

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# FOURTH YEAR EXAMS

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## MARKS DISTRIBUTION

يكون توزيع المقررات فى الفرقة الرابعة وعدد الساعات والدرجة  
المخصصة لكل مقرر ووسائل الاختبار على النحو التالي:

الدرجة النهائية	الاختبارات	مدة الدراسة (٣٢ أسبوع)		المقرر الدراسى
		نظري بالساعة	عملي بالأسبوع	
٢٥٠	تحريري مدته ساعتان ● أكلينيكية ● شفوية	٨٠	٨ اسابيع	طب وجراحة العين
٢٠٠	تحريري مدته ساعتان ● أكلينيكية ● شفوية	٦٤	٤ اسابيع	الأنف والأذن والحنجرة
٢٠٠	تحريري مدته ٣ ساعات ● أكلينيكية ● شفوية	٨٠	٦٤ ساعة عملي+ أكلينيكي لمدة اسبوعين	الطب الشرعي والسموم الأكليينكية
٣٠٠	تحريري مدته ٣ ساعات ● عملية وتطبيقات ميدانية ● شفوية	١٢٨	٦٤ ساعة عملي+ اسبوعين تدريب ميداني	طب المجتمع

## OPHTHALMOLOGY

(نظام حديث)

### Section A :

#### All questions are to be attempted :

1. Mention the origin, insertion, nerve supply and action of the recti muscles.
2. Give an account on the clinical picture, sequelae, and treatment of ulcerative blepharitis.
3. Mention the definition, aetiology, and management of ophthalmia neonatorum.
4. Give an account on dendritic corneal ulcer and its treatment.
5. Mention the complications of iridocyclitis.
6. Mention the lines of treatment of acute angle closure glaucoma.
7. Give a full account on the clinical picture and corruption of aphakia.
8. Describe the emergency treatment of chemical burns.

### Section B :

#### Problem No. 1 :

(10 marks)

A mother came with her 3 year old baby as she had noticed white discoloration of the pupil of his right eye.

1. What is the differential diagnosis. (5 marks)
2. What are the methods of examination and investigations needed in this condition. (5 marks)

#### Problem No. 2 :

(15 marks)

A 25 year old male started to complain of flashes of light and floaters in his left eye following trauma to the forehead. Few days later he realized loss of the lower part of the visual field. On examination he was found to be a myope of (-10) dioptres. The intraocular pressure in the left eye was 10 mm.Hg while the pressure in the right eye was 18 mm.Hg.

1. what is your provisional diagnosis? (5 marks)
2. What methods of examination do you suggest to reach a diagnosis ? (5 marks)
3. Mention the appropriate lines of treatment. (5 marks)

## OPHTHALMOLOGY

(نظام حديث)

**Total allocated marks: 125 marks.**

**All questions are to be answered. please restrict your answers to what is required in the questions.**

**part I (essays) and part II (problems) should be answered in the cop book.**

**Part III (MCQS) should be answered in the special sheet The MCQS will be distributed 40 minutes before the end of the exam time.**

### **PART I: (60 marks)**

- 1- Describe the clinical picture, complications and treatment of senile (involutional) ectropion. (10 marks).
- 2- Mention the differential diagnosis of an of diabetic red eye. (10 marks)
- 3- Mention the complications and management of diabetic retinopath. (10 marks).
- 4- Define hyperopia then mention its components and complications. (10 marks).
- 5- Give an account on primary congenital glaucoma (Buphthalmos). (10 marks).
- 6- Differentiate between papilledema and papillitis. (10 marks).

### **PART II: problem solving: 3 problems (15 marks).**

Read each problem carefully then comment by either TRUE (T) or FALSE (F) on each of the statements following the problem.

In the answer copy book write the number of the problem then the number of the statement then either (T) or (F). Statements followed by both letters together or left without a comment will be considered wrong.

#### **Problem 1:(5 marks).**

A 25 year old myopic male came to the eye clinic complaining of rapidly progressive loss of the lower field of vision in his right eye. The condition had started 2 days earlier. one week earlier he had received a trauma to his head. A couple of days after the head trauma he noticed the appearance of dense floaters in the right eye as well as flashes of light. The

attending ophthalmologist should proceed to:

- 1- Measure the degree of his myopia and prescribe a new pair of glasses.
- 2- Start to give him ant-glaucoma treatment to manage the filed defect.
- 3- Immediately examine the fundus of both eyes with maximum mydriasis.
- 4- Do him a panretinal photocoagulation using Argon laser.
- 5- Excimer laser is the best line of treatment in this case.

**Problem 2: (5 marks)**

A patient with the history of a retained intra - ocular foreign body in his right eye, since 5 years, that has not been removed due to poor prognosis presented with pain and tenderness in both eyes and diminution of vision in his left eye.

- 1- The condition should be managed urgently with systemic and topical steroids.
- 2- Diffusion of iron particles from the foreign body is the cause of the present condition.
- 3- The condition is caused by an immune mediated reaction.
- 4- The condition would have been avoided by enucleation of the right globe immediately after the trauma.
- 5- The present condition in the left eye is unrelated to the right eye.

**Problem 3: (5 marks).**

A mother brought her 2 years old boy to the eye clinic saying that she has recently started to notice that his right eye has become deviated inwards. she has also noticed a white coloration in the pupillary area of his right eye. The boy was born at full term and was not placed in an incubator immediately after birth. The boy's father had one of his eyes enucleated since he was an infant. The following steps should be performed by the attending ophthalmologist:

- 1- Re- assure the mother and tell her that there is nothing serious and send the boy home.
- 2- Do refraction for the boy with atropin eye drops and prescribe him eye glasses to correct the squint.
- 3- Request an immediate fundus examination of both eyes under general anesthesia with full mydriasis.
- 4- Request CT scans for the head and orbits.
- 5- Warn the mother that there is a possibility for the same condition to affect future children.

**PART III: MCOS: 50 MCOS (50 marks)**

**Write down the answers of the MCQS in the special sheet supplied with the answer copy book.**

**Choose only answer for each question.**

**If more than one answer is chosen for a question the answer will be considered wrong.**

**The time allocated for PART III is 40 minutes.**

**1- The lid sphincter muscle has the following portions:**

- A- Palpebral and orbital portions
- B- Horner's muscle and riolan's muscle
- C- All of the above
- D- None of the above

**2- Congenital ptosis is characterized by:**

- A- Absent eyelid crease
- B- Chin elevation
- C- Forehead corrugation
- D - All of the above

**3- Inflammation of lid glands include all of the following**

**EXCEPT:**

- A- Ulcerative blepharitis
- B- Hordeolum externum
- C- Hordeolum internum
- D- Squamous blepharitis

**4- Levator resection operation should be used in:**

- A- Mild ptosis with levator function
- B- Moderate ptosis with good levator function
- C- Moderate ptosis with poor levator function
- D- Severe ptosis with poor levator function

**5- The lacrimal secretory system consists of the following parts**

**EXCEPT:**

- A- The lacrimal gland.
- B- The accessory lacrimal gland.
- C- The goblet cells
- D- The lacrimal sac

**6- The first line of treatment in a case of congenital nasolacrimal duct obstruction during the 1st 4 months of life is:**

- A- Massage and antibiotic eye drops.
- B- Probing and syringing.

- C- Dacryocystectomy.
- D- Dacryocystorhinostomy.

**7- The most common causative organism in a case of chronic dacryocystitis is:**

- A- Pneumococci.
- B- Staphylococci.
- C- Diphtheria bacilli.
- D- None of the above.

**8- Corneal transparency is due to all of the following factors EXCEPT**

- A- Compact arrangement of corneal stromal fibers
- B- Lack of blood vessels
- C- Myelinated nerve fibers
- D- Non - keratinized stratified squamous epithelium

**9- Complications of infective corneal ulcers include:**

- A- Endophthalmitis
- B- Anterior Uveitis
- C- Secondary glaucoma
- D- Anterior Uveitis

**10- The following about dendritic ulcer is true:**

- A- It is always bilateral
- B- Perforation is the most frequent complication.
- C- It is usually recurrent.
- D- It is usually associated with thick hypopyon.

**11- All the following are signs of keratoconus**

**EXCEPT:**

- A- Vogt stria
- B- Munson sign
- C- Kayser Fleisher ring
- D- Oil droplet sign on direct ophthalmoscopy

**12- True membrane formation occurs in the following conditions:**

- A- Diphtheritic conjunctivitis.
- B- Allergic conjunctivitis.
- C- Staphylococcal blepharitis
- D- Phlyctenular conjunctivitis.

**13- In treatment of mucopurulent conjunctivitis, all are true EXCEPT:**

- A- Frequent washing with boric acid 4%.
- B- Eye bandage is used to avoid photophobia.
- C- Local antibiotic eye drops are used.
- D- Sulphonamide is effective for *Haemophilus Aegyptius*.

**14- The antigen in phlyctenular conjunctivitis could be all EXCEPT:**

- A- Intestinal parasites
- B- Tuberculo - protein.

C- Staphylococcal blepharitis.

D- pollens.

**15- Regarding pterygium, all are true EXCEPT:**

A-It is a triangular fibro - vascular tissue with elastoid degeneration of the stromal collagen.

B- Composed of head, neck & body.

C- Simple excision will decrease the incidence of recurrence.

D- Could be a progressive or regressive type.

**16- The following is true about trachoma except:**

A- Caused by chlamydia trachomatis which is epitheliotropic.

B- The common fly is the major vector in the infection re - infection cycle.

C- Healing of corneal follicles results in formation of Herbert's pits.

D- Treatment using zinc containing eye drops is effective.

**17- The method of examination of anterior chamber angle is called.**

A- Ophthalmoscopy

B- Retinoscopy

C- Gonioscopy

D- laparoscopy

**18- which statement of the following is WRONG**

A- Only central field is important in glaucoma

B- Peripheral field changes occur in glaucoma

C- enlargement of blind spot is glaucomatous field change

D- tubular fields can occur in glaucoma

**19- Which of the following drugs does not decrease aqueous formation**

A- Beta blockers

B- Prostaglandine analogues

C- Carbonic anhydrase inhibitors

D- Alpha adrenergic agonists

**20- Neovascular glaucoma is least likely to occur as a result of.**

A- Central retinal vein occlusion

B- Central retinal artery occlusion

C- Branch retinal artery occlusion

D- Proliferative diabetic retinopathy

**21- Which of the following types of congenital cataract is related to vitamin D deficiency?**

related to Vitamin D deficiency?

A- Sutural.

B- Blue dot.

C- Coronary.

**22- After cataract is treated by:**

- A- YAG laser.
- B- Argon laser.
- C- Excimer laser.

**23- Diminution of vision in ens subluxation is caused by:**

- A- Myopia.
- B- Asigmatism.
- C- Complications.
- D- All of the above.

**24- Correction of unilateal aphakia with glasses will result in:**

- A- Astigmatism.
- B- Glaucoma.
- C- Hypermetropia.
- D- Anisokonia.

**25- Treatment of iridocyclitis can include all of the following EXCEPT**

- A- SYSTEMIC STEROIDS
- B- Topical steroids
- C- Vasodilators
- D- Cycloplegics

**26- The following investigations are useful in a case of uveitis EXCEPT**

- A- Chest x-ray
- B- rheumatologic assessment
- C- Echocardiography.
- D- Tuberculin test.

**27- The role of surgery in uveitis include all of the following EXCEPT:**

- A- Peripheral irdotomy in the presence of pupillary block.
- B- Argon lasr photocoagulation in the presence of exudative reinal detachment.
- C-Cataract extraction in the presence of complicated cataract.
- D- External fistulizing surgery in the presence of chronic glaucoma.

**28- Retianal detachment is a result of:**

- A- Separation between the external limiting membranc and the outer nuclear layer.
- B- Separation between the outer nuclear layer and the outer plexiform layer.
- C- Separation between the RPE and the neurosensory retina.
- D- Separation between the outer plexiform layer and the inner nuclear layer.

**29- Central retinal vein occlusion is characterized by all of these, EXCEPT:**

- A- Retianal veins are dilated and tortuous
- B- Retinal hemorrhages



C- Optic disc edema

D- Cherry red spot

**30- Causes of marked drop of vision in patients suffering from diabetic retinopathy is due to all of the following EXCEPT:**

A- Diabetic macular edema

B- Tractional retinal detachment affecting the macula

C- Vitreous hemorrhage

D- Retinal drusen

**31- In some patients with central retinal artery occlusion the central visual field may be spared. this may be explained by:**

A- Patent retinal veins

B- Patent retinal arteries

C- Patent cilioretinal artery

D- Patent external carotid artery

**32- Hyphema is:**

A- Blood in the vitreous cavity.

B- Pus in the anterior chamber.

C- Blood in the anterior chamber.

D- Lens dislocation

**33- Iridodialysis:**

A- Separation of the iris root from ciliary body.

B- Patient complains from binocular diplopia.

C- Pupil is round and regular.

D- Always associated with retinal dialysis.

**34- Sclera rupture is usually up and nasal due to.**

A- Trauma usually comes from up and nasal.

B- Eye ball is pushed against the trochlea.

C- This the strongest part of the sclera.

D- Superior rectus is attached at this site.

**35- Rupture of the choroid affects the vision markedly:**

A- In the most of cases.

B- If it is underlying the fovea.

C- If it is caused by blunt trauma.

D- If covered with hemorrhage.

**36- Thyroid eye disease can occur in:**

A- Hyperthyroid state

B- Hypothyroid state

C- Normal thyroid state

D- All of the above

**37- Proptosis is NOT a clinical presentation in:**

- A- Panophthalmitis
- B- Orbital cellulitis
- C- Endophthalmitis
- D- Graves' disease

**38- Stimulation of one retina will result into electric activity in.**

- A- Contralateral visual cortex
- B- Ipsilateral visual cortex
- C- Both visual cortices
- D- Contralateral sensory cortex

**39- Alcohol amblyopia is**

- A- Reversible and carry good prognosis
- B- Due to ingestion of ethy alcoho
- C- Due to ingestion of methyl alcohol
- D- Results into cherry red spot.

**40- Recession of the near point with ageing: making near vision uncomfortable is termed:**

- A- Presbyopia.
- B- Asthenopia
- C- Hyperopia.
- D- None of the above.

**41- On cycloplegic refraction, when one meridian is hyperopic and the other is myopic.**

- A- Simple astigmatism.
- B- Compound astigmatism.
- C- Mixed astigmatism.
- D- None of the above.

**42- All of the following muscles arise from annulus of zinn EXCEPT:**

- A- Inferior rectus
- B- Inferior oblique
- C- Superior oblique
- D- Superior rectus

**43- The oculomotor nerve (3rd) nerve supplies all of the following EXCEPT:**

- A- Inferior oblique muscle
- B- Inferior rectus muscle
- C- Superior oblique muscle
- D- Superior rectus muscle

**44- 2ry angle of deviation is greater than 1ry angle of deviation in case of:**

- A- Latent strabismus
- B- Paralytic strabismus
- C- Concomitant strabismus
- D- None of the above

**45- Vitamin A deficiency can cause any of the following EXCEPT**

- A- Ophthalmoplegia.
- B- Keratomalacia.
- C- Bitot spots.
- D- Night blindness

**46- Retinal toxicity is feature of chronic therapy with**

- A- Tetracyclins.
- B- Corticosteroids
- C- Acefazolamide.
- D- Chloroquins.

**47- Closed angle glaucoma can occur in predisposed eyes with the use of**

- A- Atropine.
- B- Cortisone.
- C- Vitamin A
- D- Vitamin E.

**48- Leucocoria is NOT present in**

- A- Congenital Cataract.
- B- Congenital Glaucoma.
- C- Retinoblastoma.
- D- Retinopathy of prematurity.

**49- Fluorescein eye drops are used in the following EXCEPT**

- A- Diagnosis of corneal ulcers.
- B- Diagnosis of diabetic retinopathy.
- C- Applanation tonometry.
- D- Lacrimal drainage system evaluation.

**50- Monocular diplopia can be due to.**

- A- paralytic squint.
- B- Blow out fracture of the orbit.
- C- Iridocyclitis.
- D- Iridodialysis

June Exam 2012  
Time allowed: 2 Hours  
Date: 28/06/2012

Cairo University  
Faculty of Medicine  
Total marks allocated (125)

## 4m YEAR UNDERGRADUATE WRITTEN EXAM OPHTHALMOLOGY

(نظام حديث)

All questions are to be answered. Please restrict your answers to what is required in the questions. Part I (essays) and part II (problems) should be answered in the copy book.

Part III (MCQs) should be answered in the special sheet. The 1x/1CQs will be distributed 40 minutes before the end of the exam time.

### **Part I : (60 marks)**

1. What is the management of congenital ptosis in a four year old child?
2. Compare between the options for optical correction of unilateral aphakia.
3. Mention the causes of secondary open angle glaucoma.
4. Describe the fundus picture of central retinal vein occlusion.
5. How would you treat a case of Herpes simplex keratitis.
6. Describe the clinical picture and investigation of left lateral rectus palsy.

### **Part II: Problem solving: 3 Problems (15 marks)**

Read each problem carefully then comment by either TRUE (T) or FALSE (F) on each of the statements following the problem.

In the answer copy book write the number of the problem then the number of the statement then either (T) or (F). Statements followed by both letters together of left without a comment will be considered wrong.

#### **Problem 1: (5 marks):**

A sixty five years old lady visited her eye doctor to have her glasses checked and to check her fundus. By the time she came home she started to have coloured hates. followed shortly by severe right temporal headache and vomiting.

Answer the following questions by true or false:

- a. Anterior chamber of the right eye is expected to be deep.
- b. The cornea is expected to be hazy.
- c. The treatment of the case is essentially medical.
- d. Atropine drops should be started immediately.
- e. Topical steroid drops can be used in the management of this case

Problem 2:  
(5 marks)

**Problem 2: (5 marks):**

A twenty year old tennis player received a severe trauma to his left eye by the tennis ball. The second day, after the subsidence of oedema, he noticed that he has double vision.

Slit lamp examination of left eye showed that the anterior chamber was irregular, pupil semidilated and fixed and the edge of the crystalline lens was seen to traverse the pupil.

Answer the following questions by true or false:

- a. Double vision will disappear on covering the right eye.
- b. Irregular astigmatism can result from this condition.
- c. In some such cases, visual acuity can be improved by a convex lens,
- d. The retina in this case is expected to show microaneurysms.
- e. Surgical management is not an option here.

**Problem 3: (5 marks)**

A 38 years old pregnant lady developed severe hypertension and lower limb oedema. She noticed painless blurring of vision of both eyes.

Answer the following questions by true or false:

- a. The optic nerve head is expected to show deep cup.
- b. Retinal exudates in this case are typically cotton wool.
- c. If retinal detachment develops in this case. the first area to be affected is the upper temporal retina.
- d. If retinal detachment develops, immediate retinal surgery is indicated.
- e. In the absence of retinal detachment, conservative follow up is indicated till the expected date of delivery.

**After returning answering papers, please stay  
in your place for clinical examination**

June Exam 2012  
Time allowed: 2 Hours  
Date: 28/06/2012

Cairo University  
Faculty of Medicine  
Total marks allocated (150)

## 4m YEAR UNDERGRADUATE WRITTEN EXAM OPHTHALMOLOGY (نظام قديم)

All questions are to be answered. Please restrict your answers to what is required in the questions. Part I (essays) and part II (problems) should be answered in the copy book.

Part III (MCQS) should be answered in the special sheet. The (MCQS) will be distributed 40 minutes before the end of the exam time.

### **Part I : (90 marks)**

1. What is the management of congenital Ptosis in 4 year old child?
2. Compare between the options for optical correction of unilateral aphakia.
3. Mention the causes of secondary open angle glaucoma.
4. Describe the fundus picture of central retinal vein occlusion. \_
5. How would you treat a case of Herpes simplex keratitis.
6. Describe the clinical picture and investigation of left lateral rectus palsy.

### **Part II: Problem solving: 2 Problems (10 marks)**

Read each problem carefully then comment by either TRUE (T) or FALSE (F) on each of the statements following the problem.

In the answer copy book write the number of the problem then the number of the statement then either (T) or (F). Statements followed by both letters together of left without a comment will be considered wrong.

#### **Problem 1: (5 marks).**

A sixty five years old lady visited her eye doctor to have her glasses checked and to check her fundus. By the time she came home she started to have coloured haes, followed shortly by severe right temporal headache and vomiting.

Answer the following questions by true or false:

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- b. The cornea is expected to be hazy in this case.
- c. The treatment of this case is essentially medical.

- d. Atropine drops should be started immediately. ~
- e. Topical steroid drops can be used in the management of this case.

**Problem 2: {5 marks}**

A twenty year old tennis player received a severe trauma to his left eye by the tennis ball. The second day, after the subsidence of oedema, he noticed that he has double vision.

Slit lap examination of left eye showed that the anterior chamber was irregular, pupil semidilated and fixed and the edge of the crystalline lens was seen to traverse the pupil.

Answer the following questions by true or false:

- a. Double vision will disappear on covering the right eye.
- b. irregular astigmatism can result from this condition.
- c. In some of such cases, visual acuity can be improved by convex lens.
- d. The retina in this case is expected to show microaneurysms.
- e. Surgical management is not an option here.

