyone can be grouped into convenient categories based on easily observable characters is called-
- (1) Identification (2) Nomenclature  
(3) Classification (4) Characterization
32. Plastid differs from mitochondria on the basis of one of the following features.  
Mark the right answer.
- (1) Presence of two layers of membrane  
(2) Presence of ribosome  
(3) Presence of thylakoids  
(4) Presence of DNA
33. Vacuoles of plants are separated from cytoplasm by a membrane called:
- (1) protoplast (2) cytoplasm  
(3) chloroplast (4) tonoplast
34. Centrosome is a:
- (1) nuclear structure of animal cells  
(2) cytoplasmic structure of plant cells  
(3) cytoplasmic structure of animal cells  
(4) cytoplasmic structure of both animal and plant cells
35. Which of the following is not true of a eukaryotic cell?
- (1) Cell wall is made up of peptidoglycans  
(2) 80S type of ribosomes are present in the cytoplasm  
(3) Mitochondria contain circular DNA  
(4) Membrane bound organelles are present

36. Who amongst the following first described Nucleus in 1831?
- (1) Anton von Leuwenhoek
  - (2) Robert Brown
  - (3) Robert Hooke
  - (4) Hammerling
37. Chromatin consists of
- (1) DNA only
  - (2) DNA and Histones
  - (3) DNA, RNA, histones and non-histones
  - (4) Ribonucleoproteins only
38. Depending on the ease of extraction, membrane proteins can be classified as
- (1) Saturated and unsaturated
  - (2) Hydrophilic and hydrophobic
  - (3) Integral and peripheral
  - (4) Acidic, basic and neutral
39. Select **correct** set of statements from given below.
- A. The cytoplasm is the main arena of cellular activities in plants and animals.
  - B. Golgi apparatus is the important site of formation of glycoproteins only.
  - C. The endomembrane system does not include semi-autonomous organelles.
  - D. Convex face of golgi bodies is maturing face.
- (1) A and D
  - (2) A and C
  - (3) A, C and D
  - (4) All are correct
40. Read the following statements carefully and mark them as true (T) or false (F).
- A. The content of nucleolus is continuous with the rest of the nucleoplasm.
  - B. In the chromoplast, water soluble carotenoid pigments like carotene and xanthophyll are present.
  - C. Ribosomes are the granular structures first observed as dense particles by George Palade.
- (1) T, F, F                      (2) F, T, T
  - (3) T, F, T                      (4) T, T, F
41. In “Singer and Nicolson” model of plasma membrane, the extrinsic proteins are–
- (1) Tightly associated with intrinsic protein and can be easily separated
  - (2) Relatively more than intrinsic proteins
  - (3) Loosely associated with lipid bilayer and can be easily separated
  - (4) Loosely associated with intrinsic protein and can't be easily separated
42. In terms of shape and size of mitochondria considerable degree of variability is observed. The number of mitochondria per cell is variable depending on the–
- (1) Morphology of the cells
  - (2) Biochemical activity of the cells
  - (3) Physiological activity of the cells
  - (4) All of the above
43. Many ribosomes may associate with a single mRNA to form multiple copies of a polypeptide simultaneously. Such string of ribosomes is termed as
- (1) plastidome                      (2) polyhedral bodies
  - (3) polysome                      (4) nucleosome
44. Semi-autonomous cell organelles of cell are–
- (1) Nucleus and chloroplast
  - (2) Chloroplast and mitochondria
  - (3) Vacuoles and Golgi complex
  - (4) Ribosome and lysosome
45. The number of chloroplast varies from 1 per cell in   A   to   B   per cell in the mesophyll.
- (1) A-Chlorella, B-15 to 20
  - (2) A-Chlamydomonas, B-20 to 40
  - (3) A-Chlamydomonas, B-15 to 20
  - (4) A-Chlamydomonas, B-10 to 40
46. Organelle important in spindle formation during nuclear division is:
- (1) Centriole
  - (2) Golgi body
  - (3) Chloroplast
  - (4) Mitochondrion

47. Match the following columns.

	Column-I		Column-II
a	Metacentric	i	At the tip
b	Submetacentric	ii	Almost near the tip
c	Acrocentric	iii	At the middle
d	Telocentric	iv	Slightly away from middle

- (1) a-i, b-iv, c-ii, d-iii
- (2) a-ii, b-iv, c-i, d-iii
- (3) a-iii, b-iv, c-ii, d-i
- (4) a-iv, b-iii, c-i, d-ii

48. Structure not present eukaryotic cell

- (1) Cell wall
- (2) Ribosome
- (3) Nucleoid
- (4) All

49. The complete disintegration of the nuclear envelope during cell division marks the beginning of

- (1) Anaphase
- (2) Prophase
- (3) Metaphase
- (4) Telophase

50. Read the statements and select the correct option.

**Statement A:** Chromosomes cluster at opposite spindle poles and their identity is lost as discrete elements in the telophase.

