

# DPP

DAILY PRACTICE PROBLEMS

Class :

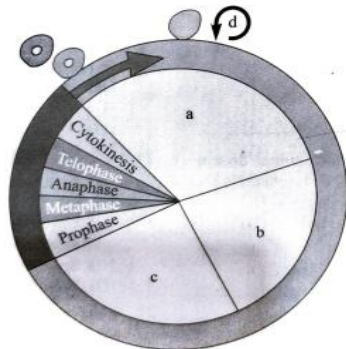
Date :

Subject : **BIOLOGY**

DPP No. : 1

## Topic :- CELL CYCLE AND CELL DIVISION

- The sequence of events by which a cell duplicates its genome, synthesises the other constituents of the cells and eventually divides into two daughter cells is called  
A. Cell division                      B. Cell cycle                      C. Karyokinesis                      D. Cytokinesis
- A typical eukaryotic cell cycle is illustrated by  
A. Yeast                                  B. Bacteria                                  C. Human cells in culture                      D. Both A and C
- In the 24 hour average duration of cell cycle of a human cell, cell division properly lasts for about  
A. 23 hours                                  B. An hour                                  C. Half an hour                                  D. 90 minutes
- Of the total duration of cell cycle, the interphase lasts more than  
A. 95%                                  B. 5%                                  C. 90%                                  D. 92%
- Recognise the figure and find out the correct matching



- A. a-G<sub>1</sub>, b-S, c-G<sub>2</sub>, d-M                      B. a-G<sub>1</sub>, b-S, c-G<sub>2</sub>, d-G<sub>0</sub>  
C. a-M, b-G<sub>1</sub>, c-S, d-G<sub>2</sub>                      D. a-G<sub>0</sub>, b-G<sub>1</sub>, c-S, d-G<sub>2</sub>
- The M phase starts with the nuclear division, corresponding to the separation of daughter chromosomes called ...a... and usually ends with division of cytoplasm called ...b...  
A. a-Cytokinesis, b-Karyokinesis                      B. a-Interkinesis, b-Cytokinesis  
C. a-Karyokinesis, b-Cytokinesis                      D. a-Interkinesis, b-Karyokinesis
  - Which phase corresponds to the interval between mitosis and initiation of DNA replication?  
A. Gap 1/G<sub>1</sub> phase                      B. Gap 2/G<sub>2</sub> phase                      C. Synthesis/S phase                      D. M phase



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8.  $G_0$  stage of cell denotes  
A. Exit of cell from cell cycle  
B. Check point before entering next phase  
C. Death of cell  
D. Temporary pause/suspended cell cycle
9. Centriole duplicates during  
A. Interphase  
B. Early prophase  
C. Late prophase  
D. Late telophase
10.  $G_1$ , S and  $G_2$  are stages of  
A. Interphase  
B. Prophase  
C. Metaphase  
D. Anaphase
11. If a cell possesses twice as much DNA as in the functional cell, the cell  
A. is preparing to divide  
B. has completed division  
C. has ceased to function  
D. has reached end of its life span
12. Phase of cell cycle when DNA polymerase is active  
A.  $G_1$   
B. S  
C.  $G_2$   
D. M
13. Haploid complement of chromosome of an organism is called  
A. Genotype  
B. Phenotype  
C. Genome  
D. Genetic system
14. Which of the following cells in an adult animal do not appear to exhibit division?  
A. Bone marrow cells  
B. Upper layer of epidermis  
C. Heart cells  
D. All of the above
15. The most dramatic period of the cell cycle is  
A. M phase  
B.  $G_1$  phase  
C. S phase  
D. Interphase
16. Prophase is marked by  
A. Complete disintegration of nuclear membrane  
B. Disappearance of ER, GB, nucleolus and nuclear envelope  
C. Initiation of condensation of chromosomal material  
D. Chromosomes aligns at the equatorial plate
17. Starting of metaphase is marked by  
A. Complete disintegration of nuclear membrane  
B. Disappearance of ER, GB, nucleolus and nuclear envelope  
C. Initiation of condensation of chromosomal material  
D. Chromosomes align at the equatorial plate
18. End of prophase is marked by  
A. Complete disintegration of nuclear membrane  
B. Disappearance of ER, GB, nucleolus and nuclear envelope  
C. Initiation of condensation of chromosomal material  
D. Chromosomes align at the equatorial plate



19. The completion of prophase can be marked by
- A. Chromosomal material condenses to form compact mitotic chromosomes
  - B. Initiation of condensation of chromosomal material
  - C. Initiation of the assembly of mitotic spindle
  - D. Both A and C
20. Which of the following proteinaceous components of the cell cytoplasm help in the initiation of the assembly of mitotic spindle?
- A. Microtubules
  - B. Microbodies
  - C. Centromeres
  - D. Kinetochores

**ANSWER KEY**

1. B	2. C	3. B	4. A	5. D	6. C	7. A	8. A	9. A	10. A
11. A	12. B	13. C	14. C	15. A	16. C	17. A	18. B	19. D	20. A

