Department of Pharmacology
Faculty of Medicine
Assiut University

January 12,2011
Time allowed: 2 hours

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Toxicology and Forensic Chemistry Examination For Clinical Pharmacy Students (class 9)

*All Questions are to be attempted
* Answer the short essay questions according to the order of their appearance (5 marks for each question)
* Answer the MCQ and (T or F) inside the appropriate box in the attached answer sheet. (One mark for each question)

I- Short Essay Questions (25 marks)

1- For each of the following conditions name the antidotal agent which is preferably used and mention its therapeutic value:
A)Over doses of diazepam.
B)Over doses of heparin.
C)Ingestion of seed grains contaminated with methyl mercury.
D)Snake bite.

2-Mention the following:
A)Two examples of idiosyncratic reactions.
B)Four guiding principles should be considered during chemical examination of tissues to identify a poison.

3- Give the reasons for each of the following:
A)DDT is relatively more toxic to insects than to mammals.
B)In cyanide poisoning, sodium nitrite is used in the treatment.

4- Give a brief account on each of the following
A)Synesthesia.
B)Face thrown on concentrated sulfuric acid.
C)Salicylism.

5- Define and give one example of each of the following:
A)Gate way drugs.
B)Bromptan' s cocktail.
C)Behavioral tolerance.

Assiut University
Faculty of Medicine
Department of Pharmacology January 12,2011

II- MCQ and (T or F)

THE ANSWER SHEET

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
☐	☐	☐	☐	☐

Marks

☐

***For each of the following questions, select the One most appropriate answer:* (one marke/or each)**

(Insert the answer of each question in the appropriate box in the answer sheet)

1- Concerning kerosene toxicity One of the following statements is Correct:

A) Its inhalation is more hazardous than ingestion.

B) Bilateral blindness and hypotension are the common toxic manifestations.

C)Epinephrine is used to elevate blood pressure.

D)Saline cathartics and antibacterial agents are used in its management.

2- Concerning mercury toxicity One of the following statements is Correct:

A)Elemental mercury and its vapors are non toxic.

B)Mercurous compounds are more toxic than mercuric salts.

C)Looseness of teeth, grayish colouration and ulcerative stomatitis are among the symptoms of chronic mercuric chloride toxicity.

D)BAL is used intravenously in the treatment of acute mercuric chloride toxicity.

3- Regarding lead poisoning One of the following statements is Incorrect:

A) Gasoline and storage batteries are among the sources of toxicity.

B) Patients exposed to tetraethyl lead exhibit irritability; ataxia and exaggerated muscular movements. .

C)Edetate calcium disodium is used orally to eliminate lead from bone.

D)Wrist drop, colic and Fankoni-like syndrome are among the symptoms of plumbism.

4- Concerning trivalent arsenical compounds One of the following statements is Incorrect:

A)They bind with sulthydryl groups in enzymes.

B)Garlic odour of breath and constipation are the common symptoms of acute toxicity.

C)Mee' s lines and keratosis of palms are among the symptoms of chronic toxicity.

D)Oral administration of succimer and penicillamine are used in the management of acute toxicity.

5- One of the following measures of treatment is used in digoxin poisoning:

A)Potassium chloride intravenously if heart block is present.

B)Dobutamine to attenuate bradycardia.

C)Cholestyramine orally to prevent further absorption.

D)Electrical cardioversion to treat arrhythmias.

6- Concerning rodenticidal agents One of the following statements IS Incorrect:
A)Vacor destroys pancreatic p-cells.
B)The odour of zinc phosphide is attractive to rats.
C)Warfarine inhibits the synthesis of blood cloting factors.
D)Fluoroacetate interferes with the transport of calcium ions across cell memberanes of neuronal cells.

7- One of the following statements is Incorrect:
A)Pralidoxime (PAM) is effectively used in cases of carbamate toxicity.
B)Glucagons is used in verapamil over doses.
C)Paraquat can produce congestive hemorrhagic pulmonary edema.
D)Digibind is able to enhance the elimination of digoxin.

8- One of the following statements is Incorrect:
A)Environmental toxicology deals with the hazards of improper sewage disposal.
B)Chronic toxicity usually develops following exposture to a chemical agent over aperiod of one week.
C)The target organ of toxicity is not necessary the site of accumulation of the chemical.
D)Ingestion of old cheese to individuals giving MAO inhibitors may lead to hypertensive crisis. .

9- One of the followings are used in treatment of heroin abuse Except:-
A) Methadone. B) 1- alpha acetyl methadone.
C) LAAM. D) Lofexidine

10- Regarding Cocaine-alcohol combination, all the' following statements are TRUE Except:-
A)This combination produces more euphoria.
B)This combination increases the risk of cardiac arrest.
C)This combination leads to respiratory failure.
D)This combination leads to the formation of ethylene cocamine in the liver.

11- Regarding the effect of cannabis on the sexual function, all the following statements are TRUE Except:-
A)It decreases the weight of seminal vesicles in females.
B)It reduces the sperm production in males.
C)It decreases the menstruation in females.
D)It suppress the ovarian function in females.

12- Regarding the mechanism of cyanide toxicity, all the following statements are True Except:-

A)It inhibits the tissue respiration.
B)It leads to histotoxic hypoxia.
C)It decreases the oxygen carrying capacity of blood.
D)It complexes with ferric ions of the cytochrome oxidase enzymes.

13- One of the following is not considered as ups:-

A) Cocaine. B) Crack.
C) Aphetamine. D) Diazepam.

14- Regarding cracks, all the following statements are TRUE Except:-

A)It is one of the more popular illicit drugs.
B)It is the cocaine free base.
C)It is named crack due to its crackling sound heard during its use intravenously.
D)It may be used intravenously if cocaine is not found.

15) One of the following antidotal agents is used in acute iron poisoning:

A) Edetate calcium disodium.
B) Formaldehyde sulfoxylate.
C)Deferoxamine.
D)Penicillamine.

Write the letter rT) (or the TR VE and the letter rF) (or the FALSE statement in the appropriate box in the answer sheet:

16- Hemochromatosis is usually not encountered i:r:t children .
17- Like diaphorase enzyme, methylene blue reduces methemoglobin into hemoglobin.
18- Allergic reactions to achemical does not require presxposure of the individual to the chemical agent.
19- Ethanol is used in methyl alcohol poisoning to inhibits the activity of alcohol dehydrogenase enzyme.
20- Paraquat exhibits marijuana like effects.
21- Hashoil contains about 25% of THC and it is usually smoked. 22- Anandamide binds to kappa recptors of morphine.
23- Cannabis euphoriant effect can be considered to be dangerous in the driving the motorcars.
24- Fentanyl and demerol are examples of heroin-like designer drugs.
25- Haemodialysis is effective in treatment of acute aspirin toxicity.

Faculty of Pharmacy
Assiut University
Department of Pharmaceutics

Clinical Pharmacokinetics Final Exam. Date: Jan. 15th ,2011
Nineth Semester Time allowed: 2 hrs

Part I (25 Marks)

First Question (l5 marks)

Answer the Following:

1- Glomerular filtration Rate (GFR) may be measured by either inulin clearance or creatinine clearance.

A- Why Is creatinine or Inulin clearance used to mrasure GFR? (one mark)

B- Which clearance method, inulin or creatinine gives a more accurate estimate of GFR, Why? (1.5 marks)

2- What assumptions are usually made when adjusting a dosage regimen according to the creatinine clearance in patient with renal failure? (1.5 marks)

3- There are several criteria which are necessary for using a marker to measure GFR. Enumerate three of them. (1.5 marks)

4- A uremlc patient has a urinary excretion rate of creatinine of 1.8 mg/24 hrs and the average creatinine concentration of 2.2 mg %.
What is the creatinine clearance ? (1.5 marks)

5- calculate the infusion rate required to achieve a drug concentration of 0.5 mg/L at 6 hours after a continuous infusion has been started. the V_d and $t_{0.5}$ values for this drug are 57.6 L and 2.5 hours respectively. (2 marks)

6-A female patient(25 years o1d and 65 kg body weight) With normal renal function to be given a drug by IV infusion. The ,elimination half- life of the drug is 7 hours and the Vd is 23.1% of the body weight. The desired steady state plasma level for this drug is 10 µg / ml.
A- Assuming no loading dose, how long after start of the IV Infusion would it take to reach 95% of $C_{ss.}$ (1.5 marks)

B- What is the proper loading dose of this drug? (1.5 marks)

C- What is the proper infusion rate of this drug ? (1.5 marks)

D- What is the total body clearance ? (1.5 marks)

Second Question (10 marks)

Choose the most appropriate answer in the following. (one mark each)

1- Which of the following is true regarding the advantages of IV infusion?
A- Precise control of the plasma drug level.
B- to maintain drug therapy or terminate it.
C- both A and B.

2- At steady state.
A- the infusion rate = the elimination rate
B- the infusion rate> the elimination rate
C- the infusion rate < the elimination rate

3- When the infusion rate stops either at or before steady state, the concentration of the drug declines according to :
A- zero order B- first order C- neither A nor B

4- The time needed to reach C_{ss} is :
A- inversely related to k. B- directly related to k. C- independent on k.

5- The steady state concentration is reached after :
A- three half-lives B- four half-lives C- seven half-lives

6- It worthy to note that the time needed to reach C_{ss} is :
A- dependent on infusion rate B- independent on infusion rate C- dependent on C_{ss} .

7- The loading dose equals:
A- R/k B- k/R C- R/kVd

8- When a drug is subjected to presystemic metabolism it shows :
A- high pharmacokinetic variability after parenteral administration than after oral administration.
B- less pharmacokinetic variability after parenteral administration than after oral administration.
C- no pharmacokinetic variability. .

9- A possible pharmacokinetic factor that contribute pharmacokinetic variability is:
A- factors affecting drug bioavailability.
B- the patient fail to follow the directions about taking the drug.
C- both A and B.

10- Which of the following statement is not true :
A- there is a direct relationship between Vd and body weight.
B- there is no direct relationship between Vd and body weight.
C- the relationship between the drug clearance and body weight is not clear.

Answer Sheet

	١	2	3	4	5	6	7	8	9	10
A										
B										
C										

PART II (25 Marks)

I- Answer the following: (10 marks)

a)- Complete the following equations: (4 marks)

1- ..... =MRTi.v + T/2

2- ..... = 0.693 MAT

3- Vss = MRTiv. .....

4- CP = ... (for residual line in two compartments model)

5- AUC = ... (for three- compartments)

6- ..... = MRT ni – MRT i.v

7- $(V_D)_\beta$ = clearance/ .....

8- Vp (Volume of central compartment) = .../A+B

b)-Explain: (6 marks)

1- The slope is less steep for the late phase of the Cp vs t curve in two compartment model.

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2- Evans Blue can be used as a measure of vascular volume.

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3- Drug protein binding has very little effect on the elimination half-life of the drug excreted mostly by active secretion.

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4- The values for Vp (Volume of central compartment) and Vss (Volume of distribution at steady state) differ. (no equations)

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5- Digoxin distributes in approximetaly 440 L on an adult.

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6- Most two-compartment models assume that elimination occurs from the central compartment model.

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II-Select The correct answer: (15 Marks)

(Answers to all questions are to be recorded on the accompanying table in the format A-E)

1- The larger the volume of distribution:

A- The larger the necessary loading dose 'for an i.v. infusion.

B- The larger the plasma albumin binding.

C- The higher the clearance.

2- ln two-compartments model, volume of distribution at steady state (VD)ss:

A-is significantly affected by changes in drug elimination.

B-is useful in the calculation of drug clearance.

C-is a function of the transfer constants, k12 and k21

3- Non compartmental methods are based on:

A-Area under curve.

B-Elimination rate constant.

C-Volume of distribution.

4- The best strategy for dosing aminoglycosides

A-Continuous infusion

8- Larger doses, less frequently

C-Smaller doses, more frequently

D-Smaller doses, less frequently

5-What model parameter causes the most variability in the aminoglycoside population model

A- Kel

8- Vd

C-CL

D- Half-life

6-The ideal dosing interval (tau) is computed from

A-Vd

8-Target peak

C-Target trough

D-Both A and C

E-Both B and C

7- What parameter is computed from a Dettli plot of creatinine clearance?

A-Kel

8- Vd

C-CL

D- All of the above.

8-Sawchuk and Zaske's method utilizes peak and trough levels to compute:

A-Kel

B-Vd

C-Ideal dose·

D-Both B & A

E-Both B & C

9- Clearance Is defined as

A- Amount of drug cleared per unit time.

B- Volume of blood cleared of drug per unit time

C- Kel/Vd

D- None of the above

10- First order elimination is:

A- Independent of drug concentration

B- A constant amount of the drug eliminated per time

C- A constant fraction of the drug eliminated per time.

D- Metabolism by the liver

11- ln practical terms, post-antibiotic effect (PAE) means:

A- Trough levels must stay 8-10 times above the MIC

B- Peak levels must reach 8-10 times the MIC

C- Trough levels may drop below the MIC

D-. Peak levels may drop below the MIC

12- The smallest hypothetical volume of distribution is:

A- Central volume

B- Total volume

C- Peripheral volume

D- Extrapolated volume·

13- Criteria for appropriate use of TDM include:

A- Wide interpatient variability

B- Significant consequences from toxicity

C- Narrow therapeutic range

D- All of the above

14- Extended-interval *(or* "once-daily") aminoglycoside dosing is NOT appropriate in:

A- The elderly

B- Patients with significant renal impairment

C- Patients with endocarditis

D- All of the

15-Misinterpretation of SOC data may occur for some drugs if samples are drawn during:

A- Distribution

B-Steady-state

C- Excretion

D- Clearance

16- What percentage of the steady-state drug concentration is achieved at 3.3* t(1/2)?

A- 25%

B- 50%

C- 75%

D- 90%

E- 95%

17-The slope of a Dettli plot corresponds to:

A- Knr, non-renal elimination

B- Kr, Renal elimination

C- Kel

D- Vd

18-Patients with ascites or edema would have _ Vd for hydrophilic drugs, such as gentamicin

A- Decreased

B- Increased

C- Unchanged

19-Which of the following *is* NOT a drug exhibiting zero-order elimination kinetics?

A- Aspirin

B- Morphine

C- Phenytoin

D- ETOH.

20-To calculate drug clearance by the area method, *it* is necessary to first determine whether the drug best fits a one- or two-compartment model.

A- True

B- False

21-Drug clearance remains constant for small or large doses when drug elimination processes are:

A- First order

B-Zero-order

C-Second-order.

22-The least variable point in the dosing interval is:

A-Trough concentration.

B-Peak concentration.

C- Time interval

23-The proportion of total body weight that is water is lowest in:

A- healthy adults.

B- neonates.

C- elderly.

D- teenagers.

24- The ratio of $AUMC^{\infty}$ to AUC^{∞} is called:

A- trapezoidal rule

B- total body clearance.