**Statement B:** Small disc-shaped structures at the surface of the centromeres are called kinetochores.

- (1) Both the statements are incorrect
- (2) Only statement A is correct
- (3) Only statement B is correct
- (4) Both the statements are correct

51. ---A--- usually ensures the production of haploid phase in the life cycle of sexually reproducing organisms whereas ---B--- restores the diploid phase.

Fill **A** and **B** in the above statement respectively

- (1) Mitosis, Meiosis
- (2) Meiosis, Mitosis
- (3) Mitosis, Cytokinesis
- (4) Meiosis, Fertilization

52. Formation of new cell wall begins with the formation of a simple precursor, called the cell-plate that represents the

- (1) Mitochondrial membrane
- (2) Middle lamella between the walls of two adjacent cells
- (3) Primary cell wall
- (4) Chloroplast membrane

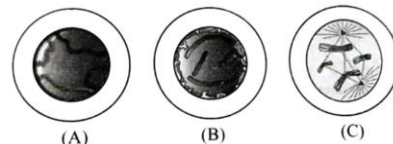
53. Diakinesis of prophase-I of meiosis-I is marked by

- (1) Chiasmata formation
- (2) Dissolution of synaptonemal complex
- (3) Terminalisation of chiasmata
- (4) Crossing over

54. Recombinase mediated activity is seen during which of the given sub-stage of prophase-I of meiosis-I?

- (1) Leptotene
- (2) Zygotene
- (3) Pachytene
- (4) Diplotene

55. Recognize the figure and find out the correct matching.



- (1) A-Early prophase, B-late prophase, C-transition to metaphase
- (2) B-Early prophase, A-late prophase, C-Transition to metaphase
- (3) B-Transition to metaphase, C-Early prophase, A-late prophase
- (4) A-Late prophase, C-transition to metaphase B-Early prophase,

56. Electron micrographs of which stage indicate that chromosomes accompanied by the formation of complex structure called synaptonemal complex?

- (1) Zygotene
- (2) Pachytene
- (3) Diplotene
- (4) Diakinesis

57. Significance of mitosis involves:
- (1) The growth of multicellular organism
  - (2) Cell repair
  - (3) Production of diploid daughter cells with identical genetic complement
  - (4) All of the above
58. Identify **wrong** pair of statements from the following.
- A. Histone synthesis takes place in S phase
  - B. Doubling of chromosomes occur in S phase of interphase
  - C. Nuclei formed after meiosis-I are haploid.
  - D. Terminalization occurs in Anaphase-I
- (1) B and D                      (2) C and D
  - (3) A and B                    (4) A and D
59. **Correct** statement is /are:
- A. Nuclear membrane and nucleolus reappears in telophase-I.
  - B. During metaphase-I, the bivalents arrange on the equatorial plate.
  - C. Metaphase is marked by the alignment of chromosome at the equatorial plate.
- (1) A and C                    (2) B only
  - (3) A and B                    (4) All of these
60. S-phase is not characterized by
- (1) Synthesis of histone protein
  - (2) No increase in chromosome number
  - (3) DNA replication
  - (4) Duplication of centriole in nucleus of eukaryotic animal cell
61. Interphase
- a. Is a biosynthetic phase in which the cell duplicates its organelles
  - b. Constitutes more than 95% duration of cell cycle
  - c. Is the phase between two successive M-phases
- (1) Only a is correct
  - (2) Only b and c are correct
  - (3) Only c is incorrect
  - (4) All a, b and c are correct
62. Mark the **incorrect** statement—
- (1) In leptotene chromosomes become gradually visible under the light microscope
  - (2) Bivalent clearly visible in Zygotene
  - (3) Prophase I is typically longer and more complex when compared to prophase of mitosis
  - (4) Number of tetrads is equal to bivalents
63. The X-shaped structures observed during diplotene are
- (1) Chiasmata
  - (2) Synaptonemal complex
  - (3) Bivalent complex
  - (4) None of these
64. Arrange the following events of meiosis in correct sequence:
- (A) Activity of recombinase
  - (B) Bivalent visible
  - (C) Terminalisation of chiasmata
  - (D) disappearance of nucleolus
- (1) (B), (A), (C), (D)
  - (2) (A), (B), (C), (D)
  - (3) (B), (C), (D), (A)
  - (4) (B), (A), (D), (C)
65. Identify the meiotic stage in which the homologous chromosomes separate while the sister chromatids remain associated at their centromeres.
- (1) Anaphase-II                (2) Metaphase-I
  - (3) Prophase I                (4) Anaphase-I
66. The microtubules from the opposite poles of the spindle attach to the kinetochore of homologous chromosomes
- (1) Anaphase I
  - (2) Anaphase II
  - (3) Anaphase
  - (4) Metaphase I
67. Which of the following not correct for interkinesis?
- (1) DNA Duplication occur
  - (2) Stage between two meiotic division
  - (3) Short lived
  - (4) Both (1) and (3)

