

Cell Biology Archive

FINAL - 2022

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1) The resolution power of LM :

- A- 0.2 nanometer**
- B- 0.2 micrometer**
- C- 0.2 millimeter**
- D- 10 nanometer**

Answer : B

2) 1 millimetre equals :

- A- 1000 micrometer**
- B- 1000 nanometer**
- C- 100 micrometer**
- D- 100 nanometer**

Answer : A

3) The last stage in mitosis is :

- A- Prophase**
- B- Metaphase**
- C- Anaphase**
- D- Prometaphase**
- E- Telophase**

Answer : E

4) Which of these come from umbilical cord :

- A- Adult stem cell**
- B- Embryonic stem cell**
- C- Hematopoietic stem cell**
- D- Non of the above**

Answer : C

5) Circular dsDNA molecule within a bacterial cell (physically separated from chromosomal DNA) can replicate independently :

- A- Plasmid**
- B- Virus**
- C- RNA**
- D- Bacteria**
- E- Non of the above**

Answer : A

6) All of the following is correct about adult stem cell except :

- A- They are multipotent**
- B- Have restricted ability to self-renew**
- C- The production of adult stem cells does not require the destruction of an embryo**
- D- Derived from blastocyst**

Answer : D

{وَأَصْبِرْ لِحُكْمِ رَبِّكَ فَإِنَّكَ بِأَعْيُنِنَا^ط وَسَبِّحْ بِحَمْدِ رَبِّكَ حِينَ تَقُومُ}



7) The junction that prevent flow of material between cells is :

- A- Zonula occludens
- B- Zonula adherens
- C- Macula adherens
- D- Gap junction
- E- Non of the above

Answer : A

8) All of the following is composition of CAMs except :

- A- Integrins
- B- Selectins
- C- Nuclear domain
- D- Cadherins
- E- Members of IgSF

Answer : C

9) Break down damaged organelles is the definition of :

- A- Programmed cell death
- B- Autophagy
- C- Exocytosis
- D- Non of the above

Answer : B

10) Regarding cytoskeleton , the correct from the following :

- A- Not stable
- B- Contain microtubule
- C- Contain microfilament
- D- Contain intermediate filament
- E- All of the above

Answer : E

11) The reason that mitochondria differ in number is :

- A- The shape
- B- The size
- C- The power output
- D- Amount of energy needed by the cell
- E- Non of the above

Answer : D

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12) Why dehydration is step of tissue processing in paraffin technique :

- A- To remove the alcohol**
- B- To remove the water**
- C- To add water**
- D- To add alcohol**

Answer : B

13) The hydrolytic enzymes found in :

- A- Cytoskeleton**
- B- Vacuoles**
- C- Lysosome**
- D- Peroxisome**
- E- ER**

Answer : C

14) Which of the following is a membranous organelle :

- A- Cilia**
- B- Cytoskeleton**
- C- Ribosome**
- D- Peroxisome**
- E- Centrioles**

Answer : D

15) Which of the following is incorrect about ribosomes :

- A- It is not bound on the inner part of nucleus membrane**
- B- Non-membranous organelle**
- C- It is the site of protein synthesis**
- D- Cannot be seen by H&E**

Answer : A

16) Where is the rRNA manufacture :

- A- In ribosome**
- B- In nucleolus**
- C- In cytoplasm**
- D- In ER**
- E- Non of the above**

Answer : B

17) When does free chromosome become two chromatids :

- A- Prophase**
- B- Interphase**
- C- Anaphase**
- D- Telophase**
- E- Metaphase**

Answer : c {وَاصْبِرْ لِحُكْمِ رَبِّكَ فَإِنَّكَ بِأَعْيُنِنَا ۖ وَسَبِّحْ بِحَمْدِ رَبِّكَ حِينَ تَقُومُ}



18) The correct order of the phases of mitosis :

- A- Interphase - metaphase - anaphase - telophase
- B- Prophase - metaphase - anaphase - telophase
- C- Prophase - anaphase - metaphase - telophase
- D- Interphase - anaphase - metaphase - telophase
- E- Anaphase - metaphase - prophase - telophase

Answer : B

19) If a cell containing 40 chromosomes , divides meiosis , how many chromosomes will there be in the new cell :

- A- 40
- B- 160
- C- 20
- D- 640
- E- 46

Answer : C

20) Synapsis occurs between which of the following :

- A- Two sister chromosome
- B- Two heterologous chromosome
- C- Two homologous chromosome
- D- Two non-sister chromosome

Answer : C

21) Which of these cells are the least ability to differentiate :

- A- Unipotent
- B- Nullipotent
- C- Totipotent
- D- Pluripotent

Answer : b

22) If a cell containing 40 chromosomes , divides mitosis , how many chromosome will there be in the new cell :

- A- 40
- B- 160
- C- 20
- D- 640
- E- 46

Answer : A



23) At what stage do chromatids separate :

- A- Metaphase
- B- Anaphase
- C- Prophase
- D- Telophase
- E- Prometaphase

Answer : B

24) What is the longest phase in meiosis :

- A- Metaphase I
- B- Metaphase II
- C- Anaphase I
- D- Prophase I
- E- Prophase II