June Exam 2012  
Time allowed: 40 minutes  
Date: 28/O6/2012

Cairo University  
Faculty of Medicine  
Total marks allocated (50)

## **4<sup>th</sup> YEAR UNDERGRADUATE WRITTEN EXAM**

### **OPHTHALMOLOGY**

### **MCQs**

**Choose ONE answer only:**

**1. Ptosis can occur in the following clinical situations:**

- a- Following blunt trauma to the eyelid
- b- As a congenital condition
- c- In myasthenia gravis
- d- All of the above

**2. Nasolacrimal duct obstruction commonly presents with:**

- a- Dry eye
- b- Epiphora
- c- Blepharitis
- d- None of the above

**3. In keratoconus:**

- a- Munson sign is present
- b- Corneal opacity may be seen
- c- Corneal topography is diagnostic
- d- All of the above

**4. The mechanism of secondary glaucoma following central retinal vein occlusion is:**

- a- Blood in trabecular meshwork
- b- Rise in IOP following rise in systemic blood pressure
- c- New vessel formation in the angle
- d- Angle recession

**5. The typical type of steroid induced cataract is:**

- a- Nuclear sclerotic
- b- Posterior polar
- c- Posterior subcapsular
- d- Cortical

**6. Retinal Endings of non-proliferative diabetic retinopathy include:**

- a- Cotton wool exudates
- b- Hard exudates
- c- Sub-hyaloid haemorrhage
- d- Flame-shaped haemorrhage

**7. With complete relaxation of accommodation, a myopic eye focuses images:**

- a- In front of the lens
- b- In front of the retina
- c- Behind the retina
- d- Behind the cornea



**8. Hypermetropia can be corrected by:**

- a- A convex lens
- b- A concave lens
- c- Spherocylindrical lens
- d- A +2 diopter lens for reading

**9. The best line of treatment for congenital glaucoma is:**

- a- Pilocarpine eye drops
- b- Betablocker eye drops
- c- Peripheral iridectomy
- d- Goniotomy

**10. Cherry red spot can be found in the following condition:**

- a- Retinitis pigmentosa
- b- Central retinal artery occlusion
- c- Central chorioretinitis
- d- Penetrating eye injury

**11. Angular blepharitis is an infection caused by:**

- a- Staphylococcus aureus
- b- Morax-Axenfeld diplobacillus
- c- Koch Week's bacillus
- d- Pneumococci

**12. A suppurative inflammation of Zeis gland is called "hordeolum internum":**

- a- True
- b- False

**13. Entropion of lid margin is due to either spasm of orbicularis muscle or cicatricial contraction of palpebral conjunctiva:**

- a- True
- b- False

**14. The first line of management of an acidic chemical injury is:**

- a- Wash with water immediately
- b- Do not touch the eye, refer to a specialist .
- c- Give intravenous steroids then refer
- d- Look for an alkaline antidote to wash with

**15. Nasolacrimal duct opens in:**

- a- Upper nasal meatus
- b- inferior nasal meatus
- c- Middle nasal meatus
- d- Nasopharynx

**16. Defective lacrimal drainage can result in any of these conditions except:**

- a- Chronic dacrystitis
- b- Trichiasis
- c- Stenosis of Iacrimal puncti
- d- IVlucocele of lacrimal sac

**17. Pneumococcus is the commonest organism in chronic dacryocystitis:**

- a- True
- b- False

**18. Purulent conjunctivitis has the following characters except:**

- a- Discharge of pus
- b- Acute suppurative inflammation of conjunctiva

- c- No tendency for corneal involvement
- d- Fever and malaise

**19. Papillae of spring catarrh have the following characteristics except:**

- a- Large papillae
- b- Flat-topped
- c- Always involving the fornix
- d- Ropy discharge

**20. Complications of trachoma include:**

- a- Corneal descemetocoele
- b- Cicatricial ectropion
- c- Subconjunctival haemorrhage
- d- Enlarged preauricular lymph nodes

**21. Herbert's pits are found in:**

- a- Acute herpetic conjunctivitis
- b- Trachoma
- c- Xerophthalmia
- d- All of the above
- e- None of the above

**22. Ciliary injection occurs in the following conditions except:**

- a- Corneal ulcer
- b- Acute glaucoma
- c- Acute conjunctivitis
- d- Acute iritis

**23. Treatment of simple corneal ulcer should NOT include:**

- a- Antibiotic drops
- b- Antibiotic ointment
- c- Pilocarpine eye drops
- d- Atropine eye ointment
- e- Bandage

**24. In leucoma adherent the anterior chamber is:**

- a- Shallow
- b- Deep
- c- Irregular
- d- Lost

**25. Keratoconus is diagnosed by:**

- a- Fluorescein test
- b- Auto-refractometer
- c- Ultrasonography
- d- Pacid's disc
- e- Fluorescein angiography

**26. Treatment of acute iridocyclitis should NOT include:**

- a- Cortisone drops & ointment
- b- Pilocarpine 2% eye drops
- c- Atropine 1% eye drops
- d- systemic steroids
- e- Treatment of the cause

**27. Complications of iridocyclitis include:**

- a- Ghost cell glaucoma
- b- Dislocated lens
- c- Iris bombe
- d- Anterior polar cataract
- e- Monocular diplopia

**28. Clinical picture of Horner's syndrome does NOT include:**

- a- Sympathetic paralysis
- b- Lagophthalmos
- c- Ptosis
- d- Enophthalmos
- e- Anhydrosis

**29. Symptoms of early senile cataract include:**

- a- Pain and headache
- b- Uniocular diplopia
- c- Transient diminution of vision
- d- Floating opacities

**30. Hypermature cataract can cause the following complications except:**

- a- Phacolytic glaucoma
- b- Phacotoxic iridocyclitis
- c- Ocular inflammation of the lens
- d- Phacolytic glaucoma

**31. Posterior dislocation of the lens is characterized by:**

- a- Loss of one pupil - Saunderson's sign
- b- Uveitis may occur as complication
- c- Neovascular glaucoma is a frequent complication
- d- The ocular refraction shifts towards myopia

**32. In absolute glaucoma the vision is hand movement:**

- a- True
- b- False

**33. Causes of secondary glaucoma do NOT include:**

- a- Corneal ulcer
- b- Mature senile cataract
- c- Iridocyclitis
- d- Central retinal vein thrombosis

**34. Secondary glaucoma due to acute iridocyclitis should NOT be treated by:**

- a- Atropine 1%
- b- Topical & systemic corticosteroids
- c- Pilocarpine 2%
- d- Diamox

**35. In endophthalmitis the red reflex becomes:**

- a- Reddish
- b- Whitish
- c- Yellowish
- d- Black

**36. Retinitis pigmentosa is characterized by :-**

- a- Pigmentary degeneration of the retina
- b- Chronic inflammation of the retina
- c- Secondary optic atrophy
- d- Single focus of retinal pigmentation
- e- Unknown mode of inheritance

**37. Central retinal vein thrombosis manifestations do NOT include:**

- a- Retinal veins are dilated and tortuous
- b- Severe pain & headache
- c- Superficial haemorrhage all over the fundus
- d- impairment of vision
- e- Secondary rubeotic glaucoma

**38. Simple retinal detachment is characterized by the following criteria except:**

- a- Low intraocular pressure
- b- High intraocular pressure
- c- Presence of retinal tear
- d- Eye is usually myopic
- e- History of trauma may be present

**39. In retinal detachment (RD): the following are true except:**

- a- The red reflex is always grey whatever the size of the pupil, or the position of gaze
- b- In rhegmatogenous RD, the retina is corrugated, mobile, with wavy vessels.
- c- The retina is anteriorly convex in exudative RD
- d- IOP may be elevated

**40. A 30-year female patient on contraceptive pills for 3 years developed rapid marked painless diminution of vision in one eye, the most probable diagnosis is:**

- a- Central retinal artery occlusion
- b- Central retinal vein occlusion
- c- Branch retinal vein occlusion
- d- Acute angle closure glaucoma

**41- High ICT due to Pseudotumor cerebri can affect the eye by one of the following:**

- a- Optic neuritis
- b- Lateral rectus palsy
- c- Iridocyclitis
- d- High intraocular pressure

**42. Retrobulbar neuritis is characterized by:**

- a- May be acute or chronic
- b- Shows central or paracentral scotoma for red & green
- c- Inflammation of optic nerve behind the eye
- d- May be due to disseminated sclerosis
- e- All of the above

**43. Primary optic atrophy is characterized by:**

- a- Optic disc is white in colour
- b- Lamina cribrosa is well seen
- c- Retina & blood vessels are normal
- d- All of the above

**44. Enucleation can be done in panophthalmitis:**

- a- True
- b- False

**45. Causes of leucocoria include:**

- a- Congenital glaucoma
- b- Retinopathy of prematurity
- c- Congenital esotropia
- d- Anisometropia

**46. Malignant melanoma of the choroid is characterized by:**

- a- Producing true retinal detachment
- b- Producing secondary glaucoma
- c- Appearing mushroom-shaped in ultrasonography
- d- Occuring in infants with family history of similar conditions

**47. Primary & secondary angles of deviation are equal in paralytic squintz**

- a- True
- b- False

**48. The third nerve supplies the following muscles except:**

- a- Superior rectus
- b- Superior oblique
- c- Medical rectus
- d- Inferior rectus
- e- Inferior oblique

**49. For investigation of latent strabismus, the following test is diagnostic:**

- a- Cover uncover test
- b- Hess screen
- c- I Detection of limitation of ocular motility

**50. A patient corrected with minus 2 diopter cylinder axis 180 has:**

- a- Simple hypermetropic astigmatism
- b- Simple myopic astigmatism with the rule
- c- Simple myopic astigmatism against the rule
- d- Simple myopia

June 2013 Exam

Time allowed: 2 Hours

Date: 18/06/2013

Cairo University

Faculty of Medicine

Total marks allocated (125)

**4<sup>th</sup> YEAR UNDERGRADUATE WRITTEN EXAM**  
**OPHTHALMOLOGY**

نظام حديث

All questions are to be answered. Please restrict your answers to what is required in the questions.

Part I (essays) and part II (problems) should be answered in the copy book.

Part III (MCQs) should be answered in the special sheet.. . Clinical exam paper will be distributed at 11.15.and collected at 11.30

Part III (MCQs ) will be distributed at 11.30 am and collected together with the written exam at 12.15

**Part I : (60 marks)**

1. Mention the clinical picture complications and treatment of acute dacryocystitis.
2. Describe the field changes of chronic open angle glaucoma.
3. .Describe with illustrations the anatomy ,blood and nerve supply of the iris
4. What are the effects of a metallic foreign body penetrating the eye ?
5. What are the uses of different types of Laser in ophthalmology ?
6. What are the ocular manifestations of rheumatoid arthritis ?

**Part II: Problem solving: 3 Problems (15 marks)**

Read each problem carefully then answer by either TRUE (T) or FALSE (F) on each of the statements following the problem.

In the answer copy book write the number of the problem then the number of the statement then either (T) or (F). Statements followed by both letters together or left without a answer will be considered wrong.

**Problem 1: (5 marks).**

A sixteen year old boy complained of right eye inflammation that started since few days. Slit lamp examination of this eye showed a dull white limbal nodule at five o'clock measuring about one a half mm. surrounded by blood vessels

Answer the following questions by true or false

- a. The treatment of this nodule is basically by antibiotics and atropine drops
- b. This lesion may be related to tuberculosis
- c. Corneal perforation may result from this condition
- d. This lesion may develop into a pannus that is crescent shaped with a serrated border
- e. Treatment of this lesion gives a permanent immunity against recurrence

**Problem 2: (5 marks)**

A fifty five year old male complained of flashes of light after a minor trauma to his left eye. A week later he noticed that the vision of this eye is severely diminished even with his -8.0 dioptre glasses. The intraocular pressure of this eye was 9.0 mmHg. The light reflex coming from his pupil was grey .

Answer the following questions by true or false

- a. The pupil of this eye is expected to be dilated with loss of the direct and consensual reaction to light.
- b. Fluorescein angiography is the investigation of choice that can be used for the left eye.
- c. Excimer laser is the type of laser suitable for treating the left eye
- d. A vitrectomy procedure may be performed to treat this eye
- e. Family history plays a role in this disease.

**Problem 3: (5 marks)**

A mother came in complaining that her newly born boy has a constant watering of both eyes. Both eyes looked big on provisional examination. The large diameter cornea of the right eye was cloudy, while that of the left eye, though large in diameter , was clear. The anterior chamber of the left eye could be seen to be very deep. The white of both eyes looked bluish.

Answer the following questions by true or false

- a. This condition resulted from maternal birth tract infection
- b. The iris can be tremulous
- c. Treatment should be postponed till the child is 6 months of age
- d. The treatment is essentially medical for the left eye
- e. Surgery is the treatment of choice of choice for both eyes

Ophthalmology Department

June 17 , 2014.

Paper 2

**Time allowed : 1 hours , 15 minutes.**

**Total marks : 75marks**

**All questions should be answered**

**Part-1 : Short Questions** 10 marks each (total 60 marks)

1. Define epiphora. Mention its causes and complications.
2. Mention and describe the types of congenital cataract.
3. What are the first choice topical anti-glaucoma medications? Discuss their mode of action, dosage and side effects.
4. Describe the classical corneal lesion in recurrent herpes simplex virus keratitis and enumerate the topical antiviral drugs and their dosage.
5. What is the definition and components of Hypermetropia? Mention its complications.
6. Enumerate the ocular side effects of topical and systemic corticosteroid therapy

**Part-2 Problem solving** True and False ( 5 marks each , total 15 marks)

- 7 - A young man who received a head injury reported that , although vision in both his eyes was unaffected , yet he could see an additional blurred image to the side of the clear image and in order to avoid this annoying image he had to turn his face always to the left side.
  - a. Immediate surgery is needed to correct his complaint.
  - b. The annoying blurred image is expected to disappear if he covers his right eye?
  - c. Prisms may play a role in the management of this case?
  - d. Would removal of the crystalline lens treat this condition?
  - e. Ultrasonography is the proper investigation needed in this case.



- 8 - A 45 years old male patient presented to the clinic with ocular pain, headache, lacrimation, photophobia and diminution of vision. On examination the lids were edematous, the conjunctiva injected but no discharge was found. Anterior chamber showed flare and cells, the iris was indistinct and the pupil miotic. IOP was 14 mmHg and fluorescein test was negative.
- a. Miotics are the first line of treatment.
  - b. Steroids are beneficial.
  - c. Clogging of the angle in the early stages causes secondary glaucoma.
  - d. Rheumatoid arthritis is a common association of this condition.
  - e. Chest X-Ray is not one of the investigations needed to diagnose the etiology of this condition.
- 9 A 55 years old diabetic and hypertensive female came complaining from abrupt drop of vision in the right eye. She gives a history of having received laser sessions in her left eye a while ago.
- a. Complicated cataract is the primary cause of this patient's complaint.
  - b. This patient may be suffering from renal problems.
  - c. Poor glycemic control is not related to this condition.
  - d. Ultrasonography is a good tool to evaluate the condition of the right eye.
  - e. Neovessels in the retina could be the cause of drop of vision in the right eye.

**Ophthalmology Department**  
**4<sup>th</sup> Year Undergraduate Written Exam**  
**18 / 6 / 2015**

**Time allowed: 1hour, 20 minutes**

**Total marks: 75 marks.**

All questions are to be answered. Please restrict your answers to what is required in the questions.

Part I ( Essay questions ) and Part II ( problem solving ) should be answered in the copy book.

Part III ( MCQs ) should be answered in the special sheet.

Part III (MCQs ) will be distributed at 10:00 AM and collected at 10:40 AM.

Clinical printed slides exam will be distributed 11:55 AM and collected 12:15 PM

**Part I : Essay questions ( 60 Marks )**

- 1- Outline the management of dendritic corneal ulcer.
- 2- Define ptosis and mention its causes.
- 3- Describe the ocular manifestations of dysthyroid eye disease.
- 4- What is the etiology and risk factors of rhegmatogenous retinal detachment .Outline the lines of treatment.
- 5- Define diplopia , mention its types ad causes.
- 6- Mention causes and mechanism of glaucoma following blunt trauma to the eye.

- 7- A 19-years-old man was complaining of frequent changing of glasses , his refraction was – 6.0 D Sphere with – 4.0 Cylinder in the right eye . Central corneal linear opacities were evident on slit lamp examination of left eye . Pachymetry showed decreased corneal thickness in both eyes.

Answer the following with True ( T ) or False ( F ) :

- a) Soft contact lenses can correct the error in his right eye.
  - b) The vertical linear opacities are termed Haab's striae.
  - c) LASIK is a safe alternative to glasses.
  - d) Vernal conjunctivitis is a common association.
  - e) Penetrating Keratoplasty (PKP) has a low success rate in this patient's left eye.
- 8- A 28 years old man presented with a right painful red eye accompanied with diminution of vision. Patient mentions recurrence of this condition twice before in the past 5 years. Physical examination revealed the presence of aphthous ulcers on the mouth, tongue and genitalia.

Ophthalmological Examination:

Vision in the right eye: CF at 3 meters

Anterior segment: ciliary injection.

Keratic precipitates on the back of the cornea.

Anterior chamber: aqueous cells and flare.

IOP was within normal.

Answer the following with True ( T ) or False ( F ) :

- a) The Pupil is usually miotic in this condition.
  - b) Pilocarpine eye drops are used for the management.
  - c) The disease is usually infectious in origin.
  - d) The anterior chamber may show hyphema.
  - e) The retina may be affected in this condition.
- 9- A 24 years old obese woman presents with an increasing frequency of headaches during the past two months. Headaches are worse in the morning and are associated with nausea and sometimes projectile vomiting. She also notes transient attacks of blurring of vision. She denies any systemic illness. She has been taking contraceptive pills for the past year.

Answer the following with True ( T ) or False ( F ) :

- a) The fundus of this patient may show papilledema.
- b) Visual acuity is usually markedly affected early in the disease.
- c) The pupillary reaction to light is expected to be normal.
- d) Brain CT will help in the diagnosis.
- e) Antibiotics are the main line of treatment in this case.

## **EAR NOSE & THROAT FOURTH YEAR**

Answer the following questions :

1. A 7 year old male child came to the outpatient clinic complaining of diminution of hearing in both ears for 2 months. He had nasal obstruction preceding this condition. On examination, both tympanic membranes were intact but retracted and slightly congested.
  - A. What are the tuning fork tests you are going to do?  
What is the significance of each?
  - B. What are the investigations do you advise? What is the significance of each?  
(3 marks)
  - C. What is your diagnosis and differential diagnosis if present ? (2 marks)
  - D. How to treat this case ? (6 marks)
2. A 3 year old female child presented with purulent offensive discharge from the right side of the nose for the last 2 days.
  - A. What is the diagnosis? (2 marks)
  - B. How to treat? (4 marks)
  - C. What are the complications if the case is wrongly managed and how to manage? (6 marks)
3. A 60 year old man presented with hoarseness of voice for the last 45 days. He used to smoke 30 cigarettes per day for the last 30 years. The condition persisted in spite of medical treatment.
  - A. What is the most probable diagnosis? (2 marks)
  - B. What is the differential diagnosis ? (6 marks)
  - C. How to investigate ? (8 marks)
4. Causes, symptoms, signs and treatment of Oro-mixillary fistula. (8 marks)
5. Cause, symptoms, investigations and treatment of achalasia of the cardia.  
(8 marks)
6. What is tinnitus? What are the types of tinnitus? (8 marks)
7. M.C.Q.s. (30 marks)

## **Ear, Nose & Throat Final Examination**

### **(New System)**

1. A female patient aged 29 years, presented with discharge from her left ear. On answer paper there was a perforation in the pars flaccida of her left tympanic membrane.
  - a. What is the diagnosis of this case? (2 marks)
  - b. What is the aetiology of such a condition? (4 marks)
  - c. Describe the discharge in this case. (3 marks)
  - d. Enumerate the possible complications. (4 marks)
  - e. How to treat? (2 marks)
2. Aetiology, symptoms, signs and treatment of Meniere's disease. (10 marks)
3. What are the different types of hemorrhages in relation to tonsillectomy operation?  
When does each occur? What are the causes? How to manage? (10 marks)
4. A thirty years old male received a blow to his face. He came to the emergency room with broken nasal bones.
  - a. How to diagnose that the nasal bones were fractured ? (3 marks)
  - b. How to treat if the patient presented one hour after the trauma? (2 marks)
  - c. How to treat if the patient presented 36 hours after the trauma? (2 marks)
  - d. How to treat if the patient presented 10 days after the trauma? (2 marks)
  - e. How to treat if the patient presented 4 months after the trauma? (2 marks)
5. A 65 year old man complained of change of his voice in the last 5 weeks. He tried many types of medical treatment but he did not improve. Examination revealed a localized mass on the right vocal cord. The right vocal was mobile.
  - a. What are the possibilities ? (5 marks)
  - b. How to reach the accurate diagnosis? (3 marks)
  - c. How to treat ? (3 marks)
  - d. If the condition proved to be malignant, what is the prognosis? Any why? (4 marks)
6. A 4 year old child swallowed a corrosive :
  - a. How to manage if the patient presented after one hour? (3 marks)
  - b. How to manage if the patient presented after one week? (3 marks)
  - c. How to manage if the patient presented after three months? (3 marks)
7. MCQ. (30 marks)

**All questions are to be attempted**

**(Total marks: 100)**

**1- A24 years old female noticed gradual protrusion of her left eyeball in the past two months.**

**three months before she suffered repeated dental pain for which she had extraction of her left upper premolar then her left upper first molar tooth. she also complains of neuralgic facial pain in the region of the left cheek in addition to progressive left nasal obstruction and attacks of mild epistaxis. Examination revealed necrotic polyp occluding the left nasal cavity.**

