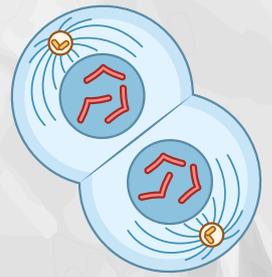


NaFS

CELL

BIOLOGY



L1

1- DNA is scattered within cytoplasm of eukaryotes:

Answer: False

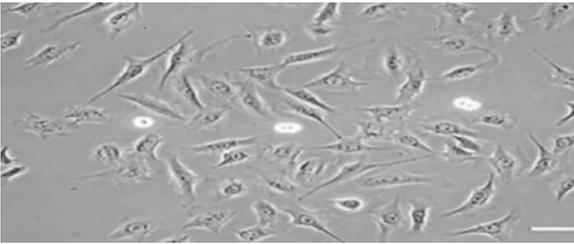
2- The microscope that is used for studying the the living cells:

Answer: Phasecontrast

3- Light microscope resolution power is

Answer: 0.2 micrometer

4- What type of microscopes is used?



- A. Phase Contrast microscope
- B. Fluorescence microscope
- C. Differential interference microscope

Answer:A

5- All of the following are the four basic tissues except:

- A. Connective
- B. Nervous
- C. Lymphatics
- D. Muscular
- E. Epithelial

Answer:C

6- Resolution power of healthy naked eye is:

- A. 0.2mm
- B. 0.2 um
- C. 0.2 nm
- D. 2.0

Answer:A

7- Responsible of high resolution in LM:

- A. Condenser lens
- B. Fine focus
- C. Objective lens
- D. Coarse focus

Answer: C

8- 1 millimetre equals?

Answer: 1000 micrometer

9- Resolutions power of healthy naked eye?

Answer: 0.2mm

10- Function of ECM?

- A. Fill the space between organelles
- B. Deposit sheet like under the basal lamina
- C. To connect with epithelial tissue
- D. Can have hard consistency like bones

Answer: C

10- The idea of phase contrast microscope?

Answer: Difference of refractive indices

11- one of the following is false about confocal laser microscope?

Answer: is used a beam of electron as source of light

12- The resolution power of LM?

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

Answer: B

13- microscope using for studying living cell:

- A. Phase Contrast microscope
- B. Light microscope
- C. Electron microscope
- D. Confocal microscope

Answer: A

14- part of LH responsible for resolution :

Answer: objective

15- Light microscope resolution power:

Answer: 0.2 micrometer

16- The resolving power in light microscope depends on ?

Answer: objective lenses

17- Which microscope use special lamp to emit ultraviolet ray?

Answer: Fluorescence microscope

18- The idea for phase contrast microscope ?

Answer: is to view objects light and dark based on their different refractive indices

19- the resolution power for EM?

Answer: 0.2 nanometer

20- The microscope which uses a special lamp is:

Answer: Fluorescence microscope

21- one of the following is incorrect regarding the EM?

Answer: it uses a beams of light

22. What in these are not share between pro/eu-karyotic cells?

Answer: nucleus

23- confocal microscope?

Answer: the illumination is laser

24- basement membrane//basal lamina?

Answer: bind epithelial tissue with connective tissue

25-uses antibodies to check antigens?

Answer: immuno-histochemical stains

26- The resolution power of light microscope equals darked out of

- A. 0.2 milimeter
- B. 0.2 nanometer
- C. 0.2 micrometer
- D. 0.5 micrometer

Answer: C

27- in you want to examine a tissue composed of different types of cells. The cells to examine can be distinguished by external shape, size and three-dimensional characteristics Which would be the optimum method for your study?

- A. Light microscopy using living unlained samples
- B. celt fractionation Bio Transmission electron microscopy
- C. Light ieroscopy using the routine stains "Hettatoxylin and Eosin
- D. Scanning electron microscopy

Answer: D

28- Choose the CORRECT statement regarding the cell?

