Final Grade

Last attempt with a grade 80 / 80

ATTEMPT 14/14 (SUBMITTED 12/29/25, 2:50 PM)
RECEIPT: F9E8D9A0BC91A61BA8B8B9170D5F19AC

80 / 80

1 JUMBLED SENTENCE 5 / 5

Match the germ layers and their respective tissue derivatives:
1/ Paraxial mesoderm => **dermis of skin**
2/ Endoderm => **tracheal epithelium**
3/ Intermediate mesoderm => **urogenital epithelium**
4/ Surface ectoderm => **epidermis**
5/ Lateral mesoderm => **pleura, pericardium and peritoneum**

2 MULTIPLE CHOICE 1 / 1

The glycocalyx is composed of all of the following EXCEPT:

- (A) Lipoproteins
- (B) Proteoglycans
- (C) Proteins
- (D) Glycoproteins
- (E) Glycolipids

3 MULTIPLE CHOICE 1 / 1

Which of the following statements is TRUE?
The diameter of actin filaments is approximately:

- (A) 100-150 nm
- (B) 10-11 nm
- (C) 1-2 nm
- (D) 6-8 nm
- (E) 24-25 nm

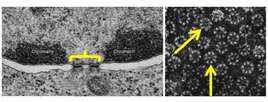
4 MULTIPLE CHOICE 1 / 1

All of the following answers are true EXCEPT:
Microtubules can be located:

- (A) To the cytosol - free
- (B) in centrosomes
- (C) in microvilli
- (D) in cilia
- (E) in flagella

5 MULTIPLE CHOICE 1 / 1

Identify the presented structure:



- (A) Terminal cistern
- (B) Polysome
- (C) Nuclear pore complex
- (D) Nucleolus

6 MULTIPLE CHOICE 1 / 1

What type of cell junction is the adherent junction:

- (A) Cell-cell
- (B) Cell-matrix
- (C) Both cell-cell and cell-matrix
- (D) Neither cell-cell nor cell-matrix

7 MULTIPLE CHOICE 1 / 1

All of the following answers are true EXCEPT:
The glycocalyx is composed of:

- (A) Glycolipids
- (B) Glycoproteins
- (C) Proteins
- (D) Proteoglycans
- (E) Lipoproteins

8 MULTIPLE CHOICE 1 / 1

Macrophages in the tissues are derived from which of the following blood cells?

- (A) monocyte
- (B) neutrophilic granulocytes
- (C) eosinophilic granulocytes
- (D) basophilic granulocytes
- (E) NK- cells

9 MULTIPLE CHOICE 1 / 1

Which cells can return to the blood from the tissues through diapedesis?

- (A) lymphocytes
- (B) histiocytes
- (C) mast cell
- (D) erithrocytes
- (E) monocytes

10 MULTIPLE CHOICE 1 / 1

Which of the following is typical for inhibitory synapses?

- (A) Both pre- and postsynaptic membranes are with a similar thickness
- (B) They have an asymmetrically thickened postsynaptic membrane
- (C) They have an asymmetrically thickened presynaptic membrane
- (D) Neurotransmitter action leads to membrane depolarization
- (E) None of the listed

11 MULTIPLE CHOICE 1 / 1

The process of metaplasia is:

- (A) transformation from one subtype to another subtype of the same type of basic tissue
- (B) uncontrolled cellular proliferation
- (C) exocrine secretion of substances
- (D) programmed cell death
- (E) endocrine secretion of substances

12 MULTIPLE CHOICE 1 / 1

Which of the following connective tissue cells has antigen-presenting properties?

- (A) macrophage
- (B) fibroblast
- (C) neutrophilic leucocyte
- (D) adipocyte
- (E) plasma cell

13 MULTIPLE CHOICE 1 / 1

The bony lamellae of compact bone are organized into lamellar systems. Which of the following is not one of them?

