1. M phase begins with —
   A. Cytokinesis
   B. Karyokinesis
   C. DNA replication
   D. G0 phase (B)

Explanation : M phase begins with nuclear division, called karyokinesis.

2. Mitosis is also called equational division because —
   A. Chromosome number becomes half
   B. Chromosome number remains the same
   C. DNA does not replicate
   D. Four daughter cells are formed (B)

Explanation : Parent and daughter cells have the same chromosome number in mitosis.

3. Mitosis is divided into how many stages of nuclear division?
   A. Two
   B. Three
   C. Four
   D. Five (C)

Explanation : Mitosis includes prophase, metaphase, anaphase and telophase.

4. The first stage of karyokinesis in mitosis is —
   A. Metaphase
   B. Anaphase
   C. Prophase
   D. Telophase (C)

Explanation : Prophase is the first stage of mitotic nuclear division.

5. The beginning of chromosomal material condensation is the main feature of —
   A. Prophase
   B. Telophase
   C. Cytokinesis
   D. Interkinesis (A)

Explanation : In prophase, chromatin condenses into visible chromosomes.

6. The mitotic apparatus is formed by —
   A. Ribosomes and lysosomes
   B. Two asters and spindle fibres
   C. Golgi bodies and ER
   D. Nucleolus and nuclear envelope (B)

Explanation : Centrosomes radiate microtubules called asters, and asters with spindle fibres form the mitotic apparatus.

7. Chromosomes are best studied for size, shape and number during —
   A. Interphase
   B. Metaphase
   C. Telophase
   D. G1 phase (B)

Explanation : Chromosomes are fully condensed and clearly visible during metaphase.

8. The disc-shaped structure on the centromere where spindle fibres attach is —
   A. Chiasma
   B. Kinetochore
   C. Nucleolus
   D. Aster (B)

Explanation : Kinetochore is the site where spindle fibres attach to chromosomes.

9. In anaphase of mitosis —
   A. Chromosomes line up at equator
   B. Centromeres split and chromatids separate
   C. Nuclear envelope reforms first
   D. DNA replication starts (B)

Explanation : During anaphase, sister chromatids separate and move to opposite poles.

10. During telophase —
    A. Chromosomes decondense and nuclear membrane reforms
    B. Chromosomes become most condensed
    C. DNA doubles
    D. Synapsis occurs (A)

Explanation : Telophase is marked by formation of nuclear membrane, nucleolus, ER and Golgi bodies.