



ASSIUT UNIVERSITY
FACULTY OF PHARMACY
PHARM. ANAL. CHEM. DEPT.

PC 306(ANALYTICAL
CHEMISTRY-2)
SEMESTER (3) 2011/2012
MID-TERM EXAM
December 3, 2011

Time Allowed: 1/2 hours

رقم الطالب:

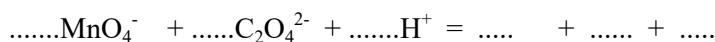
إسم الطالب:

(A) Reduction- Oxidation Titrations:

1- Calculate the O.N. For Nitrogen in the following compounds:

N_2H_4 O.N. = NH_2OH O.N. = HNO_3 O.N. =

2- Complete and balance the following equation:



3- Complete the following Table:

No	Iodimtry	Iodometry
1		
2		
3		
4		

(B) Complexometric Titrations:

Complete the following statements:

1- The process of ring formation between metal and multidentate ligand is called

2- 8-Hydroxyquinoline is an axample of ligand.

3- Co-ordination number is

4- The stability of metal-EDTA complexes is affected by:

(a)

(b)

5- The sharpness of the titration curve is affected by:

(a)

(b)

c- Calculate the potential of the following cell (E^0_{cell}) (1 Mark)



Where $E^0_{\text{Pb/Pb}^{2+}} = -0.13 \text{ V}$

$$E^0_{\text{Cu/Cu}^{2+}} = +0.34 \text{ V}$$

Is the reaction spontaneous? Why?

d- Draw and label a conductometric titration curve for strong acid with strong base. (1½ Marks)

[II] Spectrophotometry:

(10 Marks)

1- Compare between the following:
(3 Marks)

(3

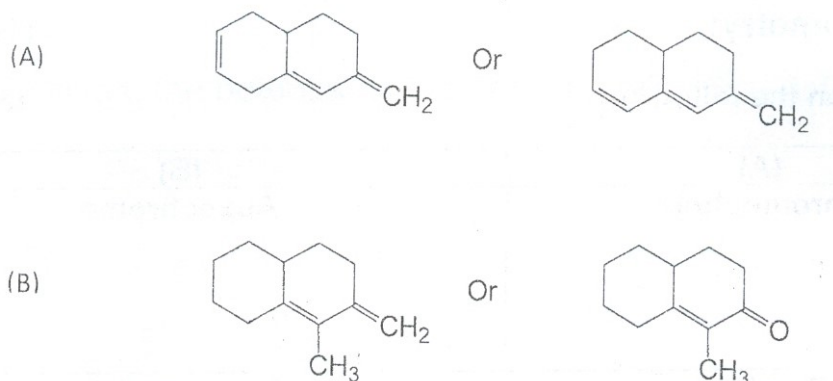
No	(A)	(B)
1	Chromophore	Auxochrome
2	Beer' law	Lamberts law
3	Standard calibration curve	Absorption curve

2- Calculate the wave number and frequency of a light beam with a wavelength of 550 nm.
(2 Marks)

3-Draw a schematic diagram for single beam spectrophotometer
(1 Mark)

(1

4- Which compound in each of the following pairs is likely to absorb radiation at longer wavelength (Give reason): (2 Marks)



5-Select from set (A) the most suitable statement for each in set (B): (2 Marks)

(A)	
(1) Spectra of atoms	(2) Tungsten- halogen lamp
(3) Benzene	(4) Stray light
(5) Spectra of molecules	(6) Hypochromic effect
(7) Bathochromic shift	(8) Gratings
(9) Deuterium discharge lamp	(10) n- σ^* transition
(11) Prisms	(12) Hyperchromic effect
(13) n- π^* transition	(14) Hypsochromic shift
(15) Water	(16) Unmatched cells

- () Used as light source for measurements in UV-region
- () Considered as Irregular instrumental deviation.
- () Compound considered as good solvent for UV-measurements.
- () The most red shifted electronic transition
- () Shift to shorter wavelength.
- () Appear as broad bands
- () It is the increase in absorption intensity for an absorption band.
- () It is the best type of monochromators

Prof.Dr. Abdel-Maaboud Ismail Mohamed



Faculty of Medicine
Physiology Department

Date: 5/1/2012
Time allowed: 3 hours
Total mark: 65

Final Examination
In
Medical Physiology for Third Semester Clinical Pharmacy Students

- | I) <u>Blood:</u> | Mark |
|---|-------------|
| 1- Mention four functions of plasma proteins and 2 conditions in which A/G ratio is decreased. | 3 |
| 2- Enumerate functions of RBCs contents. | 2 |
| 3- Explain the extrinsic mechanism for formation of prothrombin activator. | 2 |
| 4- Mention one function to each of the following:
a- eosinophils b- basophils c- lymphocytes d- monocytes | 2 |
|
II) <u>Cardiovascular system:</u> | |
| 1- Define contractility and mention 3 factors affecting it. | 3 |
| 2- What is the effect of pain, temperature and hormones on heart rate? | 3 |
| 3- Define the following:
a- excitability b- conductivity c- cardiac output d- hemorrhage | 2 |
| 4- Enumerate the immediate compensatory reactions to hemorrhage. | 3 |
|
III) <u>Respiration:</u> | |
| 1- Define surfactant and mention its physiological significance. | 2 |
| 2- Describe Hering Breuer reflexes. | 3 |
| 3- Define cyanosis, mention its cause, the threshold for cyanosis and types of hypoxia in which it is observed. | 3 |
|
IV) <u>Central nervous system:</u> | |
| 1- Mention functions of cerebral cortex. | 3 |
| 2- Write true for the correct and false for the wrong statement:
a- Spinal cord transmit impulses to and from the brain.
b- The thalamus is concerned with coordination of voluntary muscular movements, posture and balance. | 2 |
|
V) <u>Endocrinology:</u> | |
| 1- Mention site of secretion and functions of ADH (antidiuretic hormone). | 4 |
| 2- Describe how blood glucose is regulated. | 4 |
| 3- In the following statements write true or false:
a- Calcitonin is a hormone secreted by the parathyroid gland.
b- Hypoparathyroidism is one of the causes of tetany. | 2 |

VI) <u>Autonomic nervous system:</u>	Mark
1- Mention functions of the sympathetic nervous system on head and neck.	4
2- Enumerate sites of secretion of acetyl choline.	3
3- Briefly discuss adrenergic receptors.	3
VII) <u>Digestive system:</u>	
1- Mention functions of bile salts.	3
2- Define vomiting and describe its mechanism.	4
VIII) <u>Kidney:</u>	
1- Mention factors affecting glomerular filtration rate.	3
2- Discuss sodium reabsorption by renal tubules.	2

Good luck
Professor Ibtisam Elmileegy & Dr Salwa wasfy

اختبار الفصل الدراسي الأول للعام الجامعي ٢٠١٢/٢٠١١
الفصل الثالث – برنامج الصيدلة الإكلينيكية

المادة: علم النفس

الزمن : ساعتان

❖ تعليمات الاختبار:

- ← يتكون الاختبار من سؤالين ، أكمل العبارات بأدق ما تراه مناسباً بالسؤال الأول، وبين صحة أم خطأ العبارات بالسؤال الثاني في ضوء دراستك لمقرر علم النفس.
- ← اكتب اجابتك في نموذج الاجابة المعد في السؤال الأول، وفي المكان المحدد في السؤال الثاني ، ولن يلتفت الى أى اجابة داخل صفحات الأسئلة في غير المكان المخصص لها.
- ← درجات التساؤلات متساوية، فكل تساؤل له ثلاث درجات؛ لتصبح الدرجة العظمى للاختبار ٩٠ درجة.
- ← تأكد من أن صفحات الاختبار خمس (٥) صفحات.

السؤال الأول:

أكمل العبارات الآتية بأدق ما تراه مناسباً من البدائل الثلاثة (أ-ب-ج) في ضوء دراستك لمقرر علم النفس.

نموذج الإجابة

❖ ضع البديل المناسب الذي تم اختيارك اياه في المكان المناسب له طبقاً لرقم كل تساؤل.

م	بدائل الاختبار			م	بدائل الاختبار			م
	أ	ب	ج		أ	ب	ج	
١				١١				
٢				١٢				
٣				١٣				
٤				١٤				
٥				١٥				
٦				١٦				
٧				١٧				
٨				١٨				
٩				١٩				
١٠				٢٠				

أكمل العبارات الآتية بآدق ما تراه مناسباً من البدائل الثلاثة (أ-ب-ج) في ضوء دراستك لمقرر علم النفس .

البدائل ج ب أ	العبارات	أ
	١- برز في العصر الحديث علم النفس الإيجابي ؛ نتيجة :	
	أ- دراسة الاضطرابات النفسية وعلاجها . ب- التدخلات العلاجية للأمراض الذهانية . ج- تناول المتغيرات الإيجابية في الشخصية .	
	٢- يقصد بسلسلة التغيرات الطارئة على الفرد في الجانب التكويني :	
	أ- النمو . ب- الارتقاء . ج- النضج .	
	٣- تظهر الأمراض السيكوسوماتية لدى الأفراد ؛ نتيجة :	
	أ- اضطرابات وأمراض الجلد وضغط الدم . ب- اضطرابات وآلام المعدة . ج- استجابة الجسد للضغوط النفسية .	
	٤- يصنف الوسواس القهري ضمن الاضطرابات :	
	أ- الذهانية . ب- السيكوسوماتية . ج- العصائية .	
	٥- يطلق على التغير شبه الدائم في السلوك نتيجة الخبرة والممارسة والتدريب :	
	أ- التربية . ب- التعليم . ج- التعلم .	
	٦- يتجلى الفارق بين مصطلحي التعليم والتعلم في :	
	أ- القصدية والرسمية ، ب- المنظومة والتكامل . ج- الاستمرارية .	
	٧- للتغلب على ظهور أعراض الأمراض السيكوسوماتية يلزم الفرد :	
	أ- إتباع أحد استراتيجيات مواجهة الضغوط الفعالة . ب- تعلم طريقة حل المشكلات بخطوات المنهج العلمي . ج- إتباع خطوات التفكير في مجالات الحياة المختلفة .	
	٨- يظهر سوء التوافق الاجتماعي لدى ذوي الأمراض السيكوسوماتية ؛ نتيجة :	
	أ- شعور ذوي الاضطرابات السيكوسوماتية بالإرهاك والإعياء . ب- شعور ذوي الاضطرابات السيكوسوماتية بالدونية والنقص . ج- شعور ذوي الاضطرابات السيكوسوماتية بالوحدة والعزلة عن الآخرين .	

أكمل العبارات الآتية بـ (أ-ب-ج) في ضوء دراستك لمقرر علم النفس .

البدائل	العبارة	م
ج ب أ		
	٩- يتفق الكثير من علماء النفس على أنه من الضروري في معالجة الاضطرابات السيكوسوماتية نفسياً : أ- التغلب على السلوك غير المرغوب فيه والارتقاء بالسلوكيات الإيجابية . ب- التدريب على التفريغ الانفعالي والتداعي الحر . ج- العلاج العقاقير أولاً .	
	١٠- من أساليب التوافق غير المباشرة : أ- الحيل الدفاعية (الميكانيزمات الدفاعية) ب- بذل الجهد للوصول إلى الهدف . ج- تغيير الهدف بما يتناسب مع قدرات الفرد .	
	١١- على الرغم من أن الحاجات النفسية Psychological Needs تتدرج في هرميتها طبقاً لتصنيف ماسلو إلا أنها تعبر عن : أ- الشدة والحدة . ب- التكامل . ج- السعة والمدى .	
	١٢- يظهر الضمير والمثل كاحد مكونات الشخصية الإنسانية في نظرية التحليل النفسي في : أ- الأنا الأعلى Super Ego . ب- الأنا Ego . ج- الهو ID .	
	١٣- يتوقف التوافق النفسي والاجتماعي لدى الفرد طبقاً لنظرية التحليل النفسي على قوة : أ- الأنا الأعلى Super Ego . ب- الأنا Ego . ج- الهو ID .	
	١٤- يعرف استعداد الفرد لاكتساب مهارة معينة بأنه : أ- الشخصية Personality . ب- القدرة Ability . ج- الأداء Performance .	
	١٥- تتباين أنواع التوافق ، وتنوع وجهات النظر حولها ، إلا أنها تبدو في صورة : أ- تكاملية . ب- نظامية . ج- متسقة .	
	١٦- يرى أن الذكاءات ليست استاتيكية بل يمكن تنميتها طوال حياة الإنسان . أ- جاردنر ب- ثورنديك ج- سكرنر	

أكمل العبارات الآتية بآدق ما تراه مناسباً من البدائل الثلاثة (أ- ب- ج) في ضوء دراستك لمقرر علم النفس .

م	العبارات	البدائل أ ب ج
١٧-	تصنف اختبارات الذكاء من حيث المحتوى إلى :	
	أ- لفظية وغير لفظية .	
	ب- فردية وجماعية .	
	ج- سرعة وقدرة .	
١٨-	قدم نظرية ثلاثية الأبعاد للذكاء عام ١٩٢٥ .	
	أ- سبيرمان .	
	ب- جيلفورد .	
	ج- ثورنديك .	
١٩-	قال أن الحقيقة لا تعرف كسلطة مطلقة ، ولكنها كامنة في العقل .	
	أ- سقراط .	
	ب- أفلاطون .	
	ج- أرسطو .	
٢٠-	يرى أن القسوة والشدة في معاملة الأطفال تدعوهم إلى المكر والخبث .	
	أ- ابن خلدون .	
	ب- الفارابي .	
	ج- ابن سينا .	

السؤال الثاني:

بين صحة أو خطأ العبارات التالية ، ثم صوب العبارات الخطأ:

١- يرى رينزولى أن كل الأفراد يمتلكون ذكاءات متعددة وبدرجات متساوية. ()

٢- تعد الموهبة والإبداع وجهان لعملة واحدة. ()

٣- يرى كاتل أن الذكاء السائل يتحدد بالعوامل الوراثية ويمثل الحدود القصوى لقدرة الفرد. ()

٤- يرى أصحاب المدرسة التحليلية أن الانسان رهن بما يفكر فيه. ()

٥- التذكر عملية عقلية تعنى إدراك العلاقات القائمة من أجل حل المشكلات. ()

٦- يعد الذكاء سمة لايمكن قياسها بصورة مباشرة. ()

٧- يعد جاردنر من أنصار الاتجاه التقليدى فى قياس الذكاء. ()

٨- يهتم النمط الأوتوقراطى فى القيادة بالتفاعل مع المرؤوسين والاستماع اليهم. ()

٩- كان أفلاطون يعتقد أن الأحلام ليست إلا إشاعات بديلة للعواطف المكبوتة. ()

١٠- الذكاء هو القدرة على حل المشكلات وابداع النواتج. ()

-----انتهت الأسئلة ----- مع تمنياتنا لكم بالتوفيق -----

لجنة الممتحنين

د. عبد الله محمد عبد الظاهر الخولى

د. مصطفى عبد المحسن عبد التوان الحديبى



Assiut University

Medical Terminology Examination For Clinical Pharmacy Student

Student Name:

Part I (1/2 mark each)

Match the word parts in Column A with the definition in Column B.

COLUMN A

- 1- The contraction period of a cardiac cycle.
- 2- The property to stop bleeding.
- 3- The relaxation period of a cardiac cycle.
- 4- The amount of blood pumped out by the heart.
- 5- Difficulty in breathing.
- 6- The study of the effects of drugs on the body.
- 7- Presence of blood in the sputum.
- 8- Bleeding from the nose.
- 9- Inflammation of the pelvis of the kidney.
- 10- Feeling of happiness and confident sense of well being.
- 11- The study of the effect of body on the drug following its administration.
- 12- The use of an antigen to induce immunity against it.
- 13- A clouding or opacity of the lens of the eye.
- 14- The study of the causes of diseases.
- 15- Sensation of spinning motion.

COLUMN B

- A.Aetiology ()
- B.Pharmacokinetics ()
- C.Epistaxis ()
- D.Pyelonephritis ()
- E.Active prophylaxis ()
- F. Euphoria()
- G.Vertigo ()
- H.Cataract ()
- I.Haemostatic ()
- J.Haemoptysis()
- K. Cardiac output ()
- L. Systole ()
- M.Diastole ()
- N.Dyspnea ()
- O.Pharmacodynamics ()

COLUMN A

- 1.Tooth ache/pain
- 2.Producing pus

COLUMN B

- A.Pyogenic ()
- B.Encephalitis ()

3. Condition of dead tissue
4. Softening of the cartilage
5. Vomiting of blood
6. Inflammation within the heart
7. Blood in the urine
8. Inflammation of the brain
9. Inflammation around the heart
10. Inflammation of the bladder

- C. Dentalgia ()
- D. Cystitis ()
- E. Hematuria ()
- F. Pericarditis ()
- G. Hematemesis ()
- H. Necrosis ()
- I. Chondromalacia ()
- J. Endocarditis ()

COLUMN A

1. Hardening of the arteries
2. Inflammation of the tongue
3. Fatty tumor
4. Condition of blueness
5. Pertaining to the heart and vessels
6. Excessive growth
7. Fear of water
8. Condition of fungus of the skin
9. Pertaining to examination of the ear
10. Without feeling or sensation

COLUMN B

- A. Hypertrophy ()
- B. Glossitis ()
- C. Dermatophytosis ()
- D. Otoscopic ()
- E. Lipoma ()
- F. Cyanosis ()
- G. Anesthesia ()
- H. Hydrophobia ()
- I. Arteriosclerosis ()
- J. Cardiovascular ()

COLUMN A

1. Inflammation of many nerves

COLUMN B

- A. Arthrocentesis ()

- | | |
|---|------------------------|
| 2. Excessive vomiting | B.Hysterectomy () |
| 3. Suture repair of a hernia | C.Glucosuria () |
| 4. Suture repair of the tongue | D.Laparotomy () |
| 5. Removal of a kidney | E.Arthrodesis () |
| 6. Removal of the stomach | F.Laryngoscope () |
| 7. Artificial opening into the colon | G.Otoplasty () |
| 8. Plastic repair of the ear | H.Gastrectomy () |
| 9. Tumor of the brain | I. Glossorrhaphy () |
| 10. Under the skin | J. Cholecystectomy () |
| 11. Puncture of a joint for removal of fluid | k. Polyneuritis () |
| 12. Surgical fixation of a joint | L. Hemiorrhaphy () |
| 13. Puncture of the thorax | M. Cerebroma () |
| 14. Incision into the abdomen | N. Tympanoplasty () |
| 15. Instrument used for examination of the larynx | O. Colostomy () |
| 16. Without fever | P. Subcutaneous () |
| 17. Plastic repair of the eardrum | Q. Hyperemesis () |
| 18. Sugar in the urine | R.Nephrectomy () |
| 19. Removal of the uterus | S.Afebrile () |
| 20. Removal of the gallbladder | T.Thoracentesis () |

Part 11 (1/2 mark each)

Write the medical term that represents the following definitions.

- 1- Irregularity of the heart rate or rhythm -----.
- 2- The formation of a clot inside a blood vessel, obstructing the flow of blood through the circulatory system -----.
- 3- A localized dilation or widening in the wall of the heart chambers or artery (aorta) -----.
- 4- The volume of blood pumped from one ventricle of the heart with each beat-

- 5- Spasm & narrowing of bronchi leading to bronchial airway obstruction -----

- 6- An inherited blood disease associated with tendency to bleeding -----
- 7- The whole blood minus both the cells and the clotting factors -----
- 8- Stiffness of a joint due to abnormal adhesion and rigidity of the bones of the joint-----.
- 9- Elevated blood sugar level caused by insulin deficiency or insulin resistance -----
- 10- Sustained muscle contractions cause twisting and repetitive movements or abnormal postures -----.
- 11- Drugs bind with their specific receptors and produce an action -----
- 12- Drugs that prevents an agonist from binding with receptors to produce an effect -----
- 13- Abnormal drug effect that may usually due to genetic deficiency of enzymes responsible for drug metabolism -----.
- 14- Acute viral infectious disease caused by Varicella zoster virus (VZV), that mainly affects the skin of children -----.
- 15- The use of an antiserum for protection against specific infectious or toxic agent -----
5. Pertaining to the heart -----
6. Inflammation of the mouth -----
18. Abnormal, persistent discharge of milk -----
19. Joint pain-----

20. Procedure to visually examine inside the body -----
21. Heart enlargement -----
22. Pertaining to blood condition of deficient red blood cells -----
23. Bursting forth of blood from vessels-----
24. Inflammation of the gum -----
25. Treatment with chemicals or drugs -----

Part III (1/2 mark each)

Write your answers in the space provided for each question

- 1- Angina pectoris is a chest pain resulting from a temporary difference between the ----- and ----- of oxygen to heart muscles.
- 2- Infraction means death of a part or the whole organ due to obstruction by a - ----- or an -----.
- 3- Bronchiectasis means chronic dilatation of ----- & ----- due to inflammation or obstruction.
- 4- Aplastic anemia is a disorder in which the ----- is suppressed or stops production of blood cells.
- 5- Nephrolithiasis is the formation of renal -----.
- 6- Psychosis means distortion of reality with symptoms such as -----, -- ----- and -----behavior.
- 7- Keratoconjunctivitis is inflammation of the -----and -----.

- 8- Bioavailability is the -----and ----- of drug that reaches the

systemic circulation.

9- Infestation is infection caused by microscopic -----.

10- Septicemia is caused by the presence of -----and their -----
in the blood stream.

11- An acute febrile infection caused by Salmonella Typhi ingested via the
contaminated food or drink-----.

12- Headache or cephalalgia is pain anywhere in the region of the ----- or
-----.

13- Phocomelia is a rare ----- disorder involving the ----- due to the
use of thalidomide during pregnancy and from genetic inheritance.

14- Kerato- can refer to the ----- or to the ----- tissue.

15- Wart is an epidermal growth caused by a -----.

16. Prenatal means before ----- and post febrile means after -----

17.A salpingostomy is a surgical opening into a -----

18.A hysterosalpingo-oophorectomy means the excision of the -----, --
----- and -----.

19.Orchidectomy means excision of a -----

20.Glossoplegia is a paralysis of the -----

GOOD LUCK

Dr. Saffa Youssef

Dr. Hanan Sayed



First semester (January) Examination in Anatomy
For 2nd year Student of Clinical Pharmacy

All are 65 degrees:

الإمتحان في ست ورقات

I-Choose the correct answer(45 degrees):

1- All are long bones except:

- (a) Carpal bones
- (b) Bones of leg
- (c) Bones of forearm
- (c) Bones of thigh

2-Example of flat bone is:

- (a) Scapula.
- (b) Humerus.
- (c) Vertebra
- (d) Air sinuses.
- (e) Carpal bones

3-All are the contents of the superficial fascia:

- (a) Blood vessels.
- (b) Glands of skin.
- (c) Roots of hairs
- (d) Muscles.
- (e) Dermis.

4-Concerning bipennate muscle, which of the following is true:

- (a) When the muscle has several tendinous intersections.
- (b) When. its tendon appears on one side of the fleshy fibers.
- (c) When fleshy fibers are attached to the tendon~ at angles on both sides.
- (d) all of the above .
- (e) None of the above.

5- The smooth muscles are present in all of the following except one which is:

- (a) Urinary bladder.
- (b) Heart
- (c)Intestine
- (d) Gall bladder.
- (e) Oesophagus.

6-All are 2ry cartilaginous joint except:

- (a) Intervertebral disc.
- (b) Symphysis pubis.
- (c)Manubrio-sternal junction.
- (d) radio-carpal joint.

7 - All parts of the vertebra are connected with the same parts of another vertebra except which part.

- (a) Pedicle
- (b) Lamina
- (c) Transverse process.
- (d) Spine
- (e) Body of the vertebra.

8- Concerning the synovial joint all are true except:

- (a) Bony articular ends are large & smooth.
- (b) Articular cartilage covers articular surface.
- (c) Fibrous articular capsule connects 2 bony ends.
- (d) The synovial membrane lines the capsule & covers the articular cartilage.
- (e) Synovial membrane secretes small amounts of synovial fluid.

9- The medullary cavity is present in.

- (a) Short bone. (b) Flat bone (c) Long bone.
(d) Irregular bone. (e) Pneumatic bone.

10- Gums are formed of

- (a) Skin (b) Mucus membrane (c) Dense fibrous tissue
(d) Muscles (e) B&C.

11- The wisdom tooth erupts around the age of

- (a) 16 years (b) 18 years (c) 21 years (d) 25 years

12- The pharynx is a muscular tube that

- (a) extends from the base of the skull to the level of C4 vertebra.
(b) extends from the base of the skull to C6 vertebra.
(c) extends from the base of the skull to C7 vertebra.
(d) extends from C1 vertebra to C6 vertebra.

13- Concerning the stomach all are true except

- (a) It is most dilated part of the alimentary canal.
(b) The pyloric end lies between the stomach and small intestine.
(c) The left border is shorter and forms the lesser curvature.
(d) It is formed of fundus, body and pylorus.

14- Which of the following contain villi:

- (a) Stomach. (b) Large intestine (c) Pancreas.
(d) Small intestine. (e) Oesophagus.

15- Peyer's patches are present in

- (a) Ascending colon. (b) Ileum. (c) Descending colon.
(d) Caecum. (e) Stomach.

16- Concerning the pancreas all are true except

- (a) It is soft lobulated mass.
(b) It has endocrine & exocrine function.
(c) It is formed of head, neck, body and tail.
(d) It lies transversely across posterior abdominal wall in front of stomach.

