



Aswan University
Faculty of Medicine
Dept. of Public Health & Community Medicine

Date: 3 / 7 / 2019
Time: 3 hours
Marks: 150

End-Year Examination of Community Medicine for 4th Year Medical Students

I- Indicate whether each of the following statements is true (T) or false (F): (25 marks)

1. Penta vaccine protects against diphtheria –tetanus, pertussis, hepatitis B and H.influenza type B.	
2. Detection of cancer at a pre-invasive or pre-malignant stage is primary preventive measure	
3. Occupational therapy following a cerebro-vascular hemorrhage is an example of 2nd prevention.	
4. Control of endemic diseases is one of the promotive elements of PHC.	
5. Counseling is a collaborative effort between the counselor and the client that aim to persuade the client to accept specific advices.	
6. Direct communication means change of people behavior through mass media.	
7. Herd immunity is a form of immunity that occurs when the vaccination of a significant portion of a population provides a measure of protection for individuals who have not developed immunity.	
8. The nature of immunity acquired after Salk vaccine administration is humoral immunity, while that acquired after Sabin vaccine administration is humoral and local tissue immunity.	
9. Rate of natural increase of the population = CBR- CDR	
10. The non-modifiable host factors that affecting disease occurrence may include genetic factors, living condition and change in climate.	
11. Vitamin A and vitamin C are considered from the major antioxidants' nutrient	
12. Polluted water is still contaminated with water bodies that harms the people or the environment that come into contact with it, while contaminated water isn't necessarily still polluted.	
13. In infectious diseases, surveillance of HIV/AIDs & plague should be notified immediately.	
14. There is cross immunity between the three types of polio viruses	
15. According to the WHO and UNICEF reports, Egypt has the world's highest total number of FGM sufferers, the majority between the ages of nine and 12	
16. Egypt banned FGM. Article 242 of Egypt's Penal Code 2016 criminalizes the circumcision of girls. The punishment for performing FGM is a prison sentence ranging from 5 years to 7 years or a fine of 5,000 Egyptian pounds, however the MOHP found that an estimated 82% of FGMs on females up to the age of 19 were conducted by medical personnel.	
17. Life-long protection of women against tetanus is achieved after 3th dose of immunization.	
18. Acute respiratory tract infections are the most prevailing cause of infant mortality in Egypt.	
19. Passive surveillance is based on reporting sources without request of the concerned authorities, while active surveillance is the collection of data for a period of time by regular outreach.	
20. Adolescence is a period of life between 10 and 19 years.	
21. Aswan University Hospital is considered as the secondary health care level of the health care system in Egypt.	
22. Dengue fever can be transmitted by inhalation of dust of dried animal tissues and excreta of infected animal	
23. Antiviral medicines can cure more than 95% of persons with hepatitis C infection, thereby reducing the risk of death from liver cancer and cirrhosis.	
24. Whereas the minimum legal age of marriage in Egypt is 18 years, there were ~ 17% of girls in Egypt are married before their 18th birthday and 2% are married before the age of 15.	
25. Using the same screening test in a population with higher prevalence increases positive predictive value, conversely increased prevalence results in decreased the sensitivity of the test.	

II- The Three Delays Model of maternal mortality is encompassed of three phases. Each phase is modified by factors often limit the ability of women to use maternal health care services and certainly affecting the maternal outcomes, match each of the following statements with the proper phase. (6 marks)

Defined as	Phase
1. Delay on the decision to seek care	Phase III
2. Delay on identifying and traveling to facilities	Phase II
3. Delay on receiving adequate and appropriate care at facilities	Phase I

This phase is influenced by:	Phase
1. The socioeconomic, culture factors, poor knowledge and lack of time and money	Phase III
2. The distance and transportation infrastructure between villages and the appropriate facilities.	Phase II
3. The accessibility and quality of services as well as the provider competency, availability of blood, ICU, and supplies.	Phase I

was conducted and included 20,000 married

women in the reproductive age. For all women 12% mentioned that they were pregnant once during year 2008, but 360 of those pregnancies ended before 22 weeks of gestation. For all the newborn children, 102 died before or during delivery. For the total live births 24 newborn had died in the first week, and 20 newborns died after the first week but before completing the first month of life. Those died after one month of age and before the first birth day were 30 children. Calculate the following measurements: (10 marks)