C- mean residence time.

D- formation clearance.

25-Highly perfuse tissue include the following <u>except</u>:

A-Liver

S-Kidney.

C-Srain.

D-Skeletal Muscle.

26-Short duration of action of thiopental might be due to:

A-Rapid excretion

B-Redistribution

C-Liver metabolism.

27-The most commonly used model in clinical

A- one-compartment model.

B- two-compartment model.

C- multicompartment model.

28-The observed number of compartments or exponential phases will depend on

A- The route of drug administration,

B- The rate of drug absorption,

C- The time for blood sampling,

D-All of the above.

29- The more accurate method that used for patients with unstable renal function.

A-Jelliffe's method

B-Cockroft and Gault method

C-Salazar-Cocoran method

30-The following are used to calculate conventional dosing for aminoglycoside <u>except:</u>

A- The pharmacokinetic dosing method.

B- The Hull and Sarubbi nomogram.

C- The Hartford nomogram.

D- The Bayesian approach

NO.	Correct answer	NO.	Correct answer
1		16	
2		17	
3		18	
4		19	
5		20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

Clinical pharmacy

Faculty of Pharmacy
Clinical pharmacy final year
Oncology MCQ Exam.
January 17,2012

Time allowed Two hours

[PP 908]

All questions should be answered by drawing a circle around the correct answer:-

Question (1):

All the following statements describing direct criteria of malignancy are true except:

A. Anaplasia
B. Dedifferentiation
C. Increased mitosis
D. Abnormal mitosis
E. Invation

Question (2):

In which of the following sites are teratomas likely to occur?

A. Gonads
B. Anterior mediastinum
C. Sacrococcygeal region
D. Adrenal medulla
E. All of the above

Question (3)

Metaplasia:

A. Reflects disordered differentiation
B. Occurs in both epithelial and connective tissue tissues
C. Is frequently seen in the stroma of neoplasms
D. Is usually a premalignant change
E. All of the above

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Question (4)

By contrasting Hodgkin's disease (HD) with Non-Hodgkin's lymphoma (NHL), all the following are characteristic of (HD) except:

A. It is a single disease entity

B. Reed-Sternberg cells are the only malignant cell in the lesion

C. Noncontiguous spread

D. Axial lymph nodes mainly affected

E. Rare extranodal affection

Question (5):

Factors that are assessed in tumor grading include:

A. Size of tumor

B. Extent of invasion

C. Nodal involvement

D. Number of mitosis

E. All of the above

Question (6):

Factors that are assessed in tumor staging are:

A. Size of tumor

B. Local invasion

C. Lymph node metastasis

D. Distant metastasis

E. All of the above

Question (7)

All the following tumors are hormone dependent except:

A. Breast carcinoma

B. Adrenal carcinoma

C. Prostatic carcinoma

D. Endometrial carcinoma

E. Thyroid carcinoma

Question (8):

Modes of cancer spread include:

A. Direct local spread

B. Contact spread

C. Perineural

D. Trans-cavity spread

E. All of the above

Question (9):

The most trustable method for diagnosis of malignancy is:

A. Screening

B. Biopsy

C. Imaging

D. Tumor markers

E. Endoscopy

Question (10):

Chemotherapy that is given after surgery to maximize the chance for cure in breast cancer is known as:

A. Neo-adjuvant chemotherapy

B. Adjuvant chemotherapy

C. Palliative chemotherapy

D. Primary treatment

E. Targeted therapy

Question (11):

Chemotherapy that is given after surgical biopsy for diagnosis of a case of Non-Hodgkin's Lymphoma is categorized as:

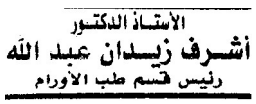
A. Targeted therapy

B. Palliative chemotherapy

C. Primary Treatment

D. Neo-adjuvant chemotherapy

E. Adjuvant chemotherapy



Question (12):

Neo-adjuvant chemotherapy is the treatment of choice for locally advanced malignant tumors, all the following are characteristics of Neo-adjuvant chemotherapy except:

A. Down staging

B. Sterilization of surgical field

C. Increase the chance of operability

D. Control of distant metastasis

E. Assessment of response to the used chemotherapy

Question (13):

<u>Phase I</u> of clinical trials used to:

A. Compare two or more different treatments

B. Provide information about the safety and efficacy of new treatment

C. Determine the appropriate dose of a new treatment

D. None of the above

E. All of the above

Question (14):

The main factor that determines the use of hormonal therapy in breast cancer is:

A. Tumor size

B. Tumor grade

C. Hormone receptors

D. Lymph node involvement

E. Metastasis

Question (15):

Prognosis in breast cancer depends on the following factor/s:

A. Hormonal status

B. Nodal involvement

C. Tumor stage

D. Tumor grade

E.All of the above

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Question (16)

The highest risk factor for developing colon cancer is:

A. Familial adenomatous polyposis (FAP)

B. Inflammatory bowel disease (IBD)

C. Smoking

D. Obesity

E. Family history of hereditary non-polyposis colon cancer(HNPCC)

Question (17):

The rational for treatment of stage II rectal carcinoma include:

A. Surgery alone

B. Surgery and radiotherapy

C. Surgery, radiotherapy and chemotherapy

D. Radiotherapy and chemotherapy

E. Chemotherapy alone

Question (18):

The most common mechanism of spread of epithelial ovarian cancer is:

A. Hemtogenous

B. lymphatics

C. Adjacent structures

D. Trans-coelomic

E. Perineural

Question (19):

Regarding cell kinetics of cancer:

A. **1** cm tumor = $1x10^9$ cells

B. Cells in Go phase are highly sensitive to chemotherapy

C. Common cancers have a doubling times of 20 days

D. Growth in primary cancer decreases in the later stages of development

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Question (20):

Which is the strongest predictor of an increased risk of breast cancer in a 40 yo woman:

A. Early menarche

B. Late first pregnancy> 30 yo

C. Previous breast carcinoma in contralateral breast

D. Mother with breast cancer at age 70

E. Hormone replacement therapy

Question (21):

Which of the following proto-oncogenes is least likely to be associated with an increased risk of breast cancer?

A. BRCA-1

B. BRCA-2

C. Bcl 2

D. HER-2neu

E. Wiskott Aldrich Syndrome

Question (22):

Chemotherapy induced cardiotoxicity is defined as damage to the heart muscle by a toxin that may cause a:

A. Arrhythmias

B. Cardiomyopathy

C. Heart failure

D. All of the above

Question (23):

The most well-known drug to cause cardiomyopathy is:

A. Doxorubicin

B. Epirubicin

C. Daunorubicin

D. Idarubicin

E. Mitoxantrone

Question (24)

Risk factors that responsible for anthracyclin-induced cardiotoxicity include:

A. Exceeding the cumulative dose of anthracycline

B. Preexisting cardiovascular disease or cardiac risk

C. Previous Uncalculated anthracycline therapy

D. Co-administration of potentially cardiotoxic agent

E. All of the above

Question (25)

In carcinoma located primarily in the rectum, which is true about treatment?

A. Radiation therapy prevents local re-occurrence.

B. A colostomy is rarely needed

C. Such cancer is rarely cured.

D. Fluorouracil based chemotherapy is rarely used.

E. All are true

Question (26)

Barriers to effective pain management include:

A. Inadequate assessment

B. Patient reluctance to take opioids

C. Physician reluctance to prescribe opioids

D. Inadequate staff knowledge about pain management

E. All of the above

Question (27):

Which of the following anticancer drugs is most likely to cause significant nausea and vomiting?

A. Cisplatin

B. Bleomycin

C. Tamoxifen

D. Vinblastine

E. Fluorouracil

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Question (28):

Which of the following chemotherapy agents is a nonvesicant

A. 5-fluorouracil

B. Doxorubicin

C. Paclitaxel

D. Mitomycin C

E. Vincristine

Question (29):

Metabolic encephalopathy is a common complication of which chemotherapeutic agent?

A. Ifosamide

B. CPT-11

C. Vinblastine

D. Taxol

Question (30):

Cancers cured by chemotherapy include:

A. Metastatic Non Small Cell Lung Cancer (NSCLC)

B. Metastatic Breast Cancer

C. Metastatic Colon Cancer

D. Hodgkin's Lymphoma

Question (31):

Addition of Mesna to high dose cyclophosphamide is to prevent

A. Nausea and vomiting

B. Diarrhoea

C. Hemorrhagic cystitis

D. Constipation

Question (32):

Which of the following <u>should not</u> be used as intrathecal chemotherapy?

A. Methotrexat

B. Steroids

C. Cytarabine

D.Vincristine

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Question (33):

Adjuvant hormonal therapy which is commonly used in premenopasual breast cancer

A. Tamoxifen

B. Aromatase inhibitor

C. Androgen

D. Fluvestrant

Question (34):

Which of the following monoclonal antibodies cause congestive heart failure?

A. Bevacizumab

B. Sunitinb

C. Trastuzumab

D. Cetuximab

Question (35):

The treatment which is given before the definitive line of treatment of cancer is called

A. Adjuvant

B. Neoadjuvant

C. Palliative

D. Primary

Question (36):

Anti-metabolites chemotherapy includes all the following EXCEPT

A.Fluorouracil

B.Methotrexat

C.Doxorubcine D.6-Mercaptpurine

Question (37):

Peripheral neuropathy can be cause by

A. Doxorubicin

B. Fluorouracil

C. Fludarabine

D. Vincristine

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Question (38):

Tumour Marker is

A. Tumour marker is a biochemical indicator for the presence of a tumor

B. A molecule that can be detected in plasma or other body fluids.

C. Have an impact on Diagnosis and prognosis

D. All of the above

Question (39):

Which one of the following drugs has the least bone marrow suppression?

A. Daunorubicin

B. Cisplatin

C. Cyclophosphamide

D. Etoposide

E. Vincristine

Question (40):

Mechanism of drug resistance of chemotherapeutic drugs

A. P glycoprotein

B. $_{p}53$

C. Bcl 2

D. P_{450}

Question (41):

Each of the following drugs induces cardiotoxicity in some form except:

A. Herceptin (trastuzamab)

B. Cisplatin

C. Taxol

D. 5-Fluorouracil

E. Methotrexate

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Question (42):

Acrolein is the metabolite of ifosfamide principally responsible for which of the following toxicities?

A. Hemorrhagic cystitis

B. Amenorrhea

C. Veno-occlusive disease

D. Alopecia

E. Myelosuppression

Question (43):

Which of the following drugs is not known to target topoisomerases?

A. Bleomycin

B. Daunorubicin

C. Mitoxantrone

D. Actinomycin D

E. Irinotecan

Question (44):

Vinca alkaloids cause mitotic arrest because they:

A. Inhibit DNA polymerases

B. Stabilize microtubules

C. Depolymerize intermediate filaments

D. Depolymerize microtubules

E. Inhibit the efflux of p-glycoprotein

Question (45):

Although they cause arrest of cells in mitosis, paclitaxel and docetaxel differ from Vinca alkaloids because they:

A. Stabilize microtubules

B. Inhibit DNA topisomerase I

C. Reverse p-glycoprotein- mediated drug resistance

D. Inhibit cyclin-dependent kinases

E. Potently inhibit protein kinase C

Question (46):

Which of the following statements best describes the effect of tamoxifen on breast cancer cells?

A. Tamoxifen binds irreversibly to the estrogen receptor (ER).

B. Tamoxifen works equally well in ER-positive and ER-negative patients.

C. Tamoxifen competitively inhibits the binding of estradiol to the estrogen receptor.

D. Tamoxifen directly inhibits the production of several kinds of proteins important for breast cancer cell proliferation.

E. Tamoxifen is a pure estrogen antagonist.

Question (47):

The correct order of the four phases of the cell cycle is:

A. G1, G2, S, M

B. S, G1, M, G2

C. Gl, S, G2, M

D. S, M, Gl, G2

E. Gl, S, M, G2

Question (48):

Angiogenesis is:

A. The process of establishing blood supply

B. The process of forming differentiated daughter cells from pluripotent stem cells

C. The process of malignant transformation from normal cells

D. The cell-cycle dependent production of cyclins to regulate Cdk activity at various phases of the cell cycle

E. None of the above

الأستاذ الدكتور
أشرف زيدان عبد الله
رئيس قسم طب الأورام

Question (49):

Agents that inhibit the tyrosine kinase activity of the VEGF receptor are attractive cancer therapies because:

A. VEGF receptor is expressed almost exclusively on endothelial cells

B. VEGF receptor is up-regulated on tumour endothelium compared to surrounding normal epithelium

C. These agents also demonstrate some activity against other receptors such as EGF receptor or PDGF receptor

D. Agents

E. targeting the VEGF ligand/receptor system have shown relatively little toxicity in clinical trials

E. All of the above

Question (50):

What is the most likely target for carcinogens?

A. Cell surface

B. RNA

C. DNA

D. Ribosomes

GOOD LUCK

Prof. Medhat Faris *Prof. Ashraf Zeidan*

الأستاذ الدكتور
أشرف زيدان عبد الله
رئيس قسم طب الأورام

أجب عن الأسئلة الآتية:-

السؤال الأول:- (٣٠ درجة)

يعرف علم الاجتماع كعلم دراسة المجتمع دراسة علمية موضوعية لذلك تتعدد فروعه وميادينه ... اذكر أهم تعريفات علم الاجتماع وفروعه المختلفة.

السؤال الثانى:- (٣٠ درجة)

التغير ، القانون الوحيد الثابت بالحياة الاجتماعية. فما العوامل المؤثرة فى أحداثه؟

السؤال الثالث:- (٣٠ درجة)

أكتب عن:-

أ- أشكال الزواج.

ب- وظائف الأسرة.

ت- تعريف التنشئة الاجتماعية.

ث- الثقافة.

مع خالص تمنياتى بالتوفيق ،،،

د/ ايمان عباس

PART ONE

Pages = 3 pages - Marks = 24 marks - Time Allowed 58 min

24

(All questions should be attempted)

I. Denote (T) for the true statements and (F) for the false ones and correct them: (4 marks)

1. The treatment of hyperthyroidism requires life-long levothyroxine (T_4) therapy. ( )

.....

2. Insulin-dependent diabetes mellitus (IDDM) has a much stronger genetic relationship than non-insulin-dependent diabetes mellitus (NIDDM). ( )

.....

.....

3. P_{53} gene is responsible for malignant transformation ( )

.....

4. Osteoarthritis disease is characterized by symmetrical inflammation and systemic symptoms ( )

.....

II. Give the reason(s) for the following: (10 marks)

1. In neo-adjuvant chemotherapy, chemotherapy is given before local therapy.

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2. Oral NSAIDs are not taken by pregnant women or women who want to be pregnant.

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3. Joint swellings in osteoarthritis.

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4. Myxoedema coma.