- A. Prokaryolic cell contains nuclear envelope
 - B. Eukaryotic cell has membranous cell organelles
- The genetic matenals are in the nucleoid region of eukaryotes
- C. The genophore is scattered in the cytoplasm of eukaryotes
 - D. The prokaryoles replicate by mitosis

An desmosomes, desmoplakin and desmoglein link to

Answer:B

29- A structure made of two or more tissues that work together is called :

- A. Organelles
- B. Organ
- C. Organ system
- D. Cells
- E. Organism

Answer: B

30- which of the following statements best describes the extracellular matrix?

- A. Provides an impermeable barrier between cells
- B. is a non-cellular component present within all tissues and organs
- Bone extra cellular matrix is rubbery in consistency
- C. Always contain equal amounts of water, proteins and electrolytes
- D. it is physiologically inactive and only serve to separate the cells of tissues

Answer: B

31- Which microscope would be the best for viewing surface features of a cell?

- A. Phase contrast microscopy
- B. rough endoplasmic reticulum
- C. Scanning electron microscope

Answer: C

32- Which of the following is one of the four basic tissues of the body?

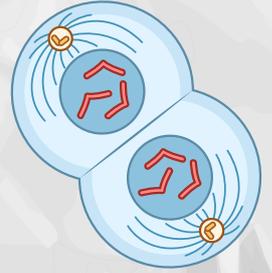
- A. dense tissue
- B. Elastic tissue
- C. Muscle tissue

Answer: C

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BIOLOGY



22

1- Fluorescent in situ hybridization technique is used for :

- A. isolating cell components
- B. rapid technique for diagnosis of tumors
- C. purify nucleic acid fragments
- D. localize the site of the genes on chromosomes

Answer : D

2- Which of the following is a method for studying DNA localization?

- A. Cell fractionation
- B. Electrophoresis
- C. SE VC Fluorescent in situ hybridization
- D. Histochemistry
- E. immunotestochemistry

Answer : C

3- Freezing technique is for

Histochemical studying

4- Metachromatic staining:

Stain the tissue in new color different from that of the stain

5- Fluorescent in situ hybridization

Used to localize site of gene

6- In centrifugation, organelles are separated in which order?

- A. Nucleus, microsome, mitochondria
- B. Nucleus, mitochondria, microsome
- C. Mitochondria, microsome, nucleus
- D. Microsome, nucleus, mitochondria
- E. Microsome, mitochondria, nucleus

Answer : B



7- Hematoxylin:

Stain the nucleus with blue color

8- Which of the following is true about freezing technique:

- A. Isolating the cell to study under control condition**
- B. Useful in histochemical stain**
- C. It include fixation**
- D. Can preserve for long time**

Answer : B

9- Which of the following is true about the metachromatic stain :

- A. Stain wich gives the tissue new color different from that of the stain**
- B. Estain elastic fiber brown**
- C. Stain never cell brown**

Answer : A

10- The true arrangement in centrifugation:

- A. Ribosom, nucleus, microsoms, mitochondria**
- B. Mitochondria, microsoms, nucleus, ribosom**
- C. Nucleus, mitochondria, microsoms, ribosome**

Answer : C

11- Which of the following isn't of the characteristics of freezing technique?

- A. Can be kept for a long time**
- B. Rapid technique**
- C. Don't use chemical**
- D. No dehydration**

Answer : A



12-Which of following is true about the H stain?

- A. It stains the nucleus with blue color
- B. It stains the r-RNA with red color
- C. It stains the cytoplasm with blue color
- D. Stains basic

Answer : A

13- Which stain is used for never cells staining?

- A. H and E
- B. Silver
- C. Orecin
- D. Metachromatic

Answer : B

14- the type of culturing when the cell are directly cultured from the tissue is:

- A. Primary culture
- B. Secondary culture
- C. Tertiary culture

Answer : A

15- Which of the following is correct about H&E
hematodylin stains acidic components blue

16- Which of the following is wrong ?

- A. Trypan blue/ mast cells
- B. Leishman / blood films
- C. Trichrome/ collagen fibers
- D. Sliver stain / nerve cells

Answer : A



17- Immortalized cell line means ?

proliferate indefinitely

18- Most commonly used stain in the electron microscope?

osmium tetroxide

19- The substance that used in clearing?