17- The long axis of the spleen is parallel with.

- (a) 7, 8, 9 ribs (b) 8, 9, 10 ribs.
(c) 9, 10, 11 ribs (d) 10, 11, 12 ribs.

18- Which of the following veins bring venous blood rich in products of digestion?

- (a) Hepatic veins (b) Portal vein (c) Bronchial vein
(d) Renal veins (e) Testicular vein.

19- The left kidney extends from.

- (a) The level of T10-L2 (b) The level of T11-L5
(c) The level of T12-L3 (d) The level of T10-L1

20- In male, the neck of U.B rests on

- (a) Seminal vesicle (b) vas deference (c) Prostate
(d) ureter (e) None of the above

21- The narrowest part of male urethra is

- (a) Prostatic
- (b) spongy
- (d) vesical
- (e) None of the above

22- The ejaculatory ducts are the union of:

- (a) Ducts of prostate with seminal vesicle.
- (b) Ducts of seminal vesicle with urethra.
- (c) Ducts of vas deferens with seminal vesicle.
- (d) Union of bulbourethral duct with vas deference.

23- Efferent ductules open into:

- (a) Vas deference
- (b) Duct of epididymis
- (c) Urethra
- (d) Penile urethra

24- The normal position of the uterus is

- (a) Antelexion retroversion
- (b) Retroversion antelexion.
- (c) Antelexion anteversion
- (d) Retroversion retroflexion.

25- The infundibulum of uterine tube opens into:

- (a) Perineum
- (b) Abdominal cavity
- (c) Peritoneal cavity
- (d) Uterine cavity
- (e) None of the above.

26- Pulsation of the apex of the heart can be left in:

- (a) Left 5th rib 9cm (3.5 inches) from midline.
- (b) Left 5th intercostal space 9 cm from midline.
- (c) Left 5th intercostal space 10 from midline.
- (d) Right 5th intercostal space 9 cm from midline.

27 - The inferior vena cava opens into:

- (a) The lower posterior part of the left atrium.
- (b) The lower posterior part of the right atrium.
- (c) The lower anterior part of the right atrium.
- (d) The lower anterior part of the left atrium.
- (e) None of the above.

28· Tricuspid valve connects:

- (a) The right atrium with the left atrium.
- (b) The right atrium with the right ventricle.
- (c) The pulmonary artery with the right ventricle.
- (d) The left atrium with the left ventricle.

29- The coronary sulcus is the:

- (a) Interatrial sulcus.
- (b) Inter-ventricular sulcus.
- (c) The atrio-ventricular sulcus.
- (d) None of the above.
- (e) All of the above.
- (f) None of the above.

30- Attached to the wall of the right ventricle is(are):

- (a) One papillary muscle.
- (b) Two papillary muscles.
- (c) Three papillary muscles.
- (d) Four papillary muscles.
- (e) None of the above.

31- The vein which conveys venous blood from heart wall to the right atrium is:

- (a) The superior vena cava. (b) The inferior vena cava
- (c) Pulmonary veins. (d) Coronary sinus
- (e) None of the above.

32- The carotid arteries supply:

- (a) Lower limb. (b) Upper limb. (c) Abdomen
- (d) Head & neck & brain. (e) None of the above.

33- The Conducting system of the heart is:

- (a) The endocardium. (b) The pericardium. (c) The epicardium.
- (d) The modified cardiac muscle. (e) None of the above.

34- The arteries which supply the heart arise from:

- (a) External carotid artery (b) Internal carotid artery
- (c) Aortic arch (d) Ascending thoracic aorta.
- (e) None of the above.

35- The hilum of the lung transmits all of the following except:

- (a) Main bronchus. (b) Pulmonary artery. (c) Trachea.
- (d) Pulmonary vein. (e) None of the above.

36- The right lung is divided into

- (a) Two lobes by one incomplete fissure.
- (b) Three lobes by two incomplete fissures.
- (c) Two lobes by one complete fissure.
- (d) Three lobes by two complete fissures.
- (e) None of the above

37 - All of the following are single cartilages of the larynx except:

- (a) Thyroid. (b) Arytenoid. (c) Epiglottis. (d) Cricoid.

38- Sensory area is present in the:

- (a) Occipital lobe. (b) Temporal lobe
- (c) Parietal lobe. (d) Frontal lobe

39- The sub arachnoid space is between:

- (a) pia mater & brain substance. (b) Pia & arachnoid
- (c) Arachnoid & dura (d) dura & periosteum.

40- All of the following are parts of the diencephalons except:

- (a) Thalamus (b) 3rd ventricle (c) metathalamus.
- (d) Hypothalamus. (e) corpus callosum (f) subthalamus

41- The cerebral aqueduct cavity (duct of mid brain) connects.

- (a) The lateral ventricle with the 3rd ventricle.
- (b) The lateral ventricle with the 4th ventricle.
- (c) The 3rd ventricle with the subarachnoid space.
- (d) The 3rd ventricle with the fourth ventricle
- (e) None of the above.

42- The connects the cerebrum with pons.

- (a) Brain stem. (b) Medulla oblongata. (c) Midbrain.
(d) Cerebral peduncle (e) 4th ventricle

43- The cranial part of parasympathetic system is present in:

- (a) 3, 4,5 &7 cranial nerves. (b) 3,5,7,9 cranial nerves.
(c) 3,7,9 &10 cranial nerves. (d) 3, 5, 7&12 cranial nerves.

44- The median part which connects the two cerebellar hemispheres is called.

- (a) Vermis (b) dentate (c) peduncle
(d) All of the above (e) None of the above.

45- The peripheral nervous system is formed of.

- (a) Cranial nerves (b) sympathetic nervous system
(c) Spinal nerves (d) parasympathetic nervous system
(e) All of the above

II- Match (all are 10 degrees):

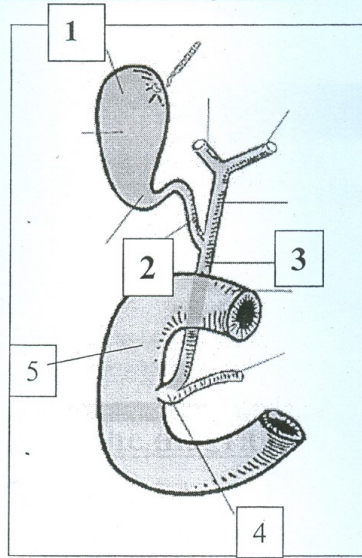
A) Match each organ from column (A) with its suitable length in column (B)

Column (A)	Column (B)
a. Seminifrous tubules	1. 4 centimeters
b. Vas deferens.	2. 10 inches
c. Female urethra	3. 2 Feet
d. Trachea	4. 45 centimeters
e. Duodenum	5. 10 centimeters

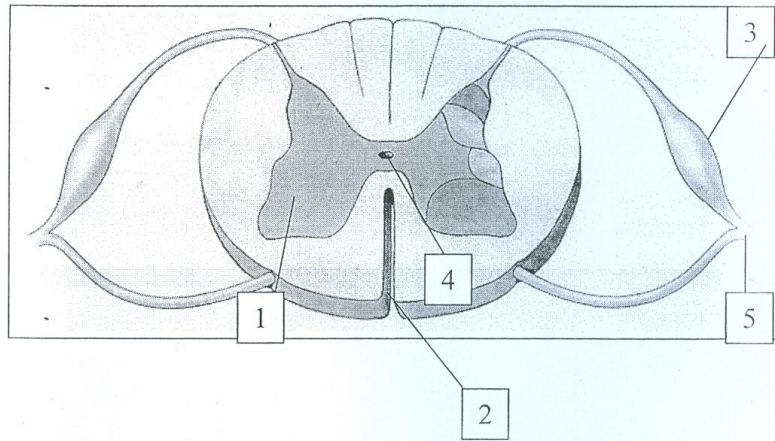
B) Match each cranial nerve from column (A) with its suitable function in column (B)

Column (A)	Column (B)
a. Oculomotor (3 rd cranial) nerve	1. Parasympathetic to the heart.
b. Facial (7 th cranial) nerve	2. Parasympathetic to parotid gland.
c. Trigeminal (5 th cranial) nerve	3. Constricts the pupil
d. Vagus (10 th cranial) nerve.	4. Motor to muscles of mastication.
e. Glossopharyngeal (9 th cranial) nerve	5. taste sensation from anterior 2/3 rd of the tongue

III-Label the diagrams(All are 10 degrees):



- 1-----
2-----
3-----
4-----
5-----



- 1----- 2-----
3----- 4-----
5-----

انتهت الأسئلة

Final Examination
In
Medical Physiology for Third Semester Clinical Pharmacy Students
(مقرر مطروح)

	Mark
I) <u>Blood:</u>	
1- Enumerate functions of reticuloendothelial system.	2
2- Explain the role of blood platelets in hemostasis as one of their function.	2
3- Enumerate three functions of the membrane of red blood cells.	2
4- Mention concentration, type,s and four functions of plasma proteins.	3
II) <u>Cardiovascular system:</u>	
1- Briefly discuss humeral regulation of heart rate.	3
2- Define rhythmicity and mention effect of temperature, nervous factors, and drugs on rhythmicit.	3
3- Define the following:	2
a- Mary's law.	
b- Stroke volume.	
4- Describe restoration of plasma proteins and red blood cells as delayed compensatory reactions to hemorrhag.	3
III) <u>Respiration:</u>	
1- Define intrapleural pressure and mention its importance.	3
2- What is the definition and significance of vital capacity?	2
3- Define hypoxia, enumerate its types and mention 2 causes of each.	3
IV) <u>Central nervous system:</u>	
1- Mention functions of spinal cord.	3
2- Write true for the correct and false for the wrong statement:	2
a- Anterior and posterior nuclei of hypo thalamus regulate body temperature during exposure to hot and cold weather.	
b- Medulla oblongata contains cardiac, respiratory and, vasomotor centers.	
V) <u>Endocrinology:</u>	
1- Mention site of secretion and functions of cortisol.	4
2- Describe how oxytocin secretion is controlled and mention its functions.	4
3- In the following statements write true or false:	2
a- Adrenocorticotrophic hormone (ACTH) controls secretion of glucocorticoids.	
b- Posterior pituitary gland secretes antidiuretic hormone and oxytocin.	

VI) <u>Autonomic nervous system:</u>	Mark
1- Mention acetyl choline blockers.	4
2- Enumerate parasympathomimetic drugs.	4
VII) <u>Digestive system:</u>	4
1- Mention functions of HCL.	
2- Describe mechanism of pancreatic secretion.	4
VIII) <u>Kidney:</u>	
1- What is the endocrine function of the kidney?	3
2- Mention functions of vasa recta.	3

Good luck

Professor Ibtisam Elmileegy & Dr Salwa wasfy

Assiut University
Faculty of Pharmacy
Dept. of Pharm. Organic Chem.

Clinical Pharmacy
Pharm. Organic Chem.-3
Jan., 21, 2012
الامتحان مكون من ٧ صفحات

Time allowed 2h

Illustrate your answers with chemical equations whenever possible

الامتحانات الشفهية عقب الامتحان النظرى مباشرة لجميع الطلبة

Answers should be in the specified places

المشاركون فى الامتحان النظرى

Prof. Dr. Abdel Hamid N. Kafafy
Dr. Ola I. Salim

Heterocyclic chemistry (25 points)

I- Underline the correct answer

- 1- The IUPAC chemical nomenclature of pyrazine is:
a) 1,4-diazine b) 1,2-diazine c) 1,3-diazine
- 2- Oxidation of β -picoline yield:
a) picolinic acid b) Nicotinic acid c) Isonicotinic acid
- 3- The preferred position (s) for electrophilic aromatic substitution reaction of pyridine are:
a) α and γ positions b) only α position c) β position
- 4- Pyridones are considered as electron source (as phenoxide anion of phenol) so the ring of pyridine becomes
a) Activated towards E_{Ar} Sub. Reaction
b) Non activated towards E_{Ar} Sub. Reaction
c) Activated towards Nu_{Ar} Sub. Reaction
- 5- Oxidation of quinoline using $KMnO_4/H^+$ produce:
a) Pyridine 2,3-dicarboxylic acid
b) Pyridine 3,4-dicarboxylic acid
c) picolinic acid
- 6- The high reactivity of pyrrole and furan towards electrophilic aromatic substitution reaction resemble:
a) Nitrobenzene b) Phenol c) Both a & b
- 7- Pyrrole could be nitrated using:
a) Conc. HNO_3/H_2SO_4 b) Non acidic nitrating agent as
c) Conc. / H_2SO_4
- 8- The non acidic sulphonating agent used for sulphonation of furan is:
a) Conc. / H_2SO_4 b) Fuming / H_2SO_4 c) SO_3 / pyridine
- 9- Pyridine-N-oxide is
a) More reactive towards E_{Ar} Sub. Reaction
b) Less reactive towards E_{Ar} Sub. Reaction

- c) Equal reactivity to pyridine
- 10- The reactivity of pyridine-N-oxide is attributed to
 a) Diverse +M,-M effect only b) +M effect c) -M effect
- 11- EArS reaction of imidazole provides a tautomer of:
 a) 4 & 5 substituted derivatives b) only 4-derivative c) only 5-derivative
- 12- The IUPAC nomenclature of cinnoline is;
 a) benzo (c) pyridazine b) benzo (b) pyrazin c) benzo (b) pyrrol
- 13- The IUPAC nomenclature of indole is;
 a) benzo (b) pyrrole b) benzo (a) pyrrole c) benzo (c) pyridine
- 14- An example of activated SNR of good leaving group is:
 a) 4-chloropyridine b) 3-chloropyridine c) 1-chloropyridine
- 15- The non activated SN mechanisms occur at p-position of pyridine are:
 a) pyridyne intermediate (Elimination-addition reaction) b) pyridyne intermediate
 b) (Addition-elimination reaction) c) both a & b
- 16- The preferred position (s) for EArS reactions of indole occurs at:
 a) 2-position b) 3-position c) 5-position
- 17- Knorr pyrrole synthesis a method of a wide application for preparation of:
 a) pyridine b) furan c) pyrrole
- 18- The trade name (indocid) its chemical name is:
 a) 1-(p-Chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid
 b) 1-(p-Chlorobenzoyl)-2-methoxy-5-methylindole-3-acetic acid
 c) 1-(p-Chlorobenzyl)-5-methoxy-2-methylindole-3-acetic acid
- 19- EArS reaction of pyrimidine ($\text{HNO}_3/\text{H}_2\text{SO}_4$) produces:
 a) 3-nitropyrimidine b) 2-nitropyrimidine c) no reaction
- 20- EAr^S reaction of uracil occurs at:
 a) 5-position of pyrimidine b) 6-position of pyrimidine c) 2-position of pyrimidine
- 21- Oxidation of isoquinoline using KMnO_4/H^+ produce:

a) Pyridine 2,3-dicarboxylic acid b) Pyridine 3,4-dicarboxylic acid

b) Picolinic acid

22- The IUPAC nomenclature of quinoline is;

a) benzo (a) pyridine b) benzo (b) pyridine c) benzo (c) pyridine

23- The IUPAC nomenclature of isonicotinic acid is;

a) pyridine-2-carboxylic acid b) pyridine-3-carboxylic acid c) pyridine-4-carboxylic acid

24- The chemical structure of pyridoxine (vit. B6) contains;

a) pyrrole nucleus b) pyrimidine nucleus c) pyridine nucleus

25- Explain the E_{Ar}^S reaction of questions 19 and 20.

Section B (25 points, 1 h)

I- State Huckel's rule then give examples for aromatic ions.

(5 points)

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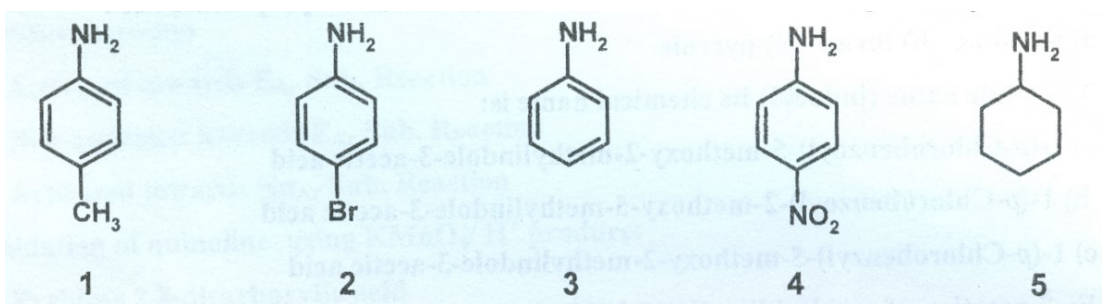
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II- Arrange the following compounds in order of increasing basicity:



(2

points)

.....
 → → increasing basicity

III- Propose a synthesis for each of the following compounds, from the given starting material and any other needed reagents: (5 points)

1) *m*-Bromobenzoic acid from toluene.

2) Naphthalene from benzene (through Haworth reaction)

IV- Using equations only, write on:

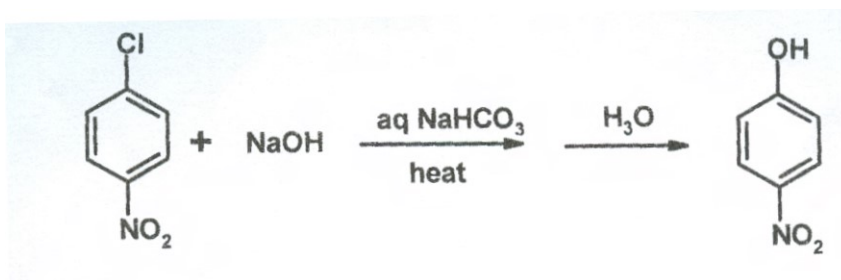
(9 points)

a) Kolbe reaction

b)Cannizaro reaction for benzaldehyde

c)Sandmeyer reaction (one example)

V- Define then draw a mechanism for the following reaction:
(4 points)



Define the mechanism:

Mechanism:

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Good Luck

STATISTICS & COMPLEXOMETRY:

(5 degrees)

Mark() on the most proper "one" statement for each of the following:

1. Precision is:

- a- The concordance (agreement) of a result with the true value.
- b- The concordance (agreement) of a series of results with each others.
- c- A good correlation between response (like absorbance) and concentration of the analyte.
- d- Not considered to be among the analytical method's validation parameters.

2. Coefficient of variation (C.V.) is:

- a- The difference between highest concentration value and the lowest one.
- b- The concordance (agreement) of a series of results with each others. _
- c- Defined as standard deviation (S.D.) relative to the mean value ($\bar{X}$) and represented as percentage (%).
- d- Calculated as the square of the standard deviation (S.D.).

3. Among a series of replicate amounts, the "outlier" is rejected when:

- a- It is due to "indeterminable error".
- b- It is close to the mean value of the replicates.
- c- The calculated Q- value is higher than the tabulated one.
- d- The calculated Q- value is lower than the tabulated one.

4. "Good Linearity" between response (like absorbance) and concentration of the analyte is obtained when the correlation coefficient (r) is equal to:

- a- zero.
- b- ± 1.0
- c- ± 0.8
- d- All are correct.

5. Ruggedness as a " validation parameter" of the analytical method is:

- b- the capacity of the method to remain unaffected by small variations in method parameters.
- c- The degree of reproducibility of test results obtained by the analytical method.
- d- The ability of the method to determine very small amounts of the analyte.
- e- The ability of the method to determine one analyte present in interfering mixture.

6. Errors on the analysis of pharmaceutical preparations due to interference from additives (like tablet excipients) can be determined by:

- a- "Internal standard method".
- b- "Standard addition method".
- c- Running a "blank" or a "control" analysis.
- d- "Calibration" of the used apparatus.

7- Stability of M-EDTA chelate is:

- a-increased by the decrease in pH value.
- b-increased by the presence of other complexing agent(s).
- c-independent on the metal type.
- d-all are not correct

- a- Chelation has no effect on stability of the complexes.
- b- The chelate formed by multidendate ligand is less stable than that formed by the analogous monodentate ligand.
- c- The chelate formed by multidendate ligand is more stable than that formed by the analogous monodentate ligand.
- d- All are incorrect.

- a- occurs when the M-EDTA chelate is less stable than the M-Indicator one.
- b- can be overcome by applying the back titration type of EDTA titration.
- c- an example is blocking of Erio T indicator by Al^{3+} .
- d- all are correct.

- a- Hg^{2+} is treated with sufficient amount of Mg-EDTA chelate.
- b- Mg^{2+} is treated with sufficient amount of Hg-EDT A chelate.
- c- Many anions (like SO_4^{2-}) can be determined indirectly.
- d- This type is based on the titration of the liberated acid upon EDTA chelation.

- Zn & Mg ions are masked by KCN reagent.
- $[\text{Zn}(\text{CN})_4]^{2-}$ complex is selectively demasked by HCHO and HAC.
- The total metals are determined by the direct titration type of EDTA.
- Masking and demasking methods decreases EDTA selectivity.

- b- It is an example of titrations involving unidentate ligands.
- c- Cu-ammine complex is more stable than Cu-cyanide complex.
- d- The end point is the appearance of blue colour.
- e- Erio T can be used as the indicator.

- the end point is the disappearance of red coloured precipitate.
- HgI_4^{2-} complex is a stable colourless complex formed during the titration process.
- Xylenol orange is used as a metalochromic indicator.
- The titration is performed in highly alkaline medium.

a- it explains the mechanism of inactivation of some microorganisms.
b- One Fe^{3+} will react with 1,2 or 3 of 8-hydroxyquinoline molecules.
c- Coordination number of Fe^{3+} is 6 ; and 8-hydroxyquinoline is a bidentate ligand.
d- all are correct.

- a- Ca hardness is determined at pH = 3; using meruxide indicator.
- b- Ca is masked by precipitation at pH 12.
- c- Total hardness is determined by direct EDTA titration using NH_3 -Buffer and Erio T indicator.
- d- All are correct.

By: Prof. Dr. Ibrahim Ho Refaat; & Dr. Hanaa M. Abdel-Wadood.

تأكد من أن الإمتحان مكون من ٨ صفحات أى ٤ ورقات

STATISTICS & COMPLEXOMETRY: (22.5 marks)

I. Statistics:

A- Define: "determinate error" and mention some methods to minimize it. (1.5 marks)

B- In a titrimetric analysis, the following volumes were obtained:

10.1, 9.8, 10.2, 10.0, and 9.9 ml. (3x1.5=4.5 marks)

1- Calculate the "relative standard deviation (RSD)" of these volumes.

2- Calculate the "accuracy" of this analysis, if the true value is 9.9 ml

3- If an additional titration point takes 10.5 ml; should it be rejected or be retained?

Rejection quotient, Q, at 95% confidence level.

No. of Observations	3	4	5	6	7	8
Q ₉₅	0.970	0.829	0.710	0.625	0.568	0.526

C- Differentiate by definition between each of the following pairs of statistical terms characterizing analytical methods (3x1=3 marks)

1- Accuracy and precision

2- Ruggedness and Robustness

3- Selectivity and sensitivity

II. Complexometry:

A- Define: "chelate effect"; illustrate by an example

(2 marks)

S- Illustrate by drawing only:

(4 marks)

1- Factors affecting shape of EDTA-titration curves.

2- Structure of Ca-EDTA chelate

C- Write the (chemical) equations indicating the following *(5x1.5= 7.5 marks)*

1- Displacement EDTA titration of Hg^{2+} .

2- Masking and selective demasking of Zn^{2+} .

3- Cyanometric determination of Cu^{2+}

4- Oxine chelation of Fe^{3+} .

5- Relation between Apparent stability constant (K_{HZ}) and Stability constant (K) of M-EDTA chelates

II-Redox Dr: Hanaa Mohammed Abdel-Wadood (Mark = 27.5)

1- Give the scientific terms for the following: (Mark = 5)

- a- The reaction between the oxidizing agent and KI to liberate I_2 .
- b- The tendency of the metal to dissolve to the metal cation.
- c- The arrangement of the metals according to their standard potentials.
- d- The effect of PO_4^{3-} on Fe^{3+} to decrease its standard potential.
- e- The reagent which used when Fe^{2+} is determined by $KMnO_4$ in the presences of Cl^- .
- f- The reaction between I^- and IO_3^- in strong HCl .
- g- A method for reduction of Fe^{3+} to Fe^{2+} using amalgamated Zn/H_2SO_4 .
- h- A type of reaction between phenol and bromine.
- i- A method used for determination of organically combined iodine e.g. chinifon and diiodohydroxyquine.
- j- An equation which gives the relation between the electrode potential and the molar concentration of the metal ion

2- Complete and balance the following equations: (Mark = 5)



3- Choose the correct statement (Mark = 5)

a- The following compound can be determined by direct titration with iodine:

- i- Sulfide ii- Thiosulphate iii- Sulfite iv- Sulfate.

b- The addition of Zn^{2+} on the standard potential of Ferricyanide/Ferrocyanide is:

- i- Common ion effect ii- Hydrogen ion concentration effect.
iii- Complexing agent effect iv- Precipitating agent effect.

c- The equivalent weight of KMnO_4 in strong alkaline medium equals to molecular weight divided by:

- i- One ii- Two iii- Four iv- Five.

d- The following compounds can be determined bromometrically except:

- i- Phenol ii- Methylsalicylate iii- Serotonin iv- Picric acid.

e- The most strong oxidizing form of iodine is :

- i- Iodide ii- Iodine iii- Iodate iv- Hypoiodite.

f- Starch is not suitable as indicator for iodine involving reactions in presences of alcohol because:

- i- Hydrolysis ii- Prevent adsorption iii- Complexation iv- Precipitation.

g- $\text{Ce}(\text{SO}_4)_2$ can be used only in :

- i- Neutral solution ii- Acidic solution iii- Alkaline solution iv- All of the above.

h- Among the requirements of a substance to be an internal indicator:

- i- Its standard potential is between that of the sample and the standard.
ii- It explains sharp color change for the oxidized form than that of the reduced one.
iii- Both i-and ii.
iv- Non of the above.

i- Betadine is:

- i- A complex of iodine with nonionic surfactant polymer polyvinylpyrrolidine.
ii- A complex of iodine with ionic surfactant polymer polyvinylpyrrolidine.
iii- A complex of iodine with cationic surfactant polymer polyvinylpyrrolidine.
iv- A complex of iodine with inorganic salt.

j- Ferrous ion can be determined by:

- i- Standard KMnO_4 ii- Standard $\text{K}_2\text{Cr}_2\text{O}_7$
iii- Standard $\text{Ce}(\text{SO}_4)_2$ iv- All of the above.

k- The following compound can be determined iodometrically:

- i- Dimercaprol (PAL) ii- Thioglycollic acid iii- Vitamin C iv- Chloramine T.

