Date:16/2/2017 Examination For Diploma Anesthesia Term: Final Course title: Physiology <u>Time Allowed: Three Hours</u> All questions are to be answered: Tanta University Faculty Of Medicine Department Of Physiology Course Code: ANAES 7001 Total Assessment Marks: 30

1-Discuss hemorrhage and shock and body commendatory mechanisms against it. (10marks)

2-Discuss lung surfactant and factors affecting it. (10 marks)

#### 3 -Choose the most probable answer: (10 marks)

## 1-All of the following increase the cardiac output <u>Except</u>:

a)Increased end diastolic volume b)Increased venous return c)Moderate increase in the heart rate d)Acidosis

### **3-** Acidosis is present in the following conditions:

a) Excessive ingestion of alkaline drinks b)Hyerventlation

c) Diabetes mellitus

d)Non of the above

#### 5-The dead space has the following functions <u>Except</u>:

a)Is functioning as an air conditioner b)Its volume is about 150 ml c)Parasympathetic stimulation increase it d)It has a defensive function in the respiratory system

### 7-The volume of gas in the lung after forced expiration is:

a)Residual volume

b)Expiratory reserve volume

c)Functional residual capacity

d)Inspiratory reserve volume

#### 9-The importance of vagal tone on the heart is:

a)To increase the arterial blood pressure

b)To increase the intestinal secretion

c)To increase the oxygen consumption

d)To decrease the cardiac activity

### 11-The following hormones elevate the arterial

blood pressure <u>Except</u>: a)Vasopressin(ADH) b)Angiotensin II c)Aldosterone d)Histamine

#### 2-Aniotensin II :

a) is formed by the action of an enzyme on angiotensin III b)Is released from juxtaglomerular apparatus of the kidnev c)Acts by stimulation of the vasomotor center d)Is formed due to stimulation of rennin release in the circulation 4- Factors that shift oxygen dissociation curve to the right: a)Increase 2,3 DPG b)Increased temperature c)Acidosis d)All of the above 6-The ratio of cardiac work to the total energy expenditure is: a)The cardiac mechanical efficiency b)The cardiac index c)Constant during muscular exercise d)Not affected by the coronary blood flow

### 8-Peripheral chemoreceptors are stimulated mainly by:

a)Low PO2 b)Low PCO2 c)Increase hydrogen ion concentration d)Alkalosis **10-In the arterial blood:** a)The hematocrite value is higher than the venous blood b)Carbamino compounds are more than The venous blood c)PO2 equals 100mmHg d)PCO2 equals 100mmHg **12-The main buffer systems in the blood are:** a)Carbonic acid /bicarbonates b)HB buffer c)plasma proteins

d)All of the above

### 13-Surfactant deficiency occur in the following conditions Except:

a)Long term inhalation of 100% oxygen b)Hyaline membrane disease of premature infants c)Hypocorticism

d)Hyperthyroidism

**15-Heparin has the following effects Except:** a)Lipeamia clearing effect

b)Combines with antithrombin III and increase its action

c)Can be given orally and by injection

d)Acts both in vivo and vitro

### 17-The conversion of fibrinogen to fibrin is promoted by:

a)Factor X

b)Thrombin

c)Prothrombin

d)Platelets

19- The hemorrhagic tendency in liver diseases is due to deficiency of:

a)Platelets

b)Bilirubin

c)Bile pigments

d)Vitamin K

#### 14-Hemophilia is due to:

a)Deficiency of factor VIII b)Deficiency of platelets c)Prolongation of bleeding time d)Vitamin K deficiency

#### 16-The heart rate is increased due to:

a)Increase of the venous return b)Decrease arterial blood pressure c)O2 lack d)All of the above

# **18-** Pitting edema is resulting from all the following diseases <u>Except</u>: a)Renal diseases

b)Congestive heart failure
c)Liver diseases and hypoproteinemia
d)Elephantiasis
20-All the following mechanisms occur in hemostasis Except:

a)Increase of heparin secretionb)Vasoconstriction of blood vesselsc)Clot formationd)Platelets aggregation

No	Α	B	C	D	No	A	B	C	D
1					11		-		
2					12				-
3			-		13				
4		-	-	+	14			-	
5					15				1
6		-			16				
7					17	1		1	
8			-		18				
9			-		19			-	
10		1	+		20				

ملحوظة:

26/2/2017 الامتحان الشفهي

بقسم الفسيولوجي الثامنة صباحا

اجابة ألأسئلة الاختيارية بالجدول و يدبس بكراسة الاجابة

Answer of MCQ at the table