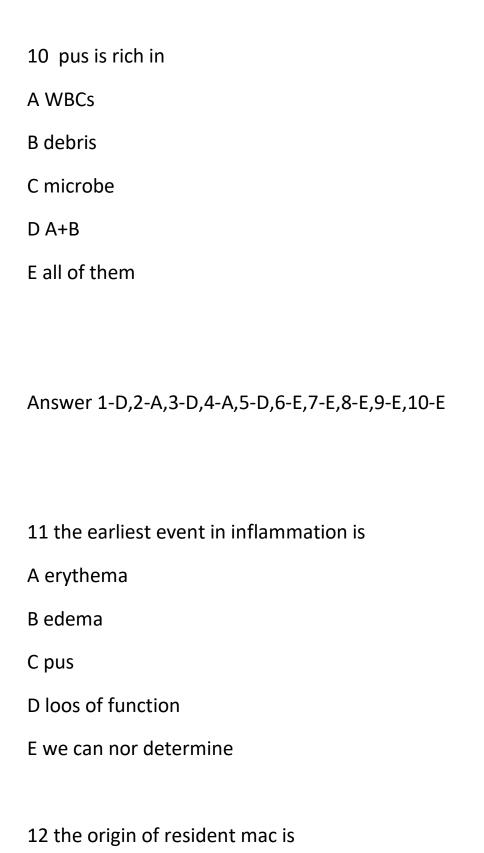
1 Which of the following can not recognize microbes
a Mast cell
B Macrophage
C Dendritic cell
D Non of the above
2 In acute inflammation the main cell present
A neutrophils
B mac
C mast
D a+b
E all of the above
3 The inflammation can be bad when
A too much damage
B misdirected
C chronic inflammation
D all of the above
4 In acute respiratory distress syndrome the main cell involved

A neutrophils
B mac
C Eosinophils
D complement
E all of them
5 In asthma the main immune compartment involved
A Eosinophils
B lgE antibodies
C monocyte
D a+B
E all of the above
6 In glomerulonephritis the main immune compartment involved is
A antibodies
B complement
C neutrophils
D monocyte
E all of them

7 The recognition of the microbes can done by A cellular receptors B sensor of cell damage C circulating protein D A+B E all of the above 8 The main cause of edema (transudate) is A decrease colloid osmatic pressure B increase hydrostatic pressure C Decrease hydrostatic pressure D increase colloid pressure E A+B 9 transudate can be happen in A liver disease B kidney disease C heart failure D venous outflow obstruction E all of them



A yolk sac

B bone marrow

C thymus

D liver

E all of them

13 Which of these statement is false

A life span of neutrophils 1-2 days

B neutrophils produce ROS more than MAC

C mac produce NO more than neutrophils

D mac produce cytokines more than neutrophils

E non of them

14 which of these statement is false

A neutrophils can form NETs at death

B half span of inflammatory mac days or weeks

C half span of resident mac can reach years

D neutrophils secrete lysosomal enzyme more than mac

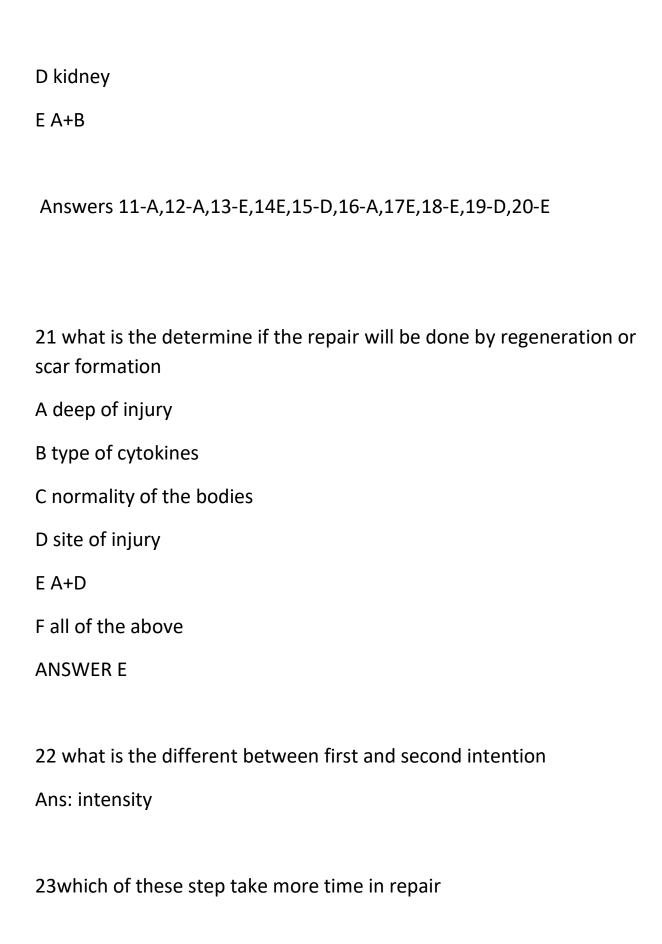
E non of the above

15 the cytokines that promote expression of selectin and integrin is
A IL-1
B TNF
C IL-6
D A+B
E all of them
16 the main function of chemokines is
A recruitment of leukocyte into tissue
B pain
C fever
D repair tissue
E all of them
17which of these statement is false
A cd 31 (PECAM-1) expressed on both of leukocyte and endothelial cells
B WBCs pierce through wall by collagenases
C the main function of chemoattractant is transfer of WBCs to injury tissue
D the main source of nitric oxide is arginine

## E non the above

C liver

18 the main required of tissue repair is
A produce mediators
B cellular proliferation
C interact cell with ECM
D A+B
E all of them
19 in stable tissue in normal condition is
A continuous regenerate
B in G0
C not regenerate
D b+C
E all of them
20 which of the following is consider labile tissue
A epithelial of mucosal surface
B bone marrow



A hemostatic B produce cytokines C cell proliferation D remodeling E we can not determine Answer d 24 what is the true about angiogenesis A formation of blood vessel B scar formation C central roll in healing Da+C E all of the above Answer d 25the first step in angiogenesis is A basement membrane degradation B removing the pericyte C pericyte recruitment

D formation of new vessel

E all of them
Answer b
26 the angiopoietin is
A pericyte detachments
B basement membrane degradation
C interact with ECM
D notch signaling
E non of them
Answer a
27 The most important growth factor is
A PDGF
B FGF
C TGF-B
D all of them
E B+C
Answer c

28 in remodeling

A formation cross linking between collagen

B make scar strong and contract

C switching type 3 of collagen into type 1

D all of them

E a+b

Answer d