- a. What is the most probable diagnosis? (2 marks)
- b. Analyze the causes of her signs and symptoms (protrusion of eyeball, dental problems, facial pain) (4 marks)
- c. How you would investigate this patient? (2 marks)
- d. How would you treat this patient? (4 marks)

**2- A9y old child presented with severe pain around his right ear and high fever (39.5 - 40 c) associated with diminution of hearing in the same ear.. He had an attack of acute rhinitis 2 days ago. Examination revealed diffusely congested and bulging right tympanic membrane and marked tenderness over the right mastoid.**

- a. What is the most probable diagnosis? (2 marks)
- b. How would you treat this patient? (8 marks)

**3- Differences between acute follicular tonsillitis and acute diphtheria**

(12 marks)

**4- Management of early (T1) cancer larynx**

(10 marks)

**5- Describe the symptoms and signs of petrositis**

(5 marks)

**6- Patient complaining of stridor was admitted for tracheotomy. Immediately after opening the trachea he developed cessation of respiration.**

- a. What is the possible cause of this apnea? (2 marks)
- b. How would you overcome this complication? (4 marks)

**MCQS :**

**(30 marks)**

**Choose the correct answer; one answer is valid for each question**

- a. Continuous mucopurulent ear discharge
  - b. Foul smelling ear discharge
  - c. Acentral tympanic membrane perforation
  - d. none of the above
- 2. A middle aged female with gradually progressive dysphagia, koilonychia, hypochromic anemia and glazed tongue is suffering from**
- a. Plummer vinson syndrome
  - b. hypo pharyngeal carcinoma
  - c. esophageal carcinoma
  - d. achalasia
- 3. In a teenager male with recurrent severe left epistaxis, pallor and conductive deafness of the left ear, you should suspect**
- a. antrochoanal polyp
  - b. inverted papilloma
  - c. nasopharyngeal angiofibroma
  - d. septal hemangioma
- 4. Trotter's triad consists of all of the following except**
- a. unilateral conductive hearing loss
  - b. ipsilateral earache and facial pain
  - c. ipsilateral proptosis
  - d. ipsilateral immobilization of the soft palate
- 5- A 4 years old child presented by his mother complaining of lack of attention, mouth breathing and hyponasality**
- a. secretory otitis media is suspected
  - b. adenoid is suspected
  - c. both 1 and 2
  - d. none of the above
- 6- In diphtheria, the antitoxic serum is given**
- a. to neutralize the circulating exotoxin
  - b. to neutralize the fixed exotoxin
  - c. to kill the diphtheria bacilli
  - d. all of the above

**7- Nasopharyngeal carcinoma can cause paralysis of the following nerves except**

- a. the vagus nerve
- b. the facial nerve
- c. the glossopharyngeal nerve
- d. the abducent nerve

**8- Polysomnography is a method of investigation of a case with:**

- a. sinusitis
- b. Sleep apnea syndrome
- c. Acute rhinitis
- d. Nasal allergy

**9- the commonest cause of obstructive sleep apnea in adults is**

- a. allergic rhinitis
- b. allergic nasal polyps
- c. marked obesity
- d. elongated uvula

**10. All of the following is correct about leukoplakia of the larynx except:**

- a. It is caused by excessive smoking
- b. It never turns malignant
- c. It causes gradual hoarseness of voice
- d. It is white in color

**11. A positive Kernig's sign means**

- a. reflex flexion of the arms and knees when the neck is flexed
- b. inability to extend the knee completely when the hip is flexed on the abdomen
- c. inability to do rapid alternating movement
- d. none of the above

**12. A child with retracted drum and conductive deafness after inadequate treatment of acute suppurative otitis media is suffering from:**

- a. chronic tubotympanic otitis media
- b. chronic atticofacial otitis media
- c. otitis media with effusion
- d. none of the above



**13. Throbbing and severe earache is present in the following stage of acute otitis media**

- a. stage of salpingitis
- b. stage of catarrhal otitis media
- c. stage of suppurative otitis media
- d. stage of tympanic membrane perforation

**14. The first line of treatment in a child who develops lower motor neurone facial paralysis after acute otitis media is:**

- a. antibiotics and corticosteroids
- b. decompression of facial nerve
- c. exploration of facial nerve
- d. myringotomy

**15. Which of the following statements is wrong concerning myringotomy operation:**

- a. it is indicated in acute suppurative otitis media with bulging drum
- b. it is indicated in secretory otitis media after failure of medical treatment
- c. it is better done in the postero superior quadrant of the tympanic membrane
- d. residual perforation of the tympanic membrane is one of its complications

**16- The commonest cause of sensorineural deafness in children is:**

- a. Post meningitic
- b. Congenital cholesteatoma
- c. Secretory otitis media
- d. Cochlear otosclerosis

**17- A 20 years old man c/o fever & increasing sore throat with dripping of saliva & trismus for only 2 days on examination (the right tonsil pushed medially & forward) no response to antibiotics.. rapid relief can be obtained by:**

- a. Short course of radiotherapy
- b. assurance & rest
- c. antidiabetic serum
- d. incision & drainage

**18- The following are manifestations of meniere's disease except:**

- a. vertigo

- b. posterior reservoir sign
- c. sensory hearing loss
- d. tinnitus

**19- tonsillectomy is absolutely contraindicated in:**

- a. chronic tonsillitis
- b. quinsy
- c. hemophilia
- d. below five years

**20- A 3 years old boy complained of sudden acute respiratory distress, with spasmodic cough, cyanosis & acting accessory respiratory muscles is most probably due to:**

- a. acute follicular tonsillitis
- b. foreign body inhalation
- c. adenoid hypertrophy
- d. vocal cord nodule

**21- The causative organism in ear furuncles is:**

- a. Proteus
- b. Pseudomonas
- c. Staph. Aureus
- d. E coli

**22- In otosclerosis, the following is correct except:**

- a. Usually affects both ears
- b. Shows more progress during pregnancy
- c. Shows type As curve on tympanometry
- d. Tympanoplasty in the operation of choice
- e. Family history is commonly positive

**23- The commonest presentation of laryngoscleroma is:**

- a. Vocal cord paralysis
- b. Stridor & hoarseness
- c. Pain & night sweating
- d. Metastatic lymph node

**24-Quinsy is due to:**

- a. blood disease
- b. Pharyngoscleroma
- c. Pharyngoscleroma
- d. retropharyngeal suppuration

**25- achalasia of the cardia is characterized by the followings except:**

- a. dysphagia is more marked for solids than fluids
- b. dysphagia is more marked for solids than fluids
- c. treated by cardiomy
- d. regurgitation of undigested food

**26- stridor is a characteristic feature of the following diseases except:**

- a. laryngeal diphtheria
- b. angioneuritic edema
- c. adenoid hypertrophy
- d. bilateral abductor vocal cord paralysis

**27- The most common cause of oroantral fistula is:**

- a. acute sinusitis
- b. car accident
- c. dental extraction of upper second premolar tooth
- d. radical antrum operation

**28- Unilateral clear watery nasal discharge reducing fhling's solution is suggestive of:**

- a. CSF rhionrrhea
- b. allergic rhinitis
- c. viral rhinitis
- d. nasal diphtheria

**29- Traumatic perforation of the tympanic membrane is characterized by:**

- a. Irregular edges of the perforation
- b. Purulent discharge
- c. Attic perforation
- d. Congested middle ear mucosa

**30- Surgical emphysema after tracheotomy is corrected by:**

- a. taking more stitches of the wound
- b. cold compresses
- c. widening of the wound by removal of some stitches
- d. antihistaminic intake

June 18<sup>th</sup> 2012  
Time allowed: 1 hour  
Total marks: 80

Cairo University  
Faculty of Medicine  
4<sup>th</sup> year examination

## **Ear, Nose & Throat**

- 1) A 3 year old child developed upper respiratory infection, followed by inspiratory stridor 2 days later.**
  - a. What is the most common diagnosis? (3 marks)
  - b. Enumerate other causes of stridor in children . (6 marks)
  - c. How would you manage this child? (6 marks)
- 2) Treatment of acute otitis media** (10 marks)
- 3) Indications of tonsillectomy** (12 marks)
- 4) Oesophageal causes of dysphagia** (13 marks)
- 5) Mco** (30 marks)

June 18<sup>th</sup> 2012  
Time allowed: 2 hour  
Total marks: 100

Cairo University  
Faculty of Medicine  
4<sup>th</sup> year examination

## Ear, Nose & Throat

- 1) A 3 year old child developed upper respiratory infection, followed by inspiratory stridor 2 days later.
  - a. What is the most common diagnosis? (2 marks)
  - b. Enumerate other causes of stridor in children . (4 marks)
  - c. How would you manage this child? (4 marks)
- 2) Treatment of acute otitis media (10 marks)
- 3) A 42 year old lady complained of progressive bilateral hearing loss and tinnitus. Ear examination revealed normal drums and conductive deafness by the tuning fork tests.
  - a. What is the probable diagnosis? (2 marks)
  - b. What investigations should be done? (4 marks)
  - c. How should the patient be treated? (4 marks)
- 4) Indications of tonsillectomy (10 marks)
- 5) Complications of bilateral nasal obstruction (10 marks)
- 6) Clinical picture of cancer larynx (10 marks)
- 7) Oesophageal causes of dysphagia (10 marks)
- 8) Mcq (الجل في كراسة الإجابة) (30 marks)

## MCQ

1. The most common laryngeal site of involvement in laryngoscleroma is:
  - a. true vocal cords
  - b. epiglottis
  - c. subglottis
  - d. arytenoids

**2. The most important function of the larynx is:**

- a. voice production
- b. protection during swallowing
- c. cough production
- d. increasing subglottic pressure

**3. The most common presenting sign or symptom of nasopharyngeal cancer is:**

- a. nasal obstruction
- b. nasal bleeding
- c. neck mass
- d. facial pain

**4. The primary goal of surgery for cholesteatoma is:**

- a. hearing improvement
- b. reconstruction of the ossicular chain
- c. removal of all the disease
- d. reconstruction of the tympanic membrane

**5. The most common complication associated with acute ethmoid sinusitis in children is:**

- a. orbital cellulitis
- b. osteomyelitis of the frontal bone
- c. subdural abscess
- d. cavernous sinus thrombosis

**6. Treatment of a small dry traumatic rupture of tympanic membrane is:**

- a. antibiotic ear drops
- b. myringoplasty
- c. ear pack
- d. protection of ear against water

**7. All the following about nasopharyngeal angiofibroma is true EXCEPT:**

- a. occurs exclusively in males
- b. epistaxis and nasal obstruction are common
- c. radiotherapy is the treatment of choice
- d. arises from the sphenopalatine foramen

**8. Gradenigo's syndrome is characterized by the following EXCEPT:**

- a. profuse ear discharge
- b. facial pain
- c. facial nerve paralysis
- d. diplopia

**9. Most common cause of bilateral conductive deafness in a child is:**

- a. otosclerosis
- b. secretory otitis media
- c. congenital cholesteatoma
- d. adhesive otitis media

**10. An apnea is defined as cessation of breathing for :**

- a. 10 seconds
- b. 12 seconds
- c. 15 seconds
- d. 18 seconds

**11. Bilateral choanal atresia in a neonate is best first treated by:**

- a. transnasal puncture
- b. inserting an oral airway
- c. transpalatal repair
- d. transnasal by endoscope

**12. All the following is true about cerebrospinal fluid rhinorrhea EXCEPT:**

- a. clear fluid drips from the nose
- b. initial treatment is to pack the nose
- c. fluid contains glucose
- d. fluid has a salty taste

**13. An infant is noticed to have stridor and a hoarse cry . All the following diagnosis are possible EXCEPT:**

- a. laryngeal web
- b. laryngeal paralysis
- c. congenital laryngeal cyst
- d. laryngomalacia

**14. Plummer Vinson syndrome is characterized by all the following EXCEPT:**

- a. koilonychia
- b. dysphagia
- c. glossitis
- d. haematemesis \*

**15. In which of the following locations there is collection of pus in Quinsy?**

- a. parapharyngeal space
- b. retropharyngeal space
- c. peritonsillar space
- d. within the tonsil

## Ear, Nose & Throat

(4th year final exam)

- 1) Describe clinical picture of laryngeal obstruction (12 marks)
- 2) List indications of myringotomy in acute otitis media (6 marks)
- 3) What are the contraindications of tonsillectomy? (8 marks)
- 4) Describe otoscopy of cholesteatoma (10 marks)
- 5) A 24-year-old woman complains of unilateral regurgitation of food and fluid from the nose and unilateral bad odoured nasal discharge. Three months ago she had her 2<sup>nd</sup> upper premolar tooth extracted.
  - a- What is the most probable diagnosis? (2 marks)
  - b- How would you treat this patient? (8 marks)
- 6) Enumerate orbital complications of sinusitis (8 marks)
- 7) A 57-year-old man, who is a heavy smoker, develops hoarsness of voice. He complained of cough and haemoptysis for the last five months. Flexible laryngoscopy showed left vocal cord paralysis, no masses were detected in the larynx.
  - a- What is the most probable cause for this cord paralysis? (2 marks)
  - b- How would you investigate this case? (6 marks)
- 8) Describe clinical picture of submandibular sialadenitis (8 marks)
- 9) Enumerate otogenic lesions causing facial nerve paralysis (10 marks)
- 10) MCQ ( الحل فى كراسة الاجابة ) (20 marks)



**All questions are to be attempted**

1. A male patient who is of the habit of swimming came to the ENT clinic complaining from marked itching in the left ear. He also reported some diminution of hearing. Otoscopic examination revealed a whitish mass with blackish spots resembling wet newspaper filling the external auditory canal.
  - a. What is the most possible diagnosis? (2 marks)
  - b. What is the causative organism for this disease? (2 marks)
  - c. How would you treat this patient? (6 marks)
2. A female patient aged 23 years old had thyroidectomy operation. Immediately after removal of the endotracheal tube, the patient developed noisy difficult breathing.
  - a. What is the diagnosis? And what is the cause of this condition? (4 marks)
  - b. What to do immediately to relieve the difficult breathing? (2 marks)
  - c. How would you treat the patient afterwards? (6 marks)
3. Give a short account on Ludwig's angina (12 marks)
4. Discuss briefly sinusitis of dental origin (12 marks)
5. How would you differentiate upper from lower motor facial paralysis? (12 marks)
6. Indications and contraindications of tonsillectomy (12 marks)
7. Enumerate mid line neck swellings (10 marks)

**All questions are to be attempted:**

Discuss briefly:

1. Rhinoscleroma (12 marks)
2. Otomycosis. (12 marks)
3. Oropharyngeal ulcers (15 marks)
4. Bilateral abductor paralysis. (15 marks)
5. A 6 years old child developed severe pain in both ears together with fever (38.5°C) following an attack of common cold. The child received medical treatment that lead to drop of his temperature and subsidence of pain; so the physician stopped the treatment. However, the mother noticed that her child did not respond to her except when she raised her voice.
  - a. What is the diagnosis? (4 marks)
  - b. Describe the otoscopic examination of this child early and late in the disease. (4 marks)
  - c. Describe the audiometric results for this child (4 marks)
  - d. How would you treat this patient? (4 marks)
6. A 3 months young infant presented with repeated attacks of inspiratory stridor that increases with lying on the back and improves on lying prone. His cry showed no hoarseness. Flexible laryngoscopy showed folded epiglottis with collapse of the larynx during inspiration.
  - a. What is the diagnosis? (2 marks)
  - b. What is the pathology in this larynx? (4 marks)
  - c. How would you treat this infant? (4 marks)

7. MCQ:

(20 marks)

*Choose the most appropriate answer, only one answer is valid:*

1. The following have an ototoxic effect except:
  - a. gentamycin
  - b. streptomycin
  - c. amoxicillin
  - d. quinine
2. Which of the following statements is wrong concerning myringotomy operation:
  - a. it is indicated in acute suppurative otitis media with bulging drum
  - b. it is indicated in secretory otitis media after failure of medical Treatment
  - c. it is better done in the postero-superior quadrant of the tympanic membrane
  - d. residual perforation of the tympanic membrane is one of its complications
3. Uncontrolled diabetes in an elderly patient may predispose to
  - a. cholesteatoma
  - b. malignant otitis externa
  - c. meniere's disease
  - d. vestibular neuronitis
4. Malignancy is suspected in enlarged lymph node if it has the following except:
  - a. hard
  - b. painful
  - c. progressive
  - d. fixed

5. Tonsillectomy is absolutely contraindicated in :
- a. chronic tonsillitis
  - b. quinsy
  - c. hemophilia.
  - d. below five years
6. Unilateral offensive blood tinged purulent rhinorrhea in a 3 years old is more likely due to:
- a. rhinoscleroma
  - b. lupus
  - c. Foreign body.
  - d. atrophic rhinitis
7. A patient with anosmia will still respond to inhalation of:
- a. coffee
  - b. vanilla
  - c. ammonia
  - d. garlic
8. Quinsy means collection of pus in the:
- a. parapharyngeal space
  - b. retropharyngeal space
  - c. peritonsillar space
  - d. crypta magna

9. Rhinolalia aperta (hypernasality) is caused by the following except:

- a. cleft palate
- b. rhinoscleroma
- c. palatal paralysis
- d. fistula of the palate

10. Hot potato voice is caused by the following except:

- a. supraglottic carcinoma
- b. epiglottitis
- c. glottic carcinoma
- d. tonsillar hypertrophy

**Cairo University-Faculty of Medicine**  
**Department of Forensic Medicine & Clinical Toxicology**

**19/6/2010    Total marks=70    Time allowed: 2.5 hr**

**FINAL EXAM**  
**Fourth Year MB.Bch.**

**Forensic Medicine**

**I. Case Scenario :**

A 21 year-old man was found dead in his bathroom, lying on his left side. There was blood beneath his head, associated with a laceration to the posterior scalp together with multiple linear contusions all over the body. On exam. his body shows patchy hypostasis and rigor mortis of the face & neck. Autopsy showed large wedge shaped intra-cerebral hemorrhage tapered deep into the brain substance. Some red stain was found on the bed sheet and bathroom. Serology investigations revealed that the blood stain from the bathroom belongs to the deceased, while the stain on the bed was not blood.

- 1) Prove the alleged age of deceased an X-ray (one site)? (One mark)
- 2) Describe characteristics of the given injuries and possible causative instrument? (3 marks)
- 3) How could the expert confirm that the stain on bed sheet was not blood and the blood from bathroom belonged to the deceased? (4 marks)
- 4) What is the possible cause of death in this case? (2 marks)
- 5) Verify the postmortem interval for such case? (2 marks)

**II. Essay Questions : (4 marks each)**

- a) Explain how can radiology plays an important medicolegal role in investigations of firearm, pregnancy and child physical abuse?
- b) Discuss dangers of criminal abortion?
- c) Mention fallacies in floatation test and microscopic examination of a seminal sample?

d) Define Burking and describe the specific postmortem findings?

**III. State True or False and explain your answer : (3 marks each)**

- a) Paradoxical respiration is a fixed complication of chest injury.
- b) Drowning may modulate post mortem changes.
- c) After denition it is impossible to estimate age from teeth examination.
- d) Examination of a vesicle can differentiate antemortem from postmortem burn.

**B. CLINICAL TOXICOLOGY:**

**I. Case secnario :**

A 30 years old female under psychiatric treatment was admitted to the poison control center with restlessness, upward deviation of the eyes, torticollis, abnormal movement of the tongue and tachyarrhythmia. BP was 80/50mm.Hg. Pupils were dilated, ECG revealed supraventricular tachyarrhythmia.

- a) What's your provisional diangosis? (One mark)
- b) Discuss the mechanism of action of this drug? (2 marks)
- c) Mention other CNS manifestations of the consumed drug? (3 marks)
- d) How can you treat such case ? (2 marks)

**II. Essay Questions : (4 marks each)**

- 1) Discuss withdrawal manifestations of opiate dependence?
- 2) Mention the mechanism of paracetamol toxicity?
- 3) Discuss lines of treatment of two poisons that possess opposing pharmacological actions?

**III. State True or False and explain your answers : (2 makrs each)**

- 1) Diet intake processing can prevent plumbism and botulims.
- 2) Recovery is always complete in cases of carbon monoxide poisoning.
- 3) there are a lot of precautions while antidoting a case of snake bite.
- 4) Eye examination is essential in diagnosis of alcohol toxicity.
- 5) Urine analysis is of value in diagnosis of a poisoned case (two cases).

**Cairo University-Faculty of Medicine**  
**Department of Forensic Medicine & Clinical Toxicology**  
**2/7/2011 Total marks=70 Time allowed: 2.5 hr**  
**FINAL EXAM**  
**Fourth Year MB.Bch.**

**A- FORENSIC MEDICINE:**

**I- Case Scenario:**

After a motor car collision, two dead bodies of the vehicle occupants lied beside the ruined car.

- 1) The first victim was a 21 - year - old female with the skin of the scalp separated from the underlying tissue and her temperature was 30 C.

On dissection the skull was intact but the brain showed microscopic nerve lesion.

- 2) The second victim was an 18 - year - old male with pale body and hypostasis, and the intraocular pressure was 3 gm. On dissection there was a piece of glass passing from the chest wall into his heart. Blood stains were seen on the steering wheel.

- a- What is the type of wound in each victim? (2 marks)
- b- Describe the possible mechanism of death in each case. (3 marks)
- c- Did the victims died at the same time? Explain? (3 marks)
- d- How can the examiner identify the driver of the car in this accident? (2 marks)
- e- How can you verify the age of each victim?