4- Put the sign right (✓) or wrong (X) on the front of the following statements and correct the wrong one (Mark = 5)

- a- Organic compounds be oxidized in strong alkaline medium to CO_2 .
- b- Diphenylamine is a suitable indicator for determination of Fe^{2+} with $\text{K}_2\text{Cr}_2\text{O}_7$.
- c- Arsenite (AsO_3^{3-}) can be determined by direct titration with standard I_2 using irreversible indicator.
- d- Nitrite (NO_2^-) can be determined by direct titration with standard KMnO_4 .
- e- Starch is a suitable indicator for determination of iodide (I^-) with standard iodate (IO_3^-) in strong HCl .
- f- Normal hydrogen electrode has a standard potential equals to zero at any temperature.
- g- Hydrogen peroxide (H_2O_2) can react as oxidizing or reducing agent according to the corresponding substance reacts with it.
- h- Sodium bicarbonate is added in the preparation of $\text{Na}_2\text{S}_2\text{O}_3$ to increase its solubility.
- i- Potassium ferricyanide is used as internal indicator in the determination of Fe^{2+} with standard $\text{K}_2\text{Cr}_2\text{O}_7$.
- j- Bromine solution is prepared by dissolving Br_2 gas in water.

5- Give the reason(s) for the following: (Mark = 5)

- a- Addition of KI in the preparation of I_2 .
- b- Zinc metal (Zn) can displace copper from its salt solution.
- c- Cu^{2+} ion can oxidize I^- ion although the $E^\circ_{I_2/I^-}$ is larger than $E^\circ_{Cu^{2+}/Cu^+}$.
- d- Addition of $CHClO_3$ in the determination of phenol bromometrically.
- e- Addition of NaOH in the determination of glucose with standard iodine.

6- By equations, illustrate how you can analyze a mixture of iodine I_2 and iodide (I^-), mention, the methods, standard(s), indicator(s) and any conditions required. (Mark = 2.5)



Student Name:

Student No.....

I- Complete the following statements: (10 x 0.5 = 5 mark)

- 1- is specific test for Ergot alkaloids.
- 2-..... is a swollen underground stem covered with brown scaly leaves and shows nodes and internodes.
- 3- For treatment of gout is advised.
- 4- The pungent taste of Ginger is due to and can be destroyed by
- 5- Star spot is an abnormal structure present in
- 6- Adenosine is
- 7- Peppermint used with anthraquinones containing drugs in laxative tea to
- 8- The diagnostic element for *Datura* herb is and its specific chemical test is

11- State whether the following statements are true or false: (10 x 0.5 = 5 mark)

- 1- Narcotic resin of *Cannabis* herb secreted by schizogenous duct ()
- 2- The term herb describes a drug that is composed of the tender parts of plant axis without leaves, flowers and fruit ()
- 3- The antihepatotoxic action of *Curcuma* due to curcuminoids ()
- 4- Atropine used for treatment of glaucoma ()
- 5- Valerian rhizome has potent sedative action used in nervous diseases ()
- 6- *Garlic* can be used safely with aspirin. ()
- 7-Etoposide is a naturally occurring compound used in the treatment of lung cancer and testicular cancer ()
- 8- One of the side effects of anthraquinones is *Pseudomelanosis coli* (PMC). ()
- 9- *Vinca* herb contains bitter principles vincristine and vinblastine which are used as potent anticancer ()
- 10- *Half bar* used for treatment of renal colic ()

Good luck

Examiner Dr/ *Sabrin R. M. Ibrahim*



Assiut university

Faculty of Medicine

Time: one hour

Date: 20/1/2009

**Anatomy Examination For
clinical Pharmaceutical student
the 3 rd Semester- January 2009**

Answer The Following Questions:-

- 1- Give an account on anatomy of cranial nerves.
(25 Marks)
- 2- Illustrate with diagram types of joints with an example of each type.
(20 Marks)
- 3- Illustrate with diagram anatomy of extrahepatic biliary passages.
(20 Marks)

Good Luck



Assiut University
Faculty of Medicine

Department of
Medical physiology

Final Examination
In
"Medical Physiology"

Third Semester
Clinical Pharmacy Students

14 January 2009
Time Allowed: 3 hours

Mention: (marks)

- (1) The Functions of Mineralocorticoid (Aldosterone)(4 marks)
- (2) Three functions of testosterone.....(3 marks)
- (3) The functions of gall bladder(3 marks)
- (4) FOUR factors affecting venous return to the heart?(4marks)
- (5) Mention the sites of central and peripheral cholinergic receptors ?.....(4 marks)

Briefly discuss:

- (5) 4 functions of proximal convoluted tubules(4marks)
- (6) Role of kidney in regulation of water balance(4marks)
- (7) The Functions of the spleen(6marks)
- (8) The Functions of plasma proteins(6marks)
- (9) Discuss SHORT TERM mechanisms regulate the arterial blood pressure?(4marks)
- (10) Define HYPOXIA and mention the causes of HYPOXIC HYPOXIA? (4marks)
- (11) Enumerate the functions of conducting zone of respiratory passages? (5marks)
- (12) Three functions of gastric HCl(3 marks)

Right the correct answer from the following question in the answer sheet:

(13) **All the Following increase the cardiac contractility EXCEPT:** (1marks}

- (a) Increase in the heart rate.
- (b) Increase in the initial length of resting cardiac muscle.
- (c) Increase in H^+ concentration.
- (d) Increase in Ca^{++} concentration.

(14) **Mary's Law states that:**

(1 marks)

- (a) Heart rate and blood pressure have a direct relationship.
- (b) Heart rate and Blood pressure have a reciprocal relationship.
- (c) Blood pressure determines glomerular filtration rate.
- (d) Heart rate and the blood pressure are unrelated.

Continue→

(15) The sinoatrial node is normally the pacemaker of the heart because: (1 marks)

- (a) It is located in the right atrium.
- (b) Of its rate of impulse generation.
- (c) Of its neural control.
- (d) Of its proximity to AV node.

(16) In the heart:

(1 marks)

- (a) Contraction begins normally in the right atrium.
- (b) Excitation process cannot spread directly from atria to ventricles.
- (c) Ventricle shortens from base to apex in order to reduce its diameter.
- (d) All the above.

(17) The autonomic nervous system differs from the somatic nervous system in:

(1 marks)

- (a) Having one efferent neuron.
- (b) Preganglionic neurons are located in the anterior horn of the spinal cord.
- (c) Efferent nerves have preganglionic and postganglionic nerve fibers.
- (d) Post ganglionic neurons are located in the dorsal horn cells of spinal cord.

(18) Which of the following effects may be produced by sympathetic stimulation?

(1 marks)

- (a) Increased gastric secretion.
- (b) Pupilloconstriction.
- (c) Relaxation of gastrointestinal wall.
- (d) Contraction of plain muscles in the wall of urinary bladder.

(19) Stimulation of the pelvic nerve produced:

(1marks)

- (a) Relaxation of the wall of rectum and contraction of the internal anal sphincter.
- (b) Vasoconstriction of the blood vessels of the penis causing erection.
- (c) Contraction of the urinary bladder wall and relaxation of internal urethral sphincter.
- (d) Relation of external urethral sphincter.

(20) Regarding the following statements write (T) if true and (F) if wrong.(4marks).

- (a) Interstitial fluid is similar to plasma except its higher content of protein.
- (b) The main cation in extracellular fluid is Na^+ and the main anion is HPO_3 .
- (c) The main cation in intracellular fluid is K^+ and the main anion is HPO_3 .
- (d) The average body water is lesser in adult males than in adult females.

Mahmoud R Fadeil & Salwa M Aeleem

**MEDICAL TERMINOLOGY EXAMINATION
FOR
SECOND YEAR STUDENTS
(January 2009)**

ALL QUESTIONS ARE TO BE ATTEMPTED

TIME ALLOWED 2 HOURS

**I. FIL IN THE SPACE IN THE FOLLOWING SENTENCES WITH THE MOST
APPROPRIATE WORD(S):** **(10 MARKS)**

1. The is the physician who treats diseases of the urinary system.
2. Osteoarthritis means
3. Inflammation of the tongue is called
4. The root in the term "cholecystitis" is
5. Fats are also called or
6. A cell that helps blood to clot is calledor.....
7. Another word for dyspepsia is
8. The prefix in the term "Oocyte" is
9. The term "Aphasia" means
10. A drug that decrease an elevated body temperature is called

**II. IN THE RIGHT BOX WRITE DOWN THE OPPOSITE (ANTONYM) OF THE
FOLLOWING TERMS:** **(10 MARKS)**

TERM	OPPOSITE (<u>ANTONYM</u>)
1.Amenorrhea	
2. Andro ⁻	
3. Endo ⁻	
4. Eupnoea	
5. Geriatric	
6. Infertile	
7. Leuck/O ⁻	
8. Oligouria ⁻	
9. Proximal	
10. Supine	

III. DEFINE THE FOLLOWING TERMS: (10 MSRKS)

1. Dyskinesia
2. Pericarditis
3. Infarction
4. Hematemesis
5. Lymphopoiesis
6. Ankylosis
7. Hyperhydrosis
8. Hemorrhoids
9. Pancytopenia
10. Dysphoria.

iv. IN THE RIGHT BOX WRITE DOWN THE PLURAL OF THE FOLLOWING TERMS: (10 MARKS)

TERM (singular)	TERM (Plural)
1. Diagnosis	
2. Fish	
3. Fungus	
4. Ganglion	
5. Index	
6. Lumen	
7. Ovum	
8. Pharmacokinetics	
9. Uterus	
10. Vertebra	

v. IN THE RIGHT BOX WRITE DOWN THE CORRECT TERM IN EACH SENTENCE: (10 MARKS)

1) Mr. Magdi had bloody cough and his doctor sent him to the (radiology/hematology/pathology) department to do an X-ray	
2) Mr. Magdi lost much blood because of his cough and developed (leukocytosis/hematuria/ anemia)	
3) Mr. Magdi had also some chest pain during morning walks and set an appointmet with a (neurologist/ nephrologists/ cardiologist)	
4) Mr. Magdi blood pressure was 120/80 mm/Hg and thus was considered as (hypertensive/ hypotensive/ normotensive)	
5) However, His blood potassium level was very high and was told that he had (hypokalemia/ hypercalcemia/ hyperkalemia)	
6) Mr. Magdi was considerd to have (glucosuria/ hematuria/ ployuria) as he complained of urinating much more often	
7) The urine analysis of Mr. Magdi showed some pus cells in the urine and was thought to have (uritis/ cystitis/urinaritis)	
8) Mr. Magdi was recommended to take a (an) spasmolytic/ antibiotic/ analgesic) to treat his infection	
9)His blood analysis showed also an increased glucose level and was told to have (euglycemia/ hyperglycemia/ hypoglycemia)	
10) He was thus advised to see a (an) (dermatologist/ endocrinologist/ pathologist) to check his condition	

iv. IN THE RIGHT BOX WRITE DOWN THE REPORT MEDICAL TERM (PREFIX/ROOT OR SUFFIX) FOR THE FOLLOWING TERMS:
(10 MARKS)

1.After	
2. Against	
3. Away from	
4. Blue	
5. Expansion, widening	
6. Killing	
7. Large	
8. Middle	
9. Pain	
10. Slow	



كلية التربية
قسم علم النفس

الزمن: ساعتان
الفرقة: (برنامج الصيدلة الإكلينيكية)

امتحان مادة علم النفس للمستوى الثالث الفصل الدراسي الأول يناير ٢٠٠٩

عزيزي الطالب:

- * تأكد أن عدد صفحات كراسة الإجابة ٨ صفحات.
- * يتكون الامتحان من أربعة أقسام عليك أن تجيب عليها جميعا بعد أن تفكر جيدا.
- * أجب على أسئلة القسم الأول والثاني في مفتاح الإجابة بالصفحة رقم (١).

مفتاح إجابة القسم الأول

العبارة	الاستجابة	العبارة	الاستجابة	العبارة	الاستجابة
١		٦		١١	
٢		٧		١٢	
٣		٨		١٣	
٤		٩		١٤	
٥		١٠		١٥	

مفتاح إجابة القسم الثاني

العبارة	أ	ب	ج	د	الاستجابة
١					
٢					
٣					
٤					
٥					
٦					
٧					
٨					
٩					
١٠					

القسم الأول: ضع علامة (√) أمام العبارة الصحيحة وعلامة (×) أمام العبارة الخاطئة فيما يلي: (١٥ درجة)

م	العبارة	الاستجابة
١	التذكر عملية عقلية تعنى إدراك العلاقات القائمة من أجل حل المشكلات.	()
٢	الشخص ذو عتبة الإحباط المرتفعة يشعر بالإحباط بسرعة فى مواقف كثيرة.	()
٣	تخضع السمات النفسية للفرد للملاحظة والقياس الكمي المباشر.	()
٤	يدرك الأفراد نفس المثيرات التي يتعرضون اليها بطرق متشابهة.	()
٥	تعد الإشارات وسيلة مهمة من وسائل التفكير لدى الأفراد.	()
٦	يمكن استخدام اسنراتيحية التفكير الناقد فى تنمية الذكاء الموسيقي للأفراد.	()
٧	الاعتماد النفسى لدى المدمن يؤدى الى رغبة قهرية شديدة فى البحث عن المخدر وتناوله.	()
٨	لا يعد الشعور بالإحباط مسألة نسبية.	()
٩	يهتم علم النفس الفسيولوجى بدراسة الأمراض العقلية والنفسية لدى الأفراد.	()
١٠	يعتمد منهج الاستبطان على ملاحظة سلوك الأفراد.	()
١١	تفسر النظرية السلوكية الإدمان على أنه وسيلة لإشباع حاجات طفلية لا شعورية.	()
١٢	تجيب نظرية الذكاءات المتعددة علالتساؤل هل الشخص ذكى أم لا.	()
١٣	تعرض الفرد منذ الصغر لمواقف الإحباط يساعده على النمو النفسى السليم.	()
١٤	يمكن التحكم فى سلوكيات الأفراد اللاحقة.	()
١٥	تعتبر عملية استدعاء المعلومات أسهل من عملية التعرف عليها.	()

القسم الثانى: اختر الإجابة الصحيحة من البدائل التى تلى كل عبار فيما يلى: (٢٠ درجة)

- ١- سهولة تذكر الخبرات التى لها تأثير شديد فى النفس يقصد به عامل
أ- الحداثة ب- الشدة ج- الأولوية د- الملابسات
- ٢- من الحيل اللاشعورية
أ- الكذب ب- الغيرة ج- الكبت د- الغضب
- ٣- من العوامل التى تعيق التفكير
أ- الدافعية ب- الإمكانيات المتاحة ج- التحيز والذاتية د- الخبرة السابقة
- ٤- عندما ينسب الانسان الى نفسه صفات وانجازات الآخرين لإشباع دوافع معينة فهذا يعد ...
أ- تبريرا ب- تقصما ج- كبتا د- إسقاطا
- ٥- يكون أداء الطلاب على الامتحان أفضل إذا جرى فى نفس المكان الذى تلقوا فيه دروسهم ، وهذا يفسره

قانون

أ- الشدة ب- الملابس ج- الأولوية د- الحداثة

٦- من استراتيجيات التدريس في ضوء الذكاء الطبيعي

أ- خرائط الجسم ب- الغناء والتلحين ج- الزيارات الخلوية د- كتابة المقالات

٧- من العوامل الذاتية التي تعيق التذكر

أ- مجرد الاسترجاع ب- مجرد الحفظ والتكرار ج- الخبرة السابقة د- مدى الانتباه

٨- عندما يحاول الطفل في سن أربع سنوات تقليد والده في الملبس فهذا يعد تفكيراً

أ- تصوريا وحديسيا ب- ملموسا وحاسيا ج- مجردا د- حسيا

٩- علاج المدمن من خلال تصحيح فكرته عن نفسه يعد علاجاً

أ- جماعيا ب- متركزا حول الشخص ج- سلوكيا د- أسريا

١٠- الطريقة التي يستخدمها لاعب الشطرنج في التغلب على منافسه تدل على انه يتسم بالذكاء

أ- الجسمي الحركي ب- المنطقي الرياضي ج- المكاني د- الشخصي

القسم الثالث: أكمل بإيجاز مكان النقاط بما تراه مناسباً (٣٠ درجة ثلاثة لكل مفردة)

١- يقصد بالذكاء الشخصي

.....

٢- من العوامل التي تؤثر على استجابة الشخص للإحباط:

(أ)

(ب)

(ج)

٣- يقصد بالصراع النفسي

.....

.....

٤- يقصد الحيل الدفاعية اللاشعورية

.....
.....

٥ - من أساليب التوافق السليم للتغلب على العوائق

- (أ)
(ب)
(ج)

٦ - من الاضرار النفسية التي تلحق مدمني المخدرات

- (أ)
(ب)
(ج)

٧ - من العوامل الذاتية التي تؤدي الى وجود فروق فردية في الإدراك

- (أ)
(ب)
(ج)

٨ - من العوامل التي تساعد في عملية التفكير

- (أ)
(ب)
(ج)

٩ - من خصائص الأفراد ذوي الذكاء المكاني.

- (أ)
(ب)
(ج)

١٠ - من عيوب منهج التأمل الباطني.

- (أ)
(ب)
(ج)

(٢٥ درجة)

القسم الرابع: وضع بإيجاز مايلي:

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Final examination

17th January 2010

2nd year Clinical Pharmacy Students

Time: 3 hours

Answer the following questions:

Marks

- | | |
|--|-----|
| 1- Give an account on humoral regulation of heart rate. | (4) |
| 2- Mention four causes of oedema. | (5) |
| 3- Mention four functions of the hypothalamus. | (5) |
| 4- Mention Hering Bruer reflexes. | (4) |
| 5- Mention functions of the vagus nerve. | (5) |
| 6- Mention site of formation and three functions of cortisol. | (4) |
| 7- Mention functions of the spleen. | (4) |
| 8- Define erythropiosis and mention three factors affecting it. | (4) |
| 9- Discuss distribution of extracellular fluid. | (3) |
| 10- Discuss mechanism of urine formation. | (4) |
| 11- Discuss mechanism of vomiting. | (3) |
| 12- Discuss digestion of proteins in different portions of gastrointestinal tract. | (5) |
-

Good Luck.

Section A (Statistics and Compexometry) (25.0 Marks)

A- In the provided table, write the scientific term for each of the following statements: (10.0 Marks)

No.	Scientific term	No.	Scientific term
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

- 1- Errors which can be avoided.
- 2- Errors which occur by accident or chance.
- 3- The agreement of a measurement with the true or most probable value.
- 4- Concordance of a series of measurements.
- 5- The arithmetic average of all measured values.
- 6- The standard deviation relative to the mean.
- 7 - The standard deviation relative to the mean expressed as %.
- 8- The measurement in the middle of the arranged measurements.
- 9- A test used to determine if an outlier is due to determinate or indeterminate error.
- 10- A diget which denotes the amount of quantity in the place in which it stands.
- 11- The maximum number of monodentate ligands that can be bound to the central atom.
- 12- Results from the formation of 5-membered "ring" with metal and two atoms on the ligand.
- 13- Aminopolycarboxylic acids (type of complexon).
- 14- A measure for the stability of the complex.
- 15- A compound whose color changes when binds to a metal ion.
- 16- The release of a metal ion from a masking agent.
- 17- Effective antidote for the treatment of poisoning by copper (Wilson's disease).

- 18- An antidote for the organic arsenical "lewisite."
 19-Used as antioxidant for the stabilization of drugs which rapidly deteriorate in the presence of trace metals.
 20-Act as antibacterial and antifungal agents by complexing with iron or copper.

B- Differentiate between each of the following pairs: (10 Marks)

No	Item	item
1	Repeatability	Reproducibility
2	Detection limit	Quantitation limit
3	Accuracy	Precision
4	Ruggedness	Robustness
5	Selectivity	Specificity

C- Give reason(s) for the following:

(5 Marks)

1- Al^{3+} when determined by EDTA, back (not direct) titration type should be applied.

2- Cadmium complex with ethylene diamine is stronger than that with methylamine.

3- The use of EDTA as antioxidant for stabilization of drugs.

4- The use of 8-hydroxyquinoline as antibacterial and antifungal agent.

Sectin B (Redox Titrations)

(25 Marks)

1- How can you analyze each of the following mixtures:

(3x2 = 6 Marks)

A- I_2/I^-

B- Fe^{3+}/Fe^{2+}

C- Glucose and sucrose

2- Mention the main differences between the following: (2x2= 4 Marks)

A- Iodometry and Iodimetry

B- Andrew's and Lang's methods.

3- Enumerate the factors affecting redox potential giving an example at least for each: (15 Marks)

Prof. Dr. G. A. Saleh

With our best wishes

Prof Dr. H. F. Askal



Assiut University

Faculty of Medicine

Department of Anatomy

Time, : one Hours

Date: 31/ 1/2010

**Anatomy Examination for
Clinical pharmaceutical Students
3rd tri smester January 2010**

- I- Illustrate with diagram anatomy of the heart and blood vessels attached to it.

- 2- Give an account on anatomy of the lower six cranial nerves.

- 3- Illustrate with diagram anatomy of extra hepatic biliary passages.

- 4-Mention types of joints with an example to each type.

Good Luck



كلية التربية
قسم علم النفس

الزمن: ساعتان
التاريخ: ٢٠١٠/٣/٥

امتحان مادة علم النفس (برنامج الصيدلة الإكلينيكية)
الفصل الدراسي الأول يناير ٢٠١٠

عزيزى الطالب (من فضلك):

- تأكد أن عدد صفحات كراسة الإجابة ٦ صفحات.
- يتكون الامتحان من أربعة أقسام عليك أن تجيب عليها جميعا.
- أجب على أسئلة القسم الأول والثانى فى مفتاح الإجابة بالصفحة رقم (١).

مفتاح إجابة القسم الأول

العبارة	الاستجابة	العبارة	الاستجابة	العبارة	الاستجابة	العبارة	الاستجابة
١		٦		١١		١٦	
٢		٧		١٢		١٧	
٣		٨		١٣		١٨	
٤		٩		١٤		١٩	
٥		١٠		١٥		٢٠	

مفتاح إجابة القسم الثانى

العبارة	الاستجابة		
	أ	ب	ج
١			
٢			
٣			
٤			
٥			
٦			
٧			
٨			
٩			
١٠			
١١			

القسم الأول: ضع علامة (✓) أمام العبارة الصحيحة وعلامة (x) أمام العبارة الخاطئة فيما يلى: (٢٠ درجة)

- أ- التقارير ب- الابتسامات ج- الملابس
- ٤- من أشكال الصراع التي تجد صعوبة في حلها بسبب شدة التناقض الوجداني
- أ- صراع إقدام – إقدام ب- صراع إقدام-احجام ج- صراع احجام- احجام
- ٥- الارتداد واللجوء لسلوك غير ناضج وصبياني يقصد به
- أ- الإسقاط ب- النكوص ج- التقمص
- ٦- العلم الذي يهتم بدراسة العلاقة بين الجهاز العصبي والسلوك
- أ- علم نفس الشواذ ب- علم النفس الفسيولوجي ج- علم النفس الإكلينيكي
- ٧- يقصد بالعملية التي تعكس رد فعل المستقبل واستجابة / عدم استجابة للرسالة
- أ- التغذية الراجعة ب- فك الرموز ج- الترميز والتشفير
- ٨- من الانتقادات التي واجهت منهج التأمل الباطني أنه
- أ- منهج قديم ب- يعتمد على السلوك الظاهري ج- يتسم بالذاتية.
- ٩- تقاس الذكاءات المتعددة لدى المتعلمين من خلال
- أ- الاختبارات التحصيلية ب- الأنشطة العملية ج- اختبارات الذكاء المقننة
- ١٠- أهم العوامل التي تحدد درجة إحباط الفرد وقدرته على التحمل
- أ- مستوى عتبة الإحباط ب- قوة العائق ج- شدة الرغبة في الهدف.
- ١١- من وجهة نظر بياجيه يتسم الأطفال بالتمركز حول الذات في مرحلة
- القسم الثالث: أكمل مكان النقاط بما تراه مناسباً: (٣٠ درجة – ثلاث درجات لكل جزئية)**
- ١- يقصد بالشخصية:
-
- ٢- من العوامل التي تؤثر على استجابة الشخص للإحباط:
- أ-
- ب-
- ج-
- ٣- من أساليب تنمية الذكاء اللغوي:
- أ-
- ب-
- ج-
- ٤- يعرف النمو على أنه

-
- ٥- من مبادئ عملية الاتصال
- أ-
- ب-
- ج-
- ٦- يقصد بالذكاء الشخصي
-
-
- ٧- من الأضرار النفسية التي تلحق مدمني المخدرات
- أ-
- ب-
- ج-
- ٨- من أهمية عملية الاتصال
- أ-
- ب-
- ج-
- ٩- من الأسس التي قامت عليها نظرية الذكاءات المتعددة.
- أ-
- ب-
- ج-
- ١٠- من أهداف علم النفس
- أ-
- ب-
- ج-
- القسم الرابع: وضح بالشرح وجهة نظرك فيما يلي: (١٨ درجة – ٦ درجات لكل جزئية)**
- ١- معوقات عملية الاتصال الجيد. (يكتفى بثلاثة فقط)
- ٢- دور كصيدلي في مواجهة مشكلة الإدمان. (يكتفى بثلاثة فقط)
- ٣- كيفية مواجهة الصراع والمحافظة على الصحة النفسية. (يكتفى بثلاث فقط)

Illustrate your answers with chemical equations whenever possible

الإمتحان مكون من خمس صفحات

Part I (25 points, 1 hour)

I- Write on the following: (9 points)

(a) Huckel's rule and give examples for aromatic species

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(b) Methoxy group is an ortho and para director in S_EAr reactions.