1. Incidence of Abortion =
2. Still birth ratio =
3. Perinatal mortality ratio =
4. Percent of infants died in the neonatal period =
5. Percent of Infant deaths to total live births=

IV- You are asked to prepare a presentation about family planning in a PHC unit, to orient educated women about family planning services and their importance for mother and child health. Use words in the following panel to complete the 10 key points. (10 marks)

Condom	Injectables contraceptives	spermicidal preparations	Natural family planning methods	Contraceptive prevalence rate
IUD	An unmet need	Emergency contraception	Progestin only pills	Contraceptive failure rate
Spacing	Contraceptive implants	Nutritional stores	Exclusive breast feeding	Number of new modern contraceptive acceptors

1. FP services are delivered to couples for (.....) child birth as well as FP provides opportunity to re-build mothers' maternal (.....).
2. (.....) could protect against pregnancy for 6 months.
3. Pregnancy rates even with consistent and correct use of (.....) are as high as 9 pregnancies per 100 women for over the first year although they are inexpensive, does not require any procedures and supplies and no systemic side effects.
4. (.....) is not 100% effective, but protects against STDs.
5. (.....) is highly effective mechanical FP method that required trained provider for insertion and removal.
6. (.....) is the most widely used progestin only highly effective method given every three months.
7. (.....) It is used to prevent pregnancy when taken up to five days after unprotected intercourse.
8. (.....) is specific indicator measures the ability of the program to attract new clients from an untapped segment of the population to its services.
9. In Egypt, 59% of currently married women are currently using a family planning method. This indicator is known by (.....).
10. According to EDHS, 2014, thirteen percent of currently married women in Egypt are considered as having (.....) for family planning.

V- Suppose you are trying to take part in community needs assessment and strategic planning to Upper Egypt governorates According to the table below. Write down the number of the correct indicator into each of the following: (8 marks)

	Indicators	Upper egypt Gov	Total Egypt
1.1	Infant Mortality per1000 live births	35	26
1.2	Percent of children ever breast fed	14	9
1.3	Percent of chidren fully immunized	12	15
1.4	Physicians per 10.000 population	99 %	99.6
1.5	Nurses per 10.000 population	95%	96%
1. 6	Percent of rural population to total	57%	66%
1.7	literacy rate	9%	10%
1.8	Unemployment rate	13	11
1.9	Percent of poor population	85.9%	91.35
1.10	Population Density per Km	44%	25%

1. The health problem is().

2. Goal and target:() to be

3. Strategic objectives of the Health Sector (quantitative numbers)

..... ().

.....().

4. SWOC Analysis for the health sector

Analysis Items	Strengths	Weaknesses
Health Services Resources		
	Opportunities	Challenges
Socioeconomic		
Environmental		

VI- In each of the following presentations, indicate the suitable type of the study should be used? (10 marks)

Presentation	Type of the study
1. Students selected from a university complete questionnaire on physical exercise and are followed-up. New cases of depression are recorded.
2. A group of patients diagnosed with depression are selected. Another matched group who don't have depression are selected. The groups are compared with respect to physical exercise in the past, ascertained by questionnaire.
3. Questionnaire sent to random sample of health district. Includes standard depression questionnaire and inquiry about usual physical exercise.
4. Group of volunteers assigned to either continue with their usual activity or to undertake recent regular exercise intervention program. Followed-up to record and evaluate new cases of depression.