XYLOL

20- Which of the following sentences is true:

A. Hematoxylin=stains nucleus blue

B. Freezing=useful for histochemical student

C. A+B

D. Non of them

Answer : C

21-Regarding centrifugation from first to separate:

nucleus-mitochondria-mitoplasts-ribosomes

22-stain which give the tissue new color different from that of the stain :

metachromatic stain

23-Technique used to identify ,quantity and purify nucleic acid

DNA electrophoresis

24-fixation?

glutaraldehyde

25-coagulation and facilitate sectioning?

fixation

26-freezing sections?

enzymatic studies

27-orcein stain?

elastic fibers

28-histochemical stains?

selective enzyme

29-FISH technique for?

nucleic acid

30-All the following statements about freezing technique are wrong EXCEPT :

- A. slow technique to diagnosis
- B. some section can be obtained
- C. done using formalin
- D. preserve for long time
- E. for histochemical studies

Answer : E

31-Choose the INCORRECT statement among the followings?

- A. Phase contrast microscopy is used for visualizing cells in tissue cultures
- B. In situ hybridization is used to demonstrate the pattern of expression of enzymes
- C. When a tissue is stained using Hematoxylin & Eosin, the nucleus appears blue because it i which reacts with hematoxylin
- D. One thousand micrometers are equal to one millimeter
- E. The condenser of light microscope is used to augment the illumination power

Answer : B

32-Which of the following is NOT TRUE regarding routine histological stains Hematoxylin and Eosin?

- A. Hematoxyun is a blue dye
- B. cytoplasmic RNA will attract Hematoxylin
- C. The nucleus is basophilic
- D. Eosin is a red basic dye
- E. Eosin is a negatively charged dye

Answer : D

33-The main purpose of using the microscope 15

- A.Fixation**
- B.Staining**
- C.Mounting**
- D.Resolution**
- E.charing**

Answer : D

34-Fuation of histological specimens in 10% formal saline is essential to

- A.Graduat removal of water frem tissue**
- B.Inhibi degeneration e Replace alcohol**
- C.clear the section and making it transparent for slaining**
- D.Keep the cells alive**

Answer : B

35-Metachromasia is:

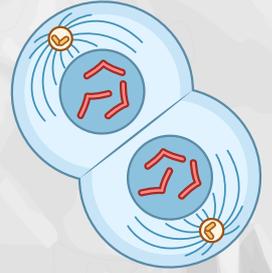
- A.Staining of tissue by color of original stain**
- B.Staining of phagocytic cells by trypan blue**
- C.Staining of a tissue by a color differs from the original stain a**
- Staining of living cells outside the body**

Answer : C

NaFs

CELL

BIOLOGY



3

transportation of non-polar molecules through plasma lemma occurs____while polar molecules moves____

- A) through channel, through cell membrane directly
- B) through cell

answer:B

The method of transport in which two molecules move in the same direction:

- A) Antiport
- B) Symport
- C) Osmosis
- D) Facilitated diffusion
- E) Simple diffusion

answer:B

The part that is involved in absorption in kidneys and intestines: 3

- A) Cilia
- B) Flagella
- C) Microvilli

answer:c

Which of these matching is correct?

Facilitated diffusion polar molecules

Which of the following aren't embedded into lipid bilayer?

- A) peripheral protein
- B) integral protein
- C) lipids

answer:A

what of these are false about glycocalyx?

=exist in cytoplasmic side

7) which of the following is CORRECTLY matched?

a channel proteins are part for new protein synthesis

b single pass transmembranous proteins- span the lipid bilayer once

c marker molecules are primarily steroids

d receptor molecules-attach to cholesterol molecules

e peripheral proteins ...penetrate the lipid bilayer from one surface to the other

answer:B

pinocytosis?

-transport fluid in endocytosis

regulated secretion?

=stimulus-dependent exocytosis

cholesterol?