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(c) Kolb Reaction

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II- By equation only, show the following:

(9 points)

(a) Synthesis of Chloramine T.

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(b) Synthesis of naphthalene through Haworth reaction.

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c) Mechanism for bromination of benzene

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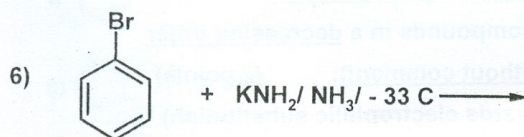
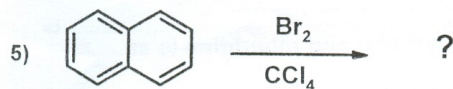
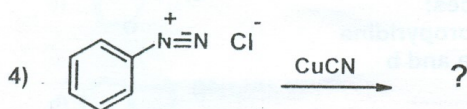
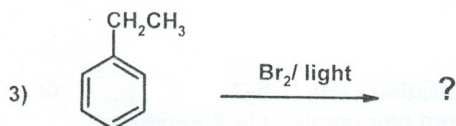
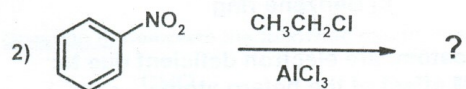
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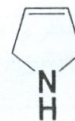
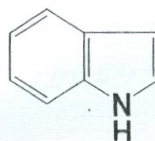
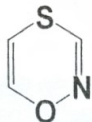
.....

III-Complete the following equations, using chemical structures. If no reaction occurs, write "no reaction": (7 points)



Part II (25 points)

Question 1: Give the IUPAC name for the following compounds: (2.5 points)



Question 2: Complete the following sentences or choose the correct answer: (10 points)

1- Reaction of pyrrol with acids gives:

- a) 2-hydroxypyrrole b) potassium pyrrolate c) polymerization products

- 2- Typical Diels-Alder reaction is characteristic for:
 a) Furan b) Pyrrole c) Thiophene
- 3- ES^{Ar} of 6-membered heterocyclic ring as pyridine is more favored at::
 a) α -positions C2 and C6 b) β -positions C3 and C5 c) Non of the above
- 4- Electrophilic attack in indole occurs at:
 a) α -positions C2 b) β -positions C3 c) Benzene ring
- 5- Six membered heterocycles with one heteroatom, are electron deficient due to:
 a) +M effect of the hetero atom b) - M effect of the hetero atom
 c) -I effect of the hetero atom d) Both band c
- 6- Pyrrole is less basic than pyridine due to:
 a) Hybridization state is Sp^2 b) Hybridization state is Sp^3
 c) None of the above d) Unshared pair involved in aromaticity
- 7- Riemer-Tiemann reaction on pyrrole produces:
 a) 2-pyrrole carbaldehyde b) 3-chloropyridine
 c) None of the above d) Both a and b
- 8- Indole undergoes electrophilic substitution more easily than benzene ().
- 9- Isoquinoline undergoes electrophilic substitution at while nucleophilic substitution occurs at
- 10-The decreased order of basicity of pyrrole, pyridine and piperidine is as follows:.....

Question 3: Arrange the following sets of compounds in a decreasing order according to the indicated property (without comment): (2 points)

- 1- Furan, pyridine, benzene (reactivity towards electrophilic substitution)

- 2- Benzoic acid, p-CH₃-benzoic acid, p-NO₂-benzoic acid, acetic acid (acidity)

Question 4 : Answer the following: (3.5 points)

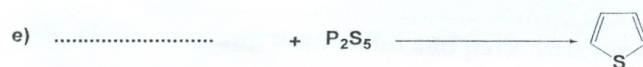
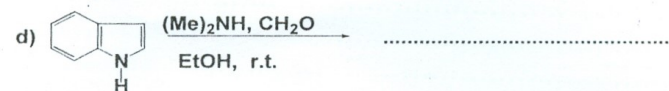
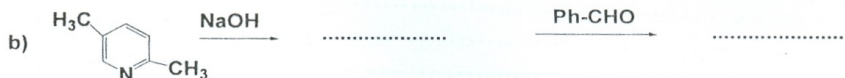
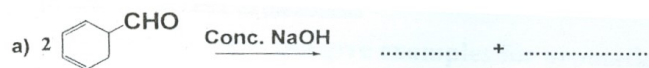
- 1) Perkin reaction

.....

3) Give the reaction name for quinoline synthesis:

.....

Question 5: complete the following reactions or complete the equations: (7 points)



Good Luck

الامتحان الشفهي بعد النظرى مباشرة
 مع دعواتنا بالتفويق والتفوق: د. سامية جلال أحمد ود. علا ابراهيم عبد الرازق



Assiut University
Faculty of Medicine

Department of
Medical Physiology

Final examination
2nd year Clinical Pharmacy Students

9th January 2011
Time: 3 hours

1) Blood: (7 marks)

a. In summary discuss intrinsic mechanism of blood coagulation. (7 marks)

2) Cardiovascular system: (12 marks)

a. **State** the hypothesis of Mary's law and its mechanism. (3 marks)

b. **Define** peripheral resistance and discuss its effect on arterial blood pressure.
(4 marks)

c. **Define** excitability of the cardiac muscle and discuss its phases. (5 marks)

3) Respiration: (8 marks)

a. **Give an account on** the physiological importance of surfactant. (4 marks)

b. **Define** hypoxic hypoxia and enumerate its causes. (4 marks)

4) Central nervous System: (5 marks)

a. Mention three functions of hypothalamus. (5 marks)

5) Endocrine glands: (10 marks)

a. **Enumerate functions** of parathormone on different organs. (5 marks)

b. **Discuss** actions of insulin on metabolism. (5 marks)

6) Digestive System: (8 marks)

a. **Discuss gastric phase** of gastric secretion. (3 marks)

b. **Discuss functions of small intestine hormones.** (5 marks)

7) Kidneys: (5 marks)

a. **Enumerate cause and site of release** of renin. (2 marks)

b. **Discuss** actions of atrial naturetic peptide on kidney. (3 marks)

8) Autonomic nervous System: (10 marks)

a. CD is a 44-year-old woman who had spent much of the day working in her garden. A blustery wind caused her to unintentionally **inhale the insecticide** that she was spraying throughout the garden. When she began **wheezing severely**, she was taken to the emergency room. The attending physician observed other symptoms including **constricted pupils** and a **slowed heart rate**. CD was treated with the intravenous administration of **atropine sulfate**. (5 marks)

1. Insecticides contain organophosphates which inhibit acetylcholinesterase. **What** is the function of acetylcholinesterase?
2. **Which types** of autonomic receptors are excessively stimulated as a result of this inhibition?
3. **Which division** of the ANS has been primarily affected the sympathetic or the parasympathetic?
4. **What effects** may the insecticide have on the gastrointestinal system? **Explain.**
5. **Why** is atropine an appropriate treatment?

b. **Enumerates** action of sympathetic nervous system of pelvis. (5 marks)

GOOD LUCK

PROFESSOR MANERVA KAMAL & OR ENAS A HAMED

Directions: Please fill in marks like this: ● Not like this: ○ ⊗

ANSWER SHEET

Subject: Final Exam of medical Terminology for clinical Pharmacy students" Class 3".

Date : 11 / 1 / 2011

Secret NUM.:

Hundreds: 0 1 2 3 4 5 6 7 8 9
Tens: 0 1 2 3 4 5 6 7 8 9
units: 0 1 2 3 4 5 6 7 8 9

تنبيه هام: على الطلاب الرجاء عدم كتابة أي اسم أو رقم أو علامة في هذا الجزء

- | | | |
|--------------------|------------|------------|
| 1 (A) (B) (C) (D) | 1 (T) (F) | 31 (T) (F) |
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| 18 (A) (B) (C) (D) | 18 (T) (F) | 48 (T) (F) |
| 19 (A) (B) (C) (D) | 19 (T) (F) | 49 (T) (F) |
| 20 (A) (B) (C) (D) | 20 (T) (F) | 50 (T) (F) |
| 21 (A) (B) (C) (D) | 21 (T) (F) | 51 (T) (F) |
| 22 (A) (B) (C) (D) | 22 (T) (F) | 52 (T) (F) |
| 23 (A) (B) (C) (D) | 23 (T) (F) | 53 (T) (F) |
| 24 (A) (B) (C) (D) | 24 (T) (F) | 54 (T) (F) |
| 25 (A) (B) (C) (D) | 25 (T) (F) | 55 (T) (F) |
| 26 (A) (B) (C) (D) | 26 (T) (F) | 56 (T) (F) |
| 27 (A) (B) (C) (D) | 27 (T) (F) | 57 (T) (F) |
| 28 (A) (B) (C) (D) | 28 (T) (F) | 58 (T) (F) |
| 29 (A) (B) (C) (D) | 29 (T) (F) | 59 (T) (F) |
| 30 (A) (B) (C) (D) | 30 (T) (F) | 60 (T) (F) |

In the answer sheet, shade the most appropriate answer for each of the following MCOs:

- 1- Mr Ali had a sudden severe chest pain during a morning walk and set an appointment with a:
A) Pathologist B) Urologist C) Cardiologist
- 2- His blood pressure was 190/120 mm Hg and thus was considered as:
A) Hypertensive B) Hypotensive C) Normotensive
- 3- His heart rate was 130 beat/min. and thus was considered to have:
A) Bradycardia B) Heart failure C) Tachycardia
- 4- His heart also showed some irregular beats indicating that he has:
A) Hypotension B) Bronchial asthma C) Dysrhythmia
- 5- Mr. Ali had a bloody cough and his doctor sent him to one of the following departments to do an X-ray:
A) Radiology B) Hematology C) Pathology
- 6- He lost much blood due to his cough. His hemoglobin value was very low. Thus he developed:
A) Leukocytosis B) Anemia C) Hematuria
- 7- Urine analysis of Mr. showed some pus cells in the urine and was thought to have:
A) Uritis B) Cystitis C) Urinaritis
- 8- He was thus advised to take one of the following agents to treat his infection:
A) Bactericidal agent B) Antispasmodic C) Analgesic
- 9- Besides, his blood analysis also showed an increased glucose level and was told that he has:
A) Euglycemia B) Hyperglycemia C) Hypoglycemia
- 10- To be treated, he was advised to go to a(an):
A) Endocrinologist B) Pharmacologist C) Dermatologist
- 11- Inflammation of the gums is called:
A) Conjunctivitis B) Keratitis C) Gingivitis
- 12- A drug that decreases an elevated body temperature is called a(an):
A) Antipyretic B) Anti-inflammatory C) Antiepileptic
- 13- Epistaxis means bleeding from:
A) The nose B) The rectum C) The mouth
- 14- Gynecomastia refers to enlargement of the:
A) Limbs B) Breast in males C) Face and neck
- 15- An agent that prevents bleeding is termed a (an):
A) Hemiplegic B) Hematinic C) Hemostatic

- 16- A decreased oxygen supply to an organ is called:
 A) Stenosis B) Ischemia C) Stagnation
- 17- Intradermal means:
 A) Inside the skin B) Beneath the skin C) On the skin
- 18- Hypematremia means an increased level of one of the following ions in the blood:
 A) Calcium B) Potassium C) Sodium
- 19- Dementia means loss of:
 A) Sleeping B) Memory C) Appetite
- 20- Dysphoria is the opposite of:
 A) Euphoria B) Mephoria C) Aphoria
- 21- Infarction means:
 A) Decreased growth of cells
 B) Necrosis of some cells
 C) An anomaly in a group of cells
- 22- Xerostomia means difficulty in:
 A) Defecation B) Micturition C) Swallowing
- 23- Tactile pertains to the sense of:
 A) Vision B) Touch C) Smell
- 24- Haemoptysis refers to the presence of blood in:
 A) Cough B) Vomitus C) Stools
- 25- Rhinorrhoea means increased flow of:
 A) Blood from a wound B) Nasal discharge C) Menses
- 26- Stomatitis means inflammation of:
 A) Stomach B) Tongue C) Mouth
- 27- Cholecystitis means inflammation of:
 A) Gall bladder B) Urinary bladder C) Ovaries
- 28- Polydipsia means excessive:
 A) Thirst B) Eating C) Sneezing
- 29- Osteomalacia means softening of:
 A) The skin B) The liver C) The bones
- 30- Menopause refers to cessation of:
 A) Menstruation B) Vomiting C) Bleeding

IN THE ANSWER SHEET, SHADE "T" FOR TRUE STATEMENTS AND "F" FOR FALSE ONES:

- 1- Viral hepatitis means inflammation of the kidney due to a viral infection
- 2- Aerobic bacteria grows only in the absence of oxygen
- 3- A lactagogue is a substance that increases the secretion of milk
- 4- A disaccharide is a carbohydrate molecule containing two units of sugar
- 5- Adenopathy means a disease in a secreting gland
- 6- Amylase is the enzyme that breaks down starch
- 7- Metastasis means spreading of a tumor in all of the body
- 8- Idiopathic means a disease of an unknown cause
- 9- A peptide is a compound of 2 or more enzymes
- 10- Efflux means the outward flow of molecules from a cell to the outside
- 11- Anorexia means an increase in food intake
- 12- Pharmacokinetics is the study of the movement of drugs within the body
- 13- Relative contraindication is the opposite of indication
- 14- Idiosyncrasy means an unexpected effect of a drug due to a genetic abnormality
- 15- A neonate is an infant up to 28 days of age
- 16- Aetiology is the study of the cause of a disease
- 17- Signs are pathological phenomena discovered by the physician upon examination of the patient
- 18- Cyanosis is the bluish coloration of the skin due to oxygen sufficiency
- 19- Mydriasis is constriction of the eye pupil
- 20- Menorrhagia means excessive menstruation
- 21- A trichogen is an agent that promotes hair growth
- 22- An adipocyte is a fat cell
- 23- Galactorrhea refers to abnormal milk flow from the breast
- 24- Testectomy means surgical incision of the testes
- 25- Nephroma means a tumor in the kidney
- 26- Proteolytic pertains to the decomposition of proteins
- 27- Hypothyroidism is the opposite of thyrotoxicosis
- 28- Hypophyses pertains to the pituitary gland
- 29- Arthrosclerosis means stiffness of joints
- 30- Coronary stenosis means narrowing of the coronary artery
- 31- Osteoporosis means an increase in the bone mass
- 32- The electroencephalograph records the electrical properties of the brain

- 33- Hemiparesis means paralysis of one half of the body
- 34- A hypnotic is an agent that induces sleep
- 35- Inability of voice production is called phonophobia
- 36- The endocardium is a membrane around the heart
- 37- Dyspnea is the opposite of apnea
- 38- Antecibum means after meals
- 39- A sialagogue is an agent that increases salivary glands' secretions
- 40- Hyperphagia means excessive eating
- 41- Nocturnal enuresis means bed wetting at night
- 42- Pyuria means the presence of pyrogenic bacteria in urine
- 43- Haemopoiesis refers to formation of the cellular elements of blood
- 44- Myelosuppression is decreased activity of chondroblasts
- 45- Dialysis means removal of toxic materials from the blood by diffusion across a semipermeable membrane
- 46- Alkalosis pertains to a decrease in the blood pH
- 47- Granulocytopenia means chronic reduction in blood granulocytes
- 48- Supine refers to the position of an individual lying down with his face facing the ground .
- 49- Gallstones is the synonym of cholelithiasis
- 50- Melina refers to dark green tarry stools containing hemolysed blood
- 51- Tracheotomy means surgical opening of the trachea
- 52- Extension of an arm means its bending towards the chest or abdomen
- 53- Opisthotonus refers to a position where the body lies in an arch-shape, with both heels and the head only touch the ground
- 54- Varicose veins means abnormally swollen and twisted veins usually occurring in the legs
- 55- Hypodermic is the opposite of subcutaneous
- 56- Otitis media means inflammation of the middle ear
- 57- An osteoclast is a bone cell that increases bone growth
- 58- Oligospermia means a decrease in the quantity of sperms
- 59- Incontinence means inability to prevent discharge of urine or stools
- 60- Xerophthalmia means dryness of the cornea & conjunctiva



Assiut University
Faculty of Pharmacy
Pharm. Anal. Chem. Dept.

Clinical Pharmacy Program
Pharm. Anal. Chem. (2)
PC 306
Jan. 27, 2011
Time Allowed: 2 hours

الامتحان يتكون من ثماني صفحات مختلفة

1. Redox Titrimetry (25 marks)
A- Give reason(s), illustrated with equations: (4 x 2 = 8 marks)

1- Cu^{2+} oxidizes I^- although $E^\circ_{\text{Cu}^{2+}/\text{Cu}^+} = +0.16 \text{ V}$ while $E^\circ_{\text{I}_2/\text{I}^-} = +0.54 \text{ V}$.

2- Addition of Zimmermann's reagent when FeCl_2 is titrated with permanganate.

3- Diphenylamine alone is unsuitable indicator for the titration of ferrous with dichromate.

4- The use of 4-6 N HCl Andrew's reaction.

B- Draw the structures of the reduced and oxidized forms of the following redox indicators: (2 x 2½ = 5 marks)

1- Diphenylamine

2- Ferroin

C- How can you analyze the following (give equations).

(6 x 2 = 12 marks)

1- Sodium sulphide – thiosulphate mixture.

2- Phenol – salicylic acid mixture.

3- Ferric – Ferrous sulphate mixture.

4- PbO in litharge

5- Moisture content in pharmaceuticals.

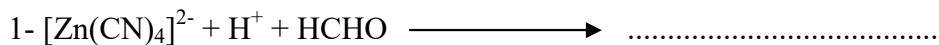
6- Reduced iron.

II. Complexometry

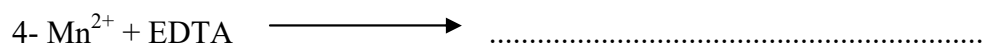
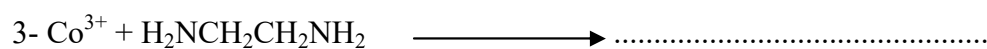
(16 marks)

A- Complete the following:

(10 x 1 = 10 marks)



2- Complexone IV is
and its structure is



5- Coordination number is

6- Apparent stability constant is
and it can be calculated from equation

7- An indicator is said to be blocked when

.....

and indicator blocking can be avoided by

8- EDTA selectivity can be increased by

..... and

- 9- Masking is and can be achieved
by
- 10- Alkalimetric EDTA titration is

B- Explain the following: (4 x 1½ = 6 marks)

1- Liebig's method and its modifications.

2- Stepwise and overall stability constants

3- Effect of other complexing agents on stability of metal-EDTA complexes

4- Determination of mixture of Bi^{3+} & Pb^{2+}

III. Statistics:

(9 marks)

A- Differentiate between each of the following:

(5 x 1 = 5 marks)

1- Random and systemic errors

2- Accuracy and precision

3- Ruggedness and robustness

4- Specificity and selectivity

5- Correlation coefficient (r) = 0.998 and -0.998

B- The following results were obtained for the determination of paracetamol tablets 7.21, 7.16, 7.14, 7.14, 7.18, 7.11, 6.81 (4 marks)

1. One value appears suspicious. Determine if it should be rejected or not. (Tabulated $Q_{95\%}=0.568$).
2. Calculate mean, median, spread, standard deviation, variance and coefficient of variation for the remaining results.

Prof. Dr. Michael Elia Elkommos

Dr. Sameh Abdel-Raouf Ahmed



Assiut University
Faculty of Pharmacy
Pharm. Anal. Chem. Dept.

Pharm. Anal. Chem-2
2nd Semaster 2010/2011
Final Exam
June 26, 2011
Time Allowed: 2 hours

الامتحان يتكون من عشر صفحات

QUESTION I (REDOX THEORY) (19 marks)

A· Write the correct letter for each of the following numbers: (5 marks)

- | | |
|-----------------------------------|--|
| () 1. Ionic pressure is | A. the stronger the oxidizing power of its oxidant |
| () 2. The higher E° | B. the tendency of the metal to dissolve in a solution of its salt |
| () 3. Increasing acidity | C. a primary redox standard |
| () 4. Iodimetry is used for | D. the tendency of the metal cation to deposit on its metal dipped into its solution |
| () 5. Potassium iodate is | E. the stronger the reducing power of its reductant |
| () 6. Methylene blue is used as | F. irreversible indicator for determination of FeCl_3 with TiCl_3 |
| () 7. Iodometry is used for | G. irreversible indicator for determination of FeCl_2 with ceric sulphate. |
| () 8. KSCN is used to | H. increases the oxidation potential of arsenate |
| () 9. Sodium bicarbonate | I. a secondary redox standard |
| () 10. Ceric sulphate is used as | K. decreases the oxidation potential of arsenate/arsenite system |
| | L. desorb I_2 from Cu_2I_2 ppt |
| | M. determination of reducing agent samples |
| | N. determination of oxidizing agent samples |

B. Choose the correct answer from (A), (B), (C) & (D) and then write the correct letter (capital form) in the following table (5 marks)

Question No.	1	2	3	4	5	6	7	8	9	10
Correct Letter										

1. Oxidizing agents exert its action on human tissues by:

- | | |
|--|-----------------------------|
| (a) Liberation of oxygen in the tissues | (b) Denaturing the proteins |
| (c) Liberation of protons in the tissues | (d) a & b |

2. Antioxidants exert its action by the following mechanisms except:

- | |
|---|
| (a) Catalyzing the formation of reactive radicals |
| (b) Repairing the oxidative damage to the bio-molecules |

- (c) Induction of the enzymes that catalyze the repair mechanisms
 - (d) Reaction with the generated reactive radicals
- 3. Addition of HgCl_2 to I_2/KI system will:**
- (a) Form complex with I_2
 - (b) Increase its oxidation potential
 - (c) Decrease its oxidation potential
 - (d) Precipitate I_2
- 4. KI is added to iodine to:**
- (a) Increase the solubility of iodine in water
 - (b) Control the oxidation potential
 - (c) Decrease the volatility of iodine
 - (d) a & c
- 5. Addition of fluoride ions to $\text{Fe}^{3+}/\text{Fe}^{2+}$ system will:**
- (a) Precipitate Fe^{3+} ions
 - (b) Increase its oxidation potential
 - (c) Decrease its oxidation potential
 - (d) All of the above
- 6. KMnO_4 can be standardized by using**
- (a) Oxalic acid
 - (b) Ferrous sulphate
 - (c) Arsenious oxide
 - (d) All of the above
- 7. Decomposition of $\text{Na}_2\text{S}_2\text{O}_3$ can be avoided by using the following except**
- (a) Recently boiled and cold distilled water
 - (b) Addition of Na_2CO_3
 - (c) CO_2 containing water
 - (d) Addition of borax
- 8. All the following facts concerning hypiodite ion are true except:**
- (a) It is stronger oxidizing agent than I_2
 - (b) It is used for determination of aldehydes
 - (c) Its excess is converted to iodine by acidification
 - (d) It is prepared by iodine in acid medium
- 9. In Andrew's reaction, all the following facts are true except**
- (a) It depends on the reaction of I^- with IO_3^- to form I_2
 - (b) Iodine is oxidized with iodate to form I^+ ion
 - (c) I^+ ions are stabilized by chloride ions
 - (d) The reaction occurs in weak acid medium
- 10. Errors due to starch can be overcome by**
- (a) Using freshly prepared starch solution
 - (b) Using recently boiled and cooled distilled water
 - (c) Addition of boric acid to starch solution
 - (d) a & c

C- Interpret each of the following:**(3 Marks)**

1. Although the oxidation potential of $I_2/2I^-$ system (0.54V) is higher than that of ferri/ferrocyanide system (0.36 V), the ferricyanide ions can oxidize iodide to iodine in presence of Zn^{2+} ions
2. I_2 oxidizes Cu^+ to Cu^{+2} in presence of tartarate or citrate, but Cu^{+2} can oxidize iodide into iodine in the determination of $CuSO_4$ (E° of $Cu^{2+}/Cu^+ = 0.15V$ & of $I_2/2I^- = 0.54V$)

D. In the titration of 100 ml of 0.1 N Fe^{2+} (E° of $Fe^{2+}/Fe^{3+} = 0.77V$) with 0.1 N standard $Ce(SO_4)_2$ (E° of $Ce^{4+}/Ce^{3+} = 1.45V$) in sulphuric acid medium,

The balanced equation is written as follows (1) and the indicator used is (2). The potential at the equivalent point is calculated from the equation (3) and equal (4) volt. The interference of Cl^- ions, if present, can be eliminated by addition of (5) reagent which is composed of (6) in order to (7), (8) and (9). Calculate the potential (10) after addition of 50.0 ml of 0.1 N $Ce(SO_4)_2$.