VII- Read the case study and answer the following questions (15 marks):

In a primary health care unit located in Aswan, an 18-month-old baby girl called Mariam arrived with her parents to take her routine vaccinations. Mariam has already received all her vaccinations on time. Identify the following according to vaccination schedule in Egypt:

The name of the vaccine should be given in this visit	Type of the vaccine should be given in this visit	Dose & route of administration	Place of the vaccine in the refrigerator

Mention 3 important items to be fulfilled in the refrigerator for keeping vaccines in the primary health care unit
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VIII- write the term the following: (24 marks):

1.	The explosive spread of infectious disease associated with drinking water by a large number of people in a given population within a short period of time, all ages are affected. Primary wave of typhoid is followed by smaller wave diarrhea.
2.	Any illness associated with exposure to variety of biological factors that are present in the work environment or encountered in the course of employment like Anthrax, Leptospirosis, Brucellosis, hepatitis B.
3.	Substances such as pollen, tobacco smoke, mold, pesticides, radon, asbestos and carbon monoxide trapped inside the building. High humidity and inadequate ventilation are affecting on their levels.
4.	The process which includes the health educator, recipient (receiver), and health education message.
5.	Fat soluble composite which required for formation of rhodopsin (a photoreceptor pigment in the retina), maintenance the integrity of epithelia, glycoprotein synthesis.
6.	Apparently healthy person who is infected & harbors a pathogenic organism in his body, without showing manifestations of disease, but it can spread infections.
7.	The number of new cases of a particular disease over certain time period & locality per 1000 at-risk population in the same time period & locality.
8.	The essential health care based on practical, scientifically sound & socially acceptable methods and technology made accessible to all individuals through their full participation & at a cost that the community can afford
9.	The process of enabling people to increase control over, and to improve their health. It moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions.
10.	Ability of the test to give negative results when the person doesn't have disease.
11.	A specific rate is considered an index of maternal and early neonatal care.
12.	The presence of excess number of cases of a specific disease in more than one country.
13.	The interval between entry of an infectious agent into a host and the onset of clinical signs.
14.	A state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively, and is able to make a contribution to community.
15.	A chronic, asthma like narrowing of the airways also called brown lung disease that result from inhalation of cotton.
16.	Examination of industrial workers at time of employment.

IX- Read the case study and answer the following questions (15 marks):

A 50-year-old- Nubian male, ex-smoker with a 1-year history of untreated HIV infection presented with breath shortness, productive cough and fever of 6 weeks duration. The chest radiograph showed densities and his sputum was acid fast bacilli smear and culture positive for M. tuberculosis.

1- What are the risk factors in the previous case that lead to the infection with tuberculosis?

1.
2.
3.
4.

2- What are the most important drugs used in the treatment of tuberculosis? (mention 4)

- 1).....2).....
- 3).....4).....

3- It is known that is contraindicated as anti-tuberculous drug in pregnant patients because it causes deafness in the fetus.

4- What are the three main causes of MDR-TB?

-
-
-
-

5-The expected prognosis of this patient? why?

- a) Progression of TB by ≥ 100 -fold b) Complete cure from TB c) Complete cure from HIV infection
- why?**.....

6-What is the method could be used to confirm the diagnose of active tuberculosis?

- a). Positive tuberculin test b) Chest x ray c) Sputum culture d) CT scan chest

7-Tuberculin test is used to indicate activity of the disease. (True - false)

8-The activities of National TB Program (NTP) include:

- a)
- b)
- c)

• Complete the following:

1. Adequate consumption of fruit and vegetables the risk for CVDs, stomach cancer and colorectal cancer, it is recommended to take servings of fruits and vegetables per day.
2. WHO recommends reducing salt consumption to less than per day in adults, to help prevent hypertension, heart disease and stroke.
3. Regular physical activity - at least minutes of moderate intensity PA per week .

• Use the following raw data to answer the following questions:

Serial	Sex	Exam score
1	Male	29.5
2	Female	31.4
3	Female	24.6
4	Female	30.1
5	Female	28.5
6	Male	27.2
7	Male	30.2
8	Male	23.4
9	Female	31.8

1) What are the types of variables in column 2 and 3?

.....

.....