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5. Rheumatoid arthritis is a systemic disease.

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I. Write briefly about the following: (10 marks)

1. Adverse effects of cytotoxic drugs

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2. Difference between type 1 and type 2 of diabetes mellitus.

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3. Goals of management of rheumatoid arthritis.

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4. Differyence between hyperthyroidism and hypothyroidism with regard to the signs and symptoms.

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5. Complications of diabetes mellitus.

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PART TWO

Pages = 5 pages - Marks = 26 marks - Time Allowed 62 min

26 (All questions should be attempted)

I. Answer the following questions: (7 marks)

1. Briefly discuss the defense mechanisms by which healthy individuals fight gastrointestinal infections.

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2. Briefly discuss the main histological changes that occur in asthma patients.

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3. List the main differences between asthma and COPD.

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4. Mention the mechanisms used by pathgens to survive in phagocytes.

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5. Comment about the use of Vitamin C in Treatment and prophylaxis of common cold.

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6. Mention the indications of tonsillectomy and adenoidectomy.

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7. Write about patient counseling in urinary tract infection.

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II. Give reason(s) to rationalize each of the following sentences: (4 marks)

1. Unlike influenza, there is no specific vaccine for common colds.

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2. Long acting β- adrenoceptor agonist bronchodilators are not a replacement to short acting beta agonists.

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3. The preferred route of administration of the agents used in the management of asthma is by inhalation.

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4. The larger number of urinary tract infections is seen in women.

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III. Complete the table by writing the role of the following drugs in treatment of asthma and other obstructive lung diseases: (2 marks)

Salmeterol	....
Sodium Cromoglicate	....
Omalizumab	....
Zafirlukast	....

IV. Choose the most appropriate answer in each of the following: (5 marks)

1. Which is <u>NOT TRUE</u> regarding urine microscopy to diagnose UT infection?

A.The presence of at least 1 bacterium per field indicates significant bacteriuria.
B.Counts off ewer than 10^3 bacteria per mL are considered to be urethral contaminants.
C.Excess WBCs >8 cells per mm^3 is abnormal.
D.The presence of RBCs is indicative of cystitis.

2. Which type of influenza virus is genetically labile and responsible for major
3. epidemics and pandemics?

A. Type A strains B. Type B strains
C. Type C strains D. Type D strains

3. The most common pathogen involved in cystic fibrosis in infants and young children is ----------

A. E. coli B. Staph. aureus
C. H. influenza D. Pseudomonas aeruginosa

4. The causative agent in SARS was identified to be one of the ---------

A. Respiratory syncytial viruses B. Parainfluenza viruses
C. Coronaviruses D. Rhinoviruses

5. The drug of choice in cases of asymptomatic bacteria of pregnancy is --

A. Amoxicillin B. Co-amoxiclav
C. Trimethoprim D. Ciprofloxacin

Answer Sheet	
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6. .------- are agents of choice for UT infection in the presence of renal failure

A.· Aminoglycosides and furantoin B. Tetracyclines and quinolones
C. Penicillins and cephalosporins D. None of the above

7. The following can be classifies as controller medication of asthma <u>EXCEPT</u>

A. Inhaled anti-inflammatory agents B. Oral corticosteroids
C. Leukotriene antagonists D. Oral bronchodilators

8. Which of the following inhaled devices show reduced oropharynx deposition?

A. MDI B. Breath actuated MD!
C. DPI D. None of the above

9. Recommendations for starting corticosteroids in asthma patients include ------

A.Exacerbations of asthma in the last 2 years
B.Using inhaled P-2 agonists 3 times a week or more
C.Symptoms 3 times a week or more
D.All of the above

10. Which is NOT TRUE regarding diagnosis of obstructive pulmonary diseases?

A. FEVl is diminished. B. FEVl% is reduced «75%, often -45%).
C. PVC is increased. D. None of the above

<u>IV. Write the scientific expression described by the following sentences:</u> (5 marks)

1. An abrupt change in the H and/or the N proteins of the influenza virus which results in a sudden emerge of a new subtype of the virus.
2. A type of asthma that usually develops after the age of 30. It is not typically associated with allergies and is usually triggered by non-allergic factors.
3. One of the URT infections where the most serious risk is obstruction of airways particularly in very young children. It is also called bacterial croup.
4. A class of drugs that is used as a reliever inhalation of asthma. It may be especially helpful in the elderly in whom asthma may be complicated by a degree of obstructive airway disease.
5. A type of atypical pneumonia that is usually acquired from aquatic sources. Urine antigen testing can be used for its diagnosis.

6. A vaccine available to prevent pneumonia. It is a part of the routine infant immunization in the *V.S.* and is recommended for children < 2 years of age.
7. A lung function assessment apparatus. The most common parameters measured by this apparatus are WC and FEV.
8. It is the most appropriate empiric agent, at least in adults, that can be used for treating patients with severe GI infections.
9. A syndrome of frequency and dysuria in the absence of significant bacteriuria with a conventional pathogen.
10. An oral neuroaminidase inhibitor that can be used in the prevention and treatment of influenza.

Answer Sheet

1		6	
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V. Complete the table by writing the commonly involved pathogens in the etiology of the following infections: (3 marks)

Pharyngitis	....
Otitis media	....
Cytitis	....
Acute Bronchitis	....
Community acquired Pneumonia	....
Bronchiolitis	....

END of Questions- GOOD LUCK

Dr. Mona M. Elmahdy Dr. Ikramy A. Khalil

الامتحان الشفوى عقب الامتحان النظرى مباشرة بقسم الصيدلانيات بمبنى ب الدور الثانى

Department of Pharmacology
Faculty of Medicine
Assiut University

January 4, 2012
Time allowed: 2 hours

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Toxicology and Forensic Chemistry Examination For Clinical Pharmacy Students (class 9)

*All Questions are to be attempted
*Total marks 50
* Answer the short essay questions (30 marks) according to the their order (6 marks for each question)
* Answer the MCQ and (T or F) inside the appropriate box in the attached answer sheet. (One mark for each question)

I- Short Essay Questions (25 marks)

1- For each of the following conditions name the antidotal agent which is preferably used and mention the mechanism underlying its therapeutic value:

A)Accidental over dosage of paracetamol.
B)Food poisoning due to botulism.
C)A child who crushed a large number of ferrous sulfate tablets.
D)Over dosage of warfarin.

2- Mention the following:

A)Etiology, manifestations and treatment of Wilson's disease.
B)Lines of treatment of scorpion bite.
C) Four guiding principles that should be considered during examination of tissues to identify a poison.

3- Give the reasons for each of the following:

A)Malaxon is relatively more toxic to insects than to mammals.
B)Hemoperfusion may be essential in certain life-threatening toxicity states.

4- Give a brief account on each of the following:

A) Chick embryo method for evaluation of teratogenicity.
B) Behavioral tolerance in alcohol abuse.

5- Mention the following:

A)Indications and contraindications of gastric lavage.
B)The consequences of face thrown sulfuric acid.
C)Brompton' s cocktail.

GOOD LUCK

Assiut University
Faculty of Medicine
Department of Pharmacology

January 4, 2012

II-MCQ and (T or F) **(20 marks)**

THE ANSWER SHEET

1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

11	12	13	14	15	16	17	18	19	20
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

GOOD LUCK

***For each of the following questions, select the One most appropriate answer:* (one marke for each)**

(Insert the answer of each question in the appropriate box in the answer sheet)

1- Concerning allergic reactions One of the following statements is Correct:

A) It is manifested in the form of excessive normal effect.
B) It usually requires pre-exposure of the individual to a chemical agent.
C) It develops only after the administration of a large doses of a chemical agent.
D) It occurs in infants but not in adults.

2- Concerning kerosene toxicity One of the following statements is Incorrect:

A) Its ingestion is more hazardous than inhalation.
B) Chemical pneumonitis and pulmonary edema are the common toxic manifestations.
C) Saline cathartics are used to facilitate its elimination.
D) Gastric lavage and epinephrine are used in its management.

3- Regarding methanol toxicity One of the following statements is Incorrect:

A) Depression of CNS is not the most toxic effect of its ingestion.
B) It is converted to the more toxic metabolite formaldehyde by the aid of alcohol dehydrogenase enzyme.
C) Formaldehyde causes retinal damage and bilateral blindness.
D) Its toxicity is treated by administration of ethyl alcohol to inhibit the alcohol dehydrogenase enzyme.

4- One of the following statements is Incorrect:

A) Garlic odour of breath and constipation are the common symptoms of acute arsenic toxicity.
B) Mee' s lines and keratosis of palms are among the symptoms of chronic arsenic toxicity.
C) Wrist drop, colic and Fankoni-like syndrome are among the symptoms of blumbism.
D) Elemental mercury is usually non toxic if ingested.

5- One of the following statements is Correct:

A) Electrical cardioversion is essential in the treatment of digoxin toxicity.
B) Paraquat interferes with Kreb' s cycle.
C) Marked muscle incordination, double vision and slow respiration are among the symptoms of sever toxicity by ethyl alcohol.
D) Naloxon is commonly used to treat opioid addicts.

6- The carcinogenicity of 2-naphthyl amine is mainly due to One of the following:
A) 2-naphthyl amine. B) 2-naphthyl hydroxyl amine.
C) Both A and B. D) Non of the above.

7- One of the following is contra-indicated in the treatment of potash toxicity:
A) Demulcents. B) Morphine.
C) Weak acids as vinegar. D) Weak alkalis as lemon juice.

8- One of the following represents the mechanism of ipecac-induced vomiting:
A) Local G.LT irritation. B) Stimulation of CTZ.
C) Both A and B. D) Non of the above.

9- One of the following IS Incorrect regarding contraindications of activated charcoal:
A) Intestinal obstruction. B) Paralytic illus.
C) Corrosives. D) Poisoning by carbon monoxide.

10- One of the following is Correct regarding carbon monoxide toxicity:
A)Fire in open places represents a source of its toxicity.
B)It decreases the oxygen carrying capacity of cytochrome oxidase in the tissues.
C)It is odorIess and colorIess gas.
D)At 20% saturation of blood with it, death occurs due to respiratory failure.

Write the letter (T) [or the TR VE and the letter (F) (or the FALSE statel1lent in the appropriate box in the answer sheet:

11- Occupational toxicology deals mainly with the hazards of pollutants found in work place.
12- Polythiol resin displaces methyl mercury from sulfahydryl containing enzymes.
13- Methylene blue is used in cases of methemoglobinemia to promote the synthesis of diaphorase enzyme.
14- Glucagon is used in verapamil over doses to increase cyclic AMP in cardiac tissues.
15- Pralidoxime (P AM) is effectively used in each of organophosphate and carbamate compounds.
16- Sarcoma means malignant tumor of the epithelial tissues.
17- Diet contains high fats and cholesterol and low vegetables is considered as one of the exogenous factors which affect the appearance of carcinogenicity.
18- Magnesium sulfate is used in treatment of phenol toxicity.
19- One of the disadvantages to the use of apomorphine as an inducer of vomiting is its repeated vomiting.
20- Absorption of cyanide from GIT is enhanced by antacids.

GOOD LUCK

Clinical pharmacy

Faculty of Pharmacy
Clinical pharmacy final year
Oncology MCQ Exam.
January 13,2012

Time allowed Two hours

[PP 908]

All questions should be answered by drawing a circle around the correct answer:-

Question (1):

DNA viruses have been implicated as etiologic agents in several human tumors. Evidence for a causative role exists for which of the following neoplasms?

A. Testicular carcinoma
B. Cancer cervix
C. Osteosarcoma
D. Esophageal carcinoma

Question (2):

All the following statements describing direct criteria of malignancy are true except:

A. Anaplasia
B. Hyperplasia
C. Increased mitosis
D. Abnormal mitosis
E. Invasion

Question (3):

Metaplasia:

A. Reflects disordered differentiation
B. Occurs in both epithelial and connective tissue tissues
C. Is frequently seen in the stroma of neoplasms
D. Is usually a premalignant change
E. All of the above

Question (4):

The most important feature in differentiating a malignant from a benign tumor is:

A. Lake of encapsulation
B. High mitotic rate
C. Presence of necrosis and hemorrhage
D. Presence of metastasis
E. Nuclear pleomorphism (anaplasia)

Question (5):

What is the most likely target for carcinogens?

A. Cell surface
B. RNA
C. DNA
D. Ribosomes

Question (6):

Cancer develops as a multistep process. Identify the wrong statement from the following list:

A. Initiation is probably caused by point mutation of genes
B. Promotion is an irreversible hyperplasia
C. Promotion must follow initiation
D. Progression is an terminal step in oncogenesis
E. Progression increases tumor cell heterogeneity and autonomy

Question (7):

Lymphomas may develop in immunodeficient patients because of:

A. Impaired immunoregulation
B. Chronic antigenic stimulation
C. Activation of oncogenic viruses
D. None of the above
E. All of the above

Question (8):

By contrasting Hodgkin's disease (HO) with Non-Hodgkin's lymphoma (NHL), all the following are characteristic of (HO) except:

A. It is a single disease entity
B. Reed-Sternberg cells are the only malignant cell in the lesion
C. Noncontiguous spread
D. Axial lymph nodes mainly affected
E. Rare extranodal affection

Question (9):

Factors that are assessed in tumor grading include:

F. Size of tumor
G. Extent of invasion
H. Nodal involvement
I. Number of mitosis
J. All of the above

Question (10):

Factors that are assessed in tumor staging are:

A. Size of tumor
B. Local invasion
C. Lymph node metastasis
D. Distant metastasis
E. All of the above

Question (11):

Immunohistochemistry is a valuable tool in the study of all the following except:

A.Tumor typing
B.Clonality of lymphoid lesions
C.Viral etiology of cancers
D.Tumor grading

Question (12):

Tumors that tend to spread over the surfaces of the viscera or body cavities rather than metastasizing via blood vessels or lymphatics include:

A.Colon carcinoma
B.Ovarian carcinoma
C.Renal cell carcinoma
D.Urinary bladder carcinoma
E.All of the above

Question (13):

All the following tumors are hormone dependent except:

A.Breast carcinoma
B.Adrenal carcinoma
C.Prostatic carcinoma
D.Endometrial carcinoma
E.Thyroid carcinoma

Question (14):

The aim of hormonal therapy of prostatic carcinoma is to reduce plasma testosterone. This usually accomplished by all of the following measures, except:

A.Orchiectomy
B.Estrogens
C.Antiandrogens
D.Medical adrenalectomy
E.Tamoxafin

Question (15):

Modes of cancer spread include:

A.Direct local spread
B.Contact spread
C.Perineural
D.Trans-cavity spread
E.All of the above

Question (16):

The most trustable method for diagnosis of malignancy is:

A.Screening
B.Biopsy
C.Imaging
D.Tumor markers
E.Endoscopy

Question (17):