**II- Essay Questions: (4 marks each)**

- a- Illustrate fracture base of the skull?
- b- Discuss delayed causes of death from burn?
- c- List injuries in forensic practice that may induce inlet and exit wounds, and discuss two of them.
- d- "Some surgical interventions require prerequisites by Egyptian law or otherwise they are considered illegal operations" Explain and mention three examples.

**III- State True or false and explain your answers: (3 marks each)**

- a- Medicolegal examiner can identify source and nature of water from which drowned bodies were recovered.
- b- Estimation of Alpha subunits of HCG is preferred over Beta subunits in



diagnosis of pregnancy.

c- Cerebral apoplexy is a traumatic intracerebral hemorrhage.

d- Coffey syndrome is describing the sudden death in infants.

## **B- CLINICAL TOXICOLOGY:**

I Case scenario:

A 3 year - old child was brought to the emergency department 4 hours after ingestion of 20 capsules of multivitamin preparation. The child was conscious with repeated bloody vomiting and he was vitally stable. Gastric lavage was done and the child was discharged. 48 hours later the child was readmitted to the hospital in coma, fever and hypotension. ABC showed pH: 7.2, PCO<sub>2</sub>: 25mmHg, HCO<sub>3</sub>: 17meq/L, PO<sub>2</sub>: 90mmHg and O<sub>2</sub>

saturation: 96%

a- What's your provisional diagnosis? (one mark)

b- Discuss what happened between first and second admission? (2 marks)

c- Comment on the results of ABG and its pathophysiology? (3 marks)

d- How can you treat such case? (2 marks)

## **II. Essay Questions: (4 marks each)**

1- Discuss mechanisms of action in poisons that induce central or peripheral asphyxia, 2 examples for each.

2- Describe competitive antidotes (3 examples)

3- Illustrate a protocol to treat a case of opioids addiction?

4- Mention the mechanisms of cardiac manifestations in digoxin and imipramine (TCAs) overdose?

## **III- State True or False and explain your answers: (2 marks each)**

1- Magnesium sulfate has a role in toxicology practice.

2- The identification of poison odor can help in diagnosis of some poisons.

3- Gastric lavage is absolutely contraindicated in hydrocarbon poisoning.

4- Dichloro- Diethyl- Trichloroethane (DDT) is an anticholinesterase insecticide.

5- Scorpion sting causes cardiogenic pulmonary edema.

**Cairo University-Faculty of Medicine**  
**Department of Forensic Medicine & Clinical Toxicology**

**2/7/2011 Total marks=30 Time allowed: 30 min.**

**FINAL EXAM**

**Fourth Year MB.Bch.**

**I- Choose the best single answer: (one mark each)**

- 1) Venous air embolism occurs after the following except:**
  - a. Stab wound in the lung.
  - b. Gas gangrene.
  - c. Incised wound serving jugular vein.
  - d. Artificial pneumothorax.
  
- 2) A dead body of an adult male was found with stiffness in all muscles, but the face was flaccid. The postmortem interval in hours is:**
  - a. 10
  - b. 14
  - c. 18
  - d. 36
  
- 3) A Patient was brought to the hospital with head injury. on examination the pupil of right eye was constricted & the left one was dilated:**
  - a. The brain injury is on the right side.
  - b. The reflexes are exaggerated on the right side.
  - c. The muscles are spastic on the left side.
  - d. Both (a) and (b) are correct.
  
- 4) Heat cramps are due to:**
  - a. Paralysis of heat regulating centre.
  - b. Hyperthermia.
  - c. Salt loss.
  - d. Infections.
  
- 5) The upper part of the body is congested or cyanosed compared to the lower part in case of:**
  - a. Crush asphyxia.
  - b. Overlying.
  - c. Gagging.
  - d. Mugging.

- 6) A 20 year- old female comes to a gynaecologist for pelvic examination. The consent for examination is:**
- Implied consent.
  - Written consent.
  - Oral consent.
  - Infotmed consent.
- 7) Heat ruptures show:**
- Smooth and even matgis.
  - Irregular margins.
  - Rupture vessels in the floor.
  - Clotted blood in the wound.
- 8) One minute after the trauma to the testicle of an adult, the pules/minute winute will usually**
- 45.
  - 75
  - 100
  - 125
- 9) A man with blood group A+ ve, married a woman with blood group AB + ve, then the children's blood group cannot be:**
- Group A+ve.
  - Group B+ ve.
  - Group AB- ve
  - Group O - ve.
- 10) Attrer delivery, the fundal level reaches the symphysis pubis by the end of:**
- First week.
  - Second week.
  - Thord Week.
  - Forth Week.
- 11) Induction of criminal aborion by medically trained persons includes the follwing except:**
- Intra uterine injection of hypertonic solution
  - Syringe aspiration
  - D&C.
  - Double nozzle Higginson' syronge

**12) Identification of a fired cartridge can be accomplished by examination of the following:**

- a. Rifling marks.
- b. Depression on the rim by the extractor hook.
- c. Depression marks on the primer.
- d. Both (b) and (c) are correct.

**13) Individualization of a blood stain can be best detected by:**

- a. M&N blood grouping.
- b. Rh grouping.
- c. Human Leucocytic Antigen (HLA) system
- d. None of the above.

**14) In cases of sexual assault on a female child, the hymen often escape injury because it is:**

- a. Deeply seated.
- b. Very tough.
- c. Absent in children, develop in puberty.
- d. Very elastic.

**15) Regarding Flail chest, the following is correct:**

- a. occurs in extensive unilateral rib fractures.
- b. Commonly occurs in rear violence.
- c. The volume of the chest is impaired in inspiration.
- d. All of the above.

**16) For a case of anuria due to nephrotoxic poison, the following may be done except:**

- a. Hemodialysis.
- b. Hemoperfusion.
- c. Peritoneal dialysis.
- d. Forced diuresis.

**17) Which of the following should be avoided treatment of digoxin overdose.**

- a. phenytoin.
- b. Atropine.
- c. Lidocaine.
- d. Quinidine.

**18) Pulmonary edema may complicate with:**

- a. Datura seeds.
- b. Strchnine.
- c. Heroin.
- d. Hashish.

**19) A child accidentally ate a rat pioson having a very bitter taste, will suffer from the following except:**

- a. Tonic convulsions.
- b. Hyperthermia.
- c. Tonec and clonic convulsions.
- d. Tachycardia and hypertension.

**20) A persin under treatment with antabuse and ingest wine will suffer from:**

- a. Tremors and convulsions.
- b. Bradycardia and convulsions.
- c. Tachcardia and vomiting.
- c. Thirst and fever.

**21) In a case of suicide by a drug, the victim shows jaundice, bleeding tevdencies, encephalopathy and elevated serum transaminases levels (SGOT&SGPT). The poison is:**

- a. phenobarbitone.
- b. Aspirin.
- c. paracetamol.
- d. Atropine.

**22) The most concerning manifffestation in acute theophylline toxicity with serum levels above 90-100 mg/L, is:**

- a. Hypotension.
- b. Ventricular arrhythmias.
- c. Seizures.
- d. Hyperglycemia.

**23- Detection of benzoylecgonine in urine is diagnostic for:**

- a- Cannabis overdose.
- b- Cocaine overdose.
- c- Digitalis toxicity.
- d- Atropine toxicity.

**24- In a case of suicide, the victim shows some grade III, respiratory depression, skin bullae were found in pressure areas with muscle flaccidity, diminished reflexes, hypotension & bradycardia, the poison is:**

- a- Cannabis.
- b- Morphine.
- c- phenobarbitone.
- d- Ethyl alcohol.

**25- Aspirin-induced hyperthermia is primarily due to:**

- a- Uncoupling oxidative phosphorylation and increased metabolic rate.
- b- CNS stimulation.
- c- Oliguria.
- d- All of the above.

## **II- Matching questions:**

**1- Match the poison with the appropriate mechanism of toxicity:**

(3 marks)

**1- Phenothiazines**

**2- Strychnine.**

**3- Organophosphates**

- a- Blocking of dopaminergic, anticholinergic, alpha - adrenergic receptors, with quinidine - like and extrapyramidal effects.
- b- Blocking the neuronal reuptake of norepinephrine, serotonin, and dopamine, with anticholinergic and alpha adrenergic blocking properties.
- c- Competitive blocking of the binding of the inhibitory neurotransmitter glycine at its postsynaptic receptor sites on motor neurons of the ventral horn of the spinal cord.
- d- Irreversible phosphorylation to acetylcholinesterase enzyme, allowing accumulation of the neurotransmitter, acetylcholine at neuro-effector junctions and at synapses in autonomic ganglia and in the brain.
- e- Non-selective competition with endogenous and/or exogenous beta-adrenergic agonists for receptor sites, with quinidine-like properties.

**2- Match the most likely age of the wound with the appropriate healing process: (2 marks)**

**1- 12 hours.**

**2- 36 hours.**

**3- 3 days.**

**4- 5 days.**

- a- An abrasion covered with a dry scab.
- b- Bruises showing green discoloration.
- c- A scar of cut wound showing red coloration.
- d- An incised wound with new vessels starting to grow towards the surface.
- e- An incised wound with red swollen edges.

## **ALL QUESTIONS HAVE TO BE ANSWERED**

Number of questions are six and falls into two pages

MCQ are 24 with two matching questions, falling into six Pages in a separate booklet

MCQ should be answered in the Answer Paper

MCQ booklet will be collected after 30 minutes

The oral examination will start at 10m of July at 8 am in the department

No students will be permitted to join the oral examination without I.D.

### **I- Multiple Choice Questions:**

**Choose the best single answer: (one mark each)**

**1) A father (0-group) can have a child of one of these groups, except:**

- a. A.                      b. B.                      c. AB.                      d. O.

**2) On examination of a firearm victim, there was a small central hole and the dispersion was 4 cm. in diameter, then:**

- a. The distance of firing was 3 meters.  
b. The external wad was present inside the track.  
c. There was a circular abrasion from the external wad striking.  
d. There was a circular abrasion from the internal wad striking.

**3) Brain stem death is diagnosed by all the following, except:**

- a. Arterial PCO<sub>2</sub> level is less than 50 mmHg.  
b. Absent corneal and pupillary reflex.  
c. Absent oculo cephalic response.  
d. Absent oculo vestibular reflex.

**4) At the age of full term:**

- a. The fetus is at 7<sup>th</sup> intrauterine month.  
b. The testicles reach the external inguinal rings.  
c. The ossific centre of upper end of tibia appears.  
d. The fetus weight is 2500 grams.

**5) Heat cramps are due to:**

- a. Paralysis of heat regulating centre.                      b. Hyperthermia.  
c. Salt loss.                      d. Infections

**6) A physician registration may be erased from the medical syndicate in the following conditions except:**

- a. He/she stopped paying the annual subscription.
- b. He/she is convicted of malpractice.
- c. He/she is involved in commercial jobs.
- d. He/she reached the age of pension.

**7) The sure sign of firing from a revolver at a distance of 50 cm. is:**

- a. Presence of burning and blackening around the inlet.
- b. The inlet wound is larger than the exit one.
- c. All of the above.
- d. None of the above.

**8) The wound of a suicidal cut throat in a right handed victim shows:**

- a. Uniform depth all through.
- b. More depth at the right end.
- c. Higher level on the right side.
- d. Tentative marks on the left end.

**9) The following are medical malpractice cases, except:**

- a. Misuse of Drug prescription, medical device or implant.
- b. Operating on the wrong side.
- c. Improper preoperative preparation that leads to complications.
- d. Failure to take patient's consent in emergency cases.

**10) Mugging is a type of:**

- a. Homicidal crush asphyxia.
- b. Accidental strangulation.
- c. Homicidal throttling.
- d. Homicidal choking.

**11) After delivery, the fundal level of the uterus reaches the symphysis pubis by the end of the:**

- a. First week.
- b. Second week.
- c. Third week.
- d. Forth week.

**12) Three hours after death, the intra-ocular pressure is:**

- a. Zero grams.
- b. Three grams.
- c. Six grams.
- d. Twelve grams.

**13) Hegar sign is positive in case of pregnancy in the:**

- a. First month.
- b. Second month.
- c. Third month.
- d. Fourth month.

**14) Organophosphate delayed peripheral neuropathy syndrome:**

- a. Develops within 1-3 days.
- b. Causes paralysis of the distal limb muscles .
- c. Causes paralysis of neck fexor muscles
- d. All of the above



**15) The mechanism of theophylline toxicity includes all the following, except:**

- a. Stimulation of intracellular cAMP.
- b. Inhibition of phosphodiesterase.
- c. Stimulation of adenosine receptors.
- d. Release of catecholamines.

**16) Hemodialysis is indicated to enhance renal elimination of all of the following toxins, except**

- a. Theophylline as the serum level exceeds 40 mcg/mL after chronic toxicity.
- b. Aspirin as the serum level exceeds 80 mcg/mL after acute toxicity.
- c. Methanol as the serum level exceeds 50 mg/dL.
- d. Digoxin as the serum level exceeds 10 ng/mL, in adults.

**17) In a case of suicide by a drug, the victim shows agitation, tachycardia, dry skin, dilated fixed pupils & fever, the poison may be:**

- a. Flunitrazepam.
- b. Secobarbital.
- c. Amitriptyline.
- d. Sotalol.

**18) The patient of CO poisoning can't save himself at:**

- a. 20% carboxy hemoglobin.
- b. 30% carboxy hemoglobin
- c. 40% carboxy hemoglobin.
- d. 50% carboxy hemoglobin

**19) Intravenous sodium bicarbonate may be used in treating all the following poisons except:**

- a. Phenobarbital.
- b. Ethanol.
- c. Amphetamine.
- d. None of the above.

**20) Forced alkaline diuresis may be effective in removing each of the following intoxications, except:**

- a. Salicylates.
- b. Long-acting barbiturates.
- c. Short-acting barbiturates.
- d. Ethanol.

**21) All of the following toxins can cause hypoglycemia except:**

- a. Ca channel blockers.
- b. Ethanol
- c. Salicylates.
- d. Beta blockers

**22) Hypokalemia may be caused by each of the following intoxications, except:**

- a. Beta-adrenergic blockers.
- b. Salicylates
- c. Theophylline.
- d. Laxatives

**23) Clonidine:**

- a. Is an alpha-adrenergic receptor blocker
- b. Stimulates the release of endogenous opioids
- c. Side effects include hypertension
- d. None of the above

**24) Flumazenil:**

- a. Is used in combined toxicity of benzodiazepines & tricyclic antidepressants
- b. Antagonistic effect lasts for 10 hours
- c. Induces withdrawal syndromes in chronic benzodiazepine users
- d. None of the above

**II- Matching Questions:**

**1) Match the following signs of livebirth with the age of survival of an infant: (3 marks)**

- a) Six weeks.                      b) One week.                      c) Two weeks.
- d) Six hours.                      e) Three hours.                      f) Twelve hours.

1) A newly born infant was found dead, there was a piece of cloth in the oropharynx. On examination, there was complete desquamation of the skin together with formation of the umbilicus, and the umbilical vessels shows complete organization of the clot.

2) A newly born infant was found dead with cyanosis of the lips and nails, the umbilical vessels changed into fibrous cord and there was actual obliteration of ductus arteriosus.

3) A dead infant with a depressed fracture in the right parietal bone, there was fall of the umbilical stump and closure of the foramen oval.

4) A case of infanticide with umbilical cord around the neck, on examination there was floatation of the stomach, duodenum and upper intestine, while the lower intestine sinks.

**2) Choose the proper treatment for each manifestation of the antipsychotics (3 marks)**

- a) Propranolol.                      b) Sodium bicarbonate
- c) Benzotropine or diphenhydramine
- d) Shift to another neuroleptic with less cholinergic effect
- e) Bromocriptine.                      f) Magnesium sulphate and/or Cardioversion
- g) Cyproheptadine.                      i) Dopamine

1-Tardive dyskinesia

2-Torsade de pointes

3- Arrhythmia

4- Hypotension

5- Dystonia

6- Neuroleptic malignant syndrome

Cairo University-Faculty of Medicine  
Department of Forensic Medicine & Clinical Toxicology  
13/7/2013      Total marks=70      Time allowed: 2.30 hrs.  
**FINAL EXAMINATION (New bylaw)**  
**Fourth Year MB.Bch**

**ALL QUESTIONS HAVE TO BE ANSWERED**  
Number of questions are six and fall into three pages  
MCQ are 23 with two matching questions, falling into a separate booklet  
MCQ booklet will be collected after 30 minutes

**A- FORENSIC MEDICINE:**

**I- Case Scenario:** (12 marks)

A female was pulled out from the nearby river. The medicolegal report revealed that,

- The age was around 16 years.
- The body showed dark bluish discoloration covering the head & neck, front part of the chest and upper limbs.
- The whole body was stiff with mud found in her firm grips.
- At autopsy; both lungs were not overblown with water.

- a) How could you estimate *the age* of the victim, and *the time passed since death*? (3 marks)
- b) What is the most probable **cause of death** in this case? Explain. (4 marks)
- c) Report *other findings to prove your diagnosis*. (3 marks)
- d) What is *the medicolegal importance of mud* in this case? (2 marks)

**II-Essay Questions:** (4 marks each)

- ( a) Discriminate between *antemortem* and *postmortem burn*.
- ( b) Differentiate *homicidal* from *suicidal cut throat*.
- ( c) Discuss medicolegal aspects of *hymen examination*.
- ( d) Define *lucid interval*; mention *its medicolegal importance* and how to avoid malpractice.

### **III- Explain:** (2 marks each)

- a) *Hypostasis* is an indicator of the *cause* and *time* passed since death.
- b) Blood grouping is a good negative test in *disputed paternity* cases.
- c) *Umbilical cord examination* has a medicolegal importance in cases of *infanticide*.
- d) *The consent* for medical examination and treatment is considered *invalid* in some situations.

## **B- CLINICAL TOXICOLOGY:**

### **I Case scenario:** (10 marks)

A 55 years old cardiac male person came to the emergency room with BP 80/50 mmHg pulse 50/minutes, pH: 7.4, serum potassium level was 5.5 mEq/L. Random blood glucose was 55 mg/dL. Then, the patient entered into convulsion and coma.

- a) What is the possible *diagnosis* of such case? (1 mark)
- b) What is the *differential diagnosis* of such case? (2 marks)
- c) What is the cause of *convulsion and coma* in such case? (1 mark)
- d) List the possible *investigations* to reach your diagnosis. (2 marks)
- e) How can you *manage* such case? (4 marks)

### **II-Essay Questions:** (4 marks each)

- a) Discuss the *clinical pictures* and *complications* of carbon monoxide poisoning.
- b) Mention the *mechanism of action* of lead, and describe the *treatment* of chronic lead poisoning.
- c) Discuss *botulism* as a cause of food-born infection.
- d) List four drugs/poisons that cause *tachycardia, arrhythmia, dilated pupil, convulsion and coma*. Describe the *treatment* of one of them.

**III- State True or False and explain your answers:** (2 marks each)

- a) *Clonidine* is effective in treatment of benzodiazepine dependence.
- b) *Magnesium sulphate* has a significant role in toxicology.
- c) *Osteomalacia* may be induced by chronic poisoning.
- d) *Carbamates* are more toxic than organophosphates on human health.

**Cairo University-Faculty of Medicine**  
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**26/6/2014                      Total marks: 70                      Time allowed: 2.5 hrs.**  
**FINAL WRITTEN EXAMINATION (New bylaw)**  
**Fourth Year MB.Bch**

**ALL QUESTIONS MUST BE ANSWERED**  
Number of questions are six and falls into two pages  
MCQs are 30 (in a separate booklet) and will be collected after 30 min.  
MCQ should be answered in the MCQ sheet

**A- FORENSIC MEDICINE:**

**I-Case Scenario:** (12 marks)

A male was found dead inside his flat. The medicolegal report revealed that:

- The age was around 18 years.
  - The body showed cut throat.
  - There were faint patches of discoloration covering the back.
  - A knife was found beside the dead body.
- a) How could you prove the estimated *age* of the victim? Mention its medicolegal importance. (2 marks)
- b) Estimate *the time passed since death* with details. (2 marks)
- c) Explain the *proper diagnosis* and the *cause/s of death* in this case. (4 marks)
- d) What is the *differential diagnosis to prove your diagnosis*? (2 marks)
- e) What is *the medicolegal importance of the knife* in this case? (2 marks)

**II- Essay Questions: (4 marks each)**

- a) *Rigor mortis* is of special medicolegal importance, discuss.
- b) Explain *causes of death* from *burn*.
- c) Discuss *gun powders* and their role in *estimation of the distance of firing*.
- d) Discuss *brain stem death* from medicolegal point of view.

**III- State True or False with Explanation:** (2marks each)

- a) *Consent* is occasionally considered *illegal or invalid*.
- b) *Abortion* can't be induced using drugs.
- c) The *healing* of skull fracture is an indicator for survival time.
- d) *Rape* is not an easy task *to be alleged*.

## **B-CLINICAL TOXICOLOGY:**

### **I Case scenario:**

(10 marks)

A 60 years old chronic hypertensive female patient was admitted to the hospital with nausea, vomiting and abnormal mental status (ranging from agitation to coma). Serum potassium level was 3.8 mEq/L, random blood glucose was 180 mg/dL. BP 80/50 mmHg, pulse 53/minutes, pH: 7.2, the condition occurred after an overdose of her medication.