2) The (weight/ height in meter²) is widely used in adult populations and a cutoff point of kg/m² is recognized internationally as a definition of adult obesity.

3) Calculate the prevalence of adult obesity among males and females?

.....

.....

4) Calculate all the measures of the central tendency for the exam score of the whole group?

.....

.....

جامعة أسوان

كلية الطب - قسم طب وجراحة العيون

إمتحان الفرقة الرابعة دورثاني 2019

(3 ساعات)

A) 1) Chalazion.

2) Clinical features of Groves ophthalmopathy .

3) Pterygium.

4) Treatment of diabetic retinopathy.

5) Myopia.

6) 6th nerve palsy.

B) MCQ :

MULTIPLE CHOICE QUESTIONS: OPHTHALMOLOGY

1. Distichiasis is:

- a. Misdirected eyelashes
- b. Accessory row of eyelashes
- c. Downward drooping of upper lid
- d. Outward protrusion of lower lid

2. Irrespective of the etiology of a corneal ulcer, the drug always indicated is:

- a. Corticosteroids
- b. Cycloplegics
- c. Antibiotics
- d. Antifungals

3. Corneal sensations are diminished in:

- a. Herpes simplex
- b. Conjunctivitis
- c. Fungal infections
- d. Marginal keratitis

4. The color of fluorescein staining in corneal ulcer is:

- a. Yellow
- b. Blue
- c. Green
- d. Royal blue

5. A recurrent bilateral conjunctivitis occurring with the onset of hot weather in young boys with symptoms of burning, itching, and lacrimation with large flat topped cobble stone papillae raised areas in the palpebral conjunctiva is:

- A. Trachoma
- B. Phlyctenular conjunctivitis
- C. Mucopurulent conjunctivitis
- D. Vernal keratoconjunctivitis

6. A 12 years old boy receiving long term treatment for spring catarrh, developed defective vision in both eyes. The likely cause is:

- a. Posterior subcapsular cataract
- b. Retinopathy of prematurity
- c. Optic neuritis
- d. Vitreous hemorrhage

7. Patching of the eye is contraindicated in:

- a. Corneal abrasion
- b. Bacterial corneal ulcer
- c. Mucopurulent conjunctivitis
- d. After glaucoma surgery

8. Ten years old boy complains of itching. On examination, there are mucoid nodules with smooth rounded surface on the limbus, and mucous white ropy mucopurulent conjunctival discharge. He most probably suffers from:

- a. Trachoma
- b. Mucopurulent conjunctivitis
- c. Bulbar spring catarrh
- d. Purulent conjunctivitis

9. In viral epidemic kerato-conjunctivitis characteristically there is usually:

- a. Copious purulent discharge
- b. Copious muco-purulent discharge
- c. Excessive watery lacrimation
- d. Mucoid ropy white discharge

10. Tranta's spots are noticed in cases of:

- a. Active trachoma
- b. Bulbar spring catarrh
- c. Corneal phlycten
- d. Vitamin A deficiency

11. A painful, tender, non itchy localized redness of the conjunctiva can be due to:

- a. Bulbar spring catarrh.
- b. Episcleritis.
- c. Vascular pterygium.
- d. Phlyctenular conjunctivitis.

12. Topical steroids are contraindicated in a case of viral corneal ulcer for fear of:

- a. Secondary glaucoma
- b. Cortical cataract.
- c. Corneal perforation
- d. Secondary viral infection.

13. The sure diagnostic sign of corneal ulcer is

- a. Ciliary injection
- b. Blepharospasm
- c. Miosis
- d. Positive fluorescein test.