The following are the true properties that allow metastasis from malignant tumors except:

A.Tumor cell positive pressure
B.Tumor cell motility
C.Defective cell adhesion
D.Tumor angiogenesis
E.Escaping apoptosis as they reach distant metastasis

Question (18):

The treatment which is given before the definitive line of treatment of cancer is called:

A.Adjuvant
B.Neoadjuvant
C.Palliative
D.Primary

Question (19):

Chemotherapy that is given after surgical biopsy for diagnosis of a case of Non-Hodgkin's Lymphoma is categorized as:

A.Targeted therapy
B.Palliative chemotherapy
C.Primary Treatment
D.Neo-adjuvant chemotherapy
E.Adjuvant chemotherapy

Question (20):

Neo-adjuvant chemotherapy is the treatment of choice for locally advanced malignant tumors, all the following are characteristics of Neo-adjuvant chemotherapy except:

A. Down staging
B. Sterilization of surgical field
C. Increase the chance of operability
D. Control of distant metastasis
E. Assessment of response to the used chemotherapy

Question (21):

Ovarian Krukenberg tumor developed as a result of trans-cavitary spread from:

A. Hepatocellular carcinoma
B. Stomach carcinoma
C. Colonic carcinoma
D. Uterine carcinoma
E. Urinary bladder carcinoma

Question (22):

The main factor that determines the use of hormonal therapy in breast cancer is:

A. Tumor size
B. Tumor grade
C. Hormone receptors
D. Lymph node involvement
E. Metastasis

Question (23):

The following are the screening methods for colorectal cancer that used to prevent and detect cancer. Currently the best way for colorectal cancer screening is:

A. Virtual colonography
B. Colonoscopy
C. Fecal occult blood test
D. Double contrast barium enema
E. Stool DNA test

Question (24):

The highest risk factor for developing colon cancer is:

A. Familial adenomatous polyposis (FAP)
B. Inflammatory bowel disease (IBD)
C. Smoking
D. Obesity
E. Family history of hereditary non-polyposis colon cancer(HNPCC)

Question (25):

Mutation in BRCAl and BRCA2 genes are responsible for the development of:

A. Renalcancer
B. Colon cancer
C. Uterine cancer
D. Breast and ovarian cancer
E. All of the above

Question (26):

Regarding Granulocyte- Colony Stimulating Factor (G-CSF) - the best description of its mechanism of action and role in chemotherapy is:

A. It decreases the production of neutrophils
B. It decreases the severity of neutropenia
C. It increases the number of platelets
D. It decrease mortality
E. Potentiates effects of chemotherapy

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Question (27);

Patient with testicular germ cell tumor receiving combination of Bleomycin, Etopside,Platinum (BEP). Which side-effect would necessitate cessation of the responsible drug?

A. Neutropenia
B. High-tone sever hearing loss
C. Peripheral neuropathy
D. Interstitial lung damage
E. Cardiomyopathy

Question (28):

Potential problems that would need your immediate care include:

A. Increased intracranial pressure
B. Airway compression
C. Superior vena cava syndrome
D. All of the above

Question (29):

Risk factors that responsible for anthracyclin-induced cardiotoxicity include:

A. Exceeding the cumulative dose of anthracycline
B. Preexisting cardiovascular disease or cardiac risk
C. Previous Uncalculated anthracycline therapy
D. Co-administration of potentially cardiotoxic agent
E. All of the above

Question (30):

Chemotherapy induced cardiotoxicity is defined as damage to the heart muscle by a toxin that may cause a:

A. Arrhythmias
B. Cardiomyopathy
C. Heart failure
D. All of the above

Question (31):

The most well-known drug to cause cardiomyopathy is:

A. Doxorubicin
B. Epirubicin
C. Daunorubicin
D. Idarubicin
E. Mitoxa.ntrone

Question (32):

The rational for treatment of stage 11 rectal carcinoma include:

A. Surgery alone
B. Surgery and radiotherapy
C. Surgery, radiotherapy and chemotherapy
D. Radiotherapy and chemotherapy
E. Chemotherapy alone

Question (33):

Febrile neutropenia is defined as:

A. Single oral temperature of ≥ 38.3°c.
B. Temperature of ≥ 38°c for ≥ 1 hour.
C. Persistent fever ≥ 39°c.
D. A&B

Question (34):

Hyalorounidase is a useful antidote for management extravasation of:

A. Anthracyclines.
B. Nitrogen mustard.
C. Vinorelbine.
D. None of the above.

Question (35):

Mesna is an urothelial protective agent, that should be given as anti-dote drug to avoid hemorrhagic cystitis with one of the following chemotherapeutic agents, which is:

A. Irinotecan.
B. Ifosfamide.
C. Bleomycin.
D. Vincrestin.
E. Taxanes.

Question (36):

Hand- foot syndrome is a side effect commonly occurred with one of the following chemotherapeutics, which is:

A. Ifosfamide.
B. Vinblastine.
C. Capcitabine.
D. Tamoxifen.
E. Mitoxantron.

Question (37):

The drug that used in treatment of breast cancer and could be associated with permanent cardiotoxicity:

A. Cyclophosphamide.
B. Trustuzumab (Herceptin).
C. Doxorubicin (Adriamycin).
D. Methotrexate.
E. Taxanes.

Question (38):

Phase 1 of clinical trials used to:

A. Compare two or more different treatments
B. Provide information about the safety and efficacy of new treatment
C. Determine the appropriate dose of a new treatment
D. None of the above
E. All of the above

Question (39):

Which of the following anticancer drugs is most likely to cause significant nausea and vomiting?

A. Cisplatin
B. Bleomycin
C. Tamoxifen
D. Vinblastine
E. Fluorouracil

Question (40):

Which of the following is a light-sensitive chemotherapy agent:

A. 5-fluorouracil
B. Doxorubicin
C. Paclitaxel
D. Etopside
E. Cyclophosphamide

Question (41):

Addition of Mesna to high dose cyclophosphamide is to prevent:

A. Nausea and vomiting
B. Hemorrhagic cystitis
C. Constipation
D. Alopecia
E.Neutropenia

Question (42):

Which of the following should not be used as intrathecal chemotherapy?

A. Methotrexat
B. Steroids
C. Cytarabine
D. Vincristine

Question (43):

Adjuvant hormonal therapy which is commonly used in premenopasual breast cancer patients, is ?

A. Tamoxifen
B. Aromatase inhibitor
C. Androgen
D. Fluvestrant

Question (44):

Which of the following monoclonal antibodies cause congestive heart failure?

A. Bevacizumab
B. Sunitinb
C. Trastuzumab
D. Cetuximab

Question (45):

Anti-metabolites chemotherapy includes all the following EXCEPT

A. Fluorouracil
B. Methotrexat
C. Doxorubcine
D. 6-Mercaptpurine

Question (46):

Peripheral neuropathy can be cause by

A. Doxorubicin
B. Fluorouracil
C. Fludarabine
D. Vincristine

Question (47):

Tumour Marker is

A. Tumour marker is a biochemical indicator for the presence of a tumor
B. A molecule that can be detected in plasma or other body fluids.
C. Have an impact on Diagnosis and prognosis
D. All of the above

Question (48):

Which of the following statements best describes the effect of tamoxifen on breast cancer cells?

A. Tamoxifen binds irreversibly to the estrogen receptor (ER).
B. Tamoxifen works equally well in ER-positive and ER-negative patients.
C. Tamoxifen competitively inhibits the binding of estradiol to the estrogen receptor.
D. Tamoxifen directly inhibits the production of several kinds of proteins important for breast cancer cell proliferation.
E. Tamoxifen is a pure estrogen antagonist.

Question (49):

Angiogenesis is:

A. The process of establishing blood supply
B. The process of forming differentiated daughter cells from pluripotent stem cells
C. The process of malignant transformation from normal cells
D. The cell-cycle dependent production of cyclins to regulate Cdk activity at various phases of the cell cycle
E. None of the above

Question (50):

In which of the following sites carcinoembryonic antigen (CEA) be found?

A. Colonic cancers
B. Serum of patients with colonic cancers
C. Some fetal tissue
D. Serum of some patients with non-neoplastic bowel diseases
E. All of the above

GOOD LUCK

Prof. Ashraf Zeidan

POSSESSION USE OF CELL PHONE OR ANY SUCH ELECTRONIC GADGEIS IS NOT PERMITTED INSIDE THE EXAMINATION HALL

ALL QUESTIONS SHOULD BE ATTEMPTED:

FIRST PART (Prof. Dr. S. Ismail) ,25 Marks

First Question (1.5 mark for each question), total marks = 6

Try to Solve the Following Problems

1- A female patient (35 years old and 65 kg body weight) with normal renal function is to be given a drug by IV infusion. The elimination half life of this drug is 7 hours and Vd is 23.1% of body weight. The desired steady state plasma level for this drug is 10 mcg / ml.

1-A- Assuming no loading dose, how long after the start of IV infusion would it take to reach 95% of C_{ss}.

1- B- What is the proper loading dose for this drug?

1-C- What is the proper infusion rate of this drug?

1-D- What is the total body clearance?

Second Question (7 Marks)

Choose the most appropriate answer in the following:(one mark for each question, total =7 marks)

1- Which of the following is true regarding the advantages of IV infusion?

A- precise control of plasma drug level B- to maintain drug therapy or terminate it.

C- both A and B

2- At steady state :

A- the infusion rate = elimination rate B- the infusion rate > elimination rate

C- the infusion rate < elimination rate

3- When the infusion rate stops either at steady state or before steady state, the concentration of the drug declines according to :

A- zero order B- first order C- diffusion mechanism

4- The time needed to reach Css is :-

A- inversely related to k B- directly related to k C- independent on k

5- A steady state concentration is reached after :-

A- three half lives B- four half lives C- seven half lives

6- It is worthy to note that the time needed to reach Css is :-

A- dependent on infusion rate B- independent on infusion rate

C- dependent on Css

7- The loading dose equals :-

A- R/k B- k/R C- R/c1earance

Answer Sheet

#	1	2	3	4	5	6	7
A							
B							
C							

Third Question (12 marks)

Answer the Following

1- Which clearance method, inulin or creatinine, gives a more accurate estimate of GFR ? Why? **(1 mark)**

2- The removal of a drug by haemodialysis is affected by the following factors:
(2 marks)

3- What are assumptions usually made when adjusting the dosage regimen according to the creatinine clearance in a partient with renal failure? **(2 marks)**

4- Calculate the creatinine clearance for a 25- years old male patient with Greatinine plasma concentration of 1 mg % and a lean body weight of 59 kg, using both Jellife and Cockcraft equations **(3 marks)**

5- The normal dosing schedule for a patient on tetracycline antibiotic is 25 mg , peora every 6 hours. Suggest a dosage regimen for this patient when his renal function has bee deteriorated from a clearance of 100 ml/hr to 40 ml /hr **(2 marks)**

6- The maintenance dose of gentamycin is 80 mg every 6 hours for a patient with nor renal function. What would be the maintenance dose for a uremic patient with creatini clearance of 20 ml/min. **(2 marks)**.
N. B. f= 1 clearance for normal patient = 100 ml/ min

SECOND PART (Prof. Dr. Mohamed Fathy) ,25 Marks

II-Select the most appropriate answer:

(Answers* to *all questions are* to *be recorded on the accompanying table)

I-Clinical pharmacokinetics is the discipline that applies pharmacokinetic concepts in humans in order to:

A-Achieve target profiles within a specific patient.

B-Dose adjustment according to ideal body weight.

C-Serum concentration of antibiotics should be just above MIC.

2-'flat' profile with little fluctuation in concentration between doses is required in case of:

A-Carbamazepine.

B-Aminoglycosides.

C-Fluoroquinolones

3-Due to the nature of biological membranes, drugs with the following properties are more likely to cross most membrane barriers:

A-Ionized an d lipophilic

B-Ionized and hydrophilic

C-Nonionized and lipophilic

D-Nonionized and hydrophilic

4- The larger the volume of distribution:

A-The larger the necessary loading dose for an i.v. infusion

B- The larger the plasma albumin binding

C-The higher the clearance.

5- A renal clearance of 500 ml /min may suggest that:

A-The drug is eliminated only by glomerular filtration.

B- The drug is eliminated by tubular secretion.

C- The drug is extensively reabsorbed in renal tubules.

6- In Zero-order kinetics:

A-Constant amount of the drug eliminated in unit time.

B-A constant fraction of the drug eliminated in unit time

C-The rate of elimination is proportionate to the concentration.

7-Volumer of distribution may indicate:

A-The tissues or fluids into which the drug is distributing.

B-The rate of distribution.

C- The extent of distribution.

8-Which of the following is TRUE regarding the volume of distribution of a drug?

A-The volume of distribution is never greater than the total volume of the patient.

B-It is proportional to the dose of a drug and inversely proportional to its concentration

C-Protein binding is not a factor in the volume of distribution.

D- The volume of distribution equilibrates rapidly.
9-A decrease in drug-protein binding will lead to which of the following?
A-Decrease in the unbound drug concentration
B-Increase in free drug
C-Decrease in rate of drug elimination
D-Decrease in volume of distribution.
10-For the body fluid compartments below, rank them from the lowest volume the highest, in a typical 70-kg person.
A- Plasma < extracellular fluid < intracellular fluid < total body water.
B- Extracellular fluid < intracellular fluid < plasma < total body water.
C- Intracellular fluid < extracellular fluid < plasma < total body water.
D-Total body water < plasma < intracellular fluid < extracellular fluid.
11-1f the elimination rate constant is 0.2 hr^{-1}, the percent of drug removed hour is:
A-20%.
B-2%.
C- 0.2%.
D- 0.02%.
12-1f the dose (X_0) and AUC are known, the clearance (area method) is calculated by:
A-AUC/ X_0.
B- plasma concentration/ AUC.
C-K/AUC.
D- X_0/AUC.
13-Which of the following is considered as dependent parameter?
A-Clearance.
B-Volume of distribution.
C-Elimination rate constant
14-Clearance:
A-Is an indicator of how much drug is being removed.
B- Determines the dose-rate (dose per unit time) required to maintain a Cp.
C- Is the reciprocal of the first moment of a blood level-time curve normalized for dose
15-Clearance is important for calculating the:
A-Loading dose.
B- Maintenance dose.
C-Dosing interval.
16-Common pitfalls and sources of errors in TDM
A-Dose administration error.
B-Blood drawn at incorrect time.
C-Administration time not recorded correctly.

