

Yakeen NEET 2.0 2026

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Cell Cycle and Cell Division

DPP: 1

- Q1** Two basic stages of cell cycle are:
 (A) interphase and M-phase/ divisional phase.
 (B) karyokinesis and cytokinesis.
 (C) prophase, metaphase, anaphase and telophase
 (D) G_1 , S and G_2 -phases.
- Q2** What phase is between two successive M-phase?
 (A) S-phase
 (B) G_1 -phase
 (C) G_2 -phase
 (D) Interphase
- Q3** The correct sequence of phases of cell cycle is:
 (A) $G_1 \rightarrow G_2 \rightarrow S \rightarrow M$
 (B) $M \rightarrow G_1 \rightarrow G_2 \rightarrow S$
 (C) $G_1 \rightarrow S \rightarrow G_2 \rightarrow M$
 (D) $S \rightarrow G_1 \rightarrow G_2 \rightarrow M$
- Q4** Interphase
 (A) Includes karyokinesis and cytokinesis
 (B) Some time called resting phase, is the preparatory phase for division in which cell undergoes growth and DNA replication in an order
 (C) Is the shortest phase in which biomolecules are synthesised very fast
 (D) Includes 5% duration of the cell cycle
- Q5** Which one is false about G_1 -phase (Gap-1)?
 (A) It occurs between M and S phase
 (B) In it cells are metabolically active and continuously grow
 (C) It is pre-synthetic or post mitotic phase
 (D) In this phase DNA replicates
- Q6** Which of the following phase of the cell cycle is not a part of interphase?
 (A) M
 (B) S
 (C) G_1
 (D) G_2
- Q7** What happens in S-phase?
 (A) DNA replication
 (B) In animal cell replication of centriole
 (C) Both A and B
 (D) Separation of replicated DNA
- Q8** Which one of the following decides cell division?
 (A) G_1 -phase
 (B) G_2 -phase
 (C) S-phase
 (D) None of these
- Q9** Histone proteins are synthesised in
 (A) S-phase
 (B) G_1 -phase
 (C) G_2 -phase
 (D) M-phase
- Q10** G_2 -phase is also called
 (A) Post-mitotic gap phase
 (B) Synthetic phase
 (C) Pre-mitotic gap phase
 (D) Only division
- Q11** In which of the following phase number of chromosomes remain same but amount of DNA



doubles?

- (A) G_1
- (B) Quiescent stage
- (C) G_0
- (D) S

Q12 In humans, what is the approximate percentage duration of cell cycle that comes under interphase?

- (A) 99% (B) 95%
- (C) 25% (D) 5%

Q13 Cell growth with respect to cytoplasm is

- (A) Continuous
- (B) Discontinuous
- (C) Increase in cellular components
- (D) More than one is true

Q14 Duration of cell cycle is:

- (A) same for all organisms.
- (B) same for all cells of an organism.
- (C) vary from organism to organism.
- (D) All of these

Q15 Which phase occupies the maximum part of cell cycle?

- (A) Mitotic phase (B) Meiotic phase
- (C) Interphase (D) S phase

Q16 This phase of cell cycle is a period of intense synthesis and growth. It constitutes 95% of the duration of cell cycle. It is

- (A) Interphase (B) Telophase
- (C) Prophase (D) Anaphase

Q17 Read the following statements about cell division and select the correct ones.

- (i) M phase represents the phase when actual cell division occurs and I phase represents the phase between two successive M phases.

(ii) In the 24 hours average duration of cell cycle of a human cell, cell division proper lasts for only about an hour.

(iii) M phase constitutes more than 95% of the duration of cell cycle

- (A) (i) and (ii)
- (B) (ii) and (iii)
- (C) (i) and (iii)
- (D) (i), (ii) and (iii)

Q18 In which stage DNA replication takes place?

- (A) Metaphase
- (B) G_1 -phase
- (C) S-phase
- (D) G_2 -phase

Q19 Match the following columns and select the correct option:

Column I		Column II	
(A)	G_1 -phase	(i)	Cell quiescence
(B)	M-phase	(ii)	Longest phase of the cell cycle
(C)	S-phase	(iii)	Less than 5% of total duration of cell cycle
(D)	G_0 -phase	(iv)	DNA content doubles

- (A) A (ii), B (iii), C (iv), D (i)
- (B) A (ii), B (iii), C (i), D (iv)
- (C) A (iii), B (ii), C (iv), D (i)
- (D) A (iii), B (i), C (iv), D (ii)

Q20 In a diploid cell, if number of chromosomes is ($2n = 8$) in G_1 phase, then the number of chromosomes in G_2 phase is-

- (A) 8 (B) 16
- (C) 32 (D) 4

Q21 If number of chromatids in G_1 phase are 10, then the number of chromosomes are _____ in G_1 —



- (A) 10 (B) 20
(C) 5 (D) 30

Q22 If number of chromatids in G_1 phase are 10 ,
then the number of chromosomes are _____ in
 G_2 —

- (A) 10 (B) 20
(C) 5 (D) 30

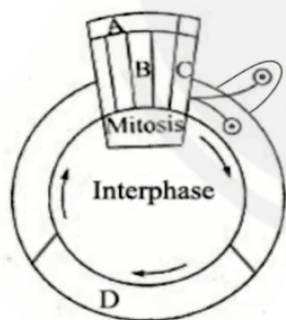
Q23 If the number of chromosomes in G_1 phase are
32, then the number of chromosomes in G_2
phase are

- (A) 16 (B) 32
(C) 64 (D) 8

Q24 In a diploid cell, the number of chromosomes are
22 and the amount of DNA is $2C$. In G_2 phase,
the number of chromosomes are

- (A) 11 (B) 22
(C) 44 (D) 10

Q25 The given figure is a schematic break-up of
the phases/stages of cell cycle. Select the correct
option regarding it.



- (A) 'A' represents karyokinesis which is the
division of cytoplasm.
(B) 'B' is telophase which is just reverse of
prophase.
(C) 'C' is the best phase to count total number of
chromosomes in any species.
(D) In 'D' stage, replication of DNA takes place on
the template of the existing DNA.



Answer Key

Q1 (A)
Q2 (D)
Q3 (C)
Q4 (B)
Q5 (D)
Q6 (A)
Q7 (C)
Q8 (A)
Q9 (A)
Q10 (C)
Q11 (D)
Q12 (B)
Q13 (D)

Q14 (C)
Q15 (C)
Q16 (A)
Q17 (A)
Q18 (C)
Q19 (A)
Q20 (A)
Q21 (A)
Q22 (A)
Q23 (B)
Q24 (B)
Q25 (D)



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