14. Herpes simplex keratitis is characterized by:

- a. Presence of pus in the anterior chamber
- b. No tendency to recurrence
- c. Corneal hyposthesia
- d. Tendency to perforate

15. Organism causing angular conjunctivitis is:

- a. Moraxella Axenfeld bacilli
- b. Pneumococci
- c. Gonococci
- d. Adenovirus

16. Chalazion is a chronic inflammatory granuloma of

- a. Meibomian gland
- b. Zies's gland
- c. Sweat gland
- d. Wolfring's gland

17. Deep leucoma is best treated by:

- A. Tattooing
- B. Lamellar keratoplasty
- C. Keratectomy
- D. Penetrating keratoplasty

18. In vernal catarrh, the characteristic cells are:

- a. Macrophage
- b. Eosinophils
- c. Neutrophils
- d. Epitheloid cells

19. Irrespective of the etiology of a corneal ulcer, the drug always indicated is:

- a. Corticosteroid
- b. Atropine
- c. Antibiotics
- d. Antifungal

20. Intercalary staphyloma is a type of:

- a. Equatorial staphyloma
- b. Posterior staphyloma
- c. Scleral staphyloma
- d. Anterior staphyloma

21. Most of the thickness of cornea is formed by:

- a. Epithelial layer
- b. Substantia propria
- c. Descemet's membrane
- d. Endothelium

22. A 30 years old male presents with a history of injury to the eye with a leaf 5 days ago and pain, photophobia and redness of the eye for 2 days. What would be the most likely pathology?

- a. Anterior uveitis
- b. Conjunctivitis
- c. Fungal corneal ulcer
- d. Corneal laceration

23. Ptosis and mydriasis are seen in:

- a. Facial palsy
- b. Peripheral neuritis
- c. Oculomotor palsy
- d. Sympathetic palsy

24. In DCR, the opening is made at:

- a. Superior meatus
- b. Middle meatus
- c. Inferior meatus

25. Schirmer's test is used for diagnosing:

- a. Dry eye
- b. Infective keratitis
- c. Watering eyes
- d. Horner's syndrome

26. Most common cause of adult unilateral proptosis

- a. Thyroid orbitopathy
- b. Metastasis
- c. Lymphoma
- d. Meningioma

27. Lagophthalmos can occur in all of the following except;

- a. 7th cranial nerve paralysis
- b. 5th cranial nerve paralysis
- c. Thyrotoxic exophthalmos
- d. Symblepharon

28. Proptosis is present in the following condition except:

- a. Horner's syndrome
- b. Orbital cellulitis
- c. Thyroid ophthalmopathy
- d. Cavernous sinus thrombosis

29. All of the following are part of uvea except:

- a. Pars plicata
- b. Pars plana
- c. Choroid
- d. Schwalbe's line

30. One of the earliest features of anterior uveitis includes:

- a. Keratic precipitates
- b. Hypopyon
- c. Posterior synechiae
- d. Aqueous flare

31. In anterior uveitis the pupil is generally:

- a. Of normal size
- b. Constricted
- c. Dilated

32. Aqueous humour is formed by:

- a. Epithelium of ciliary body
- b. Posterior surface of iris
- c. Lens
- d. Pars plana

33. Which laser is used for capsulotomy?

- a. Diode laser
- b. Carbon dioxide laser
- c. Excimer laser
- d. ND: YAG laser

34. Unilateral aphakia is likely to be corrected by any of the following except:

- a. Anterior chamber intraocular lens
- b. Posterior chamber intraocular lens
- c. Contact lens
- d. Glasses

35. Phakolytic glaucoma is best treated by:

- a. Fistulizing operation
- b. Cataract extraction
- c. Cyclo-destructive procedure
- d. Miotics and Beta blockers

36. Earliest visual rehabilitation occurs with:

- a. Phacoemulsification plus intraocular lens implantation
- b. Intracapsular cataract extraction plus intraocular lens implantation
- c. Extracapsular cataract extraction plus intraocular lens implantation
- d. Small incision cataract extraction

37. All the following associated open angle glaucoma include all the following except:

- a. Roenne's nasal step
- b. Enlarged blind spot
- c. Generalized depression of isopters
- d. Loss of central fields
- e. Tubular vision

38. Topical atropine is contraindicated in:

- a. Retinoscopy in children
- b. Iridocyclitis
- c. Corneal ulcer
- d. Primary angle closure glaucoma