D-All of the above.
E-Non of the above.
17-Instantaneous distribution to most body tissues and fluids is assumed in which of the following models?
A-One-compartment model
B- Two-compartment model
C-Multi-compartment model
18- Which equation below correctly represents the two-compartment model?
A- $C_t = A\,e^{-Kat} + Be^{-Kt}$
B- $C_t = Ae^{-Pt} + Be^{-\alpha t}$
C- $C_t = Ae^{-\alpha t} + Be^{-Pt}$
19- The method of residuals is called:
A-Peeling.
B-Model independent.
C- Two compartments.
20-Since we cannot practically measure drug concentration in specific tissues, we measure it in the plasma and assume that this concentration is the same as that in tissue.
A- True
B- False
21-Highly perfused organs and blood make up what is usually known as the peripheral compartment.
A-True
B- False
22-For a drug that has first-order elimination and follows a one- compartment model, which of the following plots would result in a curved line?
A-Plasma concentration versus time.
B-Naturallog of plasma concentration versus time.
C-Common log of plasma concentration versus time.
23- The proportion of total body weight that is water is lowest in:
A-Healthy adults.
B- Neonates.
C- Elderly.
D- Teenagers.
24- For drugs that distribute primarily in extracellular fluid, a dose for an obese person should be calculated using total body weight.
A-True
B- False

25- The volume into which a drug initially distributes upon administration.
A-Apparent volume of distribution (Vd).
B-Peripheral volume (Vt).
C-Central volume (Vc).
D-Steady-state volume (Vss).
26- The rate constants for the transfer of drug between compartments are referred to as:
A-Microconstants.
B- Macroconstants.
C-Their values can be determined by direct measurement.
27-Which of the following is the best definition of beta (β)?
A-Initial rate constant of elimination.
B-Distribution rate constant.
C- Terminal elimination rate constant.
28- When drug exhibits the characteristics of a two-compartment model, The (VD)ss:
A-Is often used to determine the loading drug dose.
B-Affected by changes the overall elimination rate.
C-Not function of the transfer constants, k12 and k21.
29-In case of two-compartment model, extrapolated volume of distribution equals:
A-Dose/A
B-Dose/A+B
C-Dose/B
30- Which is correct in case of two-compartment model:
A-Vextrap = Varea or Vβ = Vss = Vc
B-Vextrap > Varea or Vβ > Vss >Vc
C-Vextrap <Varea or Vβ < Vss <Vc
31- The volume of the central compartment is generally:
A-Greater than 3 liters.
B-Equals to the volume of the plasma fluid.
C - Less than 3 liters
32-Non compartmental methods are based on:
A-Area under curve.
B-Elimination rate constant.
C-Volume of distribution.
33- The MRT represents the time for ..... of the administered dose to be eliminated.
A-33%
B- 50%

C- 63%
34-Half-life of a drug
A- 0.693 MRTLv.
B- 0.693 K.
C- 0.693 VD
35- The unite for mean residence time (MRT) is:
A- h^{-1}
B-h
C-h^2
36-After a single intravenous bolus dose of a drug, Vss is:
A-The product of clearance and mean residence time,
B- The product of clearance and elimination rate constant.
C-The product of clearance and half-life.
37 -In practical terms, post-antibiotic effect (P AE) means:
A-Trough levels must stay 8-10 times above the MIC.
B-Peak levels must reach 8-10 times the MIC.
C- Trough levels may drop below the MIC.
D-Peak levels may drop below the MIC.
38- Patients with ascites or edema would have ..... Vd for gentamicin.
A- Increased.
B- Decreased.
C- Unchanged.
39- Extended-interval (or "once-daily") aminoglycoside dosing is NOT appropriate in:
A-The elderly.
B-Patients with significant renal impairment.
C-Patients with endocarditis.
D- All of the above.
E-Non of the above.
40-What model parameter causes the most variability in the aminoglycoside population model?
A- Kel
B-Vd
C-CL
D- Half-life
41-The ideal dosing interval (tau) is computed from
A-Target peak
B- Target trough
C-Both A and B

42- The best strategy for dosing beta-lactams
A-Continuous infusion
B-Smaller doses, more frequently
C-Larger doses, less frequently
D-Smaller doses, less frequently
43- The distribution phase for aminoglycosides is
A- 15-30 minutes.
B- 2-3 hours
C- 6 hours.
44- Dettli plots are:
A- Plots of Kel versus creatinine serum concentration.
B- Plots of Kel versus creatinine clearance.
C- Plots of Kel versus drug clearance.
45-Drug may be better described by the more complex models than one compartment:
A-Aminoglycosides
B- Vancomycin
C-Benzodiazepines
46-Theophylline follows the kinetics of a two-compartment model after:
A-Oral absorption
B- Intravenous bolus (given as aminophylline).
C-Slow intravenous infusion
47 -When calculating CLcr from serum creatinine for unstable renal function, we can use the following:
A-Cockcroft-Gault's method.
B-Jelliffe's multi-step method.
C-Salazar-Cocoran method
48- The bioavailability of aminoglycosides from IM route approximately:
A-30%
B-50%
C- 1OO%
49-Aminqglycoside volume of distribution is calculated by additional extracellular fluid in adipose tissue because:
A-The baseline volume of distribution for these drugs is relatively small
B-Aminglycosides is highly distr~buted into adipose tissue.
C- Aminglycosides is highly protein bound.
50-Sawchuk-Zaski method is used for calculation:
A-Initial dosing in conventionat dosing schemes.
B- Altering dosing in conventiodal dosing schemes,
C-Initial dosing in both conventional and extended-interval dosing schemes

NO	Answer	NO	Answer
1		26	
2		27	
3		28	
4		29	
5		30	
6		31	
7		32	
8		33	
9		34	
10		35	
11		36	
12		37	
13		38	
14		39	
15		40	
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23		48	
24		49	
25		50	

كلية الصيدلة
قسم الصيدلة الإكلينيكية

الزمن: ساعتان
المادة: علم الاجتماع

امتحان الفصل الدراسى الأول للعام الجامعى ٢٠١١/٢٠١٢

أجب عن الأسئلة الآتية:-

السؤال الأول:- اثبت صحة العبارات الآتية:

أ- تختلف قوانين العلوم الاجتماعية عن قوانين العلوم الطبيعية.

ب- لا يعتبر العقاب اسلوبا ايجابيا إلا بشروط.

ج- كان المواطن المصرى عازفا عن المشاركة الشعبية.

(٣٠ درجة)

السؤال الثانى: أكمل بالتعريف المناسب:

أ- التنشئة الاجتماعية .....

ب- الثقافة .....

ج- علم الاجتماع .....

(٣٠ درجة)

السؤال الثالث: تكلم عن:

أ- خصائص الثقافة.

ب- أهمية المشاركة الشعبية.

ج- الوسائط غير الرسمية للتنشئة الاجتماعية.

(٣٠ درجة)

مع تمنياتنا بالنجاح والتوفيق

د. ايمان عباس

Assiut University
Faculty of Pharmacy
Pharmaceutics Department
Class (9)
Final Clinical Nutrition

Lecturers: Dr. Fergany & Dr. Ibrahim

Date: 26/1/2012
Total mark: 50 marks
Time: 1h

All question are to be answered

Part I, Dr. Fergany Mohammed (35) Marks)

This table for answers of question (1)

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

Ql) Choose the most Correct Answer (ONE) of each of the following: (30 marks, each point 1.5 Marks)

1- Malnutrition: A condition caused by:

a) adequate intake of nutrients
b) inadequate of carbohydrates
c) inadequate or excess intake of nutrients
d) non of the above

2- Energy requirement is the amount of energy needed to:

a) maintain health and growth
b) support an individual level of physical activity
c) both a&b
d) non of the above

3- Called energy-giving foods because they make up a large percentage of the energy in people's diets.

a) Lipids
b) proteins
c) Carbohydrates
d) all the above

4. Provide essential fatty acids that the body does not produce

a) Lipids
b) proteins
c) Carbohydrates
d) all the above

5- When people do not eat enough ----------, their bodies use protein from their muscle mass, leading to muscle wasting over time.

a) Lipids
b) proteins
c) Carbohydrates
d) all the above

6- ..... are organic compounds that perform specific metabolic functions in the body.

a) Lipids
b) proteins
c) Carbohydrates
d) Vitamines
e) minerals

7- ..... are referred to as essential trace elements because they are needed in very small quantities.

a) Lipids
b) proteins
c) Carbohydrates
d) Vitamines
e) minerals

8- The body's response to nutrients and the subsequent outcome is called nutritional status

a) Lipids
b) proteins
c) Carbohydrates
d) nutrients
e) Vitamines
f) minerals

9- The most obvious sign of iodine deficiency is:

a) hypertension
b) Goiter.
c) Anemia
d) Ostoeomalacia

10- Organic compounds that performs specific metabolic functions in the body hypertension

a) Mineral
b) Vitamins
c) Fats
d) Proteins

11- Protein energy malnutrition (marasmus), (Kwashiorkor) are the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin B 1	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B12	l) Vitamin C
m) Mineral	n) Calcium	o) Iodine	p) Iron

12- Protein energy malnutrition (marasmus), (Kwashiorkor) , Poor wound healing and Impaired immune function are the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin B1	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B 12	I) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

13- Marasmus (wasting), Dry and scaly skin and Poor wound healing are the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin Bl	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B12	I) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

14- Rickets (children) Osteonalacia (adults) are the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin B 1	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B12	1) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

15- Leg crams, Muscle weakness, Nerve problems and hearing problems are the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin B 1	h) Vitamin B2
i) Vitamin B3·	j) Vitamin B6	k) Vitamin B12	I) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

16- Beriberi (enlargment of nevers) is the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin B1	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B12	I) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

17- Pellarga is the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin Bl	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B12	I) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

18· Dermatitis, Chelosis and Glossitis are the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitam..inA
e) Vitamin D	f) Vitamin E	g) Vitamin Bl	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B 12	l) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

19- Scurvy and Gingivitis· are the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin B 1	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B12	l) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

20- Delayed blood clotting and Osteomalcia are the main signs and symptoms of deficiency of:

a) Fats	b) Proteins	c) Carbohydrates	d) Vitamin A
e) Vitamin D	f) Vitamin E	g) Vitamin Bl	h) Vitamin B2
i) Vitamin B3	j) Vitamin B6	k) Vitamin B12	I) Vitamin C
m)Mineral	n) Calcium	o) Iodine	p) Iron

Q2) Write short Notes on each of the following: (2.5 Marks)

a- Energy-releasing vitamins

b- Complex carbohydrates

Q3) Mention the differences between each of the following Giving examples when possible: (2.5 Marks)

Visible fat	Invisible fat

Part II, Dr. Ibrahim El-Gibaly (15 Marks)

Table for answers of this questions:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Ql) Denote (T) for the true statement and (F) for the false one in the Table given below:

(1) Homestosis does need any source of PN.

(2) Immature neonates can metabolize phenylalanine, so requirements are reduced.

(3) Amino acid solutions are hypotonics and should be administered alone into the peripheral circulation.

(4) To minimize risk of hypoglycemia and related complications is one of the advantages of dual energy over glucose-only energy systems.

(5) Lower concentrations of glucose does not cause phlebitis if administered directly to peripheral vein.

(6) Lipid emulsions are not infused directly into the peripheral vein as they are relatively hypotonic with blood.

(7) Dipotassium phosphate dissociate more readily than potassium acid phosphate, releasing phosphate to react with the calcium.

(8) Larger oil globules, releasing free oil, resulting in stabilization of the lipid emulsion, so they are suitable for administration.

(9) Condensation of the carbonyl group of the glucose and the amino group of the amino acid give a PN product that are suitable for parenteral administration.

(10) Nutritional monitoring determi'nes the discrepancies between prescribed, delivered and received dose.

(11) Thiamine affords some protection against refeeding syndrome and may be administered during the nutrition and over the first few days of infusion.

(12) Low sodium feeds is required if there is ascites.

(13) To control uraemia in absence of dialysis, nitrogen source restriction may be necessary.

(14) Parenterallipids may not induce or exacerbate pancreatitis.

(15) Exogenous insulin may not be required in case of sepsis due to increased insulin resistance and incomplete glucose oxidation.

Assiut University Time allowed 1 hr

Faculty of Pharmacy Total Marks 5

Dept. of Industrial Pharmacy 24.11.2012

GMP Round Exam for clinical Pharmacy students

Class 9

I.Define the following terms:

1.A batch

2.Active ingredient

3.ln process quality control

4.Quarantine.

5.5tandard operating procedure(SOP)

6.Validation.

II.Write on the following:

1.The eleven big items which must be checked to perform cGMP for finished ,pharmaceuticals.

2.Responsibilities of Q.C.

Assiut University

Faculty of Medicine

Department of Pharmacology

End of term Examination for Clinical Pharmacy Students

(Clinical Pharmacology)

Time allowed: 2 hours Date: 29/12/2012

- All questions are to be attempted.
- Answer the short essay questions according to the order of their appearance (35 marks).
- Write down the answers of MCQ in the appropriate box (15 marks).

Part I-Short Essay Questions (35 marks)

(1) Write short note on the following: (5 marks each)

1. Clinical pharmacology of thiazolidinediones

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2. Mechanism of action, therapeutic uses and side effects of H_2 blockers with examples

(2) Briefly explain why? (1.5 marks each)

1. Glycosylated hemoglobin Hb-Alc IS used to monitor the plasma glucose concentration

.....
.....
.....

2. Level of protein in the diet of Parkinson patients should be stable during treatment with L-dopa

.....
.....
.....

3. In treatment of hypertensive emergency, excessive falls in pressure should be avoid

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4. Use of Verapamil in combination of beta-blocker are absolute contra-indication

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.....

5. Oral sumatriptan followed by Frovatriptan should be used in treatment of acute attack of severe migraine

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6. The use of selective β_2 agonist in bronchial asthma

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.....

7. Combined use of digoxin and diuretic-induced hypokalemia should be avoided in patients with congestive heart failure

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8. Fosphenytoin is approved for status epilepticus
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9. β-blockers should be avoided in patients with variant angina
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.....

10. Omeprazole should not be coadministered with other acid suppressing agents
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.....

(3) Mention the following: (2 mark each)

1) Four logical combinations of antihypertensive drugs
1. .....
2 .....
3. .....
4. .....

2)Four agents act by different mechanisms to increase dopamine activity in brain
1. .....
2 .....
3. .....
4. .....

3)Four antibacterial group can be used safely during pregnancy
1. .....
2 .....
3. .....
4. .....

4)F our antiepileptics used in treatment of grand mal epilepsy
1. .....
2 .....
3. .....
4. .....

5) Four side effects of nitroglycerin
1. .....
2 .....
3. .....
4. .....

Part II- MCQs (0.5 mark each)

For each of the following MCQs, select the one most appropriate answer (Insert the appropriate answer in the appropriate box.