Write your answers in the following table**(6 marks)**

No.	Answer	No.	Answer
(1)			
(2)		(3)	
(4)		(5)	
(6)		(7)	
(8)		(9)	
(10)			

QUESTION II (REDOX APPLICATIONS)

(19 marks)

A. How can you analyze the following acids:

(7.5 marks)

1- Ascorbic acid

2. Oxalic acid

3. Carbolic acid (phenol)

4. Thioglycolic acid

5. Formic acid

B. Mention the method(s) for determination of the following:

(6 marks)

1. Sulphate

2. Nitrite

3. Moisture

C. State the principle for analysis of each of the following mixtures (6 marks)

1. I_2 & KI

2. $K_2S_2O_8$ & $KHSO_4$

3. Glucose & sucrose

QUESTION III (COMPLEXOMETRY)**(20.5 marks)**

A- Mark [✓] for the correct statement and [x] for the wrong one, underline the wrong words and then correct it in the correction column. (8 marks)

The statement	Mark	Correction
1. EDTA reacts with all metals in 1 : 1 ratio.		
2. Ethylenediamine-copper complex is more stable than copper - amine complex.		
3. Calcium - EDTA chelate is strong enough to be titrated in acidic medium.		
4. Mercuric - EDTA complex is more stable than zinc EDTA complex.		
5. Unidentate ligands are not suitable for titration of metal ions.		
6. Lead-tartrate complex is more stable than the lead - EDTA complex.		
7. Defroxamine mesylate forms a water soluble chelate with ferric ions.		
8. Complexone IV (CDTA) forms stronger metal complexes than does EDT A.		
9. Displacement titration is applied for metal ions that do not have a satisfactory indicator.		
10. Aluminum chloride can be determined by direct titration.		
11.Triethanolamine masks ferric ions.		
12. Oxine and its analogs act as antibacterial and antifungal agents by complexing with Ca or Mg ions		
13. Metallochromic indicators are affected by the presence of selected metal ions and pH of the reaction mixture.		

B- Choose the proper indicator(s) for each of the following titrations: (3.5 marks)

1- Calcium ions with EDTA at pH 12. []

- | | | |
|---|---|---|
| 2- Chloride ions with mercuric nitrate. | [|] |
| 3- Mercuric ions with thiocyanate. | [|] |
| 4- Zinc ions with EDTA at pH 5. | [|] |
| 5- Bismuth ions with EDTA at pH 1-3. | [|] |
| 6- Magnesium ions at pH 10. | [|] |
| 7- Iodide ions with mercuric nitrate. | [|] |

C. Complete the following sentences with missing word(s):

1. An indicator is said to be blocked when:
 - a-
 - b-

2. In many titrations an is employed to prevent the ion from precipitating in the absence of EDTA.

3. EDTA selectivity can be increased by:
 - a-
 - b-
 - c-
 - d-.....

4. The stability constant of EDTA –complexes may be altered by:
 - a-
 - b-

5. Determination of copper by cyannometric method goes according to the following equations;

6. Demasking is

D. How can you analyze mixture of magnesium and aluminium ions? (2 marks)

QUESTION IV(STATISTICS)

(11 marks)

A- Calibration data for a chromatographic determination of vitamin K1 in a mixture of water soluble vitamins are shown in the following table: (4 marks)

Sample concentration (X_i) ($\mu\text{g/ml}$)	Peak area (Y_i)
5	3.7
15	11.2
20	14.3
25	18.2
30	21.9
35	25.1
Unknown concentration	9.2

- (a) Determine by the least square method the equation of the best straight line for the calibration curve
- (b) Calculate the sample concentration for the unknown sample.

B- Complete the following statements:

(7 marks)

1. The analytical method is considered precise if the RSD% is
2. If the calculated Q-value is the suspected observation can be rejected.
3. The value of (r) must lie between which indicates
4. Significant figure is
5. Sampling is
6. LOD is while, LOQ is
7. The analytical procedures are divided into three different types;
 - a-
 - b-
 - c-

Prepared by: Dr. Hassan Farghaly Azkel, Dr. Sameha Abdel-Rahman,
Dr. Ashraf Mohamed Mohamed & Dr. Noha Nahedj Attia

إعلان للطلاب بخصوص إمتحان الشفوى

تتعدّد امتحان الشفوى بعد الامتحان النظرى مباشرة ابتداء من الساعة الثالثة والنصف عصرا لكل الطلاب طبقا للتوزيع الآتى:

المجموعة الأولى (من رقم ١ – ٤٥٠): ابتداء من الساعة الثالثة والنصف عصرا
المجموعة الثانية (من رقم ٤٥١ – ٩٠٧): ابتداء من الساعة الخامسة والنصف مساء

المادة: علم النفس
برنامج الصيدلة الإكلينيكية ف(٣)
الزمن: ساعتان

جامعة أسيوط
كلية التربية
قسم علم النفس

امتحان الفصل الدراسي الأول دور يناير للعام الجامعي ٢٠١٠/٢٠١١م

أجب عن الأسئلة الآتية:

السؤال الأول: (٣٠ درجة)

- تعد الشخصية مفهوما مجردا ليس له مقابل حسي ويشير الى جوانب متعددة ومتنوعة ومتشابكة في علاقاتها. ناقش ذلك موضحا
- ١- تعريف الشخصية من وجهة نظر ألبرت
 - ٢- مكونات الجهاز التنفسي عند فرويد
 - ٣- علامات الصحة النفسية.
- (٩ درجات)
(٩ درجات)
(٩ درجات)

السؤال الثاني: (٣٠ درجة)

ناقش النقاط التالية بإيجاز:

- ١- الصحة النفسية مسألة نسبية.
- ٢- أنواع الصراع النفسي موضحا ذلك بالأمثلة.
- ٣- الإجراءات التي يمكن القيام بها لوقاية شبابنا من الوقوع في براثن الإدمان.

السؤال الثالث: (٣٠ درجة)

من القواعد الأساسية في مجال التفكير أن البداع نسبي وغير مرتبط بالذكاء. ناقش ذلك موضحا.

- (ثلاث درجات)
(٩ درجات)
(٩ درجات)
(٩ درجات)
- ١- العوامل التي تساعد على إثارة قابلية المتعلم للتعلم
 - ٢- مراحل التذكر والعوامل التي تساعد على القيام به.
 - ٣- أنماط القيادة والنظريات المفسرة لها.

***** (انتهت الأسئلة) ***** مع تمنياتنا بالتوفيق والنجاح

د/ صمويل تامر بشرى
د/ عبد الله محمد عبد الظاهر



Anatomy Department

زمن الامتحان/ ٦٠ دقيقة

تاريخ الامتحان: ٢٥/١/٢٠١١

MCQ Anatomy Exam for clinical pharmacy class III students

المادة:
الفرقة:

التاريخ:
الاسم:

الدرجة:

الرقم السري:

- ممنوع استخدام القلم الرصاص
- ممنوع استخدام الأقلام الملونة (الأحمر – الأخضر)
- تظلل خانة الاجابة فقط
- لا تظلل اجابتين لنفس السؤال والا تعتبر الاجابة خاطئة
- زمن الامتحان ٦٠ دقيقة من (الساعة ٩ صباحا وحتى ١٠ صباحا)

Directions: Please fill in marks like this: ● Not like this: ○ ⊗

ANSWER SHEET

Subject Clinical Pharmacy "Third class Pharmacy student .
Date : 25 / 1 / 2011

Secret number.:

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

تنبيه هام : الرجاء عدم كتابة أى
اسم أو أى رقم أو أى علامة فى
هذ الجزء

- | | | | | | | | | | | | | | | |
|----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|-----|-----|-----|-----|
| 1 | (A) | (B) | (C) | (D) | 26 | (A) | (B) | (C) | (D) | 51 | (A) | (B) | (C) | (D) |
| 2 | (A) | (B) | (C) | (D) | 27 | (A) | (B) | (C) | (D) | 52 | (A) | (B) | (C) | (D) |
| 3 | (A) | (B) | (C) | (D) | 28 | (A) | (B) | (C) | (D) | 53 | (A) | (B) | (C) | (D) |
| 4 | (A) | (B) | (C) | (D) | 29 | (A) | (B) | (C) | (D) | 54 | (A) | (B) | (C) | (D) |
| 5 | (A) | (B) | (C) | (D) | 30 | (A) | (B) | (C) | (D) | 55 | (A) | (B) | (C) | (D) |
| 6 | (A) | (B) | (C) | (D) | 31 | (A) | (B) | (C) | (D) | 56 | (A) | (B) | (C) | (D) |
| 7 | (A) | (B) | (C) | (D) | 32 | (A) | (B) | (C) | (D) | 57 | (A) | (B) | (C) | (D) |
| 8 | (A) | (B) | (C) | (D) | 33 | (A) | (B) | (C) | (D) | 58 | (A) | (B) | (C) | (D) |
| 9 | (A) | (B) | (C) | (D) | 34 | (A) | (B) | (C) | (D) | 59 | (A) | (B) | (C) | (D) |
| 10 | (A) | (B) | (C) | (D) | 35 | (A) | (B) | (C) | (D) | 60 | (A) | (B) | (C) | (D) |
| 11 | (A) | (B) | (C) | (D) | 36 | (A) | (B) | (C) | (D) | 61 | (A) | (B) | (C) | (D) |
| 12 | (A) | (B) | (C) | (D) | 37 | (A) | (B) | (C) | (D) | 62 | (A) | (B) | (C) | (D) |
| 13 | (A) | (B) | (C) | (D) | 38 | (A) | (B) | (C) | (D) | 63 | (A) | (B) | (C) | (D) |
| 14 | (A) | (B) | (C) | (D) | 39 | (A) | (B) | (C) | (D) | 64 | (A) | (B) | (C) | (D) |
| 15 | (A) | (B) | (C) | (D) | 40 | (A) | (B) | (C) | (D) | 65 | (A) | (B) | (C) | (D) |
| 16 | (A) | (B) | (C) | (D) | 41 | (A) | (B) | (C) | (D) | | | | | |
| 17 | (A) | (B) | (C) | (D) | 42 | (A) | (B) | (C) | (D) | | | | | |
| 18 | (A) | (B) | (C) | (D) | 43 | (A) | (B) | (C) | (D) | | | | | |
| 19 | (A) | (B) | (C) | (D) | 44 | (A) | (B) | (C) | (D) | | | | | |
| 20 | (A) | (B) | (C) | (D) | 45 | (A) | (B) | (C) | (D) | | | | | |
| 21 | (A) | (B) | (C) | (D) | 46 | (A) | (B) | (C) | (D) | | | | | |
| 22 | (A) | (B) | (C) | (D) | 47 | (A) | (B) | (C) | (D) | | | | | |
| 23 | (A) | (B) | (C) | (D) | 48 | (A) | (B) | (C) | (D) | | | | | |
| 24 | (A) | (B) | (C) | (D) | 49 | (A) | (B) | (C) | (D) | | | | | |
| 25 | (A) | (B) | (C) | (D) | 50 | (A) | (B) | (C) | (D) | | | | | |



Assiut University
Faculty of Medicine
Human Anatomy and Embryology Department

Time: One Hour
Date: 25/1/2011

Anatomy Examination For Clinical Pharmaceutical students- class:III

For each of the following multiple choice questions select the one most appropriate answer:

Total: (65 Marks)

- 1- Open(s)in(the left atriumpulmonary vein(s).
 - A. One.
 - B. Two
 - C. Three
 - D. Four

- 2- The coronary arteries take origin from
 - A. Ascending aorta
 - B. Arch of aorta.
 - C. Descending thoracic aorta.
 - D. Common carotid arteries.

- 3- The coronary sinus opens into
 - A. Left atrium
 - B. Right atrium
 - C. Left ventricle
 - D. Right ventricle.

- 4- The superior vena cava formed by the union of
 - A. Right internal jugular vein and right subclavian vein
 - B. Left internal jugular vein and left subclavian vein
 - C. Right and left brachiocephalic veins
 - D. Right and left subclavian veins.

- 5- The external iliac arteries carry oxygenated blood to the
 - A. Lower limbs
 - B. Upper limbs
 - C. Head and neck
 - D. Brain

- 6- The left atrioventricular opening is guarded by
 - A. Bicusped valve
 - B. Tri cusped valve
 - C. Tri cusped semilunar valve
 - D. All of the above

- 7- The abdominal aorta ends by its bifurcation at the level of the lower border of the
A. First lumbar vertebra
B. Second lumbar vertebra
C. Third lumbar vertebra
D. Fourth lumbar vertebra
- 8- The papillary muscles are found in the interior of
A. Right ventricle
B. Left ventricle
C. All of the above
D. Non of the above.
- 9- The apex of the heart is formed by
A. Right ventricle
B. Left ventricle
C. All of the above
D. Non of the above
- 10- The right surface of the heart is formed by
A. Right ventricle
B. Left ventricle
C. Right atrium
D. Left atrium
- 11- The trachea ends by its bifurcation at the level of the lower border of
A. First thoracic vertebra
B. Second thoracic vertebra
C. Third thoracic vertebra
D. Fourth thoracic vertebra
- 12- The Transverse Fissure of the lung is present in
A. Left lung
B. Right lung
C. Both lungs
D. Neither (A) nor (B).
- 13- The Following are unpaired cartilages of the larynx **Except** one
A. Epiglottis.
B. Thyroid
C. Arytenoids
D. Cricoids
- 14- The apex of the lung projects into the root of the neck to a level of
A. Just behind the clavicle
B. Half an inch above the clavicle
C. An inch above the clavicle
D. two inches above the clavicle.

- 15- The following joints enjoy with a wide range of movement **Except** one
- A. Hip joint
 - B. Shoulder joint
 - C. Distal tibiofibular joint
 - D. Wrist joint.
- 16- The is the second envelope of the body.
- A. Deep fascia.
 - B. Superficial fascia
 - C. Muscle layer
 - D. Cutaneous layer.
- 17- Parts of brainstem.
- A. Pons, and medulla oblongata
 - B. Pons, medulla oblongata and cerebellum.
 - C. Mid brain, pons and cerebellum.
 - D. Mid brain, pons and medulla oblongata.
- 18- Parts of hind brain
- A. Pons and medulla oblongata.
 - B. Pons, medulla oblongata and cerebellum.
 - C. Midbrain, pons and cerebellum
 - D. Midbrain, pons and medulla oblongata.
- 19- Parts of diencephalon.
- A. Thalamus and hypothalamus.
 - B. Metathalamus and epithalamus
 - C. Subthalamus
 - D. All of the above.
- 20- The cerebral aqueduct (aqueduct of Sylvius) connects.
- A. The two lateral ventricles.
 - B. The lateral ventricle and third ventricle.
 - C. The third ventricle and fourth ventricle
 - D. The fourth ventricle and subarachnoid space.
- 21- The cerebrospinal fluid reaches the subarachnoid space through.
- A. cerebral aqueduct.
 - B. central canal
 - C. Foramen of Magendaie and foramina of Luschka;
 - D. All of the above.
- 22- The parasympathetic out flow to the heart is through.
- A. glossopharyngeal nerve.
 - B. Vagus nerve.
 - C. Oculomotor nerve
 - D. Greater splamchnic nerve.

- 23- The nerve responsible for lacrimation
- A. Oculomotor nerve.
 - B. Vagus nerve
 - C. Facial nerve
 - D. Glossopharyngeal nerve
- 24- The intercostal nerves are
- A. Anterior rami of upper seven thoracic nerves.
 - B. Anterior rami of upper eleven thoracic nerves
 - C. Anterior rami of upper six thoracic nerves
 - D. Anterior rami of all thoracic nerves.
- 25- The brachial plexus is formed by union of
- A. Anterior rami of upper three cervical nerves
 - B. Anterior rami of lower four cervical nerves.
 - C. Anterior rami of lower five cervical nerves
 - D. Anterior rami of lower six cervical nerves
- 26- The are the primary male sex glands.
- A. Testes
 - B. Seminal vesicles
 - C. Prostatic glands
 - D. Bulbourethral glands
- 27- The Are the primary female sex glands.
- A. Ovaries.
 - B. Bartholin,s glands
 - C. Greater vestibular glands
 - D. All of the above.
- 28- The epididymis is about..... in length.
- A.6 cms.
 - B.6 meters
 - C.60 cms
 - D.60 meters
- 29- The uterine (Fallopian tube is about in length
- A.10 cms
 - B.10 meters
 - C.1 cm
 - D. 1 meter.
- 30 are female sex ducts.
- A.Uterine tubes
 - B.Uterus
 - C.Vagina
 - D.All of the above

- 31-The vas(ductus) deferens is about in length.
A. 45 cms.
B. 45 meters
C. 4.5 meters
D. 4.5 cms
- 32- The two testes are present in the
A. two labia majora.
B. Two labia minora.
C. Scrotum
D. Medial side of the thigh
- 33-All of the following. structures form the female external genitalia **Except** one
A. Mons pubis
B. Vagina
C. Clitoris
D. Vestibule.
- 34-All of the following are compound glands **Except** one
A. Pancreas
B. Testes
C. Ovaries
D. Pituitary
- 35-All of the following are endocrine glands **Except** one
A. Thyroid
B. Adrenals
C. Parotid
D. Parathyroid.
- 36-All of the following are exocrine glands **Except** one
A. Sweat glands
B. Sebaceous glands
C. Parathyroid glands
D. Submandibular glands.
- 37- The pelvic part of the ureter is aboutin length.
A. 10.5 cms
B. 12.5 cms
C. 13.5 cms
D. 14.5 cms

- 38-The female urethra is about in length.
- A. 2 cms
 - B. 3 cms
 - C. 4 cms
 - D. 5 cms
- 39-All of the followings are secondary male sex organs **Except** one
- A. Bartholin's glands
 - B. Prostatic glands
 - C. Seminal vesicles
 - D. Bulbourethral glands.
- 40-..... is the male organ of copulation.
- A. Clitoris
 - B. Penis
 - C. Testis
 - D. Scrotum
- 41-..... is responsible for production of sperms.
- A. Testis
 - B. Penis
 - C. Scrotum
 - D. Epididymis.
- 42- The common bile duct opens in
- A. Stomach
 - B. Duodenum
 - C. Jejunum
 - D. Ileum
- 43-The large intestine is aboutin length.
- A. 15 cms
 - B. 15 meters
 - C. 150 cms
 - D. 100 cms
- 44- The esophagus begins at the lower border of
- A. Third cervical vertebra
 - B. Sixth cervical vertebra
 - C. Third thoracic vertebra.
 - D. Sixth thoracic vertebra.
- 45 The islets of Langerhans are responsible for secretion of
- A. Bile
 - B. Insulin
 - C. Saliva
 - D. Milk

- 46- The inter vertebral disc is a
- A. Primary cartilaginous joint
 - B. Fibro cartilaginous joint
 - C. Fibrous joint
 - D. Hinge joint
- 47-All of the followings are subtypes of fibrous joints **Except** one
- A. Syndesmosis
 - B. Gomphosis
 - C. Wrist
 - D. Suture
- 48-All of the followings are long bones **Except** one.
- A. Humerus
 - B. Radius
 - C. Ulna
 - D. Scaphoid
- 49- The type of cartilage in the primary cartilaginous joint is
- A. Hyaline cartilage
 - B. A fibro cartilage
 - C. A yellow elastic cartilage
 - D. All of the above.
- 50-The patella is
- A. An irregular bone.
 - B. A sesamoid bone.
 - C. A flat bone
 - D. A short bone
- 51-Cranial nerve (s) responsible for movements of the eye is (are)
- A. The third
 - B. The fourth
 - C. The sixth
 - D. The all of the above
- 52-Cranial nerve(s) responsible for movement of tongue is (are)
- A. The ninth
 - B. The tenth
 - C. The eleventh
 - D. The twelfth.
- 53-Cranial nerve(s) responsible for hearing is (are) the
- A. The seventh
 - B. The eight
 - C. The ninth
 - D. The tenth.

- 54- Cranial nerve responsible for movements of the larynx
- A. The seventh
 - B. The eight
 - C. The ninth
 - D. The tenth
- 55- Cranial nerve responsible for facial expressions
- A. The seventh
 - B. The eight
 - C. The ninth
 - D. The tenth
- 56- The pancreatic duct opens into
- A. Stomach
 - B. Duodenum
 - C. Jejunum
 - D. Ileum
- 57- A salivary gland supplied by the ninth cranial nerve.
- A. Parotid
 - B. Submandibular
 - C. Sublingual
 - D. Non of the above.
- 58- The followings are parts of large intestine **Except**
- A. Rectum
 - B. Anal canal
 - C. Caecum
 - D. Ileum
- 59- The Followings are parts of small intestine **Except**
- A. Duodenum
 - B. Jejunum
 - C. Ileum
 - D. Vermiform appendix.
- 60- The function of gall bladder is
- A. Secretion of bile
 - B. Storage of bile
 - C. All of the above
 - D. Non of the above

- 61-The right lung is divided into
- A. Two lobes
 - B. Three lobes
 - C. Four lobes
 - D. Five lobes
- 62- The left lung is divided into
- A. Two lobes
 - B. Three lobes
 - C. Four lobes
 - D. Five lobes
- 63- Opens in the right atrium all of followings **Except** one
- A. Pulmonary trunk
 - B. Superior vena cava
 - C. Inferior vena cava
 - D. Coronary sinus
- 64- All of the followings are subtypes of synovial joints **Except** one
- A. Shoulder joint
 - B. Knee joint
 - C. Ankle joint
 - D. Symphysis pubis
- 65- The true ribs are the
- A. Upper six ribs
 - B. Upper seven ribs
 - C. Upper light ribs
 - D. Upper nine ribs

Good Luck



Assiut University
Faculty of Medicine

Department of
Medical Physiology

Final examination
2nd year Clinical Pharmacy

20 June 2011
Time allowed: 3 hours
Total marks: 65

I) Blood: (8 marks)

1. **Discuss** the effect of erythropoietin on erythropoiesis (3 marks)
2. **Discuss** the difference between heparin and dicoumerol. (3 marks)
3. Female patient forty years old noticed appearance of small red dots under her skin and complained from prolonged bleeding from any small wound. Investigations: platelets count was found to be low.
 - a- **This abnormality** of platelets leads to condition called ----- (1 mark)
 - b- **Mention** the normal range of platelets count. (1 mark)

II) Cardiovascular system: (12 marks)

- 1- **Mention** 4 factors affecting venous return. (4 marks)
- 2- **Give** an account on the effect of elasticity on arterial blood pressure. (3 marks)
- 3- **Discuss** the cardiovascular changes in hemorrhage. (5 marks)

III) Respiration: (8 marks)

1. **Define the followings:** (3 marks)
Vital capacity- Residual volume- Inspiratory reserve volume
2. **Write true for the correct and false for wrong answer:** (2 marks)
 - a- O₂ lack in arterial blood stimulates the peripheral chemoreceptors.
 - b- The threshold for cyanosis is 5 gram of deoxygenated hemoglobin in 100 ml blood.
3. **Mention** 3 causes of hypoxic hypoxia. (3 marks)

IV) Central nervous System: (5 marks)

1. **Mention** 5 functions of the hypothalamus. (5 marks)

V) Endocrine glands: (10 marks)

- a. Select the **correct answers** OR when the word **EXCEPT** is mentioned, select the wrong choices: (4 marks)
1. **Regarding secretion of growth hormone all the followings are true, EXCEPT:**
 - a. It is normally depending on the integrity of the hypothalamus.

- b- Its secretion ceases when the adult state is reached.
- c- I_h is increased following severe injury (trauma).
- d- It is increased during fasting and other status where the blood glucose level is reduced.

2. This hormone acts on intestine and causes increased calcium absorption:

- a. Calcitonin.
- b. Corticotrophin-releasing hormone factor.
- c. Thyroxin.
- d. 1,25 dihydroxycholecalciferol.

3. Parathyroid hormone:

- a. It is a cholesterol in nature
- b. It increases the urinary output of phosphate.
- c. It inhibits calcium mobilization from bone.
- d. Its secretion is regulated by the serum sodium level.

4. Calcitonin:

- a. It is produced by cells concerned mainly in the parathyroid glands.
 - b. It causes a fall in blood calcium concentration.
 - c. It promotes bone resorption.
 - d. It increases calcium absorption from the gut.
- b. **Discuss control** of thyroid hormones secretion. (2 marks)
- c. **Discuss** functions of aldosterone hormone. (4 marks)

VI) Digestive System: (7 marks)

- 1. **Discuss stimuli and functions** of secretin hormone (3 marks)
- 2. **Mention** functions of stomach. (4 marks)

VII) Kidneys: (5 marks)

- 1. **Enumerate functions** of Juxtaglomerular apparatus. (2 marks)
- 2. **Discuss** nervous mechanism of regulation of tubular functions.