- a) What is the possible *diagnosis* of such case? (1 mark)
- b) What is the *differential diagnosis* of such case? (3 marks)
- c) List the possible *investigations* to reach your diagnosis. (2 marks)
- d) How can you *treat* such case? (4 marks)

### **II-Essay Questions:**

(4 marks each)

- a) Discuss *mechanism of action and clinical pictures* of acute iron poisoning.
- b) Demonstrate *diagnosis and treatment* of ethanol dependence.
- c) Explain *mechanism of action and laboratory investigations* of carbon monoxide poisoning.
- d) Mention *differential diagnosis* of four drugs/poisons that cause *coma with constricted pupil*. Discuss in brief *treatment* of one of them.

### **III- State True or False and explain your answers:** (2 marks each)

- a) *Clinical manifestations* of Sympathomimetic toxidrome are *different* from those of Sedative hypnotic toxidrome.
- b) *Physostigmine* is an antidote for *atropine only*.
- c) Acute cocaine toxicity as well as acute lead toxicity may lead to renal failure *through the same mechanism*.
- d) *Hemodialysis* is *more effective* than *the antidote* in treatment of lithium as well paracetamol toxicity.

### ***N.B***

- Oral examination will start on Saturday, 28/6/2014 at the department
  - 1- 1<sup>st</sup> group students from no. 1 – 300, at 8 AM.
  - 2- 2<sup>nd</sup> group students all others, at 10 AM.
- No students will be permitted to join the oral exam without I.D.

**Cairo University-Faculty of Medicine**  
**Department of Forensic Medicine & Clinical Toxicology**  
**26/6/2014                      MCQ marks=30                      Time allowed: 30 min.**  
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**Fourth Year MB.Bch**

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**I- Multiple Choice Questions:**

**Choose the correct single answer:** (one mark each)

- 1) The change around the umbilical cord base, 2 days following delivery, shows:**
  - a. Ring of hyperemia.
  - b. Ring of ulceration.
  - c. Stump fall "raw area".
  - d. Healed well formed umbilicus.
  
- 2) One week after of delivery, umbilical vessels:**
  - a. Are shrunk and filled with clots.
  - b. Start organization of the clot.
  - c. Show complete organization of the clot.
  - d. Are changed to fibrous cord, i.e. formation of umbilical ligaments.
  
- 3) On examination of a patient with head injury, the upper and lower limbs on the left side were rigid and stiff, then:**
  - a. The brain injury is on the right side.
  - b. The reflexes are exaggerated on the right side.
  - c. The muscles are spastic on the right side.
  - d. Conjugate deviation of both eyes to the contralateral side of compression.
  
- 4) All of the following epiphyseal lines are united at 23 years, except:**
  - a. Head of humerus with the shaft
  - b. Iliac crest with iliac bone
  - c. Proximal end of clavicle with the shaft
  - d. Basioccipital-basisphenoidal suture



**5) Postmortem burn is confirmed with sign of:**

- a. Charring of the whole body.
- b. The boxer attitude.
- c. Lacking soot in the air passages.
- d. Signed hair.

**6) The commonest cause of death from self suspension (hanging) is:**

- a. Cerebral anemia.
- b. Reflex cardiac inhibition,
- c. Upward displacement of the base of the tongue.
- d. Fracture dislocation of the cervical vertebrae.

**7) Persistent vegetative state is a clinical condition due to:**

- a) Cortical death.
- b) Brain stem death.
- c) Cerebellar death.
- d) Cortical and brain stem death.

**8) A firearm injury of a small central hole and dispersion of 4 cm in diameter, then:**

- a. The distance of firing was one meter.
- b. The distance of firing was 4 meters.
- c. There was a circular abrasion from the internal wad striking.
- d. The internal wad was present in the track.

**9) Examination of a habitual passive sodomist may reveal:**

- a. Weak or wasted external anal sphincter.
- b. Normal anal patency.
- c. Anal piles from skin margin.
- d. Overgrowth of the gluteal fat.

**10) Regarding the diagnosis of a lacerated scalp wound:**

- a. Infection of the wound is not liable.
- b. Little bleeding is evident.
- c. Type of the weapon is of critical significance.
- d. Edges of the wound are regular in shape.

**11) Implied consent means that the patient is willing to undergo:**

- a. General clinical examination.
- b. General and local clinical examination.
- c. General, local clinical examination and investigations.
- d. Operative procedure.

**12) The planktons (diatoms) are:**

- a. Unicellular structures which are easily liable to decay.
- b. Detected in the all body organs in case of drowning.
- c. Unable to penetrate the spleen in drowning cases.
- d. Living in fresh water only.

**13) Torsades de pointes associated resulting from sotalol poisoning can be treated by all of the following, except:**

- a. Magnesium sulphate.
- b. Sodium bicarbonate.
- c. Isoproterenol.
- d. Overdrive pacing.

**14) Organophosphate intermediate syndrome:**

- a. Develops after 3 weeks.
- b. Causes paralysis of the distal limb muscles
- c. Causes paralysis of neck flexor muscles.
- d. Is highly responsive to atropine and oximes.

**15) On examination of the eyes for poisoning, all the following can be detected except:**

- a. Blurring and disturbed color vision in digitalis toxicity.
- b. McEwen's sign in methanol toxicity.
- c. Yellowish discoloration of the sclera in paracetamol toxicity.
- d. Brown discoloration of the anterior capsule of the lens in mercurialism.

**16) Flumazenil:**

- a. Is indicated in treatment of chronic benzodiazepine toxicity.
- b. Is contraindicated in combined toxicity of benzodiazepines & tricyclic antidepressants.
- c. Antagonistic effect lasts for 5 hours.
- d. None of the above.

**17) Metabolic acidosis with normal anion gap may be caused by one of the following intoxications:**

- a. Ammonium chloride.
- b. Salicylates.
- c. Methanol.
- d. Iron.

**18) In a case of intoxication, the victim shows convulsion followed by coma; hyperthermia, tachyarrhythmia and dilated pupil, the drug/poison may be:**

- a. Parathion.
- b. Cocaine.
- c. Physostigmine.
- d. Morphine.

**19) Intravenous sodium bicarbonate may be used in treating all the following intoxications except:**

- a. Phenothiazines poisoning.
- b. Lead poisoning.
- c. Iron poisoning.
- d. Salicylates poisoning

**20) Forced alkaline diuresis may be effective in removing each of the following intoxications, except:**

- a. Ethanol.
- b. Salicylates.
- c. Short-acting barbiturates.
- d. Long-acting barbiturates.

**21) All the following are complications of severe amphetamine toxicity, except:**

- a. Cerebral hemorrhage.
- b. Hypothyroidism.
- c. Disseminated intravascular coagulation.
- d. Circulatory collapse.

**22) Hyperkalemia may be caused by one of the following intoxications:**

- a. Salicylates.
- b. Theophylline.
- c. Beta-adrenergic blockers.
- d. Chronic digitalis poisoning.

**23) A comatose patient shows eye opening as well as flexion withdrawal in response to pain, and expresses inappropriate words, his Glasgow coma score is:**

- a. 7
- b. 8
- c. 9
- d. 10

**II-Extended Matching Questions: (EMQ):**

**N.B (Each point may be used more than once or not used at all and more than one answer is possible).**

**Choose from column II the suitable answer(s) for column I.**

**1) Regarding brain injury: (4 marks)**

**Column I:**

- (1) "Coup type" contusions**
- (2) "Contre-coup" contusions**
- (3) Signs of lateralization**
- (4) Diffuse Axonal injury**

**Column II:**

- a) Unequal pupil size
- b) Deceleration of the head
- c) Coma longer than 6 h of duration
- d) Contra-lateral weakness
- e) Acceleration of the head
- f) The brain glides over the irregular contours of the skull at the opposite side
- g) Contusion at the point of impact or due to skull deformation

**2) For each of the following toxins, select the suitable systemic antidote (s): (3 marks)**

**5. Cyanide**

**6. Mercuric chloride**

**7. Carbamates**

- a) Diacetyl-monoxime (DAM)
- b) British anti-lewisite (BAL)
- c) Dimercapto-succinic acid (DMSA)
- d) Dimethyl-4-aminophenol (DMAP)
- e) Atropine
- f) Hydroxocobalamin

**Cairo University-Faculty of Medicine**  
**Department of Forensic Medicine & Clinical Toxicology**  
**30/6/2015                      MCQ marks=30                      Time allowed: 30 min.**  
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**Fourth Year MB.Bch**

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**I- Multiple Choice Questions:**

**Choose the best single answer:** (one mark each)

**1) The Mitochondrial DNA (mtDNA):**

- a. Is inherited from both parents.
- b. Shows low variability among individuals.
- c. It is valuable for hair, bone and teeth samples.
- d. All of the above.

**2) Two right Humeri were found, one shows union of lateral epicondyle with the shaft while the other shows union of the head with the shaft. The bones are belonging to:**

- a. A male aged 15 years and a female aged 18 years.
- b. Two males aged 16 and 20 years.
- c. A male aged 16 years and a female aged 20 years.
- d. Two females aged 17 and 20 years.

**3) The one-step Hema-trace test strip:**

- a. is an immune-chromatographic test for detection of human blood.
- b. Is preliminary test for detection of blood.
- c. Is confirmatory test for detection of blood.
- d. Is used for individualization of blood stain

- 4) Rigor mortis appear first in:**
- Small muscles of the hand.
  - Sternomastoid muscle.
  - Orbicularis oculi.
  - Rectus abdominis.
- 5) Persistent vegetative state is:**
- Deep coma with no response to any external stimuli.
  - Isoelectric EEG with no respiratory movement.
  - Loss of the higher cerebral functions with intact respiration and circulation.
  - Organ transplantation can be done at this state.
- 6) Yellow bruises indicate the lapse of ----- days after the causative trauma.**
- 10 days.
  - 5 days.
  - 3 days.
  - 15 days.
- 7) A patient was brought to the hospital with head injury. On examination of the eyes, one pupil was constricted & the other was dilated:**
- The head injury is on the same side of constricted pupil.
  - The reflexes are exaggerated on the side of dilated pupil.
  - The muscles are paralyzed on the side of constricted pupil.
  - All of the above.
- 8) Heat cramps are due to:**
- Paralysis of heat regulating center.
  - Hyperthermia.
  - Salt loss.
  - Infections.
- 9) In case of drowning in a fast flowing river:**
- Hypostasis is unlikely to develop.
  - Hypostasis is pale in color.
  - Hypostasis is dark blue in color.
  - Hypostasis is red in color.

**10) Tribadism:**

- a. Is a punishable offence.
- b. Is a natural sexual offence.
- c. Sexual activity between two females.
- d. All of the above.

**11) Detection of drugs in blood or urine of the rape victims include:**

- a. Rohypnol in urine up to 92 hours.
- b. Gama Hydroxybuteric acid (GHB) in urine up to 22 hours.
- c. Gama Butyrolactone (GBL) in urine up to 16 hours.
- d. Gama Butyrolactone (GBL) in blood up to 24 hours.

**12) The following drugs/toxins are causes of hyperthermia except:**

- a. Salicylates
- b. Cocaine
- c. Anticholinergics
- d. Ethanol

**13) The patient of CO poisoning can't save himself at:**

- a. 10% carboxy hemoglobin
- b. 20% carboxy hemoglobin
- c. 40% carboxy hemoglobin
- d. 60% carboxy hemoglobin

**14) Forced alkaline diuresis may be effective in removing each of the following intoxications except:**

- a. Long-acting barbiturates
- b. Short-acting barbiturates
- c. Salicylates
- d. Ethanol

**15) We may add flumazenil to the Coma cocktail in one of following conditions:**

- a. Combined toxicity of benzodiazepines and tricyclic antidepressants
- b. Isolated acute benzodiazepines overdose
- c. Chronic use of benzodiazepines
- d. History of convulsions

**16) All the followings are classical sings of chronic mercury poisoning except:**

- a. Gingivitis with excessive salivation
- b. Nephrotic syndrome
- c. Hepatitis
- d. Erythism

**17) Regarding acute paracetamol toxicity, one of the following is true:**

- a. Acute tubular necrosis never occurs
- b. Metabolic acidosis may occur.
- c. N-acetyl cysteine is the only antidote
- d. Serum paracetamol is most important within the first 2 hours post ingestion.

**18) Which of the following is effective for treatment of acute Ca-channel blockers overdose?**

- a. Physostigmine
- b. Naloxone
- c. Amrinone
- d. Flumazenil

**19) Following salicylates overdose the initial acid-base disturbance is usually:**

- a. Metabolic acidosis
- b. Respiratory acidosis
- c. Metabolic alkalosis
- d. Respiratory alkalosis

**20) All the following are presentations of Tramadol toxicity, except:**

- a. Respiratory depression
- b. Cardiovascular collapse
- c. Characteristic smell
- d. Convulsions

**21) Organophosphate delayed peripheral neuropathy syndrome:**

- a. Develops within 3 days
- b. Causes paralysis of the distal limb muscles
- c. Causes paralysis of neck flexor muscles
- d. All of the above



**22) Hemodialysis is indicated to enhance renal elimination of all of the following toxins, except:**

- a. Digoxin as the serum level exceeds 10 ng/mL in adults
- b. Salicylates as the serum level exceeds 80 mg/dL after acute toxicity
- c. Ethanol as the serum level exceeds 350 mg/dL
- d. Lithium as the serum level exceeds 4mEq/L regardless of patient disposition

**23) In a case of intoxication, the victim shows convulsion followed by coma, hypotension, bradycardia, pulmonary edema and constricted pupil; the drug/poison may be:**

- a. Malathion
- b. Cocaine
- c. Theophylline
- d. Propranolol

### **II-Extended Matching Questions: (EMQ):**

**N.B (Each point may be used more than once or not used at all and more than one answer is possible).**

### **II- Extended Matching Questions:**

**Choose from column II the suitable answer(s) for column I:**

**N.B (Each point may be used more than once or not used at all and more than one answer is possible).**

**1-Regarding types of wounds : (4 marks)**

#### **Column I:**

- (1) Abrasions
- (2) Contusions
- (3) Cut wound
- (4) Lacerated wound

#### **Column II:**

- a) Avulsion is a subtype
- b) Its example is Human Bite
- c) Its example is Finger nail
- d) Differentiate between cut and contused wounds
- e) Hesitation wounds are one of its varieties
- f) Occurs due to severe burn of the head
- g) Delayed Healing, with secondary intention

**2- For each of the following toxins, select the suitable systemic antidote (s): (3 marks)**

**Column I:**

**(5) Cyanide**

**(6) Iron**

**(7) Atropine**

**Column II:**

a) Deferasirox

b) Flumazenil

c) Deferoxamine mesylate

d) Hydroxocobalamin

e) Physostigmine

f) Dimethyl-4-aminophenol (DMAP)

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**30/6/2015                      Total marks: 70                      Time allowed: 2.5 hrs.**  
**FINAL WRITTEN EXAMINATION (New bylaw)**  
**Fourth Year MB.Bch**

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**A- FORENSIC MEDICINE:**

**I-Case Scenario:**

(12 marks)

**During a wedding celebration, a male was shot dead. The medicolegal report concluded that:**

- The *age* was around **21 years**.
- The *whole body* especially **neck** region is covered with shots.
- There were *fixed, faint patches of discoloration* covering the back.

- a) Verify the estimated *age* of the victim. Mention its medicolegal importance. (2 marks)
- b) Estimate *the time passed since death* with details. (2 marks)
- c) Explain the *cause/s of death* in this case. (2 marks)
- d) Mention the *type of the weapon* and the *probable distance of firing* in such case. (2 marks)
- e) What are the *Investigations* needed for this cases? (4 marks)

**II- Essay Questions: (4 marks each)**

- a) Discuss *individualization of bloodstains*.
- b) Describe *diffuse axonal injuries (DAI)*
- c) Discuss *sudden infant death syndrome (SIDS)*.
- d) Illustrate *driver's injuries*.

### **III- State True or False with Explanation:** (2 marks each)

- a) *Patient's information* may be disclosed in certain situations.
- b) Medical examiners should consider *false virginity*.
- c) *Spaldin's sign* is used to identify sex.
- d) *Planktons' examination* is of medicolegal importance.

### **B- CLINICAL TOXICOLOGY:**

#### **I Case scenario:**

(10 marks)

- A 3-year-old girl was brought to the emergency department (ED) by her father after an accidental intake of a medication of her 10-year old brother who was complaining from nocturnal enuresis.
- During examination, she developed repeated generalized convulsions, then she became comatose with decorticate flexion and nonsensical speaking. Pupils were dilated, non-reactive to light and responding to painful stimuli. The skin showed some blisters & the mucous membranes were dry.
- Vital signs were: normal blood pressure & respiratory rate, irregular pulse (205 beats/minute), temperature 38.5°C.
- Arterial blood gases showed: pH 7.33, [HCO<sub>3</sub><sup>-</sup>] 18 mEq/L normal PO<sub>2</sub> & PCO<sub>2</sub>. Electrocardiogram (ECG) revealed tachyarrhythmia with an approximate rate of 205 beats/minute, widened QRS complexes and prolonged QT intervals.

- a) What is the *most probable diagnosis* of such case? (1 mark)
- b) Mention the *differential diagnosis* of such case. (4 marks)
- c) What is the *Glasgow coma scale* for this girl? (1 mark)
- d) How can you *treat* such case? (4 marks)

#### **II-Essay Questions:**

(4 marks each)

- a) Discuss mechanism of action and clinical presentations of *acute digitalis poisoning*.
- b) Demonstrate clinical pictures and treatment of *opiate dependence*.
- c) Discuss investigations and treatment of *acute methanol toxicity*.

d) List *four drugs/poisons* that can be removed by *hemodialysis* and discuss the *clinical manifestations* of acute toxicity of *one* of them.

**III- State True or False with Explanation:** (2 marks each)

- a) *Lifestyle modification* can reduce metal toxicity risks.
- b) Mechanism of action of *cyanide and carbon monoxide* is the *same* as both of them are toxic gases.
- c) *Diacetyl-monoxime (DAM)* is the *only* specific antidote for acute organophosphate toxicity.
- d) Neuroleptic malignant syndrome *can be differentiated from* Serotonin syndrome.

## **Public Health & Community Medicine**

**A) Answer the following Questions : (Total = 90)**

**1. Following a car accident, a person was admitted to emergency room, and received blood transfusion at once with proper management after recovery, he asked his doctor about the health problems, he might develop following the blood transfusion**

(20 marks)

- a) Enumerate these health problems. (2 marks)
- b) What are the necessary precautions needed to be done for blood before transfusion. (2 marks)
- c) Give a brief summary for the epidemiology of one of the previous health problems. (10 marks)
- d) Outline the specific preventive measures for that previous health problem. (6 marks)

**2. A pregnant mother aged 24 years married since 6 years and had 3 children, was complaining of headache, oedema in the legs, she attend for the MCH, the doctor examine her and measured the BP 150/90, Hb was 9 gm/dl.**

(20 marks)

- a) What is the Health education messages needed to increase awareness for that mother? (5 marks)
- b) What are the risk factors behind her hypertension. (4 marks)
- c) Could you list the malnutrition problems she might develop and why? (4 marks)
- d) How can yo proceed to assess her nutritional status (mention two methods). (4 marks)
- e) List for the mother the 10 principale for successful breast feeding. (3 marks)

**3. Define : (10 marks)**

- a) Rate of natural increase.
- b) Population pyramid

- c) Perinatal period.
- d) Epidemic spread.
- e) Health care hospital waste.

**4. Mention. (25 marks)**

- a) Specific prevention for Tetanus.
- b) Rabies Vaccination
- c) Chemical contamination of drinking water.
- d) Characters of normal distribution curve.
- e) Occupational risks for farmers and agriculture workers.

**5. Enumerate the advantage and disadvantage of : (15 marks)**

- a) Case - Control study.
- b) Diet and Cancer
- c) Types of questions used for interview.

**B) MCQ (In the answer paper, write the question number and one answer :  
(Total 60 marks)**

**(Put (T) in case of true and (F) in case of false (half mark each)  
(Total = 30 marks)**

1. Exposure to noise is the only casual facor of impaired hearing of idustrial workers.
2. Pneumoconiosis are not necessarily always pathological, where some forms are benign.
3. Byssinosis is a form of Pneumoconoiosis caused by inhalation of cotton dust.
4. Inhalation of dust in industry is generally more hazardous by the inoor-ganic than the organic forms.
5. The birth rate of the developing countries is usually lower than that of the developed.
6. The rate of natural increase of population in Egypt is around 1.9%.
7. Prevalence rate is usually used as morbidity index of chronic disease.
8. Birth injury is a leading cause of infant mortality.
9. In Observational studies the research measure things as they are and collects dat with no attempt to change conditions.
10. In analytical studies the researcher measure things as they are and collects data with no attempt to change conditions.
11. When we want to establish a relation between the disease and risk factors, we use observational analytical studies.
12. When you want to evaluate a drug or method of treatment, we use cohort study.
13. Cross sectional studies are very quick and inexpensive.
14. The number of controls should at least three or four times as much the cases.
15. Data and information collected for both cases and control are not the same.
16. We can calculate incidence rate from cohort and cross sectional studies.
17. Cohort studies are useful for examining rare exposures.
18. Protein and energy deficiency among school children could result in retarded growth and wasting.
19. "Tobacco-fre schools" is an example of school policies for smoking prevention.
20. School children are susceptible to vitamin B2 deficiency which is associated with low intake of high bilogical value protein.
21. Rheumatic heart is the commonest heart disease, which affect the school-children.
22. Dental caries among schoolchildren could be due to lack of teeth hygiene, excess sweet consumption and florine deficiency.
23. Antismoking policies should be applied to teachers, students and school workers.
24. Both heatstroke and sun stroke are dangerous because they affect the heat regulating cener.