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	26	27	28	29	30

1- Which of the following drug-therapeutic effect pairs is **incorrect?**

A. Carvedilol: Hypertension in pheochromocytoma
B. Trimethophan: initial control of hypertensive emergency in patient with acute dissecting aneurysm
C. a methyldopa: hypertension during pregnancy
D. Labetalol: hypertension in patient with vasospastic angina
E. Prazosin: hypertension in men with prostatism

2- Which of the following antihypertensive drug-side effects pairs is **incorrect?**

A. Atenolol: bronchospasm and hypoglycemia
B. Reserpine: mental depression and parkinsonism
C. Clonidine: rebound hypertension on sudden withdrawal
D. Trimethophan: postural hypotension, constipation & cycloplegia
E. Captopril: Fetotoxicity, dry cough, angioneurotic edema

3- A patient has received excessive doses of nitroprusside, and toxic manifestations are developing. Which of the following drugs should we administer to help nitroprusside's metabolism proceed to the formation of a less toxic metabolite?

A. Epinephrine· B. Sodium thiosulfate C. Thrombin
D. Vitamin C E.Vitamin E

4- For many hypertensive patients we can prescribe either lisinopril (or an alternative in the same class) or losartan. Which one of the following statements correctly summarizes how losartan differs from lisinopril or its related drugs?

A. Lisinopril competitively blocks catecholamine-mediated vasoconstriction, losartan does not
B. Lisinopril effectively inhibits synthesis of Angiotensin 11, losartan does not
C. Losartan causes a higher incidence of bronchospasm and hyperuricemia
D. Losartan is preferred for managing hypertension during pregnancy, whereas : captopril is contraindicated
E. Losartan is suitable for administration to patients with heart failure, whereas . captopril and related drugs should be avoided

5- A 23-year-old nonpregnant woman has been using a preparation of oral ergotamin.e to manage her frequent migraine headaches. She consumes an excessive dose of the drug while trying to abort a particularly severe and refractory attack. Which of the following adverse cardiac or cardiovascular consequences are most likely to occur as a result of the ergot overdose?

A. Myocardial and peripheral (e.g., limb) ischemia due to intense vasoconstriction
B. Renal failure secondary to rhabdomyolysis
C. Spontaneous bleeding due to direct inhibition of platelet activation/aggregation
D. Syncope secondary to acute hypotension
E. Tachycardia, tachyarrhythmias from β1 adrenergic receptor activation

6- Which of the following is useful as Effective as a rescue therapy for status mlgramosus

A. Aspirin B. Propranolol C. Corticosteroids
D. Paracetamol E. Methysergide

7 - Regarding levodopa, **one** of the following statements is **incorrect:**

A. It is an immediate precursor of dopamine.
B. It is absorbed from GIT and cross BBB.
C. In the brain, levodopa enters dopaminergic neurons and decarboxylated by dopadecarboxylase into dopamine.
D. Usually, used in combination with carbidopa to reduce peripheral adverse effects.
E. Short-term uses may lead to fluctuation in concentration with the result of on-off phenomenonon

8- **One** of the following is pure selective D2 receptor agonist:

A. Pramipexole B. Bromocriptine C. Selegiline
D. Amantadine E. Pergolide

9- Which of the following drugs is taken during the first part of a meal for the purpose of delaying the absorption of dietary carbohydrates?

A. Acarbose B. Colestipol C. Glipizide
D. Pioglitazone E. Repaglinide

10- The following drug is an insulin sensitizer but may cause fluid retention and dema:

A. Acarbose B. Rosiglitazone C. Metformin
D. Glipizide E. Glyburide

11- Source of human insulin production is:

A. Recombinant DNA techniques by inserting the proinsulin gene into staph. aureus
B. Postmortem insulin extraction from human autopsy pancreas
C. Enzymatic conversion of terminal aminoacid alanine to threonine m bovine(beef) insulin
D. All of the above
E. None of the above

12- **One** of the following regarding Vildagliptin (Sitagliptin) is **incorrect**

A. It is a potent and selective oral dipeptidyl peptidase-4 inhibitor
B.It improves glycaemic control in patients with Type 2 DM
C.It has a low incidence of hypo glycemia
D.It does not produce weight gain.
E.It stimulates β cells of Islets of Langerhans

13- All of the following would be effective in the treatment of sepsis due to acteroides fragilis **except:**

A. Clindamycin B. Metronidazole C. Gemifloxacin
D. Amikacin E. Cefoxitin (second generation cephalosporin).

14- Each of the following drugs is correctly paired with an associated adverse effects **except:**

A.a.Gentamicin - Nephrotoxicity.
B.b. Chloramphenicol - bone marrow depression.
C.Amoxicillin- diarrhea.
D.Tetracycline - bone deformities in children
E.Ciprofloxacin- optic neuritis

15- The following antibiotics are antistaphylococcal(Staph -resistant) agents **except**:

A. Ampicillin B. Nafcillin C. Dicloxacillin
D. Cloxacillin E.Vancomycin

16- Concerning treatment of Alzheimer's disease, all the following statements are **correct except:**

A.Galantamine is a cholinesterase inhibitor with adequate penetration into the CNS
B.Tacrine causes hepatotoxicity.
C. Rivastigmine improves some symptoms in Alzheimer's dementia by increasing brain acelylcholine levels
D.Memantine acts as a competitive NMDA receptor antagonist.
E. Memantine is indicated for the treatment of moderate to severe dementia of the Alzheimer's type.

17- **One** of the following drugs is used in status asthmaticus:

A. Aminophylline B. Nedocromil C. Cromolyn
D.Omalizumab E.Salmeterol

18- Which effect·is common to salbutamol, theophyline and ipratropium

A. Constipation B. Gastric distress C. Tremors
D. Bronchodilation E. Polyuria

19- **One** of the following drugs has an important role in aspirin-induced asthma

A. Zileuton B. Omalizumab C. Zafirlukast
D. Sa1butamol E. Nedocromil

20- All are adverse effects of cimetidine **except:**

A. Inhibition of CYP450. B. Gyncomastia in men
C. Headache and confusion. D. Galactorrhea in men
E. Loss of libido and impotence in men

21- All the following are therapeutic uses of cimetidine except:

A. Gastric ulcer B. duodenal ulcer
C. H. pylori-caused peptic ulcers D. Prophylaxis of stress ulcer
E. Uncomplicated gastroesophyeal reflux disease

22- The drug of choice in the treatment of petit mal (absence seizures) is:

A. Phenytoin B. Ethosuximide C.Phenobarbital
D. Carbamazepine E.Diazepam

23- Chronic use of one of the following anti seizures produces adverse effects including: hirsutism, gingival hyperplasia, and osteomalacia

A. Carbamazepine B. Ethosuximide C. Gabapentin
D. Phenytoin E. Valproic acid

24- All of the following are among aggressive factors in the pathogenesis of peptic ulcer **except**

A. Gastric acid B. Gastrin C.Bicarbonate
D. Helicobacter pylori infection E. Low prostaglandin

25- Mucosal protective agents include all of the following **except**

A. Prostaglandins B.Sucralfate C. Carbenoxolone
D. Colloidal Bismuth compouds E.Antimuscarinic agents

26- All the following antiepileptic drugs and their linked therapeutic effects are **correct except:**

A. Diazepam -------- Status epilepticus.
B. Carbamazepine ------- Trigeminal neuralgia
C. Phenobarbital ------- Absence seizures
D. Phenytoin---------- Grand mal epilepsy
E. Ethosuximide ----------Petit mal

27- **One** of the following situations constitutes an added risk of digoxin toxicity?

A. Starting administration of captoprit
B. Starting administration of spironolactone
C. Hyperkalemi'a
D. Hypercalcemia
E.Hypercalcemia

28- Digoxin acts by:

A. Inhibition of sodium pump (Na+/K+ ATPase).
B. Blocking of calcium channels.
C. Increase of intracellular potassium.
D. Activation of beta 1 receptors
E. Increase of intracellular cAMP

29- Regarding a patient with heart failure receiving digoxin

A. Check the patient pulse is necessary
B. Nausea and vomiting could be alarming signs of toxicity
C. Therapeutic monitoring of digoxin is helpful in assesting response to therapy and avoidance of toxicity
D. It can be administered safely in case of associated renal failure
E. Digoxin overdosage can be eliminated by hemodialysis

30- All the following have positive inotropic effect except:

A. Inamrinone B. Milrinone C. Digoxin
D. Dobutamine E. Furosemide

Good Luck

Assiut University
Faculty of Medicinc
Department of Pharmacology

Toxicology and forensic chemistry Examination
For
Clinical Pharmacy Students

Time allowed: Two hours 2 January, 2013

Answer the.following items:

1-Mechanism, signs, symptoms and treatment of toxicity of: (12Marks)

(A) Carbon monoxide
(B) Cyanide

2-(A) Drug induced nephrotoxicity (7Marks)
(B)Chronic lead poisoning (6Marks)

3-Shortly write on each of the following: (25Marks)
(A) Antidotal therapy
(B) Hazards of medications
(C) Most common drugs of abuse

GOOD LUCK

Faculty of Pharmacy
Assiut University
Dept. of Pharmaceutics
Clinical Pharmacy Program (9th Sem.)

Clinical Pharmacokinetics Final Exam. Date: Jan. 10th ,2011
Time allowed: Two hours

All questions should be answered:

Part 1 (Prof. Dr. S. Ismail) (25 marks) **25**

First Question: (15 marks)
1- Which clearance method, inulin or creatinine, gives a more accurate estimate of GFR? Why? **(3 marks)**

2- What are assumptions usually made when adjusting the dosage regimen according to the creatinine clearance in a partient with renal failure? **(3 marks)**

3- There are several criteria which are necessary for using a marker to measure a GFR. Enumerate three of them. **(3 marks)**

4- Calculate the infusion rate required to achieve a drug concentration of 0.5 mg/L at 6 hours after a continues infusion has been started, assuming one compartment open model. The Vd and half life values for this drug are 57.6 L and 2.5 hours respectively. **(3 marks)**

5- The normal dosing schedule for a patient on a drug is 250 mg orally every 6 hours. Suggest a dosage regimen for this patient when his renal clearance has been deteriorated from 100 to 40 ml/min. **(3 marks)**

Second Question: (8 Marks)

Choose the most appropriate answer in the following:

1- Which of the following is true regarding the advantages of IV infusion?
A- precise control of plasma drug level
B- to maintain drug therapy or terminate it.
C- both A and B

2- At steady state·:
A - the infusion rate· = elimination rate
B- the infusion rate > elimination rate
C- the infusion rate < elimination rate

3- When the infusion rate stops either at steady state or before steady state, the concentration of the drug declines according to:
A- zero order B- first order C- diffusion mechanism

4- The time needed to reach Css is:
A- inversely related to k B- directly related to k C- independent on k

5- A steady state concentration is reached after:- .
A - three half lives B- four half lives C- seven half lives

6- It is worthy to note that the time needed to reach Css is :-
A- dependent on infusion rate B- independent on infusion rate
C- dependent on Css
7- The concentration of a drug at steady state could be calculated from the following equation:
A- Css = R/ k Vd B- Css = R/ total clearance C- Both A and B
8- Which equation is used to calculate the concentration of a drug after LV. infusion before steady state has been attained?
A- $Cp = [KV_d / (R)] (1 - e^{-kt})$ B- $Cp = [R /(kV_d)] (1 - e^{-kt})$

C- $Cp = [Rk / (V_d)] (1 - e^{-kt})$

9- Which of the following is true regarding the advantages of IV infusion?
A- precise control of plasma drug level .
B- to maintain drug therapy or terminate it.
C- both A and B
10- The loading dose equals :-
A- R/k B- k/R C- R/c1earance

Answer Sheet

	1	2	3	4	5	6	7	8	9	10
A										
B										
C										

Part 2 (Prof. Dr. G. El-Gindy) (25 marks) **25**

First Question: (12.5 marks)

(II) Choose the Correct Answer:

1- If a drug A is 98% bound in plasma and interacts with a drug B which displaces 1% of drug A, the increasing in pharmacological response of drug A is by:
a) 100% b) 99% c) 98% d) 50%

2- Drugs cross placental barrier primarily by:
a) Active transport system, b) Carrier-mediated transport system,
c) Passive diffusion system, d) Non of the above.

3- Evans Blue is a large polar dye that does ·not pass through the capillary bed, so, it is not able to pass out of the vascular system, hereby, Ev_6ans Blue can be used to measure:
a) Extracellular water, b) Vascular volume,
c) Total body water, d) All the above.

4- Volume of distribution (Vd) equals:
a) Cl_T / Ke = Total clearance / elimination rate constant
b) D_L / C_p = Loading dose / target concentration.
c) A/C_p = Amount of drug in the body/actual plasma concentration,
d)All the above.

5- Penicillin penetrates the brain poorly because:
a) It has large molecular weight b) It is highly ionized,
c) It undergoes hydrolysis d) Non of the above.

6- Drugs that target the central nervous system need to be:
a) aqueous soluble b) lipid soluble c) highly ionized drug d) all the above

7- Bromide is not able to cross cell membranes, for this reason, bromide can be used to estimate:
a) total body water b) vascular volume, c) extracellular water d) non of the above

8- Quinacrine (an older antimalarial drug) has an apparent volume of distribution 50000 Iiters in a person whose body volume is 70 L, because:
a) the drug does not pass through the cQPlllary bed.
b) the drug is not able to cross cell membrane;
c) the drug is avidly highly bound in peripheral tissues;

9- In non-compartment model total clearance CL_T equals:
a) K_e.Vd b) Q.ER c) Do/[AUC]oo

10- Ideal dosing interval (tau) equals:
a) In(C_{max} /C_{trough})/ Kel b) rate of infusion / clearance
c) excretion rate /plasma concentration d) all the above

11- In case of a two-compartment open model C; the rate of drug change in and out of the tissue can be presented by the following equation:
a) dcp/dt = $k_{21.}$.Dt/Vt - k_{12}.Dp/Vp-K.Dp/Vp
b) dcp/dt = k_{12}.• Dp/Vp- k_{21}.Dt/Vt + k.Dp/Vp c) Cp = A_e^{-at} + B_e^{-bt} d) all the above

12- Many acidic drugs (e,g, warfarin and aspirin) are highly protein-bound and thus they have:
a) large apparent volume of distribution (Vd); b) equal (Vd); c) small (Vd); d) all of the above

13- In case of compartment model clearance (Cl_T) equals:
a) Cl_T = Ke.Vd b) Cl_T =Q.ER c) Cl_T = Dose/ $[AUC]^{\infty}$ d) non of the above

14- In case of physiological model Cl_T equals:
a) Cl_T = K_e.Vd b) CI_T= Q.ER c) Cl_T = Dose/ $[AUC]^{\infty}$ d) non of the above

15- In case of non-compartment model CI_T equals:
a) Cl_T = K_e.Vd b) Cl_T = Q.ER c) Cl_T = Dose/ $[AUC]^{\infty}$ d) non of the above

16- Glomerular filtration rate is:
a) 1200 ml/min b) 12000 ml/min c) 120 ml/min d) non of the above

17- Renal clearance of glucose equal:
a) 0 ml/min b) 650 ml/min c) 120 ml/min d) non of the above