VIII) Autonomic nervous System: (10 marks)

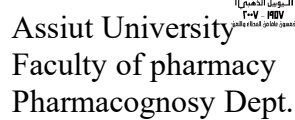
- 1. Ahmed, 21 years old male brought to emergency room suffer from acute abdominal pain. Clinical examination revealed suspicious of appendicitis. The doctor gave him saline contains **atropine**. (8 marks)
 - a. **Name** the part of the autonomic nervous system responsible for abdominal pain in the above case?
 - b. From your pathophysiological knowledge, **Explain** why did the doctor gave Ahmed atropine?
 - c. **Name the types** of receptors of that part of autonomic nervous system and **their location**.
- 2. **Enumerates** action of oculomotor nerve. (2 marks)

GOOD LUCK

PROFESSOR MANERVA KAMAL & PROFESSOR ENAS A HAMED

تعليمات الاختبار

- يتكون الاختبار من اربعة أسئلة
- يتكون الاختبار من ثلاث ورقات
- الاسئلة متعددة الاجابات عليك بوضع دائرة على الاجابة الصحيحة
- فكر جيدا قبل ان تجيب على الأسئلة ، ولا تجعل قلمك يسبق فكرك
- الدرجة الكلية للاختبار (خمسون درجة)



- a- Dried latex
 - b- Dried juice
 - c- Oleo-resins
 - d- Non of the above
- 10) Ipecacunha belongs to family:
- a- Leguminosae
 - b- Apocynaceae
 - c- Compositae
 - d- Non of the above
- 11) Ruta herh belongs to family:
- a- Solanaceae
 - b- Apocynaceae
 - c- Leguminosae
 - d- Non of the above
- 12) Vittae are:
- a- Schizogenous ducts
 - b- Lysogenous ducts
 - c- Schizolysogenous ducts
 - d- Non of the above
- 13) Abietic acid is a component of:
- a- Myrrh
 - b- Gum acacia
 - c- Colophony
 - d- Benzoin
- 14) Linalol is the major component of the oil of:
- a-Anise
 - b- Coriander
 - c- Cumin
 - d- Caraway
- 15) Aloes are useful in cosmotics due to:
- a- Anthraquinones
 - b- Alkaloids
 - c- Mucopolysacchariedes
 - d- Resins
- 16) Powdered Capsicum is characterized by:
- a- Lignified seed coat
 - b- Idioplasts
 - c- Typical paraquetry structure
 - d- Cluster of Ca-ox
- 17)Cannabis could be tasted by:
- a- Mineral acid
 - b- Beam's test
 - c- Van Urk test
 - d- Borntrager's test
- 18- The root that used mainly as hepatic stimulant:
- a- Rauwolfia
 - b- Gensing
 - c- Dandelion
 - d- Gentian
- 19) Podophyllum has antitumor due to:
- a- Alkaloids
 - b- Volatile substances
 - c- Flavonoids
 - d- Non of the above
- 20) Steroidal saponins are mainly present in:

a-Liquorice
c- Gensing

b- Sarsaparilla
d- Dandelion

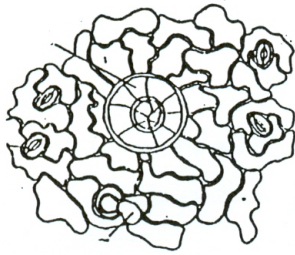
II) Put (✓) for the correct statement and (X) for the false one: (20x0.5=10M)

- 1) Linseed has demulcent action due to fixed oils ()
- 2) Powdered Mentha herb is characterized microscopically by crystal layer ()
- 3) Reserpine alkaloid is useful in treatment of cardiac arrhythmia ()
- 4) Opium latex is obtained by incision of the fully grown and ripe fruits ()
- 5) Gentian root is mainly used as tonic and adaptogenic ()
- 6) Cod liver oil is a rich source of vitamin B ()
- 7) The chief constituent of Ammi majus is furanocoumarin ()
- 8) Carrageen belongs to family Gigartinaceae ()
- 9) Legume is a simple dry indehiscent fruit ()
- 10) Vincristine alkaloid is useful in treatment of diabetic patient ()
- 11) Powdered liquorice gives an orange red colour with 66% H₂SO₄ ()
- 12) Milkthistle herb contains flavonolignans ()
- 13) The cake left after expression of the oil of Castor seed is used as animal food ()
- 14) Heroin is a naturally occurring alkaloid ()
- 15) Strophanthus seeds belong to family Apocynaceae ()
- 16) Benzoin is obtained by incision of the stems of Commifora molmol ()
- 17) The pungent principle in Capsicum is accumulated in its endocarp ()
- 18) Gelatin gives positive Molish's test ()
- 19) Anethol is the major component of oil of Anise and Cumin ()
- 20) Cymbopogon proximus is useful in renal disorders ()

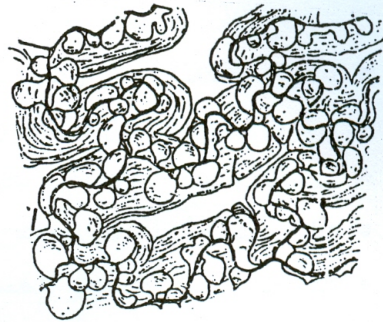
III) Write shortly on each of the following: (6 X 2 = 12 M)

- 1) Two kinds of steles
- 2) Active constituents of *Nux vomica*
- 3) Draw four characteristic elements in powdered Thyme
- 4) Medicinal uses of *Echinacea* root
- 5) The kernel
- 6) Medicinal uses of Ergot

IV- Identify the following fragments, give the biological origin of the drug bearing each.
(4 x 2 = 8 M)



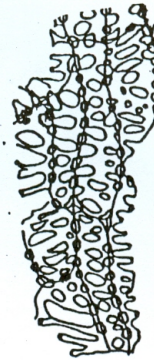
Name of the fragment :
Biological origin



Name of the fragment :
Biological origin



Name of the fragment :
Biological origin



Name of the fragment :
Biological origin

Good Luck



Final Examination
"Repeated"
In
"Clinical Physiology"

Third Semester
Clinical Pharmacy Students

13 June 2008
Time allowed: 3 hours

Discuss briefly:

- 1- Functions of plasma proteins..... (5 marks)
- 2- Functions of proximal convoluted tubule.....(6 marks)
- 3- Functions of testosterone hormone..... (6 marks)
- 4- Functions of aldosterone hormone..... (6 marks)
- 5- Functions of bile salts..... (6 marks)
- 6- Chose two factors affecting the cardiac output and explain their effects..(6 marks)
- 7- Physiological variations on the heart rate..... (6 marks)
- 8- Functions of the sympathetic nervous system on head and neck..... (6 marks)
- 9- The differences between the extra and intra cellular fluid..... (6 marks)
- 10- The sites of cholinergic receptors..... (6 marks)
- 11- Definition and causes of hypoxic hypoxia..... (6 marks)

Good Luck

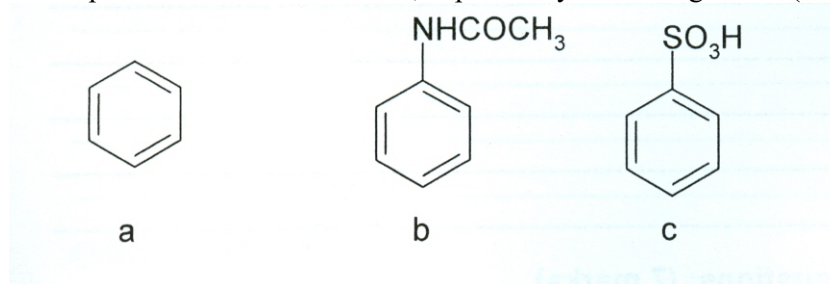
Prof. Mahmoud R. Fadeil & Prof. Salwa M Seleem

Illustrate your answers with chemical equations whenever possible

Part 1 (25 marks)

Answer the following questions:

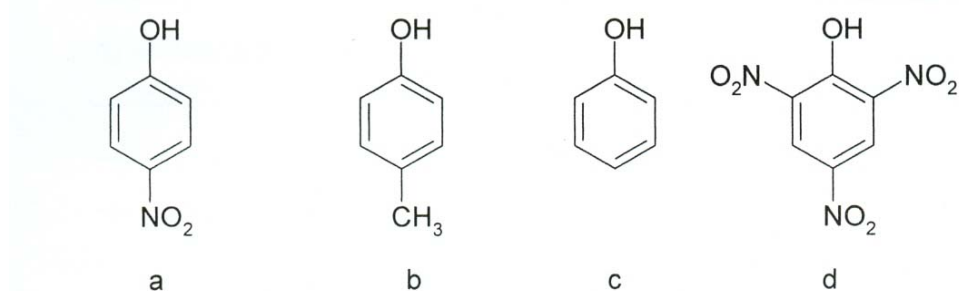
1) Arrange the following compounds in an order of increasing the affinity to electrophilic substitution reactions, explain why this arrangement: (2 mark)



2) Enumerate non-benzenoid aromatic compounds: (1 mark)

- a)
- b)
- c)

3) Arrange the following compounds in an order of increasing the acidity: (1 mark)



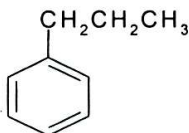
4) Which of the following substituents are ortho, para director and ring deactivating? (1 mark)

- a) OH b) Cl c) CH₃ d) SO₃H e) NHCOCH₃

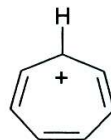
5) Assign which one of the following compounds is aromatic: (1 mark)



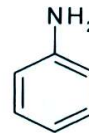
a



b



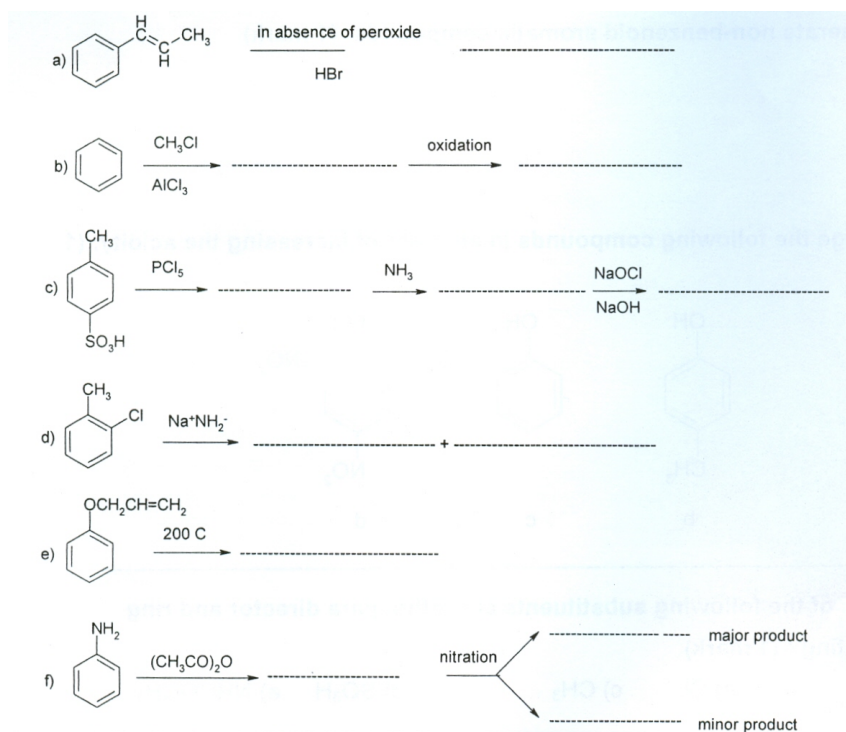
c



d

How could you prepare compound b from compound a in pure form, show by equation only the mechanism of this reaction, (4 marks)

6) Complete the following equations: (7 marks)



7) How could you carry out the following conversions? (8 marks)

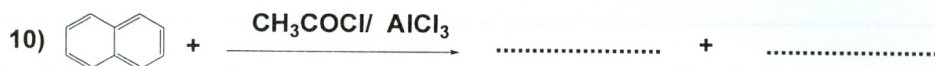
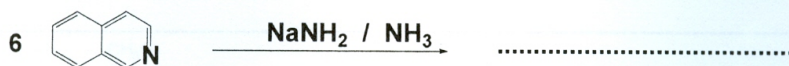
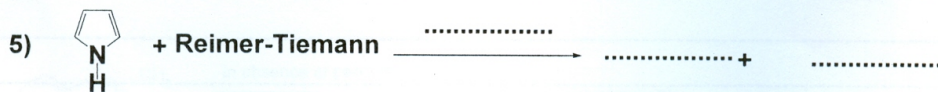
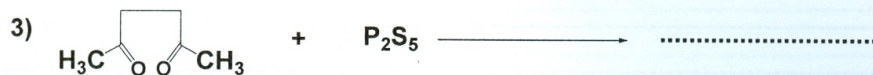
a) Aniline to cyanobenzene

b) Benzoic acid to Benzamide

c) Benzene to aniline

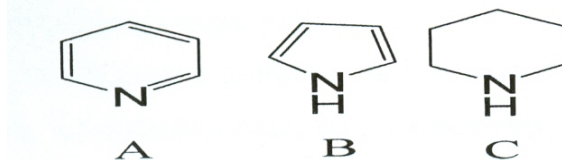
d) Benzene to *m*-bromonitrobenzene

I-Give only the structures of the product (s) that would result from the following reactions or complete the equations: (15 points)



II- Encircle the correct answer: (4.5 points)

- 1) The decreased order of reactivity of benzene, naphthalene, anthracene and phenanthrene is as follows: (most reactive first)
- a) benzene > naphthalene > phenanthrene > anthracene.
 - b) phenanthrene > anthracene > naphthalene > benzene.
 - c) anthracene > phenanthrene > naphthalene > benzene.
- 2) The decreased order of basicity of the following compounds is (most basic first):



- a) $B > C > A$
 - b) $A > B > C$
 - c) $C > A > B$
- 3) The decreased order of reactivity towards Electrophilic Substitution of benzene, pyridine, quinoline and isoquinoline is as follows:
- a) benzene > pyridine > quinoline > isoquinoline.
 - b) benzene > quinoline ~ isoquinoline > pyridine.
 - c) quinoline ~ isoquinoline > benzene > pyridine.

III- Complete the following:

- 1) Bischler-Napieralski reaction is used to prepare
through the following equation: (1.5 points)

.....

.....

.....

.....

- 2) Indicate the preferred positions for Electrophilic substitution reactions on each of the following:

- a) Furan at
- b) Isoquinoline at
- c) Pyridine at
- d) Anthracene at

- 3) Haworth synthesis is used to prepare naphthalene according to the following equations: (2 points)

.....

.....

.....

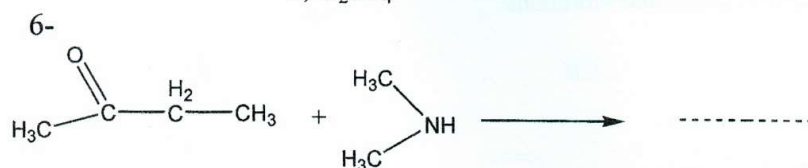
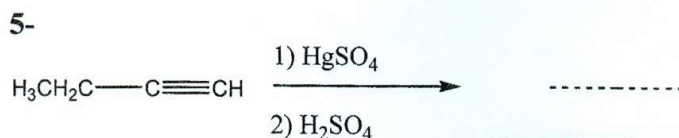
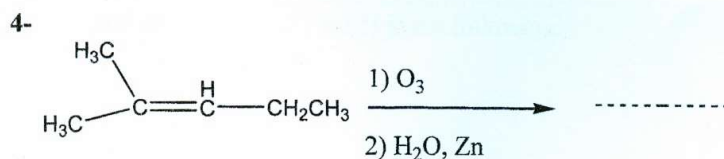
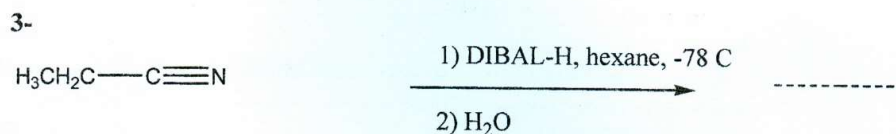
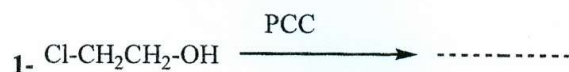
.....

مع أطيب الأمنيات بالتوفيق والنجاح
القائمون بالتدريس: د/سامية جلال أحمد و د. علاء عرفات خليفة
الامتحان الشفهي عقب الامتحان النظري مباشرة

Name (باللغة العربية):

Section A (25 Points, 1 hour)

I- Complete the following equations:



II- How could you perform the following conversions:

(1) Acetone into 2-methyl-2-pentene

(2) Acetaldehyde into 2-butenal

(3) Acetaldehyde into acetyl chloride

III- Write on the followings:

(1) Factors that cause variation in chemical shift

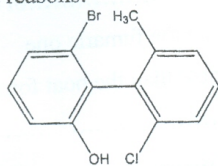
(2) Types of molecular vibrations.

Section B (25 Points, 1 hour)

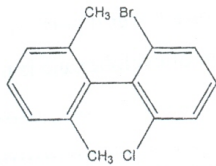
Part I

- 1) Assign the optically active compounds in the following structures giving very short reasons:

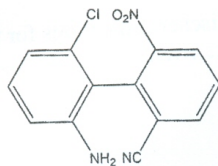
short reasons:



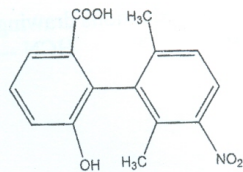
(I)



(II)



(III)

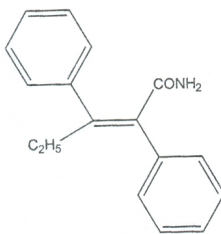


(IV)

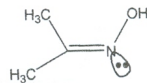
Optically active compounds are No

because

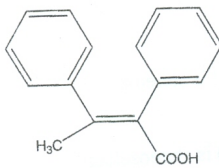
- 2) Allocate the symbols (E) or (Z) to the following:



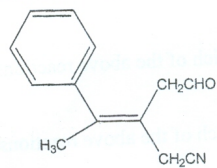
(I)



(II)



(III)



(IV)

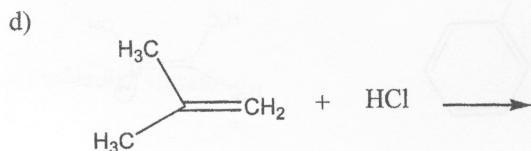
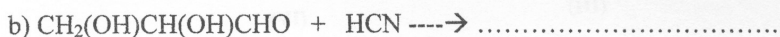
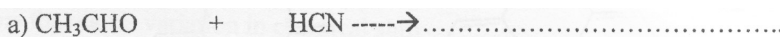
3) Complete the following or mark by (✓) or (X):

- S_{N}^2 reactions proceed by of configuration.
- $\text{S}_{\text{N}}1$ reactions proceed by of configuration.
- Maleic acid has a lower dipole moment than the fumaric one ().
- The chair form of cyclohexane is more stable than the boat form because

e) Maleic acid is more soluble in water than fumaric acid ().

f) Maleic acid has higher melting point than fumaric acid ().

4) Complete the following equations drawing the Fischer projections for the products:



- Which of the above reactions (4a-4d) is regioselective
- Which of the above reactions (4a-4d) is stereospecific
- Which of the above reactions (4a-4d) is stereoselective
- What are the stereochemical nature of products of reactions 4a and 4c

5) The observed angle of rotation of plane polarized light of a sample of D-glucose in water was determined at 25°C using a polarimeter tube of 150 mm path length was found to be 22.5°. Calculate the concentration of this sample, if its $[\alpha]_D^{25}$ is 75°

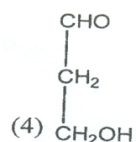
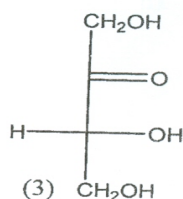
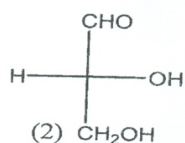
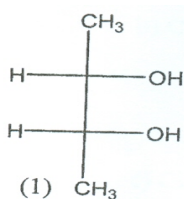
6- Suggest any method for synthesis of any amino acid.

Part II

I- Complete the following statements or allocate (✓) or (X) whenever required:

- 1) Dilute HNO_3 can be used to differentiate D-glucose and D-galactose ().
- 2) Bromine water can be used to differentiate D-glucose and D-fructose ().
- 3) D-glucose and D-mannose can be differentiated by osazone test ().
- 4) Periodic acid can be used to differentiate D-mannose and D-fructose ().
- 5) β -D-glucose oxidizes at a faster rate with bromine water than the α -anomer ().
- 6) β -D-glucose is more stable than the α -anomer because
- 7) Maltose is a reducing sugar ().
- 8) Acid hydrolysis of maltose gives
- 9) Cellobiose is formed of
- 10) Sucrose is a reducing sugar ().

II- What are the products of periodate oxidation of the following compounds:



إسم الطالب: رقم الجلوس:

Complete the Following sentences:

(2.5 Marks)

- 1- Anions that form precipitates with certain metal ions may be analyzed with EDTA by titration
- 2- Complex ions are formed through the formation ofbond
- 3- The stability of metal-EDYA complexes may be altered with and
- 4- The suitable antidote for the treatment of poisoning with arsenicals is
- 5- The metal involved in vitamin B₁₂ complex is



ASSIUT UNIVERSITY
FACULTY OF PHARMACY
PHARM. ANAL. CHEM. DEPT.

ANALYTICAL CHEMISTRY 2 (PC 306)
SEMESTER (3) 2012/2013
PRACTICAL EXAM
1-12- 2012
Time Allowed: 1 hour

رقم الطالب:

إسم الطالب:

Sample No.	A	B
------------	---	---

1- Determination of copper sulphate concentration in sample (A):-,

- 1- Transfer 10 ml of sample (A) into a glass-stoppered conical flask.
- 2- Add 10 ml of 10% potassium iodide solution.
- 3- Add 5 ml distilled water.
- 4- Allow the flask to stand for five minutes.
- 5- Titrate with 0.05 N sodium thiosulphate until pale yellow, near the end point add 10 ml of 5% potassium thiocyanate and shake well.
- 6- Add 1 ml starch solution and continue the titration with shaking after each addition.

Exp. No.	Volume consumed	Mean
1-		
2-		
3-		

Each 1 ml 0.05 N sodium thiosulphate $\equiv$ 0.01225 g $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$

% $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ = _____

II- Determination of zinc sulphate concentration in sample (B):

- 1- Transfer 10 ml of sample (B) into conical flask.
- 2- Add 5 ml of ammonia buffer.
- 3- Add few specks of Erio-T indicator.
- 4- Titrate with 0.05 M EDTA.

Exp. No.	Volume consumed	Mean
1-		
2-		
3-		

Each 1 ml 0.05 M EDTA $\equiv$ 0.01438g $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$

% $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ = _____

Best wishes

Assiut University
Faculty of Pharmacy
Dept. of Pharm. Org. Chemistry
Pharm. Org. Chemistry-3

Clinical Pharmacy program
final Semester exam
December, 26- 2012

Time allowed 2h

Illustrate your answers with chemical equations whenever possible

الاجابة فى نفس الورقة مواعيد الشفهي: بعد الامتحان النظرى مباشرة لجميع الطلاب

This booklet is composed of 6 pages
Answers should be in the specified places

المشاركون فى التدريس

Prof. Dr. Abdel Hamid Kafafy
Dr. Alaa Arafat K. M. Hayallah

Part 1 (25 marks)

Answer the following questions:

1) Draw the chemical structure of the following compounds: (2 marks)

- a) 4-Iodo-2-methylphenol b) 3-Bromo-4-hydroxy benzoic acid
c) 1-Bromo-3-chlorobenzene d) Cycloheptatrienyl cation

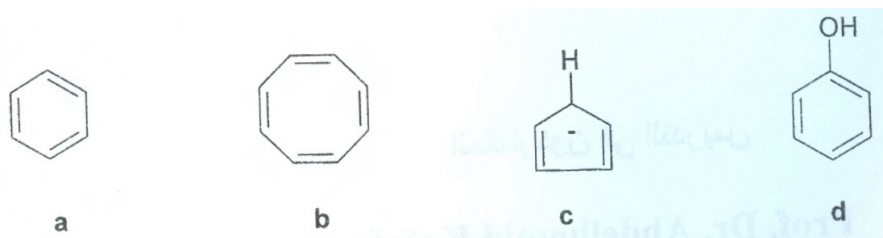
2) Enumerate non-benzenoid aromatic compounds: (1 mark)

- a)
b)
c)

3) Which of the following substituents are ortho, para director and ring deactivating? (1 mark)

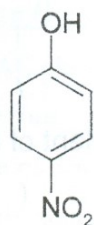
- a) NH_2 b) Cl c) CH_3 d) SO_3H e) NHCOCH_3

4) Assign which one of the following compounds is aromatic: (1 mark)

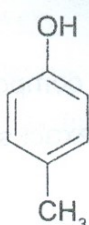


If compound **a** is reacted with **Br₂** in presence of **FeBr₃**, show by equation only the mechanism of this reaction. (3 marks)

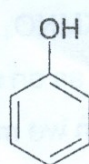
5) Arrange the following compounds in an order of increasing the acidity: (2 marks) explain reasons of this arrangement.