= control fluidity

in which ways are facilitated diffusion and simple diffusion similar. Both

a require energy

b require protein carriers

c move substances from low to high concentration

d move substances from high to low concentration

e require protein channels

answer:d



All of the following processes can move substances inside the cell EXCEPT

- a Exocytosis
- b Simple diffusion
- c Active transport
- d Phagocytosis
- e Antiport system

answer:e

Bulk transport includes all of the following EXCEPT?

- a Antipor transport
- b Phagocytosis
- c Pinocytosis
- d Exocytosis
- e Receptor-Mediated Endocytosis

answer:a

The sodium-potassium pump located in the plasma membrane :

- a passively moves potassium outside cells
- b osmotically moves sodium into cells
- c actively moves sodium outside cells
- d moves chloride out of cells
- e passively moves sodium into cells

answer:c

one of the following is INCORRECT about peripheral plasma membrane proteins?

a They are attached to the exterior of the lipid bilayer

b They form 20-30% of plasma membrane proteins

c They do not span the plasma membrane

d They are attached non-covalently to proteins that span the membrane

They may be single-pass or multi-pass transmembrane proteins

answer: b

One of the following is CORRECTLY matched?

a Passive diffusion..... hydrophilic molecules

b hydrophobic moleculesFacilitated diffusion

c amino acidsFacilitated diffusion polar molecules

e Passive diffusiontransport protein

answer: c

Which of these statements about facilitated diffusion is TRUE?

a In facilitated diffusion movement against the concentration gradient

b Facilitated diffusion requires the expenditure of energy

c Facilitated diffusion does not require a carrier protein

d Facilitated diffusion moves materials through membrane channels

e Facilitated diffusion moves materials in vesicles

answer: d

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c Facilitated diffusion does not require a carrier protein

d Facilitated diffusion moves materials through membrane channels

e Facilitated diffusion moves materials in vesicles

answer: d

Peripheral proteins are located? 13

on the extracellular side only

on the cytoplasmic side only

mainly on the cytoplasmic side

All of the following are function of glycocalyx except? 3

Protection

Adhesion

Receptor

Lipid synthesis

What the difference between cilia & flagella? 3

A- length & number

B- length & width

C- Width & number

D- None of the above

Which of these organelles responsible for absorption in kidney and intestine?

A- flagella

B- microvilli

C- cilia

Answer: b

The way in which the two materials move together in the same direction :

Answer: symport



Which of these matching is correct :

A-Facilitated diffusion-non polar molecules

B-Facilitated diffusion-polar molecules C-Difficult diffusion-polar molecules D-Difficult diffusion-non polar molecules

Answer: B

What is the transport that doesn't move things out:

A-Exocytosis

B-Phagocytosis

C-antiport transport

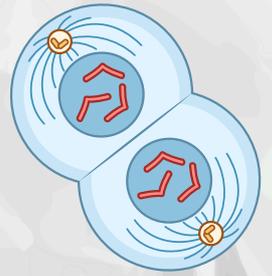
D-symport transport

Answer: B

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CELL

BIOLOGY



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which type of junction prevents passage of molecules?

A) Occluding (Tight junction)

B) Gap junction

C) Desmosomes

D) Adherens junction

Answer: A

which proteins contribute with forming the occluding junction?

A) occludin+claudins

B) Cadherins

C) Integrins

D) Selectins

Answer: A

what cause the pemphigus vulgaris?

A) defect in desmoglein

B) Bacteria infection

C) Fungal infection

D) Viral infection

Answer: A

Which is involved in permanent fixture? Ly

A) Microfilaments

B) Intermediate filaments

C) Microtubules

Answer: B

2) The cell adhesion molecules (CAMs) that form the tight junction are

- a Connexin // Integns
- b Claudins ir Adherins
- c Occludins ill Connexins
- d Occludins i Claudin

Answer : d

Land _connect epithelial ell to their basement membrane and adjacent cells respectively?

- A. Gap junction // Hemidesmosome
- B. Zonula adherens // Macula densea
- Hemdesmosome // Desmosome 9
- Zonula occludens // Zonula adherens
- E. Hemidesmosomelll Synaps

Answer :A

questions