18- AUC is the zero moment of the drug concentration-time curve =
a) $[^{\infty}Cdt$ b) AUMC/AUC c) $[^{\infty}$ (t-MRT)^{2}Cdt/AUC d) non of the above
19- MRT is the first moment of the drug concentration-time curve =
a) $[^{\infty}Cdt$. b) AUMC/AUC c) $[^{\infty}$ (t-MRT)^{2}Cdt/AUC d) non of the above
20- VRT is the second moment of the drug concentration-time curve =
a) $[^{\infty}Cdt$. b) AUMC/AUC c) $[^{\infty}$ (t-MRT)^{2}Cdt/AUC d) non of the above
21- The area under the first moment curve from t* to infinity is estimated as follow:
a) $AUC_{t-\infty} = c^*/\lambda_n$ b) $= t^*C^*/\lambda_n + C^*/\lambda_n$ c) $Cp_o + Cp_1/2$ X (t_1) d) non of the above.
22- For non-compartmental analysis, the mean absorption time equal:
a) $MRT_{iv} - MRT_{oral}$ b) MDT- MRT_{iv} c) $MRT_{oral} - MRT_{iv}$ d) non of the above.
23- Mean dissolution time (MDT) equal:
a) $MRT_{oral} - MRT_{iv}$ b) $MRT_{solid} - MRT_{solution}$ c) MAT- MDT d) non of the above
24- In case of 2-compartment model plasma concentration (Cp_o) at time equal zero:
a) = A+B b) D_o/V_p c) D_o (a- k_{21})/ Vp (a-b) d) all the above
25- The observed number of compartments will depend the route of drug administration. For example if theophylline is given orally, it follows:
a) 1-compartment model b) 2-compartment model
c) 3- compartment model d) non of the above

Second Question (12.5 marks)

Complete the Following .Sentences:

1- A log scale plot of the serum level-time .curve of a one-compartment model yields .....
2- Volume of the central compartment (Vp) is a proportionality constant that relates the .....and .....at time equal zero.
3- Volume of distribution during terminal phase (Vd_β) or V_{area} is a proportionality ,constant that relates plasma concentration and the .....
.....
5- $(Vd)_{ss} = V_p$ + ...
6- Extrapolated volume of distribution $(VD)_{exp}$ is:
$(VD)_{exp} = D_o/$ .... $= V_p$ x .....
7- In case of steady state the amount of drug (D) in the body is:
D =.....x.....
8- Loading dose = ...x.....
9- Clearance is .....
10- In case of three-compartment open model, elimination rate constant (k)is
$k = (A+B+C)_{abc}$/.....+.....+.....
11- In case of three-compartment open model, volume of the central compartment (Vp) is
$Vp = D_o$/.....+.....+.....

12- In case of three-compartment open model, area under the curve (AUC) is:

(AUC) = ...+.....+.....

13- Polar, hydrophilic, charged molecules must pass through .....

14- As plasma protein binding increases, the extent of distribution.

15- In case of water compartments of the body, plasma compartment represents .....% body mass while ..... represents 20% body mass.

16- In case of penetrating into the brain, drugs cross blood brain barrier by..... system (require energy).

17- In case of placental barrier, drugs cross placental barrier primarily by.....

18- Rate of elimination = K x .....

19- Ideal dosing interval = ... / K_{el}

20- At steady state, total clearance is:

Cl_T = ... / C_{ss}

21- In case of physiological model, total clearance is:

Cl_T = Q x .....

22- ..... = AUMC / AUC

23- $AUC_{t\ last\ -\ \infty} = \int_{last}^{\infty} Cp \, . \, dt$ = ...

24- $AUMC_{t^*-\infty} = t^*C^*/ / \square_n +$ .....

25- Bioavailability (**F**) = ... / $D_{oral} \bullet AUC_{iv}$

(Good Luck)

امتحان الفصل الدراسى الأول للعام الدراسى ٢٠١٢/٢٠١٣ م

لطلاب برنامج الصيدلة الاكلينيكية

أولا: أجب عن السؤال الآتى:.....(٥٠ درجة)

أ- تقوم الأسرة – أحيانا – ببعض الممارسات السلبية وغير السوية فى عملية التنشئة الاجتماعية .... أكتب عنها مبرزا تعريف التنشئة.

ب- أذكر أهم تعريفات وخصائص الثقافة مؤيدا ما تقوله بالأمثلة.

ثانيا: اختر سؤالا واحدا من الأسئلة التالية:

السؤال الأول:.....(٤٠ درجة)

- أكتب فيما يلى:

أ- اشكال الظاهرة الاجتماعية وتعريفها.

ب- عوامل التغير الاجتماعى.

السؤال الثانى:.....(٤٠ درجة)

- أكتب مذكرات علمية وافية فيما يلى:

أ- وسائط التنشئة الاجتماعية الأكثر تأثيرا من وجهة نظرك ، (دلل على ما تقول).

ب- الفروع المختلفة لعلم الاجتماع.

انتهت الأسئلة

مع أطيب تمنياتى بالتوفيق

د./ ايمان عباس عبد النعيم

د./ سيد حسانين بخيت

Faculty of Pharmacy
Clinical pharmacy final year
Oncology MCQ Exam.
January 14,2013

Clinical pharmacy
Time allowed Two hours

[PP 908]

All questions should be answered by drawing a circle around the correct answer:-

Question (1):
DNA viruses have been implicated as etiologic agents in several human tumors. Evidence for a causative role exists for which of the following neoplasms?

A.Testicular carcinoma
B.Cancer cervix
C.Osteosarcoma
D.Esophageal carcinoma

Question (2):-
All the following statements describing direct criteria of malignancy are true except:

A.Anaplasia
B.Hyperplasia
C.Increased mitosis
D.Abnormal mitosis
E.Invasion

Question (3):
Metaplasia:

A.Reflects disordered differentiation
B.Occurs in both epithelial and connective tissue tissues
C.Is frequently seen in the stroma of neoplasms
D.Is usually a premalignant change
E.All of the above

Question (4)
The most important feature in differentiating a malignant from a benign tumor is:

A.lake of encapsulation
B. High mitotic rate
C. Presence of necrosis and hermorrhage
D. Presence of metastasis
E. Nuclear pleomorphism (anaplasia)

Question (5):

What is the most likely target for carcinogens?

A. Cell surface
B. RNA
C. DNA
D. Ribosomes

Question (6):

Cancer develops as a multi-step process. Identify the wrong statement from the following list:

A. Initiation is probably caused by point mutation of genes
B. Promotion is an irreversible hyperplasia
C. Promotion must follow initiation
D. Progression is an terminal step in oncogenesis
E. Progression increases tumor cell heterogeneity and autonomy

Question (7):

Lymphomas may develop in immunodeficient patients because of:

A. Impaired immunoregulation
B. Chronic antigenic stimulation
C. Activation of oncogenic viruses
D. None of the above
E. All of the above

Question (8):

By contrasting Hodgkin's disease (HD) with Non-Hodgkin's lymphoma (NHL), all the following are characteristic of (HD) except:

A. It is a single disease entity
B. Reed-Sternberg cells are the only malignant cell in the lesion
C. Noncontiguous spread
D. Axial lymph nodes mainly affected
E. Rare extra nodal affection

Question (9):

Factors that are assessed in tumor grading include:

A. Size of tumor
B. Extent of invasion
C. Nodal involvement
D. Number of mitosis
E. All of the above

Question (10):

Factors that are assessed in tumor staging are:

A. Size of tumor
B. local invasion
C. lymph node metastasis
D. Distant metastasis
E. All of the above

Question (11):

Immunohistochemistry is a valuable tool in the study of all the following except:

A. Tumor typing
B. Clonality of lymphoid lesions
C. Viral etiology of cancers
D. Tumor grading

Question (12):

Tumors that tend to spread over the surfaces of the viscera or body cavities rather than metastasizing via blood vessels or Iymphatics include:

A. Colon carcinoma
B. Ovarian carcinoma
C. Renal cell carcinoma
D. Urinary bladder carcinoma
E. All of the above

Question (l3):

All the following tumors are hormone dependent except:

A. Breast carcinoma
B. Adrenal carcinoma
C. Prostatic carcinoma
D. Endometrial carcinoma
E. Thyroid carcinoma

Question (l4):

The aim of hormonal therapy of prostatic carcinoma is to reduce plasma testosterone. This usually accomplished by all of the following measures, except:

A. Orchiectomy
B. Estrogens
C. Antiandrogens
D. Medical adrenalectomy
E. Tamoxafin

Question (15):

Modes of cancer spread include:

A. Direct local spread
B. Contact spread
C. Perineural
D. Trans-cavity spread
E. All of the above

Question (16):

The most trustable method for diagnosis of malignancy is:

A. Screening
B. Biopsy
C. Imaging
D. Tumor markers
E. Endoscopy

Question (17):

The following are the true properties that allow metastasis from malignant tumors except:

A. Tumor cell positive pressure
B. Tumor cell motility
C. Defective cell adhesion D: Tumor angiogenesis
E. Escaping apoptosis as they reach distant metastasis

Question (18)

The treatment which is given before the definitive line of treatment of cancer is called:

A. Adjuvant
B. Neoadjuvant
C. Palliative
D. Primary

Question (19):

Chemotherapy that is given after surgical biopsy for diagnosis of a case of Non-Hodgkin's lymphoma is categorized as:

A. Targeted therapy
B. Palliative chemotherapy
C. Primary Treatment
D. Neo-adjuvant chemotherapy
E. Adjuvant chemotherapy

Question (20):

Neo-adjuvant chemotherapy is the treatment of choice for locally advanced malignant tumors, all the following are characteristics of Neo-adjuvant chemotherapy except:

A. Down staging
B. Sterilization of surgical field
C. Increase the chance of operability
D. Control of distant metastasis
E. Assessment of response to the used chemotherapy

Question (21):

Ovarian Krukenberg tumor developed as a result of trans-cavitary spread from:

A. Hepatocellular carcinoma
B. Stomach carcinoma
C. Colonic carcinoma
D. Uterine carcinoma
E. Urinary bladder carcinoma

Question (22):

The main factor that determines the use of hormonal therapy in breast cancer is:

A. Tumor size
B. Tumor grade
C. Hormone receptors
D. lymph node involvement
E. Metastasis

Question (23):

The following are the screening methods for colorectal cancer that used to prevent and detect cancer. Currently the best way for colorectal cancer screening is:

A.Virtual colonography
B. Colonoscopy
C. Fecal occult blood test
D. Double contrast barium enema
E. Stool DNA test

Question (24):

The highest risk factor for developing colon cancer is:

A. Familial adenomatous polyposis (FAP)
B. Inflammatory bowel disease (IBD)
C. Smoking
D. Obesity
E. Family history of hereditary non-polyposis colon cancer(HNPCC)

Question (25):

Mutation in *BRCAl* and *BRCA2* genes are responsible for the development of:

A. Renalcancer
B. Colon cancer
C. Uterine cancer
D. Breast and ovarian cancer
E. All of the above

Question (26):

Regarding Granulocyte- Colony Stimulating Factor (G-CSF) - the best description of its mechanism of action and role in chemotherapy is:

A. It decreases the production of neutrophils
B. It decreases the severity of neutropenia
C. It increases the number of platelets
D. It decrease mortality
E. Potentiates effects of chemotherapy

Question (27):

Patient with testicular germ cell tumor receiving combination of Bleomycin, Etopside,Platinum (BEP). Which side-effect would necessitate cessation of the responsible drug?

A. Neutropenia
B. High-tone sever hearing loss
C. Peripheral neurqpathy
D. Interstitial lung damage
E. Cardiomyopathy

Question (28):

Potential problems that would need your immediate care include:

A. Increased intracranial pressure
B. Airway compression
C. Superior vena cava syndrome
D. All of the above

Question (29):

Risk factors that responsible for anthracyclin-induced cardiotoxicity include:

A. Exceeding the cumulative dose of anthracycline
B. Preexisting cardiovascular disease or cardiac risk
C. Previous Uncalculated anthracycline therapy
D. Co-administration of potentially 'cardiotoxic agent
E. All of the above

Question (30):

Chemotherapy induced cardiotoxicity is defined as damage to the heart muscle by a toxin that may cause a:

A. Arrhythmias
B. Cardiomyopathy
C. Heart failure
D. All of the above

Question (31):

The most well-known drug to cause cardiomyopathy is:

A. Doxorubicin
B. Epirubicin
C. Daunorubicin
D. Idarubicin
E. Mitoxantrone

Question (32)

The rational for treatment of stage ll rectal carcinoma include:

A. Surgery alone
B. Surgery and radiotherapy
C. Surgery, radiotherapy and chemotherapy
D. Radiotherapy and chemotherapy
E. Chemotherapy alone

Question (33):

Febrile neutropenia is defined as:

A. Single oral temperature of ≥ 38.3°C.
B. Temperature of ≥ 38°C for ≥ 1 hour.
C. Persistent fever ≥ 39°C.
D. A&B

Question (34):

Hyalorounidase is a useful antidote for management extravasation of:

A. Anthracyclines.
B. Nitrogen mustard.
C. Vinorelbine.
D. None of the above.

Question (35):

Mesna is an urothelial protective agent, that should be given as anti-dote drngto avoid hemorrhagic cystitis with one of the following chemotherapeutic agents, which is:

A. Irinotecan.
B. Ifosfamide.
C. Bleomycin.
D. Vincrestin.
E. Taxanes.

Question (36):

Hand- foot syndrome is a side effect commonly occurred with one of the following chemotherapeutics, which is:

A. Ifosfamide.
B. Vinblastine.
C. Capcitabine.
D. Tamoxifen.
E. Mitoxantron.

Question (37):

The drug that used in treatment of breast cancer and could be associated with permanent cardiotoxicity:

A. Cyclophosphamide.
B. Trustuzumab (Herceptin).
C. Doxorubicin (Adriamycin).
D. Methotrexate.
E. Taxanes.

Question (38)

Phase I of clinical trials used to:

A. Compare two or more different treatments
B. Provide information about the safety and efficacy of new treatment
C. Determine the appropriate dose of a new treatment
D. None of the above
E. All of the above

Question (39)

Which of the following anticancer drugs is most likely to cause significant nausea and vomiting?

A. Cisplatin
B. Bleomycin
C. Tamoxifen
D. Vinblastine
E. Fluorouracil

Question (40)

Which of the following is a light-sensitive chemotherapy agent:

A. 5-fluorouracil
B. Doxorubicin
C. Paclitaxel
D. Etopside
E. Cyclophosphamide

Question (41)

Addition of Mesna to high dose cyclophosphamide is to prevent:

A. Nausea and vomiting
B. Hemorrhagic cystitis
C. Constipation
D. Alopecia
E. Neutropenia

Question (42)

Which of the following should not be used as intrathecal chemotherapy?