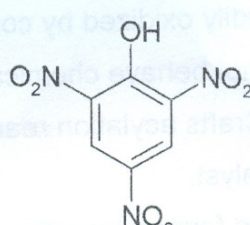
a



b

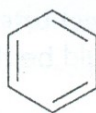


c

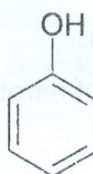


d

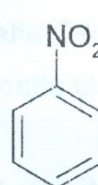
6) Arrange the following compounds in and order of increasing the affinity to electrophilic substitution reactions, explain why this arrangement: (2 marks)



a



b



c

7) How could you carry out the following conversions? (4 marks)

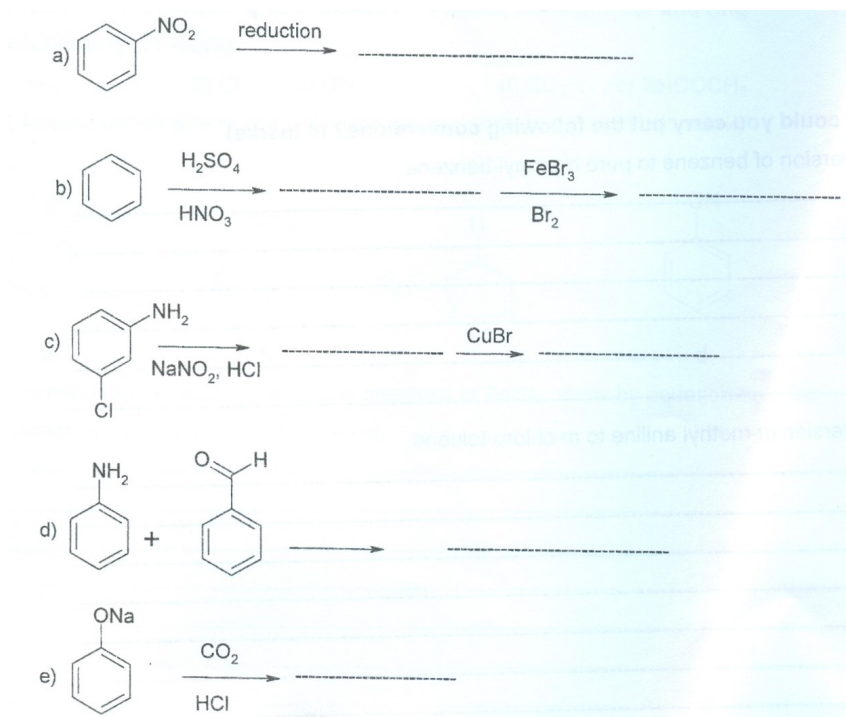
a) Conversion of benzene to pure n-propyl-benzene.

b) Conversion m-methyl aniline to m-chloro-toulene.

8) Assign which of the following sentences is true or false: (4 marks)

- a. Benzene is readily oxidized by cold KMnO_4 . ()
- b. Azulene does not behave chemically as an aromatic compound. ()
- c. In the Friedel-Crafts acylation reaction we must use exact same equivalent of lewis acid to act as catalyst. ()
- d. The arenium ion formed by ortho and para attack in case of amino-benzene should be the most stable one. ()
- e. p-Nitro-aniline is more basic than aniline itself. ()
- f. Cyanobenzene could be prepared by reaction of benzene diazonium salt with CuCN . ()
- g. Aniline undergoes direct Friedel-Crafts alkylation. ()
- g.The arenium ion formed by *meta* attack in case of nitrobenzene should be the most stable one. ()

9) Complete the following equations: (5 marks)



Section B (60 min, 25 points)

I- Underline the correct answer:

- 1- The IUPAC chemical nomenclature of pyrazine is:
a) 1,4-diazine b) 1,2-diazine c) 1,3-diazine
- 2- Oxidation of β -picoline yield:
a) Picolinic acid b) Nicotinic acid c) Isonicotinic acid
- 3- The preferred position(s) for electrophilic aromatic substitution reaction of pyridine are:
a) α and γ positions b) only α position c) β position
- 4- Pyridones are considered as electron source (as phenoxide anion of phenol) so the ring of pyridine becomes
a) Activated towards E_{Ar} Sub. Reaction
b) Non activated towards E_{Ar} Sub. Reaction
c) Activated towards NU_{Ar} Sub. Reaction
- 5- Oxidation of quinoline using $KMnO_4/H^+$ produce:
a) Pyridine 2,3-dicarboxylic acid
b) Pyridine 3,4-dicarboxylic acid
c) Picolinic acid
- 6- The high reactivity of pyrrole and furan towards electrophilic aromatic substitution reaction resemble:
a) Nitrobenzene b) Phenol c) Both a & b
- 7- Pyrrole could be nitrated using:
a) Conc. HNO_3/H_2SO_4 b) Non acidic nitrating agent as.....
c) Conc. H_2SO_4
- 8- The non acidic sulphonating agent used for sulphonation of furan is:
a) Conc. H_2SO_4 b) Fuming H_2SO_4 c) SO_3 / pyridine
- 9- Pyridine-N-oxide is
a) More reactive towards E_{Ar} Sub. Reaction
b) Less reactive towards E_{Ar} Sub. Reaction
c) Equal reactivity to pyridine
- 10- The reactivity of pyridine-N-oxide is attributed to
a) Diverse +M, -M effect only b) +M effect c) -M effect

See the next page

- 11- The IUPAC chemical nomenclature of morpholine is:
 a) Perhydrooxazine b) Perhydroazine c) Trihydrooxazine , .
- 12- The IUPAC chemical nomenclature of oxazoline is:
 a) Trihydropyridine b) Tetrahydrofuran c) Dihydrofuran
- 13- The IUPAC chemical nomenclature of indole is:
 a) Benzo(a)pyrrole b) Benzo(c)pyrrole c) Benzo(b)pyrrole
- 14- Quinoline follows Huckel's rule, having $4n+2$ π electrons which equal to:
 a) 4 π electrons b) 6 π electrons c) 10 π electrons
- 15- There is high similarity between the chemical behavior of pyridine and:
 a) Nitronaphthalene b) Nitrobenzene c) Aminobenzene
- 16- Oxidation of phenyl pyridine using KMnO_4/OH produces:
 a) Benzoic acid b) Nicotinic acid c) Isonicotinic acid
- 17- 2-Methylpyridine reacts with benzaldehyde to afford:
 a) 3-Styrylpyridine b) 2-Styrylpyridine c) No reaction
- 18- 4-Aminopyridine could be used as a precursor for synthesis of:
 a) 3-Substituted pyridine b) 2-Substituted pyridine c) 4-Substituted pyridine
- 19- The removal of N-oxide oxygen of pyridine N-oxide can be overcome by:
 a) Zn/HCl b) PCl_5 c) PCl_3
- 20- 2,5-Dimethylpyrrole undergoes Reimer Tiemann reaction and yields:
 a) An aldehyde together with ring expansion product.
 b) An aldehyde only without any ring expansion product.
 c) The ring expansion product only without any aldehyde.
- 21- The preferred position(s) for EArS reactions of indole occurs at:
 a) 2-position b) 3-position c) 5-position,
- 22- EArS reaction of pyrimidine ($\text{HNO}_3/\text{H}_2\text{SO}_4$) produces:
 a) 3-nitropyrimidine b) 2-nitropyrimidine c) no reaction
- 23- EArS reaction of uracil occurs at:
 a) 5-Position of pyrimidine b) 6-Position of pyrimidine c) 2-Position of pyrimidine
- 24- The IUPAC nomenclature of quinoline is:
 a) benzo(a) pyridine b) benzo(b) pyridine c) benzo(c) pyridine

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

25- Explain the EArS reaction of questions **22** and **23**.

اختبار الفصل الدراسي الأول للعام الجامعي ٢٠١٢/٢٠١٣
الفصل الثالث - برنامج الصيدلة الإكلينيكية

المادة: علم النفس

الزمن : ساعتان

❖ تعليمات الاختبار:

- ← أكمل العبارات بأدق ما تراه مناسباً من البدائل الثلاثة (أ-ب-ج) في ضوء دراستك لمقرر علم النفس.
- ← اكتب اجابتك في نموذج الإجابة المعد ، ولن يلتفت الى أى اجابة داخل صفحات الأسئلة.
- ← درجات التساؤلات متساوية، فكل تساؤل له درجتان؛ لتصبح الدرجة العظمى للاختبار ٨٠ درجة.
- ← تأكد من أن صفحات الاختبار ست (٦) صفحات.

نموذج الإجابة

❖ ضع البديل المناسب الذي تم اختيارك اياه في المكان المناسب له طبقاً لرقم كل تساؤل.

بدائل الاختبار			م	بدائل الاختبار			م
ج	ب	أ		ج	ب	أ	
			٢١				١
			٢٢				٢
			٢٣				٣
			٢٤				٤
			٢٥				٥
			٢٦				٦
			٢٧				٧
			٢٨				٨
			٢٩				٩
			٣٠				١٠
			٣١				١١
			٣٢				١٢
			٣٣				١٣
			٣٤				١٤
			٣٥				١٥
			٣٦				١٦
			٣٧				١٧
			٣٨				١٨
			٣٩				١٩
			٤٠				٢٠

أكمل العبارات الآتية بآدق ما تراه مناسباً من البدائل الثلاثة (أ-ب-ج) في ضوء دراستك لمقرر علم النفس .

م	العبارات	البدائل أ ب ج
١-	برز في العصر الحديث علم النفس الإيجابي ؛ نتيجة : أ- دراسة الاضطرابات النفسية وعلاجها . ب- التدخلات العلاجية للأمراض الذهانية . ج- تناول المتغيرات الإيجابية في الشخصية الإنسانية .	☐ أ ☐ ب ☐ ج
٢-	يقصد بسلسلة التغيرات الطارئة على الفرد في الجانب التكويني : أ- النمو . ب- الارتقاء . ج- النضج .	☐ أ ☐ ب ☐ ج
٣-	يحقق الفرد السواء النفسي طبقاً للمذهب الإنساني (نظرية الذات) إذا كان قادراً على : أ- الانسجام في المنطقة المفتوحة . ب- التدريب على التفريغ الانفعالي والتداعي الحر . ج- التغلب على السلوك غير المرغوب فيه والارتقاء بالسلوكيات الإيجابية .	☐ أ ☐ ب ☐ ج
٤-	يطلق على التقدير شبه الدائم في السلوك نتيجة الخبرة والممارسة والتدريب : أ- التربية . ب- التعليم . ج- التعلم .	☐ أ ☐ ب ☐ ج
٥-	يظهر الضمير والمثل كأحد مكونات الشخصية الإنسانية في نظرية التحليل النفسي في : أ- الأنا الأعلى Super Ego . ب- الأنا Ego . ج- الهو ID .	☐ أ ☐ ب ☐ ج
٦-	يتجلى الفارق بين مصطلحي التعليم والتعلم في : أ- القصدية والرسمية ، ب- المنظومة والتكامل . ج- الاستمرارية .	☐ أ ☐ ب ☐ ج
٧-	ساهمت معادلة الفروق الرباعية على إثبات وجود القدرة العامة للفرد على يد العالم : أ- سبيرمان Spearman ، ب- بينيه . ج- هوارد جاردنر .	☐ أ ☐ ب ☐ ج
٨-	يتحدد اختيار الفرد لأحد أساليب التوافق النفسي المباشر وغير المباشر بـ : أ- نمط الاضطرابات النفسية التي يعاني منها الفرد . ب- نقاط القوة والضعف للفرد . ج- الصلابة النفسية للفرد .	☐ أ ☐ ب ☐ ج

أكمل العبارات الآتية بادق ما تراه مناسباً من البدائل الثلاثة (أ-ب-ج) في ضوء دراستك لمقرر علم النفس .

البدائل	العبارة	م
أ ب ج		
	٩- إذا تماثل العمر العقلي والعمر الزمني تصبح درجة ذكاء الفرد :	
	أ- ١٠٠ .	
	ب- ١١٠ .	
	ج- ٩٠ .	
	١٠- يمثل الاتجاه الحديث في رؤية النكاح الإنساني من حيث التعددية عالم النفس :	
	أ- وكسلر .	
	ب- هوارد جاردنر .	
	ج- بينه .	
	١١- يقاس السواء النفسي للفرد بقدرته على تحمل المواقف الضاغطة من خلال :	
	أ- الشدة والحدة .	
	ب- السعة والمدى .	
	ج- عتبة الإحباط .	
	١٢- يمكن للفرد تحقيق التوافق النفسي والاجتماعي من خلال :	
	أ- التفاعل بين مكونات عناصر البيئتين الداخلية والخارجية .	
	ب- تعلم طريقة حل المشكلات بخطوات المنهج العلمي .	
	ج- إتباع خطوات التفكير في مجالات الحياة المختلفة .	
	١٣- يتوقف التوافق النفسي والاجتماعي لدى الفرد طبقاً لنظرية التحليل النفسي على قوة :	
	أ- الأنا الأعلى Super Ego .	
	ب- الأنا Ego .	
	ج- الهو ID .	
	١٤- لم يقتصر تأثير العوامل الوراثية على الجانب الجسدي ، بل اتسع ليشمل :	
	أ- الجوانب المعرفية والاجتماعية .	
	ب- الجوانب الانفعالية والروحية .	
	ج- جميع جوانب الشخصية الإنسانية .	
	١٥- من أبرز أساليب التوافق المباشرة الإيجابية :	
	أ- زيادة الجهد .	
	ب- الثقة بالنفس .	
	ج- الإفصاح عن الذات .	
	١٦- لتحقيق الانسجام والتأقلم مع البيئة المحيطة بالفرد ، يستوجب :	
	أ- التكامل بين وظائف النصفين الكرويين .	
	ب- سيادة النصف الأيمن للدماغ .	
	ج- سيادة النصف الأيسر للدماغ .	

أكمل العبارات الآتية بأدق ما تراه مناسباً من البدائل الثلاثة (أ - ب - ج) في ضوء دراستك لمقرر علم النفس .

البدائل	العبارة	أ	ب	ج
١٧-	تظهر أحد مكونات السلوك الإبداعي لذوي الذكاء العالي في :	أ- الطلاقة اللفظية .	ب- المرونة .	ج- الأصالة .
١٨-	تظهر حيلة التكوين العكسي كأحد أساليب التوافق الاجتماعي غير المباشرة في ظاهرة :	أ- على طرف اللسان TOT .	ب- النسيان .	ج- التصور والتخيل وسرعة التذكر .
١٩-	يستطيع الفرد التعبير عن مكنونات النفس الانفعالية والنفوسية عن طريق هنية :	أ- المقعد الخالي .	ب- التداعي الحر .	ج- القصة الرمزية .
٢٠-	يتجلى الفارق بين نوعي التفكير الاستدلالي والاستنباطي في :	أ- إجراءات عملية التفكير .	ب- المعلومات مادة التفكير .	ج- محتوى التفكير .
٢١-	يطلق على من يمتلك القدرة على إيجاد صوراً عقلية ويستخدم خرائط ذهنية ذوي الذكاء :	أ- البصري المكاني .	ب- المنطقي الرياضي .	ج- الجسمي الحركي .
٢٢-	يظهر أعلى أداء يستطيع الفرد الوصول إليه في :	أ- السمات الشخصية للفرد .	ب- الأداء المميز .	ج- الأداء الأقصى .
٢٣-	يتم تحويل الرموز والأشكال إلى معاني في العقل البشري عن طريق :	أ- الذاكرة .	ب- معالجة المعلومات .	ج- الإدراك .
٢٤-	يخلق على التآلف بين الشخص والمحيطين به :	أ- التوافق الاجتماعي .	ب- التوافق الشخصي .	ج- التوافق المجتمعي .

أكمل العبارات الآتية بأدق ما تراه مناسباً من البدائل الثلاثة (أ-ب-ج) في ضوء دراستك لمقرر علم النفس .

م	العبارات	البدائل أ ب ج
٢٥-	من أساليب التوافق غير المباشرة :	
	أ- الحيل الدفاعية (ميكانيزمات الدفاع)	☐
	ب- بذل الجهد للوصول إلى الهدف .	☐
	ج- تغيير الهدف بما يتناسب مع قدرات الفرد .	☐
٢٦-	يمثل الجانب الإدراكي للحياة النفسية للفرد في أحد أبنية الشخصية ، وهو :	
	أ- الأنا Ego .	☐
	ب- الهو ID .	☐
	ج- الأنا الأعلى Super Ego .	☐
٢٧-	تظهر الأمراض السيكوسوماتية لدى الأفراد ؛ نتيجة :	
	أ- اضطرابات وأمراض الجلد وضغط الدم .	☐
	ب- اضطرابات وآلام المعدة .	☐
	ج- استجابة الجسد للضغوط النفسية .	☐
٢٨-	من أهم العوامل التي تعمق التوافق النفسي الشخصي للأفراد :	
	أ- أخطاء التفكير .	☐
	ب- التفاعل بين البيئتين الداخلية والخارجية .	☐
	ج- محتوى الموضوعات الدراسية بالمناهج .	☐
٢٩-	يتجلى الفارق بين الجانبين التطبيقي والنظري للصحة النفسية في :	
	أ- المعرفة والمعالجة .	☐
	ب- التكامل .	☐
	ج- الاستمرارية .	☐
٣٠-	أهم ما يميز حيل الدفاع كأحد الأساليب غير المباشرة في تحقيق التوافق النفسي للفرد أنها :	
	أ- تشوه الواقع وتزييفه وتكره .	☐
	ب- التخيل والتصور	☐
	ج- الملاحظة	☐
٣١-	يظهر سوء التوافق الاجتماعي لدى ذوي الأمراض السيكوسوماتية ؛ نتيجة :	
	أ- شعور ذوي الاضطرابات السيكوسوماتية بالإنهاك والإعياء .	☐
	ب- شعور ذوي الاضطرابات السيكوسوماتية بالدونية والنقص .	☐
	ج- شعور ذوي الاضطرابات السيكوسوماتية بالوحدة والعزلة عن الآخرين .	☐
٣٢-	تعرف عملية استبعاد الفرد لا شعورياً لكل ما يؤذيهِ من الجانب الشعوري إلى اللاشعور بـ :	
	أ- الكبت .	☐
	ب- الكبح	☐
	ج- النكوص	☐

أكمل العبارات الآتية بآدق ما تراه مناسباً من البدائل الثلاثة (أ - ب - ج) في ضوء دراستك لمقرر علم النفس .

البدائل	العبارات	م
أ ب ج		
	تظهر الاضطرابات النفسية طبقاً لنظرية الاتجاه العقلاني الانفعالي لـ Alport Ellis نتيجة :	٣٣-
	أ- المعتقدات والأفكار السوية والصحيحة . ب- المعتقدات الخاطئة والأفكار اللا عقلانية . ج- الأفكار القائمة على الانفعال .	
	تتباين عناصر أنواع التوافق ، وتنوع وجهات النظر حولها ، إلا أنها تبدو في صورة :	٣٤-
	أ- اتساقية . ب- تكاملية . ج- تفاعلية .	
	من أهم أخطاء التفكير التي تظهر في اعتماد الفرد على الحيل الدفاعية :	٣٥-
	أ- الخلط بين الرأي والحقيقية . ب- التفكير الحر دون المقيد . ج- التفكير المتشعب دون الاحادي	
	للتغلب على ظهور أعراض الأمراض السيكوسوماتية يلزم الفرد :	٣٦-
	أ- إتباع أحد استراتيجيات مواجهة الضغوط الفعالة . ب- تعلم طريقة حل المشكلات بخطوات المنهج العلمي . ج- إتباع خطوات التفكير في مجالات الحياة المختلفة .	
	تتعدد أشكال التوافق ، إلا أن أقوى وأفضل أنواع التوافق ، هو :	٣٧-
	أ- التوافق الشخصي . ب- التوافق الاجتماعي . ج- التوافق المجتمعي .	
	يلجأ الأسوياء وغير الأسوياء للحيل الدفاعية ، ولكنهم يختلفون في :	٣٨-
	أ- أنماط الحيل التي يلجأون إليها . ب- الأسلوب الذي يظهرون به الحيل الدفاعية . ج- درجة الاعتماد عليها في المواقف الحياتية .	
	يتفق الكثير من علماء النفس على أنه من الضروري في معالجة الاضطرابات السيكوسوماتية نفسياً :	٣٩-
	أ- التغلب على السلوك غير المرغوب فيه والارتقاء بالسلوكيات الإيجابية . ب- التدريب على التفرغ الانفعالي والتداعي الحر . ج- العلاج العقاقير أولاً .	
	يشير الارتباط القوي بين أساليب أداء بالسمه التي تتجمع ويطلق عليها :	٤٠-
	أ- الأداء Performance . ب- القدرة Ability . ج- الشخصية Personality .	

----- انتهت الأسئلة ----- مع تمنياتي لكم بالتوفيق -----

لجنة الممتحنين

أ.د. صلاح الدين حسين الشريف

د. مصطفى عبد المحسن عبد التواب الحديبي

Q No.	1	2	3	4	5	6	7	8	9	10	11
Answer											

1- Complexometry and Statistics: (25 Marks)

A) Chose the correct answer and write the indicative letter only in the above table: (11.0 Marks)

1- Aluminum chloride can be determined by:

- (a) indirect titration (b) direct titration (c) back titration (d) none of these

2-Triethanolamine masks these ions except:

- (a) Al^{3+} (b) Fe^{3+} (c) Mn^{2+} (d) Mg^{2+}

3- Anions that form precipitates with certain metal ions may be analyzed with EDTA by:

- (a) indirect titration (b) direct titration (c) back titration (d) displacement

4- The stability of metal-EDTA complexes may be altered with:

- (a) pH (b) complexing agents (c) a & b (d) none of these

5- Increasing the selectivity of EDTA titration by:

- (a) pH control (b) masking agent (c) adjusting oxidation state (d) all of these

6- Complex ions are formed through the formation of :

- (a) coordinate bond (b) ionic bond (c) covalent bond. (d) none of these

7- Bismuth-EDTA chelate may be appreviated as:

- (a) MY^- (b) My^{3-} (c) MY^+ (d) My^{3+}

8- The metal which forms complex with globin to form hemoglobin is:

- (a) calcium (b) iron (c) chromium (d) copper

9- The metal complex in chlorophyll is:

- (a) calcium (b) iron (c) manganese (d) magnesium

10- The metal complex in vitamin B₁₂ is:

- (a) cobalt (b) iron (c) zinc (d) cadmium

11- The metal which activates insulin is:

- (a) calcium (b) iron (c) zinc (d) sodium

B) In the provided table, write the name or the scientific term for each of the following: (11.0 Marks)

Q. No.	Name or Scientific term	Q. No.	Name or Scientific term
1		7	
2		8	
3		9	
4		10	
5		11	
6			

- 1- Percentage of the mean error.
- 2- The errors that follows the normal distribution curve.
- 3- Agreement of a measurement with the true value.
- 4- The arithmetic average of all measured values.
- 5- The RSD expressed as a %.
- 6- The measurement in the middle of the arranged measurements.
- 7 - A test used to determine if an outlier is due to a determinate or indeterminate error.
- 8- A coefficient used to establish the linear relationship between two variables.
- 9- Measure of the capacity of the analytical method to remain unaffected by small variations.
- 10- The method can be carried out in a minimum number of steps.
- 11-A validated quantitative analytical procedure that can detect the changes with time.

C) Solve the following problem: (3.0 Marks)

The following set of chloride analysis on separate aliquots of serum were reported; 103, 106, 107 and 114 meq/L. one value appears suspect. Determine if it may be rejected or not (the tabulated value for Q at the 95 % confidence level, 4 observations = 0.83).

II- Redox:..... (25 Marks)

A- Complete the Following Sentences: (7 Marks)

1- The factors affecting redox potential are:

a-

b-

c-

d-

2- The potential at the end point equal

3- is an irreversible redox indicator while is reversible and is self indicator.

4- is a primarily redox stand. While is a secondary one.

5- Karl – Fischer reagent composed of:-

a-

b-

c-

d-

B- Compare between the following giving only the main differences: (8 Marks)

Iodimetry	Iodometry
Preoxidant	Prereductant
Andrew's reaction	Langs reaction
Oxygen flask	Langs flask

C- Discuss briefly the Principle of redox analysis of each of the compound below: **(5 Marks)**

a- Ascorbic acid.

b- Benzoyl peroxide.

c- Thioglycolic acid

d- Sodium sulphate.

e- insoluble oxalate.

D- Comment or give reason on each of the following statement:

(5 Marks)

- a- Copper sulphate can oxidizes iodide.
- b- Dark is necessary in bromomrtric determination of phenol.
- c- Zimmermann reagent should be added in assay of ferrous Chloride by permanganate.
- d- The use of chloroform instead of starch as indicator in some redox end point detection.
- e- Iodide must added in preparation of standard iodine solution.