Answer : D

25) At which stage does genetic crossing-over occur :

- A- Anaphase
- B- Telophase
- C- Metaphase
- D- Interphase
- E- Prophase

Answer : E

26) What are the process responsible for genetic recombination :

- A- Crossing over - independent assortment
- B- Independent assortment - crossing over
- C- Crossing over
- D- Independent assortment
- E- Non of the above

Answer : A

27) When does cytokinesis occur :

- A- During metaphase
- B- After metaphase
- C- After telophase
- D- During telophase
- E- During anaphase

Answer : C



28) Which of the following is dyed by orcein stain :

- A- Nerve cells
- B- Largest artery
- C- Reticular fibers
- D- Mast cells
- E- Phagocytic cells

Answer : B

29) The cell is inactive :

- A- Euchromatin only
- B- Heterochromatin only
- C- Euchromatin predominant
- D- Heterochromatin predominant
- E- Euchromatin & heterochromatin

Answer : B

30) The cytoskeleton consist of :

- A- Microfilaments
- B- Microtubules
- C- Intermediate filaments
- D- All of the above

Answer : D

31) Which of the following is incorrect regarding the cells :

- A- The genetic material are scattered in the Cytoplasm
- B- Ribosome is the site of protein synthesis
- C- Golgi apparatus secretion of cell product
- D- Mitochondria is the source of energy for the cell
- E- Cytoskeleton is regulate the internal structure

Answer : A

32) One of the following is correct about stem cell:

- A- They finish quickly
- B- Can make copies of itself and make specialized cells
- C- Cannot give mature cells
- D- There is one type of stem cells

Answer : B

33) What is the folds inside the mitochondria are called :

- A- Thread
- B- Granule
- C- Cristae
- D- mitos

Answer : C

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34) What happens during metaphase (1) on meiosis :

- A- Arrangement of individual chromosomes in metaphaseal plate**
- B- Arrangement of homologous chromosomes in metaphaseal plate**
- C- Arrangement of heterologous chromosomes in metaphaseal plate**
- D- Arrangement of non-sister chromosomes in metaphaseal plate**

Answer : B

35) Which of the following is correct about EM :

- A- It is used to increase optical resolution and contrast**
- B- The optimal image appear to have 3D character**
- C- It can be use to visualize DNA , RNA , Protein**
- D- Beam of electrons is used as source of light**

Answer : D

36) The source of light in confocal microscope is :

- A- Laser C- visible source**
- B- Beam electron D- Non of the above**

Answer : A

37) Crossing over occurs in which stages of Prophase (1) :

- A- Leptotene**
- B- Zygotene**
- C- Pachytene**
- D- Diakinesis**
- E- Diplotene**

Answer : E

38) Which of the following result from meiosis :

- A- Somatic cells**
- B- Sex cells**
- C- Stem cells**
- D- Non of the above**

Answer : B

39) Which of the following is the source of embryonic stem cells :

- A- Inner cell mass of blastocyst**
- B- Bone marrow**
- C- Teeth**
- D- Cord blood**

Answer : A

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40) Which of the following is correct about induced pluripotent stem cells :

- A- When use iPSC , the patient will get the new tissue that he need with little immune rejection**
- B- They can specialized for some cells in the body**
- C- Mature cells can be reprogrammed to become pluripotent**
- D- Done by introduce a huge specific pluripotency genes**

Answer : C

41) The process of production a population of genetically identical individuals is :

- A- Molecular cloning**
- B- Mitosis**
- C- Meiosis**
- D- Reproductive cloning**

Answer : D

42) Gene knockout is :

- A- Transgenic organisms**
- B- Loss of function**
- C- gene therapy**
- D- insulin production**

Answer : B

43) Which of the following is correct about extra-cellular matrix :

- A- It is thick layer of fluid surround the body cells**
- B- The reticular lamina formed by reticular fibbers thinner than basal lamina**
- C- The basement membrane is only seen by EM**
- D- It is sheet like deposition at the base of cells**

Answer : D

44) Piece of DNA used to insert an important DNA fragment into it :

- A- Vector**
- B- Gene**
- C- Chromosome**
- D- Centriole**

Answer : A

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"(لَا تُرْهِقْ قَلْبَكَ بِالْحُزْنِ، فَإِنَّهُ لَا يَرُدُّ مَفْقُودًا، وَلَا يَحْفَظُ مَوْجُودًا، وَإِمْلَأْ قَلْبَكَ بِمَا يُقَوِّيه مِنَ الثِّقَةِ بِاللَّهِ، وَتَفْوِيضِ الْأَمْرِ إِلَيْهِ، وَالْإِعْرَاضِ عَنِ الْاِلْتِفَاتِ لِغَيْرِهِ، وَحُسْنِ الظَّنِّ بِهِ، وَالْيَقِينِ أَنَّ الْخَيْرَةَ فِيمَا اخْتَارَهُ، فَتِلْكَ سُلُوءُ الْحَزِينِ، وَسَكِينَةُ قُلُوبِ الْمُؤْمِنِينَ)".

العصيمي . حفظة الله .