39. A one-month old baby is brought with complaints of photophobia and watering. Clinical examination shows normal tear passages and clear but large cornea. The most likely diagnosis is:

- a. Congenital dacryocystitis
- b. Interstitial keratitis
- c. Keratoconus
- d. Buphthalmos

40. Number of layers in neurosensory retina is:

- a. 9
- b. 10
- c. 11
- d. 12

41. In retinal detachment, fluid accumulates between:

- a. Outer plexiform layer and inner nuclear layer.
- b. Neurosensory retina and layer of retinal pigment epithelium
- c. Nerve fiber layer and rest of retina.
- d. Retinal pigment epithelium and Bruch's membrane.

42. 100 days glaucoma is seen in:

- a. Central Retinal Artery Occlusion
- b. Branch Retinal Artery Occlusion
- c. Central Retinal Vein Occlusion
- d. Branch Retinal Vein Occlusion

43. Commonest lesion which hinders vision in diabetic retinopathy is:

- a. Macular oedema
- b. Microaneurysm
- c. Retinal hemorrhage
- d. Retinal detachment

44. Commotio retinae is seen in:

- a. Concussion injury
- b. Papilloedema
- c. Central retinal vein thrombosis
- d. Central retinal artery thrombosis

45. The most common primary intraocular malignancy in adults is:

- a. Retinoblastoma
- b. Choroidal melanoma
- c. Squamous cell carcinoma of conjunctiva
- d. Iris nevus

46. A patient of old standing diabetes mellitus noticed sudden muscae volitantes. On examination, the red reflex was dim, with no details of fundus could be seen. He might have:

- a. Non proliferative diabetic retinopathy
- b. Cystoid macular edema
- c. Vitreous hemorrhage
- d. Central retinal vein occlusion

47. Primary optic atrophy results from:

- a. Retinal disease
- b. Chronic glaucoma
- c. Papilledema
- d. Neurological disease

48. All are seen in 3rd nerve palsy except:

- a. Ptosis
- b. Diplopia
- c. Miosis
- d. Outwards eye deviation

49. Which is not found in papilloedema?

- a. Blurred vision
- b. Blurred margins of disc
- c. Cupping of disc
- d. Retinal edema

50. Optic disc diameter is:

- a. 1 mm
- b. 1.5 mm
- c. 2 mm
- d. 3 mm

51. Optic nerve function is best studied by:

- a. Direct Ophthalmoscope
- b. Retinoscope
- c. Perimetry
- d. Gonioscopy

52. Optic nerve axon emerges from:

- a. Ganglion cells
- b. Rods and cones
- c. Amacrine cells
- d. Inner nuclear layer

53. Homonymous hemianopia is the result of a lesion in:

- a. Optic chiasma
- b. Retina
- c. optic tract
- d. Optic nerve

54. D-shaped pupil occurs in:

- a. Iridocyclitis
- b. Iridodonesis
- c. Cyclodialysis
- d. Iridodialysis

55. All the following are extraocular muscle of eye except:

- a. Superior rectus
- b. Ciliary muscle
- c. Inferior oblique
- d. Superior oblique

56. The action of superior rectus is:

- a. Elevation, intorsion, abduction
- b. Elevation, intorsion, adduction
- c. Elevation, extorsion, adduction
- d. Elevation, extorsion, abduction.

57. The only extraocular muscle which does not arise from the apex of the orbit is:

- a. Superior rectus
- b. Superior oblique
- c. Inferior oblique
- d. Inferior rectus

58. In concomitant squint:

- a. Primary deviation > Secondary deviation
- b. Primary deviation < Secondary deviation
- c. Primary deviation = Secondary deviation
- d. None of the above

59. In grades of binocular vision; grade 2 is:

- a. Simultaneous macular vision
- b. Fusion
- c. Stereopsis

60. The best treatment for amblyopia is:

- a. Orthoptic exercises
- b. Occlusion
- c. Surgery
- d. Best treat after age 10 years