إنتهت الأسئلة مع تمنياتنا بالتوفيق

لجنة الامتحان: أ.د. جمال أحمد صالح ، أ.د. حسن فرغلى عزقل محمد



Faculty of Medicine
Physiology Department

Date: 12/1/2013
Time allowed: 3 hours
Total mark: 65

**Final Medical Physiology Exam for Third Semester Clinical Pharmacy
Students**

- I) Blood:** **Mark**
- 1- Explain functions of plasma proteins in blood clotting, defense, viscosity of the blood and maintenance of normal capillary permeability. **2**
 - 2- Define erythropoiesis and mention effect of O₂ tension, iron, vitamins and liver on erythropoiesis. **3**
 - 3- Define hemophilia and mention its types and causes. **2**
 - 4- Compare between heparin and dicumarol. **2**
- II) Cardiovascular system:**
- 1- Define excitability and mention excitability changes during cardiac activity. **3**
 - 2- Mention the effect of the following on heart rate: **5**
 - a- Increase arterial blood pressure.
 - b- Increase venous return and pressure in the right atrium and big veins opening into it.
 - c- Inspiration and expiration.
 - d- Stimulation of anterior and medial nuclei of hypo thalamus. e- Severe pain.
 - 3- Define peripheral resistance and explain its role in maintaining normal arterial blood pressure. **3**
- III) Respiration:**
- 1- Mention the difference between external respiration and internal respiration. **2**
 - 2- Define surfactant and respiratory distress syndrome. **2**
 - 3- Write true or false for the following statement: **4**
 - a- Pneumotaxic centre helps to control the switch off point of inspiration and control the rate of breathing.
 - b- Hering Breuer deflation reflex is much more active than inflation reflex.
 - c- Cyanosis is observed in anemic and histotoxic hypoxia.
 - d- The threshold for cyanosis is 5 gm deoxygenated hemoglobin/100 ml blood.
- IV) Central nervous system:**
- 1- Mention 4 functions of the hypothalamus. **2**
 - 2- Complete: **3**
 - a- is concerned with coordination of voluntary movements, posture and balance.
 - b- transmit impulses to and from the brain.
 - c- is the pathway that nerve impulses travel when a reflex is elicited.

باقى الاسئلة فى الخلف



V) Kidney:

1. Discuss hormonal control of the kidney? 4
2. Define:
 - a. Transfer maximum 1
 - b. Glomerular filtration rate 1

VI) Autonomic nervous system:

1. Discuss Homer's syndrome? 3
2. Mention the functions of pelvic nerve? 3

VII) Endocrine:

1. Discuss the factors controlling the release of antidiuretic hormone? 4
2. Mention metabolic effects of insulin? 3

VIII) Digestion:

1. Give an account on cholecystokinin hormone (Site of release, stimuli for release& functions)? 4

IX) State true or false and correct the false one mark each

1. Acetylcholine is released from all parasympathetic and sympathetic postganglionic terminations.
2. Nicotinic receptors are adrenergic receptors present at the neuromuscular junctions and autonomic ganglia.
3. Adrenaline is a weak vasoconstrictor while noradrenaline is a potent vasoconstrictors.
4. Renin is a hormone secreted from the juxtaglomerular cells in the kidney in response to low blood pressure and low NaCl.
5. Glucose, amino acid and sodium are completely reabsorbed at the proximal convoluted tubules.
6. Vomiting occurs by strong contractions of the stomach wall, contraction of the cardiac sphincter and an increased intra-abdominal pressure.
7. Salivary secretion is produced by a nervous mechanism only and is essential for complete digestion of starch.
8. Bile salts are secreted from the liver, stored in the gall bladder and are essential for absorption of vitamins A, B and C.
9. Bile salts are the best stimulant for liver cells to secrete bile.

Good luck

Prof. Ibtisam Elmileegy & Dr. Eman S H Abd Allah



Assiut University
Faculty of Medicine
Pharmacology Department

Date: 14/1/2013
Time allowed: 2 hours
Final Medical Terminology Examination for Clinical Pharmacy Student (3rd semester)

Part One

(I) Rewrite the following sentences after replacement of the underlined phrases by terms and vice versa (32 marks)

- 1- A patient suffers from schizophrenia and in a wrong way the pharmacy technician dispensed to him a drug that relieves depression. It had to be taken before a meal, but it produced the following drug reactions: below normal blood pressure, loss of appetite, cardiac arrhythmias and oliguria
- 2- A 21 year old African-American male, with a medical history of biopsy proved ulcerative colitis diagnosed in 1995, focal segmental glomerular sclerosis determined by renal biopsy in 1995, and primary sclerosing cholangitis determined by liver biopsy in 2000 presented to the neuro-ophthalmology service with complaints of binocular diplopia and ptosis of the left upper eyelid. Both the diplopia and the ptosis were better in the morning and worsened during the course of the day. His ulcerative colitis had been in remission for the past 5 years without medication. Best corrected visual acuity was 20/25 in each eye. The external examination revealed ptosis of the left upper eyelid that worsened in sustained upgaze. He had limited extraocular motility in all fields of gaze. The remainder of the neuro-ophthalmic examination was normal and he had no difficulty with speech or swallowing. Laboratory evaluation revealed a positive acetylcholine receptor antibody and normal thyroid function studies. There was no evidence of a thymic mass on MRI of the chest. The patient returned to the emergency room 1 week later with difficulty swallowing and shortness of breath. He was hospitalised for plasmapheresis and upon discharge treated with imuran, prednisone, and mestinon. One month later his ptosis resolved and his extraocular motility was normal.
- 3- Misuse of corticosteroids may lead to major adverse effects while abuse of opioid analgesics and drugs that relieve insomnia may cause addiction
- 4- Patients with diabetes mellitus usually complain from excessive urination, while there is very little urine formation in those with renal dysfunction
- 5- Some virgins suffer from painful menstruation
- 6- A 27 yrs old, 72 kg, primigravida with twin gestation in 33rd gestational week, was admitted to our hospital with severe preeclampsia for peripartum care, which finally required a cesarean section. On physical examination her blood pressure was found to be 210/110 mmHg, heart rate was 125 beats/min and with albumin 3 + in urine.

Part Two

(II) For each of the following MCQs, select the ONE most appropriate answer (18Marks)

- 1- Mrs. Harrell is scheduled to visit her Ophthalmologist for an eye examination. She was instructed to put eye drops In her eyes right before the appointment, to assist with the internal examination of her eye.**
Which of the following medicateddops might she be required to install prior to the exam?
A. Miotic B. mydriatic
- 2- "Rx" is an abbreviation for:**
A. Diagnosis B. Prescription C. Prognosis
- 3- When your doctor orders routine blood work, he or she usually tests your hemoglobin. What is the abbreviation for hemoglobin?**
A. HBP B. hCG C. Hgb
- 4- When an obstetrician or midwife refers to a woman as "nulligravida," what does he or she mean?**
A. She is pregnant for the first time.
B. She has never been pregnant before.
C. She has had multiple pregnancies.
- 5- Stomatitis means inflarnmation of:**
A. Stomach B. Mouth C. Gums D.lips
- 6-Far sighted is called:**
A. Diplopia B. Myopia C. Hyperopia D. Presbyopia
- 7- The doctor examined the patient's eyes by means of an**
A. Otoscope B. Gastroscope C. Cystoscope D. Ophthalmoscope
- 8- A patient with encephalitis Is most likely to be treated by which of the following specialists?**
A. Endocrinologist B. Hematologist C. Neurologist D. Oncologist E. Radiologist
- 9. The suffix -osis in the word dermatophytosis means:**
A. Growing B. Condition C. Drooping D. Dilation
- 10. The suffix -penia in the word granulocyloopenia means:**
A. Decrease in number B. Increase in number C. Narrowing D. Widening
- 11. The term para- in the word parenteral means:**
A. Near from B. In front C. behind D. Away from
- 12. The suffix -iasis in the word nephrolithiasis means:**
A. Condition/Presence of B. Growth/Nourishment. C. Suspension/Fixation D. Protrusion/Swelling
- 13. The term pleura - in the word pleurisy means:**
A. Membrane enveloping the heart B. Membrane enveloping the lungs
C. Membrane enveloping the kidney D. Membrane enveloping the abdomen

14. The suffix -lytic in the word proteolytic means

- A. Absence of proteins B. Chemical degradation of proteins
C. Biosynthesis of proteins D. pertaining to proteins

15. The suffix -poiesis in the word haemopoiesis means:

- A. Destruction of B. Pertaining to C. Formation of D. Originating in

16. The suffix -malacia in the word chondromalacia means

- A. Hardening B. Flowing C. Softening D. Producing

17. The loading dose of a drug means

- A. An initial high dose of a drug B. An initial small dose of a drug
C. The largest dose of a drug D. The median effective dose of a drug

18. An agent given to counteract the effect of drug overdose

- A. Antiserum B. Antitoxin
C. Antidote D. Antigen

(III) Match the word parts in Column A with the definition in Column B (10 marks)

COLUMN A

- 1-The relaxation period of a cardiac cycle
2-The property to stop bleeding
3-.....The study of the causes of diseases
4-The volume of blood pumped from one ventricle of the heart with each beat
5-A false belief, opinion, or mistaken idea
6-The study of the effect of body on the drug following its administration
7-Presence of blood in the sputum
8-.....The use of an antigen to induce immunity
9-Feeling of happiness and confident sense of well being.
10- ...A clouding or opacity of the lens of the eye

COLUMN B

- A. Aetiology
B. Pharmacokinetics
C. Haemoptysis
D. Delusion
E. Cataract
F. Active prophylaxis
G. Euphoria
H. Haemostatic
I. Stroke volume
J. Diastole

Part Three

(IV) Fill in the spaces using the correct medical term provided (between brackets), representing the following definitions in each question? (10Marks)

(Rubella - Passive Prophylaxis – Pancytopenia - Arrhythmia - Haemophilia - Sick cell - anemia - Active Prophylaxis - Blood serum - Idiosyncrasy - Blood plasma - Pernicious anemia - Thrombosis - Chickenpox - Haemoptysis - Smallpox)

- 1- Irregularity of the heart rate or rhythm -----
- 2- The formation of a clot inside a blood vessel, obstructing the flow of blood through the circulatory system -----
- 3- ----- is a decrease in red blood cells that occurs when the body cannot properly absorb vitamin B 12 from the gastrointestinal tract
- 4- Acute viral infectious disease caused by Varicella zoster virus (VZV), that mainly affects the skin of children -----
- 5- An inherited blood disease associated with tendency to bleeding -----
- 6- The whole blood minus both the cells and the clotting factors -----
- 7 - Abnormal drug effect that may usually due to genetic deficiency of enzymes responsible for drug metabolism -----
- 8- A pathological condition in which all the blood cell types or all parts of the blood are lacking -----
- 9- The use of an antiserum for protection against specific infectious or toxic agent -----
- 10- Drugs that prevents an agonist from binding with receptors to produce an effect -----

(V) Write your answers in the space provided for each question? (10Marks)

- 1- Angina pectoris is a chest pain resulting from a temporary difference between the ----- and ----- of oxygen to heart muscles.
- 2- Bioavailability is the ----- and ----- of drug that reaches the systemic circulation
- 3- Bronchiectasis means chronic dilatation of ----- & ----- due to inflammation or ----- welling obstruction.
- 4- Aplastic anemia is a disorder in which the ----- is suppressed or stops production of blood cells.

- 5- Cachexia means general ill health with emaciation, usually occurring in association with----- or a -----.
- 6- Psychosis means distortion of reality with symptoms such as -----, ----- and ----- behavior.
- 7- Keratoconjunctivitis is inflammation of the -----and -----.
- 8- Infestation is infection caused by microscopic -----.
- 9- Septicemia is caused by the presence of ----- and their ----- in the blood stream.
- 10- An acute febrile infection caused by Salmonella Typhi ingested via the contaminated food or drink-----.

Finally Part Four

(VI) Give the meaning of the following abbreviations used in prescription in the blank provided: **(5 Marks)**

- 1- B.I.D. :-----
- 2- A.C. :-----
- 3 - I. C. :-----
- 3- O.M. :-----
- 5 - H. S. :-----

(VII) Write the meaning of the following abbreviations in the blank provided: **(5Marks)**

- 6 - ASD: -----
- 7- DVT: -----
- 8 - CHF: -----
- 9- AF/F -----
- 10- PVD: -----

Good Luck

Dr. Safaa Youssef Salem

Dr. Romany Helmy Thabet

	Clinical Pharmacy Students Second Level, Third Semester Pharmacognosy 2 Date, 20-1-2013 Total mark: 50 marks	
Assiut University	Time allowed 2 hours	Faculty of Pharmacy

قبل البدء في الإجابة الرجاء قراءة هذه التعليمات جيدا

- ١- تأكد أن ورقة الامتحان تتكون من ٧ صفحات مختلفة (٤ ورقة) وفي حالة التكرار أو النقص يطلب استبدالها فوراً.
- ٢- الرجاء الإجابة في الأماكن المخصصة لذلك
- ٣- يجب تخصيص الوقت المناسب لإجابة كل سؤال ومراعاة عدم تجاوزه حتى يتسنى لك إجابة جميع الأسئلة.
- ٤- محاولة الاستعانة بالآخرين أو اعانتهم في إجابة الامتحان يعرضك للمسائلة القانونية من الجامعة وما يترتب عليها

لجنة الممتحنين:-

- ١- أ.د/ عزه عباس خليفه
- ٢- أ.د./ صفاء أحمد المغازى

مع أطيب الأمنيات بالنجاح والتوفيق

All questions should be answered.

Part I: (25 Mark)

I-Complete the following sentences with suitable words. Write your answers

in the table below: (18x½=9 Marks)

- a- The seed is a mature integumented fertilized (1) , while the fruit is a mature fertilized(2).....
- b- The root can be differentiated morphologically from rhizome by absence of (3)..... and(4).....
- c- A succulent fruit where the endocarp is hard, one seeded is called(5)
- d-The sweet taste of liquorice is due to (6) ... while the bitterness is due to(7)....
- e-(8)....is a root.belongs to family Apocynaceae, contains(9)... alkaloid which used in treatment of (10)
- f- Linseed helps to lower cholesterol level due to(11)
- g- The highest percentage of capsaicin is located in the...(12).., while the lowest one is present in the ... (13)
- h-Dandelion root is used mainly as(14)..... due to presence of(15)
- i- Majudin and bergapten are(16) present in(17)..... fruit and used in treatment of ... (18)

1-	10-
2-	11-
3-	12-
4-	13-
5-	14-
6-	15-
7-	16-
8-	17-
9-	18-

- 1- *Linseed* is characterized by having:
a- Straight embryo b- Anatroous ovule
c- Albuminous structure d- All of the above
- 2- The following drug is used as supportive therapy for cold and respiratory tract infection:
a- *Liquorice* b- *Ipecacuanha* c- *Echinacea* d- *Senega*
- 3- The following root is contra-indicated in case of hypertension:
a- *Rauwolfia* b- *Dandelion* c- *Liquorice* d- *Ipecacuanha*
- 4- Cremocarp fruit is:
a- Simple dry dehiscent fruit
b- Splits into two one seeded mericarp
c- Formed from bilocular bicarpellary superior ovary d- All of the above
- 5- *Krameria* root is used in:
a- Treatment of diarrhea b- Treatment of constipation
c- Mouth washes d- a and c
- 6- *Ammi visnaga* is used for treatment of:
a- Renal spasm b- Leukoderma c- Hypertension d- Cough
- 7- Traxacum root belongs to family:
a- Leguminosae b- Apocyanaceae c- Compositae d- Rubiaceae
- 8- Furanocoumarins are present in :
a- *Apium & Ammi majus* b- *Ammi majus & Ammi visnaga*
c- *Ammi visnaga & Apium* d- *Dill & Fennel*
- 9- The outer most layer of the endosperm cells of *Foenugreek* contains:
a- Mucilage b- Saponin c- Aleurone grains d- Alkaloid
- 10- Cardiac glycosides of *Strophathus* can be tested with:
a- Conc. nitric acid b- Mineral acid c- 66% sulphuric acid d- Picric acid
- 11- A pharmaceutical preparation containing khellin is recommended to be used in:
a- Vitiligo b- Constipation c- Bronchial asthma d- Carminative
- 12- Mucilage is the major constituent of:
a-Echinacea *b-Gensing* *c-Marshmallow* *d-Calumba*

[illegible]

III- Complete the following table as required:

(4x2.5=10M)

1- Name of the fragment: 2- Name of the drug: 3- The different active constituents:	Root used as expectorant and emetic 1-Name of this root: 2-Mention the different active constituents: 3- Confirmatory chemical test:
Root used as tonic and adaptogenic Name of this root: Mention the different other uses:	1- Name of the fragment: 2- Name of the drug: 3- Mention the different uses:

Part II

Question 1:

Answer what is required in the following table:

(12x¼ = 3 marks)

Mention mode of branching in both figures Figure 1: Figure 2:	Mention type of vascular bundle:
	Figures 1& 2 represent T.S. in 2 different organ: Figure 1 is T.S. in: Figure 2 is T.S. in: Mention 2 differences between them in their morphological characters: 1- 2-
	This figure is:..... Drug showing this figure is:

	- Mention name of this powdered drug: - Complete the following: is responsible about the pungent taste of the drug and it is in its nature and its pungency could be destroyed by; while is responsible about its characteristic taste and it is in its nature. Key element 1 is.....& Key element 2 is.....
you are supplied with emollient cream composed of natural drugs as seen in the pamphlet, please answer the following: for dug 1 mention another medicinal use for dug 2 mention its active constituents: For dug 3 mention methods of its adultration:	 Mention methods of detecting honey adultration:
	This hair is key element of powdered: and the main chemical test for its detection is

Question II:

Give the scientific meaning for each of the following definitions

(5 marks)

Scientific term	Definitions
.....	The milky sap of many plants that coagulates on exposure to air
.....	They are crude drugs of plant or animal origin and have no cellular or definite structure
.....	Narcotic analgesic from natural source
.....	It is a saccharine substance deposited by the hive bee <i>Apis mellifera</i> and other <i>Apis</i> spp. in the cells of the honeycomb
.....	They are resinous mixtures containing large proportions of benzoic or cinnamic acids or both or esters of these acids
.....	It is a fixed oil extracted from the fresh liver of the <i>Gadus morrhua</i> Linne (F.: Gadidae).
.....	They are fluidly plant saps containing dissolved substances & usually present in special structures within the plant.
.....	In this type of vascular bundles there is phloem at both sides
.....	It consists of the milky fluid produced by the salivary glands of workers bees
.....	It is a mixture of reversible gel-forming proteins obtained by treating certain animal tissues, particularly skin and bones with hot water.
.....	It is the dried colloidal concentrate from the decoction of various red algae particularly species of <i>Gelidium</i> , <i>Petrocladi</i>

Question III:

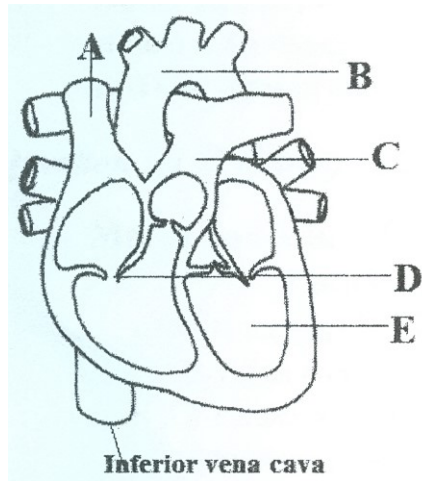
Choose from column B and column C what is suitable for column A: (10 marks)

column A	column B	column C
{ , } Ergot	{1} etoposide	{a} used for insomnia treatment
{ , } Milk thistle	{2} colchicine	{b} Supportive treatment for acute and chronic hepatitis and cirrhosis
{ , } Curcuma	{3} atropine & hyoscyamine	{c} used in case of jaundice & infective hepatitis
{ , } Colchicum	{4} ergotamine	{d} dilate eye pupil
{ , } Code liver oil	{5} curcumin	{e} rickets and night blindness
{ , } Olive oil	{6} omega-3- fatty acid	{f} treat cell lung cancer
{ , } Podophyllum	{7} volatile oil	{g} used in treatment of migraine
{ , } Sunflower oil	{8} silymarin	{h} protect against colon cancer
{ , } Valerian	{9} Vitamin A & D	{i} lowers cholesterol level
{ , } Datura	{10} oleic acid, linoleic acid, palmitic and stearic acid.	{k} used for treatment of acute Gout

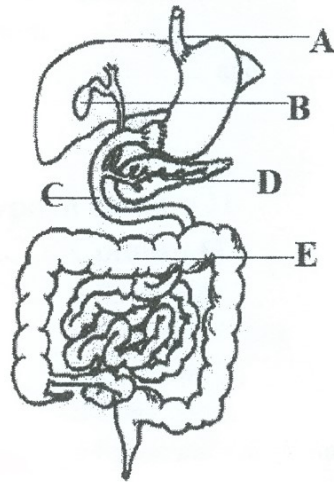
مع تمنياتنا لكم بالنجاح والتوفيق

Question I (20 marks)

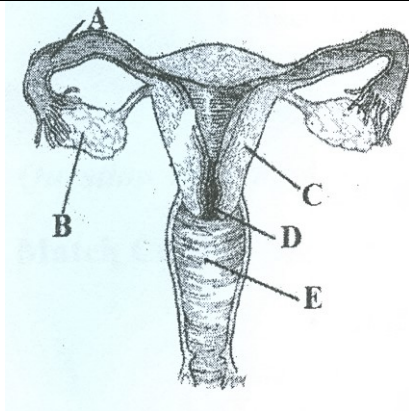
Write the missing labels from A to E in each of the displayed diagrams



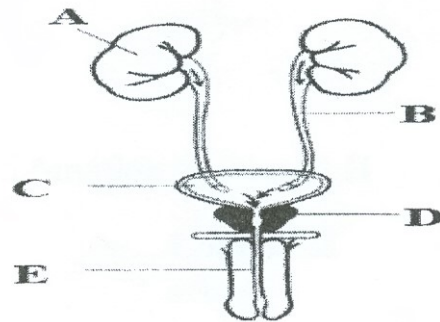
A.....
B.....
C.....
D.....
E.....



A.....
B.....
C.....
D.....
E.....



A.....
B.....
C.....
D.....
E.....



A.....
B.....
C.....
D.....
E.....

Question II (15 marks)

Complete spaces with appropriate words

- i-Meninges around the brain are,, andmater.
- ii-Digested absorbed food reach thevia vein
- iii-Ejaculatory duct is formed by union of..... and
- iv-surrounds the lung and is formed of..... and parietal layer.
- v-Brain stem is formed of medulla, and
- vi-Skin is formed ofand dermis.
- vii-Three types of muscles are, and

Question III (5 marks)

Match bones in column I with their type in column II

Column I

- 1-Humerus ()
- 2-Tarsal bones ()
- 3-Paranasal sinuses ()
- 4-Sternum. ()
- 5-Patella. ()

Column II

- a-Short bone.
- b-Seasarnoid bone.
- c-Flat bone.
- d-Long bone.
- e-Pneumatic (air) bone.

Question IV (5 marks)

Match glands in column I with position in column II

Column I

- 1-Parathyroid ()
- 2-Pineal ()
- 3- Thymus ()
- 4-Ovary ()
- 5-Sebacous ()

Column II

- a-Hypodermis.
- b-Pelvis.
- c-Neck
- d-Part of the brain.
- e- Thorax.

Question V (5 marks)

Match Carnial nerves in column I with function in column II

Column I

- 1-Oculomotor ()
- 2- Vestibulocochlear ()
- 3-Optic ()
- 4-Hypoglossal ()
- 5-Ofactory ()

Column II

- a-Smell
- b-motor to tongue
- c- Movements of eye
- d-Hearing
- e-Vision

Question VI (15 marks)

Choose only ONE correct answer

1-Intervertebral disc is

- a) Secondary cartilaginous joint.
- b) Synovial joint.
- c) Fibrous joint.
- d) Primary cartilaginous joint.

3-An artery with non-oxygenated blood

- a) Coronary artery.
- b) Spinal artery.
- c) Pulmonary artery.
- d) Renal artery.

5-Pituitary gland is present in

- a) Behind thyroid gland.
- b) Above the right kidney.
- c) At base of the skull.
- d) In the orbit.

7-Adult Male urethra is

- a) 20 cm.
- b) 4 cm.
- c) 35 cm.
- d) 10 cm.

9-All are characteristics of large intestine EXCEPT

- a) Has sacculations.
- b) Has tenia coli.
- c) Has appendicis epiploica (fat tags).
- d) Has villi in its mucosa.

11-All are functions of the liver EXCEPT

- a) Metabolism.
- b) Secretion of insulin.
- c) Formation of urea.
- d) Detoxication.

13-False about Urinary bladder

- a) It receives terminations of two ureters.
- b) It is abdominal in young children.
- c) Its capacity reaches up to 3 liters.
- d) Its wall contains random smooth muscles.

15-Destruction of red blood cells occurs in

- a) Spleen.
- b) Pancreas.
- c) Bone marrow.
- d) Large intestine.

1-Fibula is a bone of

- a) Forearm.
- b) Skull.
- c) Leg.
- d) Hand.

4-Pancreatic duct opens in

- a) Stomach.
- b) Cecum.
- c) Jejunum.
- d) Duodenum.

6-Capacity of an adult stomach is

- a) 5 liters.
- b) Half liter.
- c) One and half liter.
- d) 300 ML.

8-Number of cervical vertebrae

- a) 12.
- b) 7.
- c) 5.
- d) 3.

10-All are in the stomach bed EXCEPT

- a) Spleen.
- b) Left suprarenal gland.
- c) Liver.
- d) Left kidney.

12-Part of the brain concerned with balance

- a) Thalamus.
- b) Cerebellum.
- c) Hypothalamus.
- d) Midbrain.

14-Left atrioventricular valve is called

- a) Mitral valve.
- b) Tricuspid valve.
- c) Semilunar valve.
- d) Pentacuspid valve.