A. Methotrexat
B. SterOids
C. Cytarabine
D. Vincristine

Question (43)

Adjuvant hormonal therapy which is commonly used in premenopasual breast cancer patients, is ?

A. Tamoxifen
B. Aromatase inhibitor
C. Androgen
D. Fluvestrant

Question (44):

Which of the following monoclonal antibodies cause congestive heart failure?

A. Bevacizumab
B. Sunitinb
C. Trastuzumab
D. Cetuximab

Question (45):

Anti-metabolites chemotherapy includes all the following EXCEPT

A. Fluorouracil
B. Methotrexat
C. Doxorubcine
D. 6-Mercaptpurine

Question (46):

Peripheral neuropathy can be cause by

A. Doxorubicin
B. Fluorouracil
C. Fludarabine
D. Vincristine

Question (47):

Tumour Marker is

A. Tumour marker is a biochemical indicator for the presence of a tumor
B. A molecule that can be detected in plasma or other body fluids.
C. Have an impact on Diagnosis and prognosis
D. All of the above

Question (48):

Which of the following statements best describes the effect of tamoxifen on breast cancer cells?

A. Tamoxifen binds irreversibly to the estrogen receptor (ER).
B. Tqmoxifen works equally well in ER-positive and ER-negative patients.
C. Tamoxifen competitively inhibits the binding of estradiol to the estrogen receptor.
D. Tamoxifen directly inhibits the production of several kinds of proteins important for breast cancer cell proliferation.
E. Tamoxifen is a pure estrogen antagonist.

Question (49):

Angiogenesis is:

A. The process of establishing blood supply
B. The process of forming differentiated daughter cells from pluripotent stem cells
C. The process of malignant transformation from normal cells
D. The cell-cycle dependent production of cyclins to regulate Cdk activity at various phases of the cell cycle
E. None of the above,

Question (50):

In which of the following sites carcinoembryonic antigen (C EA) be found?

A. Colonic cancers
B. Serum of patients with colonic cancers
C. Some fetal tissue
D. Serum of some patients with non-neoplastic bowel diseases E. All of the above

GOOD LUCK

Prof. Ashraf Zeidan

POSSESSION / USE OF CELL PHONES OR ANY SUCH ELECTRONIC GADGEIS IS NOT PERMITTED INSIDE THE EXAMINATION HALL

All questions should be answered by drawing a circle around the correct answer:-

Question (1):

Factors that are assessed in tumor grading include:

A. Size of tumor
B. Extent of invasion
C. Nodal involvement
D. Number of mitosis
E. All of the above

Question (2):

Factors that are assessed in tumor staging are:

A. Size of tumor
B. Local invasion
C. Lymph node metastasis
D. Distant metastasis
E. All of the above

Question (3):

Modes of cancer spread include:

A. Direct local spread
B. Contact spread
C. Perineural
D. Trans-cavity spread
E. All of the above

Question (4):

The most diagnostic method for confirmed diagnosis of malignancy is:

A. Screening
B. Biopsy
C. Imaging
D. Tumor markers
E. Endoscopy

Question (5):

Neo-adjuvant chemotherapy is the treatment of choice for locally advanced malignant tumors, all the following are its characteristics except:

A. Down staging
B. Sterilization of surgical field
C. Increase the chance of operability
D. Control of distant metastasis
E. Assessment of response to the used chemotherapy

Question (6):

Phase I of clinical trials used to:

A. Compare two or more different treatments
B. Provide information about the safety and efficacy of new treatment
C. Determine the appropriate dose of a new treatment
D. None of the above
E. All of the above

Question (7):

The most accurate measure for assessment of prognosis in a certain malignant tumor is:

A.Tumor response
B. Recurrence
C. Survival
D. Metastasis
E. Disease-free

Question (8):

The most significantly frequent-adverse effect associated with vincristine (Oncovin) is:-

A. bone marrow depression
B. neurotoxicity
C. renal dysfunction
D. hepatic failure

Question (9):

Clinical uses of taxanes [paclitaxel (Taxol) &docetaxel (Taxotere)] include:

A. ovarian cancer
B. advanced breast cancer
C. both
D. neither

Question (10):

Hand foot syndrome commonly occurs with:

A. Ifosfamide,
B. Vinblastine.
C. Capcitabine.
D. Tamoxifen.

GOOD LUCK

Prof. Ashraf Zeidan

Faculty of pharmacy	Clinical Nutrition Final Exam	Class (9)
Pharmaceutics Dept.	Lecturers: Prof. I. El-Gibaly & Dr. G. Soliman	Total mark: 50
	Date: 17/1/2013	Time allowed: 60 min

Part 1. Prof. I. El-Gibaly (25 marks)

(A) Denote (T) for the true statement and (F) for the false one in the table given below (20 marks):

Table for answers of question No. (A):

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

(1) It is important to use insulin with the PN formulation to manage blood glucose level rather than reduction of the nutritional provision of the feed.
(2) Refeeding syndrome is not accompanied by intracellular shift of the levels of phosphate.
(3) In pancreatitis, hypoglycemia may occur, so an exogenous insulin may not be required.
(4) The patients with acute respiratory disease will be generally be hypometabolic.
(5) Cardiac faihue generally require PN formulation administered via the peripheral route rather than limit volume of PN.
(6) Ascites treatment requires high levels of sodium infusion for a malnourished patient.
(7) In pancreatitis, parenterallipids with glucose can be given with PN to stimulate the pancreas.
(8) A poor-quality urine output may necessitate a concentrated PN formulation with an increase in levels of electrolyte content.
(9) Hyperglycemia is followed by a longer metabolic state with a decrease in utilization of lipids and amino acid.
(10) The patient with no respiratory disease may have malnutrition.
(11) Acute hyperkalaemia may be present with cardiac disfunction resulting in a death.
(12) Enteral nutrition is sometimes not necessary to stimulate the pancreas.
(13) Due to decreased carbon dioxide level, so overfeeding can equally compromise respiratory function.
(14) In renal diseases, nitrogen restriction may not be necessary in the absence of dialysis or filtration.
(15) Amino acids infusion resulted in the increased clearance of copper and manganese.
(16) Increased insulin resistance and incomplete. glucose oxidation require not to overfeed, so exogenous insulin may be not important.

(17) Acute pancreatitis is a metabolic stress that requires low-level nutrition.
(18) Low glucose infusion resulted in refeeding syndrome.
(19) Acute renal failure patient are predisposed to malnutrition and an enteral diet did not be supplemented.
(20) When the infused nutrition did not exceed the tolerance of a malnourished patient, thiamine may be administered after the nutrition is started.

(B) What is the role of electrolyte content in short bowl syndrome and renal diseases? (2.5 marks).

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(C) Mention the main differences between refeeding syndrome and pancreatitis (2.5 marks)

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Part II: Dr. G. Soliman (25 marks)

Ql- Write brief notes on each of the followings (12 marks, each point 4 marks):
1. Classification of water soluble vitamins according to their function .

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2. Factors that determine energy requirements of the human body.

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3. Wasting (acute malnutrition).

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Denote (T) for the true statement and (X) for the false one. (10 marks, each point 1 mark)

1. In the winter it is advisable to eat a lot or oranges because the body can store vitamin C for the whole winter	( )
2. Although Vitamins don't produce energy by themselves, they are essential for energy production.	( )
3. In the absence of clean water, the body can obtain its water needs from drinks such as tea, soup, milk and juice.	( )
4. A pregnant woman that consumes extra energy during the first trimester will not have problems if her energy intake is not enough during the last trimester.	( )
5. As a source of carbohydrates, potatoes are better than honey because they provide fibers and minerals in addition to carbohydrates.	( )
6. Undernutrition can happen at any point in the life cycle and its chronic effects on young children can be reversed with adequate food intake.	( )
7. Body mass index is a useful tool to determine nutritional status	( )
8. Marasmus is a severe form of protein energy malnutrition in which a child appears extremely thin with distended bellies.	( )
9. Good nutrition relies on a diverse, adequate diet and is essential for the development and maintenance of the body for the whole life.	( )
10. An effective program to manage undernutrition requires an efficient system to identify people at risk.	( )

Q3- Choose the appropriate answer (8) for each of the followings: (3 marks, each point 0.5

1. Visible fats are easily recognized and include .....
   a) Butter, b) margarine, c) cheese, d) a &c

2. Energy can be obtained from .....
a) Proteins, b) carbohydrates, c) vitamins, d) Iipids.

3. Illness, intense physical activity, and starvation require special .....intake for adults and children.
a)Proteins, b) carbohydrates, c) 'vitamins, d) lipids.

4. The body's. response to nutrients and the subsequent outcome is called .....
a) Health status, b) balanced diet, c) nutritional status, d) disease state.

5. Children under 10 years old have ..... energy requirements compared to adolescents.
a) Higher, b) lower, c) equal, d) b or c.

6. Because ..... in the body is constantly depleted and cannot be stored, it must be replenished daily.
a)Protein, b) carbohydrates, c) lipids, d) water.

End of questions, best wishes!

Assiut University Faculty of pharmacy Dept. of Pharm. Anal. Chemistry Clinical Pharmacy Program	Advanced Anal. Chemistry – spectroscopy. Elective course, class 9 Date: 20-1-2013 Time Allowed: TWO HOURS

Note that: The exam is composed of eight (8) printed pages.

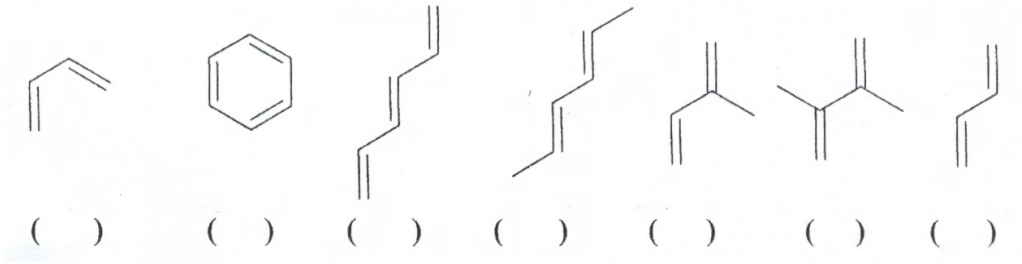
All questions are to be attempted.

Part 1. UV-VIS Applications: (37.5 marks)

Prof, Dr. Ibrahim H Refaat

1. Arrange the following structures in order of their expected λmax.

(by putting the proper number between practice)



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- What is the energy of a 500 nm photon? (C= velocity of light in vacuum = 3×10^{10} cm/sec. and h= planck;s constant = 6.626×10^{-27} erg.s)

- Difference in spectra of: (1) $CH_2 = CH_2$,
(2) $CH_2 = CH_2 - CH_2 - CH_2 = CH_2$, and (3) $CH_2 = CH - CH = CH_2$,

II. The major applications (uses) of derivative spectrophotometry are:

1- 2-

3- 4-

5-

- (*by the aid of drawing*) **illustrate the application of derivative spectrophotometry in:**

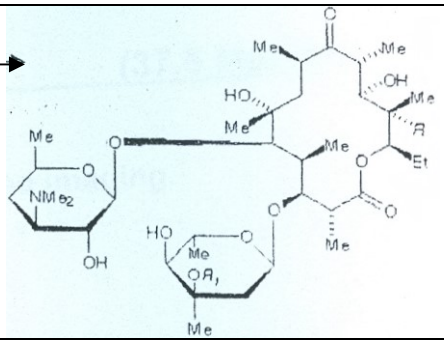
(a) The quantification of "caffeine" in "soft drink".

(b) Matrix suppression.

III. Difference between: The spectrophotometric titration curves of:
(a) H_2O_2 with MnO_4^- and (b) MnO_4^- with Fe2+ ion; in an acidic solutions.

The spectrophotometric EDTA titration curve for mixture of cu^{2+} and Bi^{3+} ions.

- Effect of pH on UV spectrum of aniline.

On-absorbing species e.g. neomycin (R, R' C=O); Can absorb strongly in the visible region.	

Ics of Crysral Violet Reaction in OH- medium via photometric applications.

Part II. IR, NMR and Mass spectroscopy: (37.5 Marks)

Dr. Hassan Refat

1- Write a short account on IR chemical mapping and imging.

2- Draw a schematic diagram of an infrared spectrometer.

3- How could you approach the structural analysis of $C_6H_5CONH_2$ and $CH_3CH_2CH_2CH_3$ by IR spectroscopy?

4- Write a short account on Hooke's law.

5- Discuss briefly with examples how could IR spectroscopy differentiate between an acid and its salt.

6- Write a short account on TMS.

7- Write a short account on use of deuterium in NMR spectroscopy.

8- Write a short account on the main applications of NMR spectroscopy in the pharmaceutical area.

9- Compare briefly between UV, IR, NMR and Mass spectroscopy.

10- Write a short account on the stages of MS.

11- Calculate the DBE of C_7H_7NO.

12- Write a short account on the combined approach.

Assiut University Time allowed 2 hrs

Faculty of Pharmacy Total Marks 75

Dept. of Industrial Pharmacy 20.1.2013

GMP final Exam for clinical Pharmacy students

Class 9

Complete or define the following:

1. GMP is applied to:

a- .....

b-.....

c-.....

2- cGMP regulations should have the following characteristics:

a- .....

b-.....

c-.....

d-.....

3- Drug product is .....

4- Inactive ingredient is .....

.....

5- In process material is .....

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6- Bulk number or lot number is.....

.....

7- Bulk product is .....

.....

8- Master formula is .....

.....

9- Reprocessing is .....

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10- Documentation is .....

.....

11- Responsibilities of Q.C. unit are:

a- .....

b-.....

c-.....

12- The separate areas of the industrial factory are:

a- .....

b-.....

c-.....

d-.....

e-.....

f-.....

g-.....

13- The type of flow in HEPA filter are:

a- .....

b-.....

c-.....

14- The received raw materials should have the following treatments before processing:

a- .....

b-.....

c-.....

d-.....

e-.....

f-.....

15- The quality control procedures for tablets and capsules should be the following:

a- .....

b-.....

c-.....

d-.....

e-.....

16- Control of microbial contamination should include:

a- .....

b-.....

c-.....

17- Validation of heat sterilization should include:

a- .....

b-.....

c-.....

d-.....

e-.....

18- Cross contamination in the industrial area should be avoided by:

a- .....

b-.....

c-.....

d-.....

e-.....

f-.....

19- The function of the package are:

a- .....

b-.....

c-.....

d-.....

e-.....

f-.....

20- The features of the procedures of packaging and labeling processes in industrial factory are:

a- .....

b-.....

c-.....

d-.....

e-.....

21- In terms of GMP the label should contain the following information:

a- .....

b-.....

c-.....

d-.....

e-.....

f-.....

g-.....

22- Salveged products means.....

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Good Luck