25. Cigarette smoking increases the complications of pneumoconiosis.
26. Pneumoconiosis is a rapid process and manifestations start after 10 days of exposure.
27. Glassblowers are at risk for cataract.
28. Examples of the occupational inhalation of inorganic dust are silica and bagasses.
29. Hearing loss due to chronic exposure to noise is reversible once the workers are excluded from noisy work environment.
30. Virus of mumps finds exit in saliva only.
31. Cases of herpes zoster may be the reservoir of varicella infection.
32. Chemotherapy of pertussis does not affect period of infectivity.
33. Pertussis is always associated with attacks of characteristic paroxysmal spasmodic coughing.
34. The characteristic rash is the only diagnostic sign of measles.
35. Rubella is a disease of childhood only.
36. Milk cannot be a vehicle of streptococcal infection.
37. Immunity to scarlet fever is antibacterial and antitoxic.
38. The chief source of meningococcal meningitis is case rather than carrier.
39. Influenza infection may possibly be zoonotic.
40. For adults, BCG is given to tuberculin negative healthy individuals.
41. BCG is given by subcutaneous injection.
42. Manifestations of botulism are nervous rather than gastrointestinal.
43. Of Shigellae, the shiga group is the most virulent, being toxigenic.
44. Acute cases of amoebiasis are the main source of infection.
45. Gastric acidity is an effective barrier to cholera infection.
46. Cholera is pyrexial disease, with high fever.
47. Brucellosis causes acute and chronic disease of man.
48. Poliovirus has two antigenic types.
49. Carriers of virus A hepatitis are incubatory only.
50. Pneumonic plague is only secondary to the septicaemic.
51. Vaccination is the basic preventive measure of plague.
52. Yellow fever may be a mild self-limited disease.
53. Dengue is a serious highly fatal disease.
54. Tetanus bacillus is a normal inhabitant of the intestine of animals and man.
55. Active immunization is the only specific prevention of tetanus.
56. Chemoprophylaxis can be applied for prevention of syphilis and gonorrhoea.
57. Schistosoma is the only parasite transmitted by contact infection.
58. Hand-to-mouth infection is the main mode of spread of ascariasis in children.
59. Malaria is a chronic parasitic disease that gives not acute manifestations.
60. Filariasis is an important form of parasitic zoonosis.

**II. Match the sets of questions using each word or statement once only :  
(Each half mark total = 20 marks)**

- 1. To start treating and preventing newly occurring disease (emerging disease) we need to study the**
  - a) The diseased person age, sex, occupation.
  - b) The place of cases, whether rural or urban, the governorate.
  - c) The time of disease occurrence in relation to season.
  - d) All of the above.
- 2. Some unusual health related situation you need to know more about it to be able to correct it**
  - a) Study objectives.
  - b) Study problem.
  - c) Study question
  - d) Study goal.
- 3. Examples of experimental (Interventional) studies are :**
  - a) Prevalence surveys (The proportion of Bilharzia among villagers)
  - b) coverage surveys (The proportion of vaccinated children)
  - c) Both of the above.
  - d) Non of the above.
- 4. Examples of observational studies are :**
  - a) Prevalence surveys (The proportion of Bilharzia among villager)
  - b) Coverage surveys (The proportion of vaccinated children)
  - c) Both of the above
  - d) Non of the above.
- 5. Examples of observational studies are :**
  - a) Studying community vaccination effect on eliminating poliomyelitis
  - b) Study the effect of new treatment.
  - c) Both of the above
  - d) Non of the above.
- 6. All of the following is true about case control study except one :**
  - a) An analytical epidemiologic study design.
  - b) The number of controls should be at least equal to the number of cases
  - c) Useful for examining rare exposures
  - d) Optimal for study of rare diseases.
- 7. Group of people who share common character or characters for example the year of birth**
  - a) Control
  - b) Community
  - c) Cohort
  - d) Cases
- 8. Criteria of good screening tests :**
  - a) It should be simple and easy to conduct.
  - b) Not time consuming, not invasive, not painful.
  - c) Relatively cheap to be tested in mass screening in survey studies.
  - d) All of the above.

**9. Sensitivity of screening test is**

- a) The ability of the test to detect cases of the disease.
- b) The ability of the test to give negative results among control.
- c) The correct identification of cases among test positive individuals.
- d) The correct exclusion of not diseased among test negative individuals.

**10. Positive predictivity of screening test is**

- a) The ability of the test to detect cases of the disease.
- b) The ability of the test to give negative results among controls
- c) The correct identification of cases among test positive individuals.
- d) The correct exclusion of not diseased among test negative individuals.

**11. The following are true about epidemiologic transition - Except one**

- a) Shift of morbidity pattern from communicable to non-communicable diseases
- b) The increase in the number of females suffering from non-communicable diseases
- c) Shift of mortality causes from communicable to non-communicable diseases
- d) There is increase in child mortality rates

**12. Screening programs could reduce the incidence of the diseases because of the ability of detection of the following - except one**

- a) Pre-hypertension cases, by blood pressure measurement
- b) Pre-diabetics by measuring the plasma glucose level
- c) Early cases of cancer liver by serum testing for alpha fetoprotein
- d) At risk cases for CHD by testing for the BMI

**13. Due to the demographic transition in the developing countries the disease pattern is characterized by the following - except one**

- a) Increase in the proportion of elderly with associated high prevalence of non-communicable diseases
- b) Increase in the proportion of youth with early exposure to risk factors
- c) Still having large proportion of children with high incidence of communicable diseases
- d) The large proportion of the elderly are males exposure to environmental risk factors

**14. The major risky behavior among 40 years old cigarette smokers is select one**

- a) Use of low-grade tobacco
- b) Use cigarettes and not pipe or cigars
- c) Starting smoking during childhood
- d) Deep smoke inhalation

**15. In Egypt, there is a well-established system for periodic examination of the following population categories except one**

- a) Pregnant women
- b) School children
- c) Industrial workers
- d) Elderly people

**16. The following are the risk factors for osteoporosis - except one**

- a) Menopause

- b) Lack of physical activities.
  - c) Low intake wheat bran.
  - d) Late puberty among males.
- 17. The following are the conditions where protein intake should increase - except one:**
- a) pregnant women.
  - b) Growth and development of children.
  - c) Adult males due to hard work.
  - d) Lactating women.
- 18. In a nutritional assessment study using the food-record technique, analysis of data showed the low intake of vitamin E, B1, B12 and B6. The expected health problems to the studied group could be - select one:**
- a) bones and teeth disorders.
  - b) Different types of anemia.
  - c) Nervous system disorders.
  - d) High risk of coronary heart diseases.
- 19. The following are true about vitamin C - Except one**
- a) Help in folic acid metabolism.
  - b) Help in wound healing.
  - c) Help in prevention of cancer.
  - d) Help in prevention of infections (anti-infection vitamin).
- 21. The following are public health policies to improve nutrition status of the community - except one**
- a) Iodization of common salt.
  - b) Fortification of wheat flour with folic acid.
  - c) Fluoridation drinking water.
  - d) Fortification of skimmed milk with vitamin A.
- 22. With proper chemotherapy, the case fatality of meningococcal meningitis is :**
- a) still high.
  - b) somewhat lowered.
  - c) Low.
  - d) Quiet low (below 5%).
- 23. Objects may transmit variola when spoiled by :**
- a) Respiratory discharges.
  - b) Skin eruption
  - c) Saliva
  - d) Excreta
  - e) All
  - f) a & b.
- 24. Type A influenza virus is characterized by :**
- a) Marked mutation.
  - b) Causes epidemics and pandemics.
  - c) Both.
  - d) Neither.
- 25. Cases of influenza are not infectious through the following stages, except :**
- a) Incubation period.
  - b) Clinical diseases, few days.
  - c) Convalescence.

- 26. Human sources of pulmonary tuberculosis are :**  
 a) All cases   b) Active (open) cases  
 c) Carriers   d) All   e) None
- 27. Choose the two basic preventive measures of typhoid:**  
 a) Sanitary environment   b) Health promotion  
 c) Specific prevention   d) Health behavior
- 28. Infectious food poisoning may be caused by :**  
 a) Samonella infection  
 b) Staphylococcal intoxication  
 c) Botulinum intoxication   d) All   e) None
- 29. Causative agent of botulism is :**  
 a) Exotoxin   b) Neurotoxin   c) Entrotoxin  
 d) Bacillary infection   e) a & b
- 30. Cholera vibrios invade the intestine causing :**  
 a) Loss of fluid and electrolytes   b) Toxaemia  
 c) Dysentery   d) Bateraemia   e) All.
- 31. El Tor cholera is characterized by :**  
 a) Milk diarrhea   b) Little vomiting, if any.  
 c) High fatality   d) All   e) None.
- 32. Brucellosis is prevented in man by the following, except :**  
 a) Food sanitation   b) Prevent airborne infection  
 c) Prevent occupational infection.  
 d) Specific prevention   e) None.
- 33. Sabin poliovaccine is characterized by :**  
 a) Live attenuated   b) By mouth   c) Highly protective  
 d) Induces humoral and cellular immunity   e) All
- 34. The following infections could negatively affect the outcome of pregnancy and they are Sexually transmitted except one :**  
 a) HIV.  
 b) Syphilis.  
 c) Toxoplasmosis.  
 d) Genital herpes.
- 35. With the increase of the prevalence of diabetes in Egypt, the following neonatal health problems are expected to increase - except one**  
 a) Birth injuries.  
 b) Prematurity.  
 c) Congenital anomalies.  
 d) Small for date.
- 36. The following are true about infant mortality rate (IMR) - except one**  
 a) It is the number deaths in the first year of life per 1000 live births.  
 b) High IMR is one of the motives of high fertility.  
 c) diarrhea and ARt are the major causes of infant mortality in Egypt.  
 d) It is one of the evaluation indicators that reflects the outcome of the hcild care services.

- 37. The following are true about the neonatal mortality - except one**
- Low birth weight is the first major cause of neonatal mortality.
  - Proper ANC care could reduce the neonatal mortality rate.
  - Children immunization could reduce the neonatal mortality rate.
  - Proper postnatal care could reduce the neonatal mortality rate.
- 38. The major cause of newborn anemia is - select one**
- Iron deficiency during pregnancy.
  - Ante-partum hemorrhage.
  - Prematurity.
  - Folic acid deficiency during pregnancy.
- 39. The most cost effective nutrition supplementation during pregnancy is - select one**
- Iron and zinc (in one tablet) for hemoglobin formation and RNA and DNA synthesis
  - Iron and calcium (in one tablet) for hemoglobin formation and skeletal development of the fetus
  - Multivitamins and minerals (in one tablet) to prevent any malnutrition during pregnancy
- 40. Congenital malformation could be due to the following nutrient deficiencies. except one**
- Iodine.
  - Iron.
  - Folic acid.
  - Zinc.

**III. Join** **each one mark** **(total marks 10)**

<b>Modes of transmission of some infection diseases :</b>	
1. Respiratory	a) Shigellosis
2. Food-borne	b) Relapsing fever
3. Arthropod-borne	c) Syphilis
4. In-utero	d) Staphylococcal diseases
5. Contact	e) Varicella
<b>Pathogenic organisms find exit in:</b>	
6. Respiratory discharges	a) Salmonella
7. Vomitus	b) Salmonellae, Shigellae
8. Saliva	c) Stap Aureus, TB bacillus
9. Faeces	d) Cholera vibrios
10. Urine	e) Mumps virus

**MCQ (30 marks)**

- 1. The most common route for infectin to reach the middle ear is through :**
  - a) Traumatic perforation of the typanic membrane.
  - b) The Eustachian tube.
  - c) Blood stream.
  - d) Retrograde infection from meningitis.
- 2. Supplied by the trigeminal nerve :**
  - a) Medial pteyrgoid muscle.
  - b) Buccinator muscle.
  - c) Stapeidus muscle.
  - d) Cricothyroid muscle.
- 3. Antrochoanal polyp arises from the :**
  - a) Sphnoid sinus.
  - b) Ethmoid sinus.
  - c) Frontal sinus
  - d) Maxillary sinus.
- 4. Not used in the treatment of the acute stage of corrosive poisoning :**
  - a) Emollients.
  - b) Antibiotics.
  - c) Stomach wash.
  - d) Analgesics.
- 5. Causes early stridor before oarseness of voice :**
  - a) Glottic carcinoma.
  - b) Epiglottic carcinoma.
  - c) Supraglottic carcinoma.
  - d) Subglottic carcinoma
- 6. Highly arched palate is found in cases of:**
  - a) Nasopharyngeal fibroma.
  - b) Nasopharyngeal carcinoma.
  - c) Adenoids
  - d) Allergic nasal polypi.
- 7. Cacosmia is a characteristic symptom in cases of :**
  - a) Acute sinusitis.
  - b) Sinsusitis of dental origin.
  - c) Atrophic rhinitis.
  - d) Rhinoscleroma
- 8. Mastoid abscess is treated by :**
  - a) Simple incision.

- b) Cortical mastoidectomy
- c) Radical mastoidectomy
- d) Tympanoplasty.

**9. Furunculosis of the nose is dangerous because infection may spread to:**

- a) The nasal cartilage.
- b) The orbit.
- c) The cavernous sinus
- d) The sphenoid sinus

**10. A cause of unilateral nasal obstruction:**

- a) Allergic rhinitis.
- b) Rhinoscleroma.
- c) Cancer maxilla.
- d) Common cold.

**11. Vertigo without deafness is present in :**

- a) Labyrinthitis.
- b) Meniere's disease.
- c) Otosclerosis.
- d) Vestibular neuronitis.

**12. Laryngeal papilloma of adults is :**

- a) Multiple.
- b) Premalignant.
- c) Cures spontaneously.
- d) Causes early stridor.

**13. Rhinolalia aperta occurs in cases of :**

- a) cleft palate.
- b) Redundant palate.
- c) Adenoids.
- d) allergic nasal polypi.

**14. Referred otalgia occurs in cases of :**

- a) Traumatic perforation of the tympanic membrane.
- b) Temporo-mandibular arthritis.
- c) Myringitis.
- d) Secretory otitis media

**15. Sneezing is a common symptom in :**

- a) Sinusitis.
- b) Fracture nasal bones.
- c) Allergic rhinitis.
- d) cerebrospinal rhinorrhoea.



**Community Medicine**

**A. Answer the following questions : (90 marks)**

1. A group of soldiers comprised of 2000 members. In 2008, they lived in a military camp with dormitories of 1600 m<sup>2</sup>/total surface area. In late winter and early spring of the same year, lots of them suffered from frequent attacks of common cold and sore throat. However, 120 of these soldiers began to suffer from fever, headache, vomiting and neck stiffness. Others began to develop non specific skin rash. Also, a few of them developed CNS manifestations. Meningococcal meningitis was diagnosed, proved and the situation was investigated.
  - 1-1. In the previous scenario, mention four risk factors that would be incriminated in the spread of meningococcal meningitis among these soldiers. (4 marks)
  - 1-2. Mention other risk factors for developing such problem in confined places. (4 marks)
  - 1-3. Name the epidemiologic pattern of spread. (4 marks)
  - 1-4. Mention measures to be taken to prevent the spread of this meningococcal meningitis among the unaffected soldiers. (4 marks)
  - 1-5. Mention the necessary epidemic measures that should be taken in this camp. (4 marks)
  - 1-6. Give some recommendations to avoid such problem to occur again. (4 marks)
  - 1-7. Describe other health problems that could be encountered in confined places as camps, boarding schools, prisons ... etc (6 marks)

**II. Give an account on all the following questions (6 marks each, 60 total)**

1. Ecology of malnutrition.
2. Risk factors in hypertension.
3. Maternal mortality (definition of maternal mortality rate, and causes of deaths)
4. Malaria eradication.
5. Hazards of hospital waste.
6. Vertical infection.
7. Silicosis (definition, etiology, occasions of exposure)
8. Risk factors in osteoporosis.
9. Modes of transmission of staphylococcal versus salmonella food poisoning.
10. Risk and dangerous groups in pulmonary tuberculosis and how they should be investigated.

**B. MCQ : (In the answer paper, write the question number and one specific answer)**

**(Total 60 marks) (half mark each)**

**Put (T) in case of true or correct statement and (F) in case of incorrect or false statement:**

1. There is no congenital acquired immunity against tuberculosis and pertussis.

2. Pneumoconiosis is a rapid process and manifestations start after 10 days of exposure.
3. Malaria could be one of the hospital acquired infections.
4. The vaccines received by school children are DT, BCG and meningococcal meningitis vaccine.
5. A mixture of cereals and pulses could supply all the essential amino acids to the body.
6. Disabilities could result from severe deficiency in dietary vitamin A and iodine.
7. Exposure of male workers to teratogens could lead to congenital anomalies of the offspring.
8. Both diabetes type 1 and rheumatic heart are attributed to autoimmune reactions.
9. In Egypt, the incidence of cancer bladder is decreasing due to reduction in the prevalence of schistosomiasis mansoni.
10. Incidence rate of abortion is one of the age specific mortality rates.
11. Newborns have iron stores to supply their requirements for 6 months.
12. Perinatal mortality includes stillbirths and early neonatal deaths.
13. The population pyramid of the developing countries has narrow base.
14. General fertility rate is usually higher than fecundity rate.
15. Deaths of mothers due to spontaneous abortion are not included in the maternal mortality statistics.
16. Postnatal care includes informing the mother about birth spacing for one year.
17. Pregnant mothers are considered at risk if the hemoglobin level is 11-12 gm/dl.
18. Tetanus toxoid immunization starts at the 5th month of pregnancy.
19. Egypt food balance sheet indicates that energy intake is higher than energy requirements.
20. The health office could provide data to calculate the incidence of cholera and typhoid.
21. Wasted children indicate low weight for height compared to WHO reference values.
22. Low age dependency ratio is one of the Egypt population problems.
23. Human anti-rabies immunoglobulin could be given before and after exposure.
24. Prevention of ophthalmia neonatorum is included in the premarital care.
25. Hospital wastes containing pathogenic material are disposed by incineration.
26. adding 0.6 ppm chlorine to filtered water results in its sterilization.
27. Xerophthalmia and circumferential vascularisation are manifestation of vitamin A deficiency.
28. Booster dose maintains immunity and revaccination reforms immunity.
29. Exotoxins of clostridium botulinum, and clostridium tetani could contaminate food.
30. Each pregnancy requires 6 months of normal diet to replace iron stores that are lost during pregnancy.

**MCQ - select One Response**

31. The intake of dietary fibers is protective against cancer colon due to the following - Except one :
- a) Dilution of bile acids
  - b) Hastening the outside passage of ingested carcinogenic agents
  - c) Diet rich in fibers is rich in protein content.
  - d) Diet rich in fibers is poor in fat content.
32. The following are outcome indicators of the family planning program - Except one
- a) Contraceptive prevalence rate
  - b) Contraceptive failure rate
  - c) General fertility rate
  - d) Contraceptive discontinuation rate
33. The following are of the impact indicators used for evaluation of the effectiveness of the maternal care program - Except one :
- a) Incidence of abortion
  - b) Maternal mortality ratio
  - c) Infant mortality rate
  - d) Perinatal mortality rate
34. Nutritional deficiency diseases among school children include the following - Except one :
- a) Vitamin A deficiency
  - b) Vitamin B2 deficiency
  - c) Vitamin D deficiency
  - d) Fluorine deficiency
35. The following are associations between obesity and non-communicable diseases - Except one :
- a) visceral obesity is a risk for diabetes
  - b) Obesity increases the blood volume and lead to hypertension
  - c) Obesity is a risk factor for CHD due to associated dyslipidemia
  - d) Metabolic syndrome includes having body mass index more than 30kg/m<sup>2</sup>.
36. There are specific measures for contacts of the following diseases - Except one :
- a) TB
  - b) Typhoid
  - c) Meningitis
  - d) Brucellosis
37. The following diseases could be transmitted by organ transplantation - Except one:
- a) Hepatitis B
  - b) Rabies
  - c) HIV/AIDS
  - d) Typhoid
38. The following are health problems related to water - Except one :
- a) Fluorosis
  - b) Leptospirosis

- c) Plague
  - d) Endemic Goiter
39. Examples of zoonoses transmitted to man by droplets - Except one :
- a) Avian influenza
  - b) Brucellosis
  - c) Encephalitis
  - d) Psittacosis
40. The following are examples of morbidity rates - Except one :
- a) Prevalence of diabetes
  - b) Case fatality rate from HIV/AIDS
  - c) Incidence of abortion
  - d) Prevalance of stunted growth among the U5 children
41. Cases to be screened for diabetes are the following - Except one :
- a) High serum LDL
  - b) Hypertension
  - c) High serum HDL
  - d) Abdominal obesity
42. The following are true about interventions for health promotion - Except one :
- a) Environmental sanitation
  - b) Active immunization
  - c) Healthy lifestyle
  - d) Health education
43. The following are true about nutrition to reduce the risk of coronary heart diseases - Except one :
- a) Increase intake of Omega 6 fatty acids (in vegetable oils)
  - b) Increase intake of trans - fatty acids
  - c) Increase intake of Omega 3 fatty acids (fish oil)
  - d) Increase intake of vitamin E
44. The following are true about IMCI - Except one :
- a) Helps in controlling childhood health problem.
  - b) Includes specific prevention of diarrhea and ARI
  - c) Includes management of children's anemia
  - d) Includes management of measles cases
45. The following are public health interventions to improve the nutritional status of the community - Except one :
- a) Iodization of common salt
  - b) fortification of wheat flour with folic acid
  - c) Fluoridation of the drinking water
  - d) Fortification of the skimmed milk with vitamin A
46. The total fertility rate in Egypt 2005 was - Except one :
- a) 130 children per 1000 women in the reproductive age
  - b) 3100 children per 1000 married women in the reproductive age
  - c) 3.1 children per married woman in the reproductive age.
  - d) 3.1 children per woman in the reproductive age.