68. The longest phase of meiosis I is—  
 (1) Metaphase I (2) Prophase I  
 (3) Anaphase I (4) Telophase I
69. Consider the following statements w.r.t cytokinesis  
**Statement-I** : In an animal cell, this is achieved by the appearance of a furrow in the plasma membrane.  
**Statement-II** : In plant- cell plate formation occurs  
 (1) Only S-I is correct  
 (2) Only S-II is correct  
 (3) Both S-I and S-II is correct  
 (4) Both S-I and S-II is wrong
70. Cell in  $G_0$  phase  
 (1) Non-living  
 (2) Enter the cell cycle  
 (3) Metabolically active  
 (4) Grow fast
71. Location of synthesis of rRNA inside cell is —  
 (1) Nucleolus (2) Nucleoplasm  
 (3) Cytoplasm (4) ER
72. **Assertion (A)** : Ribosomes are found in both prokaryote and eukaryotes.  
**Reason (R)** : Ribosomes are protein factories which is required for both types of cells.  
 (1) If both A and R are true and R is the correct explanation of A  
 (2) If both A and R are true, but R is not the correct explanation of A  
 (3) If A is true, but R is false  
 (4) If A is false, but R is true
73. **Assertion (A)** : Morphology of chromosome is studied in metaphase stage.  
**Reason (R)** : Condensation of chromosome is completed in this stage and can be easily visualized under microscope.  
 (1) If both A and R are true and R is the correct explanation of A  
 (2) If both A and R are true, but R is not the correct explanation of A  
 (3) If A is true, but R is false  
 (4) If A is false, but R is true
74. Perinuclear Space is Part of —  
 (1) Protoplasm (2) Nucleus  
 (3) Cytoplasm (4) Endomembrane system
75. Primary Cell wall of plant cell is made up of —  
 (1) Protein, Cellulose, pectin and hemicelluloses  
 (2) Chitin  
 (3) Lignin, Chitin and Suberin  
 (4) Protein and cellulose only
76. Pairing of chromosome as homologous pair start in  
 (1) Leptotene (2) Zygotene  
 (3) Diplotene (4) Diakinesis
77. Spindle fibres attach on to  
 (1) kinetochore of the chromosomes  
 (2) centromere of the chromosome  
 (3) kinetosome of the chromosome  
 (4) telomere of the chromosome
78. Microbodies are present in —  
 (1) Bacterial cell (2) Plant cell  
 (3) Animal cell (4) Both (2) and (3)
79. In \_\_\_\_\_ phase of meiosis some time oocyte arrest in mammals—  
 (1) Leptotene (2) Zygotene  
 (3) Diakinesis (4) Diplotene
80. Vesicles from ER fuse with Golgi body at face—  
 (1) Convex (2) Concave  
 (3) Trans (4) Maturing face
81. Plastids are found in  
 (1) All animal cells  
 (2) Some animal cells  
 (3) All plant cells  
 (4) All plant cells and Euglenoids



## Answer Key

1. (2)	18. (1)	35. (1)	52. (2)	69. (3)
2. (3)	19. (4)	36. (2)	53. (3)	70. (3)
3. (2)	20. (1)	37. (3)	54. (3)	71. (1)
4. (3)	21. (1)	38. (3)	55. (1)	72. (1)
5. (4)	22. (2)	39. (2)	56. (1)	73. (1)
6. (1)	23. (1)	40. (3)	57. (4)	74. (2)
7. (3)	24. (4)	41. (3)	58. (1)	75. (1)
8. (3)	25. (2)	42. (3)	59. (4)	76. (2)
9. (1)	26. (3)	43. (3)	60. (4)	77. (1)
10. (1)	27. (3)	44. (2)	61. (4)	78. (4)
11. (1)	28. (4)	45. (2)	62. (2)	79. (4)
12. (2)	29. (2)	46. (1)	63. (1)	80. (1)
13. (4)	30. (1)	47. (3)	64. (1)	81. (4)
14. (3)	31. (3)	48. (3)	65. (4)	
15. (3)	32. (3)	49. (3)	66. (4)	
16. (3)	33. (4)	50. (4)	67. (1)	
17. (2)	34. (3)	51. (4)	68. (2)	



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