- (A) lamellae in the interterritorial matrix
- (B) external circumferential lamellae
- (C) internal circumferential lamellae
- (D) interstitial lamellae
- (E) none of the mentioned

14 MULTIPLE CHOICE 1 / 1

Somatostain is produces in the:

- (A) Hypotalamus
- (B) Neurohypophysis
- (C) Adenohypophysis
- (D) Basal ganglia
- (E) Hypophyseal infundibulum

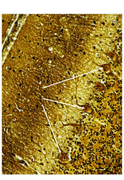
15 MULTIPLE CHOICE 1 / 1

Identify the indicated tissue:

- (A) Loose connective tissue
- (B) Contractile cardiac muscle tissue
- (C) Striated (skeletal) muscle tissue
- (D) Conducting cardiac muscle tissue

16 MULTIPLE CHOICE 1 / 1

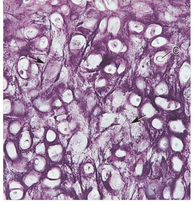
Identify the indicated cells:



- (A) Multipolar stellate cells from spinal cord.
- (B) Fibrous astrocytes
- (C) Multipolar piriform neurons from cerebellar cortex
- (D) Pseudounipolar neurons from spinal ganglion.

17 MULTIPLE CHOICE 1 / 1

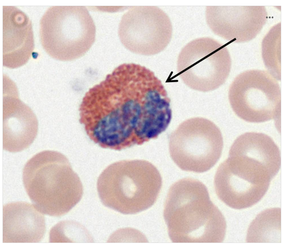
Identify the shown tissue:



- (A) Elastic cartilage
- (B) Regular dense (collagen) connective tissue.
- (C) Hyaline cartilage
- (D) Nervous tissue

18 **MULTIPLE CHOICE** 1 / 1

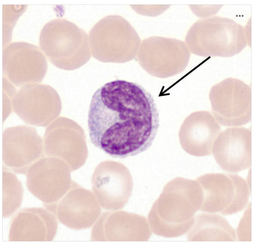
Identify the indicated cell:



- (A) Lymphocyte
- (B) Monocyte
- (C) Eosinophilic granulocyte
- (D) Neutrophilic granulocyte

19 **MULTIPLE CHOICE** 1 / 1

Identify the indicated cell:



- (A) Lymphocyte
- (B) Monocyte
- (C) Fibroblast
- (D) Megakaryocyte

20 **MULTIPLE CHOICE** 1 / 1

How does the female reproductive tract assist sperm migration?

- (A) A. by secretion of vaginal acid
- (B) B. by uterine contractions during orgasm and strands of cervical mucus
- (C) C. by a chemical secreted by the egg
- (D) A. + C.
- (E) B. + C.

21 **MULTIPLE CHOICE** 1 / 1

The process of compaction of the pre-embryo leads to a formation of outer and inner cell mass, which differ in their intercellular junctions as follows:

- (A) Outer cell mass – tight junctions, inner cell mass – gap junctions
- (B) Outer cell mass – adherent junctions, inner cell mass – desmosomes
- (C) Outer cell mass – gap junctions, inner cell mass – tight junctions
- (D) Outer cell mass – desmosomes, inner cell mass – adherent junctions
- (E) Outer cell mass – hemidesmosomes, inner cell mass – десмозоми

22 **MULTIPLE CHOICE** 1 / 1

The intraembryonic intermediate mesoderm forms:

- (A) Gonads
- (B) Skeletal muscles
- (C) Dermis (skin)
- (D) Lungs
- (E) Cardiomyocytes

23 **MULTIPLE CHOICE** 1 / 1

Which layer is in contact with the cytotrophoblast after the formation of the extraembryonic cavity?

- (A) Extraembryonic somatopleuric mesoderm
- (B) Extraembryonic splanchnopleuric mesoderm
- (C) Visceral hypoblast
- (D) Parietal hypoblast
- (E) None of the answers is true

24 **MULTIPLE CHOICE** 1 / 1

The amniotic and yolk sac cavities are temporarily connected by:

- (A) The neurenteric canal
- (B) Allantois
- (C) Trophoblast
- (D) Cytotrophoblast
- (E) None of the listed

25 **MULTIPLE CHOICE** 1 / 1

Which of the processes listed is NOT a stage of the fertilization?

- (A) Acrosomal reaction
- (B) Cortical reaction
- (C) Gametes' mebranes fusion
- (D) Capacitation
- (E) Gastrulation

26 **MULTIPLE CHOICE** 1 / 1

Which of the following statement IS TRUE?

- (A) Chorionic villi form the fetal part of the placenta
- (B) Chorionic villi do not form the fetal part of the placenta
- (C) Chorionic villi form the maternal part of the placenta
- (D) Chorionic villi form the entire placenta
- (E) All statements are true