47. Congenital problems could be due to the following nutrient deficiencies -  
Except one :  
a) Iodine  
b) Iron  
c) Folic  
d) Zinc
48. The following are the compulsory immunization in the first year of life -  
Except one :  
a) MMR  
b) OPV  
c) BCG  
d) DPT
49. Down's Syndrome could be prevented through the following program - Except one :  
a) Antenatal care  
b) Premarital Care  
c) Postnatal care  
d) Child care
50. The following are true about plague - Except one :  
a) It is zoonoses  
b) Quarantinable disease  
c) Fleas are the reservoir of infection  
d) The vaccines have short protection period
51. The following infections is associated with locally acting exotoxins - Except one :  
a) Cholera  
b) Botulism  
c) Shigella shiga  
d) Staph aureus
52. The following diseases have intestinal carriers - Except one :  
a) Cholera  
b) Brucellosis  
c) Poliomyelitis  
d) Typhoid
53. The compulsory immunization is against the following droplet infections -  
Except one :  
a) Diphtheria  
b) Mumps  
c) Rubella  
d) Chicken pox
54. Chemoprophylaxis to contacts of cases in - Except one :  
a) Brucellosis  
b) Typhoid  
c) Tetanus  
d) Meningitis

55. Poliomyelitis eradication is indicated by the following - Except one :
- No virus in the sewage samples
  - No virus in the water samples.
  - No reported cases
  - Sabin vaccination coverage is 100%
56. The increase in the prevalence of osteoporosis is associated with the following - Except one :
- Early menarche
  - Increase of female life expectancy
  - Smoking
  - Abuse of corticosteroids
57. To assess under-five children chronic malnutrition, we measure - Select one :
- Weight for height
  - Weight for age
  - Height for age
  - None of the above
58. Communicable diseases form a risk for non-communicable diseases - Except one :
- Streptococcal infection
  - Schistosomiasis
  - Pulmonary TB
  - Virus B hepatitis
59. Crude birth rate is used for measurement of the following - Except one :
- Fertility
  - Growth rate
  - Rate of natural increase
  - Age dependency ratio
60. The health office could provide the following annual indicators - Except one :
- Incidence of diabetes
  - Crude birth rate
  - Crude death rate
  - Maternal Mortality Ratio
61. "People feel the importance of primary health care services" indicates - Select one
- Affordability
  - Accessibility
  - Acceptability
  - Availability
62. The following are true about the median in data analysis - Except one :
- It takes all values into consideration
  - Its value is not affected by the extremes of values
  - It is used to compare between groups
  - It presents value of the observation located in the middle of the arranged data

63. Measures of central tendency include the following - Except one :
- Mid range
  - Mode
  - Range
  - Median
64. The following are true about the normal distribution curve - Except one :
- Bell shaped
  - Mean, mode and median have the same value
  - 95% of the observations have values within a range of mean  $\pm 1SD$
  - Values distributed symmetrically around the mean
65. The following are true about the pie chart - Except one :
- Use percentages for each category
  - The total area is 360%
  - Each 1% is equivalent 3.6 of the circle
  - Presents data for qualitative variable
66. The following are true about the histogram - Except one :
- Used for nominal variables
  - The bars are placed side by side
  - The total area is 100%
  - The population pyramid is an example of the histogram
67. The following are water related vector - transmissible diseases - Except one :
- Malaria
  - Yellow fever
  - Filaria
  - Leshmania
68. The following are true about BCG - - Except one :
- It is live attenuated vaccine
  - Revaccination if necessary
  - Givento tuberculin positive
  - Immunity against pulmonary and extra-pulmonary TB
69. The potentials for eradication of measles are the following - Except one :
- No carries
  - High efficacy reservoir
  - No animal reservoir
  - Measles virus has only one antigenic type
70. The following are examples of diseases with subclinical manifestations - Except one :
- Measles
  - Diphtheria
  - Poliomyelitis
  - Rubella
71. Pilgrims receive tetracycline on arrival because of the following - Except one :
- The required cholera vaccine is ineffective
  - Prevent disease in case of infection

c) Prevent carrier state

d) Cost-effective

72. Under-five children mortality includes - Select one:

a) Stillbirth and child deaths

b) Neonatal and post-neonatal deaths

c) Infant and child deaths

d) Early neonatal deaths and child deaths

### III. Cross Match the statements in the two columns

Preventive measures	Reduce the problem of
73. ( ) Hepatitis B vaccine	a) Rheumatic heart disease
74. ( ) MMR	b) Cancer bladder
75. ( ) Long acting penicillin	c) Cancer liver
76. ( ) Prazequantile	d) Diabetes

### Cross Match

Vaccine	Immunity
77. ( ) Salk	a) Local tissue immunity
78. BCG	b) Short duration immunity
79. ( ) Otten's vaccine	c) Cell mediated immunity
80. ( ) Sabine	d) Humeral immunity

### Cross Match

Risk factors	Health problem
81. ( ) Atherosclerosis	a) Type 2 Diabetes
82. ( ) Sodium sensitivity	b) CHD
83. Visceral obesity	c) Rheumatic heart
84. ( ) Genetic factors	d) Essential Hypertension

### Cross Match

Mutrients' Function	Examples of nutrients
85. ( ) Antioxidants	a) Vitamins B1, B2 B5
86. ( ) Synthesis of new tissues	b) Calcium, phosphorus and vitamin D
87. ( ) Skeletal growth	c) Vitamins A, C, E and selenium
88. ( ) Production of energy	d) Folic and vitamin B6



### Cross Match

Infectious Disease	Reservoir / Source of Infection
89. ( ) Meningococcal meningitis	a) Cattle
90. ( ) Whooping cough	b) Atypical cases
91. ( ) Tuberculosis	c) Clinical cases
92. ( ) Measles	d) Healthy carries

### Cross Match

Biological contaminatin of food	Example
93. ( ) Improper refigeration	a) Botulism
94. ( ) During production	b) Typhoid
95. ( ) During manufacture	c) Fascioliasis
96. ( ) Food handlers	d) Staphylococcal food poisoning

### Cross Match

Vaccination is the major measure in	Reasons
97. ( ) Yellow fever	a) Difficult to control the contaminated soil
98. ( ) Poliomyelitis	b) Difficult to control the animal reservoir
99. ( ) Tetanus	c) It is the method to reduce source of infection
100. ( ) Measles	d) Difficult to ensure sanitary environment

### IV. Fill in the spaces using statements in the boxes:

a) Osteomalacia    b) Rickets    c) Type I osteoporosis    d) Type II osteoporosis

101. ( ) ..... affect children 6-24 months old.

102. ( ) ..... is a health problem among elderly males and females.

103. ( ) ..... is one a bone problem among high parity women.

104. ( ) ..... appears among women in the early years after menopause.

a) Vitamin B12    b) Vitamin B6    c) Vitamin B2    d) Vitamin B1

105. ( ) ..... is essential for amino acid metabolism.

106. ( ) ..... is essential for carbohydrate metabolism.

107. ( ) ..... is essential for tissue respiration

108. ( ) ..... is essential for nervous tissue metabolism.

a) Cross - sectional studies   b) Case - control Studies   c) Cohort Studies   d) Clinical trials

109. (   ) ..... assess the effectiveness of vaccines and drugs  
110. (   ) ..... measure incidence of disease among exposed and none exposed  
111. (   ) ..... measure prevalence and suggest risk factors  
112. (   ) ..... evaluate multiple risk factors for one disease.

a) Hemorrhage   b) Eclampsia   c) Heart diseases   d) Genital sepsis

113. (   ) ..... is one of the indirect causes of maternal mortality.  
114. (   ) ..... is one of the direct causes of maternal mortality.  
115. (   ) ..... is the first cause of maternal mortality in Egypt.  
116. (   ) ..... is one of the preventable causes of maternal mortality.

a) Influenza virus   b) Streptococcal pyogens   c) Neisseria Meningitides   d) Diphtheria

117. In ..... (   ) .... group A is responsible for epidemic spread.  
118. Second attacks of the diseases occurs because ..... (   ) ..... has more than 130 serotypes.  
119. Due to shift and drift of ..... (   ) .... second attack could occur.  
120. The portal of entry in ..... (   ) ... are the nose, mouth, skin and conjunctiva.

## Community Medicine

**A) Answer the following : (100 Marks)**

I. At Qatamia region and on the evening a group of children on returning back to their home were attacked and bitten by a strange animal (Salawa). One child had severe multiple bites in the face and shoulder. However, most of other children had minor wounds in the legs. The animal was captured and killed by the people in the street, and the health office and the police were notified.

- (a) Mention the possible health problems to which the bitten children were exposed. (4 marks)
- (b) Mention preventive measures required for the bitten children. (6 marks)
- (c) Describe measures that should be taken to the captured animal. (2 marks)
- (d) Mention the source of infection to Salawa. (2 marks)
- (e) Name other animals that could transmit rabies to man. (2 marks)
- (f) What are the measures for health workers in the hospital where the cases were isolated? (2 marks)
- (g) What would be the expected fatality in case of acquiring rabies? (2 marks)

**II. A family is comprised of parents and three children. The mother is overweight and diabetic. The father is obese and hypertensive.**

Mention the content of the Health Education Messages:

- (a) To parents to control their disease condition.
- (b) To their children to prevent disease occurrence in the future.

(10 marks - 5 Marks each)

**III. Answer the following short essay question (70 marks - 7 marks each) :**

1. Mention factors contributing to global eradication of small pox.
2. List six causes of hepatitis and mention specific prevention of one of them.
3. Define Maternal Mortality Ratio and mention 4 causes of maternal mortality.
4. Describe characteristics of Egypt population pyramid.
5. Mention components of geriatric care program.
6. Define Primary Health Care and List the eight elements of Primary Health care.
7. List causative agent of Malaria and mention Malarionometric Indices.
8. Describe the role of food in cancer prevention.
9. Define carrier of infectious disease and mention 4 examples of diseases having carriers.

10 Mention the objectives of pre-placement and periodic medical examinations of industrial workers.

**B- In the answer paper, write the question number and the specific answer)**

**Total 50 marks - one mark each)**

**I. Put (T) in case of true or correct statement and (F) in case of incorrect or false statement:**

1. Pregnant mother should be supplemented with iron and folic acid.
2. The rate of natural increase calculation is based on the births, deaths and migration rates.
3. A mixture of cereals and pulses could supply all the essential amino acids to the body.
4. Incidence rate of abortion is one of the age specific mortality rates.
5. Newborns have iron stores to supply their requirements for 6 months.
6. Pregnant mothers are considered at risk if the hemoglobin level is 11-12 gm/dl.
7. Egypt food balance sheet indicates that energy intake is lower than energy requirements.
8. The health office could provide data to calculate the incidence of typhoid.
9. Wasted children indicate low weight for age compared to WHO reference values.
10. Low age dependency ratio is one of the Egypt population problems.
11. Spreadsheet is usually used in displaying raw data.
12. Circumcorneal vascularisation is a manifestation of vitamin A deficiency.
13. Antismoking policies should be applied to teachers, students and school workers.
14. Under five children are more susceptible to rheumatic fever.
15. Measures of dispersion are used for data of qualitative variables.
16. Observations should be arranged from the lowest to the highest in calculation of median, mode and percentiles.
17. Protein and energy deficiency among school children could result in retarded growth and wasting.
18. Brucellosis and Q fever are strictly zoonotic diseases.
19. Examples of air pollutants : carbon monoxide, lead and nitrates.
20. Incineration and land fill are suitable for both solid and liquid waste management.
21. Endemicity of infectious diseases is maintained through sporadic cases.
22. Skin rash is infectious in chicken pox, scarlet fever and syphilis.

## II. Cross Match the statements in the two columns :

### Cross Match

Disease	Main mode of transmission
23. (    ) Botulism	(a) Fecal-oral (person to person)
24. (    ) Cholera	(b) Ingestion of enterotoxin-contaminated food
25. (    ) Staph, Food poisoning	(c) Contaminated water and food
26. (    ) Bacillary Dysentery	(d) Ingestion of food containing preformed toxins

### Cross Match

Ris Factors	Health problem
27. (    ) Aflatoxins	(a) Type 2 Diabetes
28. (    ) Sodium sensitivity	(b) Cancer liver
29. (    ) Visceral obesity	(c) Rheumatic heart
30. (    ) (Genetic factors)	(d) Essential Hypertension

### Cross Match

Infectious Disease	Reservoir/Source of Infection
31. (    ) Meningococcal meningitis	(a) Cattle
32. (    ) Whooping cough	(b) Atypical cases
33. (    ) Tuberculosis	(c) Clinical cases
34. (    ) Measles	(d) Healthy carriers

### Cross Match

School Health Program	Objectives
35. (    ) Health appraisal	(a) Early detection of defects in growth and development
46. (    ) Periodic examination	(b) Identify students who need special educational care
37. (    ) Daily observation	(c) Health promotion
38. (    ) Health education	(d) Detection of acute diseases

### Cross Match

Vaccination is the major measure in	Reasons
39. ( ) Yellow fever	(a) Difficult to control the contaminated soil
40. ( ) Poliomyelitis	(b) Difficult to control the animal reservoir
41. ( ) Tetanus	(c) It is the method to reduce source of infection
42. ( ) Measles	(d) Difficult to ensure sanitary environment

### IV. Fill in the space using statements in the boxes:

(a) Global warming (c) Indoor air pollution	(b) Ozone depletion (d) Outdoor air pollution
--	--

43. ( ) is associated with increase in the incidence of cancer skin  
44. ( ) is associated with respiratory diseases.  
45. ( ) is associated with increase in arthropod borne diseases  
46. ( ) by radon is associated with increase the incidence of leukemia

### Fill in the spaces : Sampling techniques

(a) Simple random sample (c) Stratified random sample	(b) Systematic random sample (d) Cluster sample
--	--

47. ( ) is used when we do not know all elements in the community.  
48. ( ) is used to represent specific subgroups.  
49. ( ) depends on using tables of random samples.  
50. ( ) considers sample size to select the sample elements.

## **Community Medicine**

### **All questions to be answered**

1. A young adult 30 years old attend to you complaining of night fever, sweating loss of weight and prolonged cough sometime associated with bloody sputum. He was married and having 3 children.
  - a) Mention the causative agent and mode of transmission of the described illness
  - b) Describe measures to be taken for his home contacts.
  - c) What are the specific preventive measures for this disease? (5 marks)
2. Give short account on: (5 marks each)
  - a) Seroprophylaxis
  - b) Vaccination given for infant during their first year of life
3. Enumerate: (5 marks each)
  - a) Bacterial diseases of the gastro- intestinal tract
  - b) Air borne viral diseases.
  - c) Different forms (types) of tetanus infection.
4. True and False: (10 Marks)

A. Put (T) in case of correct answer and (F) in case of incorrect one (1/2 mark each)

  1. Carriers are important source in transmission of Gonorrhea
  2. Brucellosis is associated with a chronic carrier state
  3. There is cross- immunity between chicken pox and herpes zoster
  4. Patients with hepatitis B are automatically protected against against Hepatitis C.
  5. There are cross- immunity between different of parasitic
  6. Infection immunity is known in tuberculosis
  7. Maternally acquired immunity protect against measles for about 6 months.
  8. BCG vaccine is %100 effective in prevention of tuberculosis
  9. MMR vaccine is better to be given to infants after the age of one year
  10. Intestinal carriers are known in cholera

11. Convalescent carriers are known in diphtheria, enteric fever and
12. Carriers are diseased persons who can transmit the infection to others
13. Cases are the only source of infection in tuberculosis & syphilis.
14. Pertussis can be prevented by maternal vaccination during pregnancy
15. Injection infections are transmitted only in hospitals.
16. Injection infections include HIV, HBV, HCV, Syphilis and septicemia
17. Congenital infections include rubella, toxoplasmosis, and tetanus
18. Yellow fever vaccination should be repeated if needed every 5 years
19. Food poisoning can occur frequently in the same person
20. Swine flu, rabies, tetanus and plague are considered Zoonotic infections.

**Select the correct answer in the following questions: (each 1 mark)**

**1- In infectious diseases surveillance, typhoid fever should be notified**

- A- Immediately (within 6 - 24 hours of diagnosis)
- B- Weekly.
- C- Monthly.
- D- Yearly.

**2- Promotive elements of primary health care include:**

- A- Immunization
- B- Availability of essential drugs.
- C- Safe water supply and basic sanitation.
- D- Maternal and child health and health education.

**3- Pneumoconiosis among workers is caused by inhalation of:**

- A- Lead dust.
- B- Mineral particles.
- C- Irritant and asphyxiate gases and fumes.
- D- Organic and inorganic dust particles.

**4- The most important anti-infection vitamin is:**

- A- Vitamin C.
- B- Vitamin B12.
- C- Vitamin A.
- D- Riboflavin

**5- The biological standard of drinking water require the following criteria:**

- A- No more than one organism E.coli in any 100ml sample of water.
- B- 10 E.coli organism in any 1000 ml sample of water.



- C- No one E.coli organism in any 100 ml sample of water.
- D- Drinking water should be free from any biological organism.

**6- Food handlers are the personnel responsible for:**

- A- Food preparation and provision only.
- B- Food storing, preparation and provision only.
- C- Food production, storing, processing and provision only.
- D- Any person dealing with and kind of food at different stage until consumed.

**7- The 95% confidence interval(area under) of Normal Distribution curve is:**

- A- Mean= 1 SD (standard deviation) .
- B- Mean= 2 SD (standard deviation) .
- C- Mean= 1 SD (standard deviation) .
- D- Mean= 0,5 SD (standard deviation) .

**8- Tuberculin positive & x ray negative home contact child (<5 years) should be protected by:**

- A- INH in proper dose as a chemoprophylaxis.
- B- INH & BCG vaccination.
- C- Vaccinated by INH resistant BCG in addition to INH chemoprophylaxis.
- D- Properly vaccinated by BCG vaccine only.

**9-The appropriate preventive measure for a susceptible pregnant exposed to pertussis is:**

- A- Pertussis whole cell vaccine.
- B- Pertussis acellular vaccine.
- C- Chemoprophylaxis with penicillin or erythromycin.
- D- Sero-prophylaxis with specific immunoglobulin.

**10- Contacts of pulmonary tuberculosis cases should immediately protected with:**

- A- Isoniazid chemoprophylaxis.
- B- BCG vaccine
- C- Both chemoprophylaxis and vaccination
- D- None of the above until investigated

**11- The major modifiable risk factor in cancer lung is:**

- A- Tobacco smoking.
- B- Vitamin A deficiency or excess.
- C- Psychological stress.
- D- Exposure to silica dust.

**12- which of the following foods has the highest energy value per unit of weight?**

- A- Potato.
- B- Bread.
- C- Meat.
- D- Butter.

**13- An almost complete food protein of high biologic value would be one of the following:**

- A- Cow meat or fish.
- B- Chicken meat.
- C- whole fullcream milk or egg protein.
- D- Mixture of Cereals.

**14- The measures of central tendency for a quantitative (e.g. weight/kg) are the following:**

- A- The arithmetic mean, median and range.
- B- The arithmetic mean, mode and range.
- C- The arithmetic mean, median and mode.
- D- The Median, mode and standard deviation.

**15- The most avoidable cause of maternal mortality includes:**

- A- Hemorrhage at any time starting from pregnancy until end of puerperium.
- B- Puerperal Sepsis following abortion or delivery.
- C- Systemic diseases(Renal - Cardiovascular - diabetes..) complications.
- D- Prolonged obstructed labor and its consequences.

**16- The odds ratio (OR) and Relative Risk (RR) are valuable indicators in risk assessment in the following studies:**

- A- Population based descriptive studies (correlation studies).
- B- Survey studies.
- C- Analytical studies (Case -control& Cohort studies).
- D- Intervention studies (clinical trial).

**17- The most important indicator of community health status is:**

- A- Maternal Mortality rate.
- B- Cause specific Mortality rate of different diseases.
- C- Infant Mortality rate.
- D- Prevalence rate of different diseases.

**18. Which of the following is the most accurate definition of balanced diet**

- A. That contain food from all the food group in the food guide pyramid
- B. That consists of different types of food in the correct proportion
- C. That is low in fats and high in carbohydrate
- D. That consists of different types of food in different amount

**19. Infectious diseases are transmitted directly or indirectly A vector such as a mosquito is an example of...**

- A. Direct disease transmission
- B. Indirect disease transmission
- C. Common vehicle transmission
- D. Vertical transmission

**20. Which of the following body fluids have been proven to transmit HIV infection?**

- A) Saliva, tears, serous fluid, and vaginal secretions
- B) Saliva and cervical secretions
- C) Blood, sweat and tears
- D) Blood, semen, breast milk, vaginal and cervical secretions

**Put true (or A) or false (X or B) in front of the following statements:**  
(each 1/2 mark)

- 1- Urinary carriers are known with E. coli.
- 2- The daily protein intake should cover at least 30% of total energy needed by adult
- 3- The main sources of trans-fats in our diet are derived from natural foods.
- 4- Patients with hepatitis B are automatically protected against Hepatitis C.
- 5- Premunition immunity is known in tuberculosis, syphilis and brucellosis
- 6- The glycemic index is used to rank fats based on their total energy supply.
- 7- Breast milk from well-nourished mother will supply adequate amount of iron to her infant.
- 8- Maternally acquired immunity protect against cholera.
- 9- BCG vaccine is 100% effective in prevention of tuberculosis.
- 10- Convalescent carriers are diseased persons who can transmit the infection to others.
- 12- Cases are the only source of infection in tuberculosis, yellow fever & Ascariasis
- 13- Sexually transmitted diseases are acquired only through sexual contact.
- 14- The main mode of hospital acquired infection is injection infection.
- 15- Zoonotic infections include avian flu, rabies, tetanus and enteric fever.
- 16- Sub-lethal pregnancy outcome may be attributed to genetics, drug intake exposure to radiation, infections, vaccination and air pollution.
- 17- Susceptible person for work injuries (accident proneness) is responsible for 25% of injuries.
- 18- Mass media is the most effective method to induce changes in health related behaviors.
- 19- Central adiposity is considered a major risk factor in development of type 2 diabetes.
- 20- The primary animal pathogens secreted in milk include bovine tuberculosis and salmonellosis.

## Public Health and Community Medicine

### Section A:

#### Answer the following questions:

**1- Maternal mortality remains a public health problem in developing countries including Egypt.**

A- Define maternal mortality ratio. (2 marks)

B- Enumerate the causes of maternal mortality. (4 marks)

C- State measures that should be undertaken to lower this problem. (8 marks)

**2- Diet, malnutrition and chronic diseases are strongly linked together and are considered risk factors for health problems.**

A- State the ecology of under-nutrition. (5 marks)

B- Give reasons for the high prevalence of iron deficiency anemia in Egypt. (4 marks)

C- Describe the relation between:

d- Diet as risk factor for cancer development (4 marks)

e- Diet as protective factor against cancer development (4 marks)

**3- State the: i-Modes of transmission and ii-Preventive measures for the following diseases: (10 marks each)**

A- Viral hepatitis B.

B- Typhoid fever.

C- Malaria.

**4- State the following:**

A-Pneumoconiosis 1 (6 marks)

i- Definition

ii- Four types and the corresponding lung diseases

iii- Preventive measures

B-Health problems related to biological contamination of drinking water (6 marks)

**5- Answer the following:**

A- In relation to study designs

i- List the 3 types of observational analytical study designs. (3 marks)

ii- State 3 advantages and 3 disadvantages of one of them. (3 marks)

B- Draw the population pyramid and describe its characteristics.

(6 marks)

**6- State the following: (5 marks each)**

A- Types of carriers

B- Causes of neonatal mortality

C- Immunization schedule of school children

D- Dimensions of quality (mention 5 only)

E- Screening tests for coronary heart disease

**Section A:**

**Answer the following questions:**

1- Child health indicators are improving in Egypt but still some health problems are highly prevalent.

- A- State factors contributing to under five child health problems (family and child factors) (8 marks)
- B- Enumerate the causes of post neonatal child morbidity (2 marks)
- C- State public health actions undertaken for prevention and control of acute respiratory tract infections among children (4 marks)

2- A-Hypertension is one of the major risk factors for cardiovascular diseases. Hypertension is called the silent killer.

- i. State the lifestyle risk factors for hypertension development (6 marks)
- ii. Outline the appropriate prevention and control measures for hypertension (4 marks)
- B- State primary and secondary preventive measures of obesity (4 marks)
- C- State factors affecting iron absorption (2 marks)

3- Mention: i- **Mode of transmission** ii- **specific prevention** of the following diseases:

(10 marks each)

- A- Botulism food poisoning
- B- Measles
- C- HBV

4- State the following:

- A- Biological contamination of drinking water ( sources- water borne epidemics) (8 marks)
- B- Exposure to ionizing radiation (types- affecting factors – hazards) (6 marks)

**5- Draw the outline and state the characteristics of the following:**

**(6 marks each)**

- A- Draw shape of the population pyramid and describe its characteristics
- B- Draw normal distribution curve and state its characteristics

**6- State the following:**

**(6 marks each)**

- A- Communication barriers
- B- Importance of school health program
- C- Types of efficiency with examples
- D- Definition and principles of PHC

**All questions to be answered**

1. Define Carrier of infection and mention some types [10 marks]
2. Describe the **source of infection, mode of transmission and specific prevention** of **meningococcal meningitis** [10 marks].
3. List the causative agents of Gastroenteritis [5 marks]
4. Mention the compulsory vaccines given to Egyptian infants and their time , route of administration [5 marks]
5. Put (T) in case of correct answer and (F) in case of incorrect one [1 mark each]
  - a) Koll's vaccine is absolutely effective in prevention of cholera
  - b) Pulmonary tuberculosis is a preventable disease
  - c) Food poisoning may be caused by typhoid and Para-typhoid salmonella
  - d) Maternally transmitted immunity can protect infants against Ascariasis
  - e) Epidemic Parotitis (Mumps) can be transmitted by mosquitos.
  - f) Schistosomiasis can be acquired hospital infection
  - g) Yellow fever is a major zoonotic parasitic disease
  - h) Tetanus and rabies are fatal viral zoonotic diseases
  - i) Cases are the only source of infection in enteric fever
  - j) Carriers are the main source of infection in pulmonary tuberculosis.



Cairo University

Date : 7th of June 2014

Faculty of Medicine

Time Allowed: 3 Hours

Department of Public Health

**Community Medicine: End of Year Exam**

**Section A:**

**Answer the following questions:**

1. Mothers (pregnant and lactating) are vulnerable group as they undergo physiological changes that make them liable to a variety of health problems.

- a- Enumerate morbidity problems affecting mothers . (5 Marks)
  - b- Mention the preventive measures for one of these morbidity problems. (4 Marks)
  - c- Define maternal mortality ratio. (3 Marks)
  - d- Enumerate the causes of maternal mortality. (6 Marks)
- (18 Marks)

2. Malaria is a re- emerging problem that remains one of the widest spread, potentially fatal disease. Discuss the following :-

- a- Reservoir of infection . (3 Marks)
- b- Mode of transmission . (3 Marks)
- c- Specific preventive measures . (4 Marks)
- d- Phases of malaria eradication . (4 Marks)

(14 Marks)

**3. Third Question:**

**A- Define the following terms**

- |              |                     |
|--------------|---------------------|
| 1- Carrier.  | 2- Epidemic.        |
| 3- Zoonoses. | 4- Chemoprophylaxis |

(2 Marks Each, 8 Marks Total)

**B- What are the “Specific Preventive Measures” for the following diseases:**

- |                               |           |
|-------------------------------|-----------|
| 1- Meningococcal meningitis . | (7 Marks) |
| 2- Poliomyelitis .            | (7 Marks) |

( 22 Marks)

**4- Mention the following :-**

- |  |           |
|--|-----------|
| a-The Health Promotive measures for elderly people . | (6 Marks) |
| b- Prevention of “Rickets”.                          | (6 Marks) |
| c- Risk factors for osteoporosis.                    | (8 Marks) |
| d- Requirements of effective listening .             | (8 Marks) |

( 28 Marks)

**5- Mention the following :**

- |  |           |
|--|-----------|
| a- Six dimensions of quality .                 | (6 Marks) |
| b- Four causes of prematurity.                 | (4 Marks) |
| c- Four components of school health program.   | (6 Marks) |
| d- Two preventive measures for road accidents. | (7 Marks) |

( 23 Marks)

Cairo University

Date : 7th of June 2014

Faculty of Medicine

Time Allowed: 3 Hours

Department of Public Health

**Community Medicine: End of Year Exam**

**II. Section B**

**I- Complete the following : (One Mark Each , Total 10 Marks) :-**

- 1- In large scale purification of water, ----- is added for disinfection .
- 2- Iodine deficiency during fetal life causes----- .
- 3-A study that describes the frequency and natural history is called ----- study .
- 4- Schistosomiasis is caused by penetration of skin by ----- which is the infective stage .
- 5- Vaginal/ PAP smear is considered the early screening for -----.
- 6- ----- is a group of people sharing common characteristics .
- 7- ----- can be given to pregnant mothers to protect them against puerperal tetanus .
- 8- -----is the first cause of infant mortality .
- 9- Rural waste includes household ,field, street wastes and ----- .
- 10-Health ----- means achievement and maintenance of high level of health .

**II-Choose one correct answer :** (One Mark Each, Total 10 Marks )

**1- The following diseases may show outbreak spread EXCEPT:**

- a- Rabies
- b- Infective diarrheal diseases
- c- Viral A hepatitis
- d- meningococcal meningitis

**2- The following is correct about Shigellosis EXCEPT:**

- a- Bacterial disease of colon .
- b- Animals are important reservoir of infection .
- c- Outbreaks occasionally occur .
- d- Incidence is higher with seasonal breeding of flies .

**3- The most important adolescents health problem is :-**

- a- ARIs and diarrhea
- b- High mortality rate
- c- Violence and its complications
- d- Non- communicable diseases.

**4- Pneumoconiosis among workers is caused by inhalation of:**

- a- Irritant gases
- b- Lead dust
- c- Mineral particles
- d- Organic and inorganic dust

**5- To prevent Mumps the following Measures can be used EXCEPT:**

- a- Proper air sanitation
- b- Live attenuated vaccine
- c- Normal Immunoglobulins
- d- Specific Medication

**6- The process of active immunization requires the following except :**

- a- Use of disposable syringe
- b- Proper dosage
- c- Vaccine should be of absolute effectiveness
- d- Checking expiry date

**7- The following is correct about Human Diploid Cell Vaccine except :**

- a- Given before exposure only
- b- Antibody response is rapid
- c- Given I.M 1ml in deltoid
- d- Inactivated chemically

**8- The following is correct about communication barriers except:**

- a- Inefficient sender
- b- Social and cultural gap between educator and client
- c- Appropriate message
- d- The environment

**9- To assess nutritional status of pregnant mothers we use :**

- a- Height measurement
- b- Blood pressure
- c- Breast-self examination
- d- Haemoglobin estimation

**10- To control contacts of cases of infectious disease, the following can be used except:**

- a- Concurrent and terminal disinfection
- b- Surveillance , segregation or isolation
- c- Enlistment including name , age and other characteristics
- d- Active immunization

**( 10 Marks)**

**III- Cross match the statements in the two columns (One Mark Each)**

**1- Disease.**

**Nature of vaccine**

- |                   |                                  |
|-------------------|----------------------------------|
| ( ) Diphtheria.   | a- live vaccine                  |
| ( ) Hepatitis B.  | b- live attenuated viral vaccine |
| ( ) Smallpox      | c- surface antigen vaccine       |
| ( ) Typhoid.      | d- toxoid                        |
| ( ) Yellow fever. | e- live attenuated oral vaccine  |

**2- Rate.**

**Measurement**

- |                               |  |
|-------------------------------|--|
| ( ) Incidence rate            | a- Total deaths                                |
| ( ) Crude death rate          | b- Deaths from specific disease                |
| ( ) Post-neonatal death rate. | c- New reported cases of disease               |
| ( ) Case fatality rate.       | d- Live births                                 |
| ( ) Crude birth rate.         | e- Infant deaths from 28 days to less than one |

**A- For each of the following questions circle the correct answer whether True (T) or False (F) (1.5 Marks Each, Total 15 Marks)**

No.	STATEMENT	ANSWER
1.	Shallow wells are not liable to be polluted.	T F
2.	Regulations forbid employment of females in heavy work and high risk jobs .	T F
3.	Cigar and pipe are most risky compared to cigarettes .	T F
4.	Sensitivity is the ability of test to detect cases with disease .	T F
5.	Genetics plays an important role in determining vulnerability to most major psychiatric disorders.	T F
6.	Full Cream Milk is poor in vitamin A.	T F
7.	Diet rich in fibers has no relation with the process of getting rid of carcinogens out of digestive system.	T F
8.	Health office has no responsibilities concerning immunization activities .	T F
9.	Illegal Incinerators cause air pollution through toxic chemicals and heavy metals	T F
10.	Diet protective against CHD includes plant oils and complex carbohydrates .	T F

**Cairo University**

**Date : 7<sup>th</sup> of June 2015**

**Faculty of Medicine**

**Time Allowed: 3 hours**

**Department of Public Health**

**Total Marks: 150**

**Academic year 2014-2015**

**Fourth year, Final Exam**

**Section I; Answer the following questions:****(Total Marks 100)****1- Streptococcal sore throat is an acute communicable disease of worldwide distribution.****Discuss the following: (10 Marks)**

- a) Reservoir and exit of infection. (2 Marks)
- b) Mode of transmission. (4 Marks)
- c) Preventive measures. (4 Marks)

**2- There is a growing list of the "Non Communicable Diseases" ( NCDs ) in both developing and developed countries. (8 Marks)**

- a) What are reasons for the increasing prevalence of NCDs ? (5 Marks)
- b) What are the general outlines for prevention of NCDs? (3 Marks)

**3-Give short account on the following: (10 Marks)**

- a) Hazards of ultraviolet radiation. (5 Marks)
- b) Health appraisal for occupational workers. (5 Marks)

**4- Give short account on: (12 Marks)**

- a) Risk factors for osteoporosis. (6 Marks)
- b) Prevention of iron deficiency anemia. (6 Marks)

**5- Efforts are conducted to lower maternal mortality. Discuss the following: (10 Marks)**

- a) Define maternal mortality. (2 Marks)
- b) Enlist causes of maternal mortality. (4 Marks)
- c) Enumerate the components of reproductive health. (4 Marks)

**6- Mention the following: (23 Marks)**

- a) Outcome indicators used to evaluate family planning program. (8 Marks)
- b) Characteristics of an effective physician - patient relationship. (8 Marks)
- c) Occupational health hazards for workers in waste disposal. (7 Marks)

**7- Discuss the following points: (12 Marks)**

- a) Health promotion services for elderly. (3 Marks)
- b) The selected population groups covered by National Health Insurance. (3 Marks)
- c) The management functions. (6 Marks)

**8- Answer the following: (15 Marks)**

- a) What are the types of carriers in relation to course of disease? (5 Marks)
- b) Give modes of transmission of Hepatitis C Virus (5 Marks)
- c) What are the specific preventive measures for Viral A Hepatitis? (5 Marks)



**Section II: Answer the following components:**

**(Total Marks 50)**

**A: Choose the correct answer:**

**(Total Marks 20, one mark each)**

**1- Case fatality rate measures:**

- a) Number of new cases of disease
- b) Number of deaths of mothers
- c) Number of deaths from specific disease
- d) Number of total deaths

**2- One of the following points is INCORRECT regarding MMR vaccine:**

- a) Heat killed vaccine
- b) Given through the subcutaneous route
- c) Given to adolescent girls
- d) It gives solid immunity

**3- Manifestations of pregnancy-induced hypertension DO NOT include:**

- a) Edema
- b) Proteinuria
- c) Increase serum uric acid
- d) Headache

**4- The following can be used to measure mortality EXCEPT:**

- a) Still birth rate
- b) Crude death rate
- c) Under five mortality rate
- d) Neonatal mortality rate

**5- The resources DO NOT include:**

- a) Man and money
- b) Materials
- c) Environmental conditions
- d) Machines

**6- Urbanization is potentially accompanied with the following hazards:**

- a) Decrease in population's density in urban areas.
- b) Decline in the prevalence of communicable diseases
- c) Increase in delinquency and psychological problems
- d) Decrease in rural development and productivity

**7- Oral hormonal contraceptives are:**

- a) Protecting against sexually transmitted infections
- b) Irreversible in action
- c) Increase the risk of endometrial cancer
- d) Reduce the risk of anemia

**8- The contraceptive method providing protection against sexually transmitted infections is:**

- a) Intrauterine device
- b) Combined oral pills
- c) Condom
- d) Safety period

**9- Considering the stages of behavior change process, one of the following is INORRECT:**

- a) In pre-contemplation stage, the person is aware but does not accept change.
- b) In contemplation stage, the person is motivated to change his/her behavior
- c) In action stage, people start to act the habit
- d) In exit stage, people settled into a changed behavior.

**10- Body language does NOT include:**

- a) Masking
- b) Listening
- c) Gaze
- d) Para language

**11- Osteomalacia is primarily due to:**

- a) Vitamin D deficiency
- b) Protein deficiency
- c) Calcium deficiency
- d) Multiple nutrient deficiency

12- Concerning infant's feeding and weaning practices, one of the following is INCORRECT:

- a) Orange juice should be introduced after six months of age.
- b) Weaning should be in the form of small meals
- c) Clostrum milk should be discarded
- d) Spoon should be used for weaning rather than bottle.

13- For a preschool child aged 3 years and weighted 14 Kg, the daily protein requirements will be:

- a) 25 grams/day
- b) 26 grams/day
- c) 28 grams/day
- d) 33 grams/day

14- Daily requirement for the following nutrients should be increased during adolescence:

- a) Iron, calcium and fats
- b) Iron, calcium and vitamin B6
- c) Iron calcium and protein
- d) Energy, selenium and fats

15- One of the following is NOT congenitally acquired infection:

- a) Rubella
- b) HIV/AIDS
- c) Toxoplasmosis
- d) Malaria

16- During the first year of life, an infant should be clinically assessed:

- a) Two times
- b) Three times
- c) Four times
- d) More than 5 times

**17- The following is a routine nutritional supplementation to children under 5 years of age:**

- a) Vitamin D
- b) Iron
- c) Vitamin C
- d) Vitamin A

**18- One of the following infections has NO subclinical infection:**

- a) Influenza
- b) Measles
- c) Poliomyelitis
- d) Scarlet fever

**19- Water-borne epidemics are characterized by all but one of the followings:**

- a) Abrupt onset
- b) Affecting elderly and young infants
- c) Cases distribution follows water supply
- d) Cessation once the source is controlled.

**20- In hospital waste management, incineration is indicated for disposal of:**

- a) The general hospital routine wastes
- b) Pathological specimens
- c) Radioactive wastes
- d) Pharmacological wastes

**B- State whether the following statements are True or False:** (Total 20 Marks, one mark each)

Statements	TRUE	FALSE
1- Physical health implies that all body systems are properly functioning in harmony within physiologic norms.		
2- Hyperuricemia is considered a risk factor for coronary heart disease.		
3- Plague shows epizootic spread with rat-flea infection.		
4- Men at higher risk than women for urinary tract infections.		
5- The least dose of tetanus toxoid should be administered at least one week before delivery.		
6- Premarital examination is now required by law before marriage contract.		
7- Animal reservoir plays an important role in spreading meningococcal meningitis.		
8- Fish living in heavy metals contaminated water is a source of radiation to humans.		
9- Interpersonal skills include cooperation with others.		
10- Energy requirement should be increased more during pregnancy compared to lactation.		
11- Perinatal period starts at the completion of 22 <sup>nd</sup> week of gestation and ends at the 10 <sup>th</sup> day after birth.		
12- Health promotion refers to efforts done at all levels of prevention to improve health.		
13- Range is not affected by extreme outliers.		
14- Pertussis is highly infectious during early catarrhal stage.		
15- Nicotine is carcinogenic but not addictive.		
16- Iron deficiency anemia is the commonest morbidity among children under five years of age.		
17- Injuries occur when human encounters energy forces that are larger than the bodily normal tolerance level for energy absorption.		
18- Rehabilitation can be applied to all individuals to improve their abilities.		
19- Yellow fever is not present in Egypt due to the strict quarantine measures only.		
20- Mental and behavioral disorders are more common during childhood and adolescence.		

**C- Cross-match the followings:**

(Total marks 10; 2.5 marks each).

**1- Occupational Exposure Hazards:**

	Exposure		Outcome /disease
1	Exposure to silica dust.	a	Monday fever after 10 years.
2	Exposure to coal.	b	Farmer's lung.
3	Exposure to cotton dust.	c	Benign pneumoconiosis.
4	Asbestos.	d	Nodular fibrosis after 10
5	Exposure to cellulose fibers.	e	Diffuse fibrosis scarring of lung.

**2- Select the indicator/method appropriate for each condition/status listed below:**

	Status/condition		Indicator/method
1	Obesity class II	a	Biochemical assessment
2	Weight for age	b	Food frequency questionnaire
3	Hair zinc level	c	Indirect assessment method
4	Dietary intake	d	Body mass index 35 to 39.9
5	Food balance sheet	e	Direct assessment method

**3- Select the predictor (predisposing factor) for each nutritional problem listed:**

	Conditions		Predictors
1	Protein energy malnutrition	a	Adolescent girl
2	Macroplastic anemia	b	Bone forming nutrients
3	Osteoporosis	c	Carbonated soft drinks /nibbling
4	Obesity	d	Pregnant women
5	Iron deficiency anemia	e	Low socio-economic

**4- Select the primary mode of transmission for the listed infectious agents:**

	Infectious agent		Primary mode of transmission
1	Influenza	a	Arthropod
2	Brucellosis	b	Contact
3	Yellow fever	c	Congenital
4	Syphilis	d	Food borne
5	Toxoplasmosis	e	Droplet

With Best Wishes

مع خالص أمنياتنا بدوام التوفيق

عميد كلية طب القصدير العيني

مطابع دار «الجمهورية» للصحافة