2. The example for flat bone is (a) Scapula, (b) Femur, (c) Vertebrae, (d) Maxilla.

1. Lesion in PONS may produce the syndrome called (a) Weber's Syndrome, (b) Horner's Syndrome, (c) Raynaud's Syndrome, (d) Medical Medullary Syndrome.

Choose the correct answer:

SECTION A — (20 × 1 = 20 marks)

Answer ALL questions.

Time: Three hours

Maximum: 100 marks

Neat labelled diagram must be drawn wherever necessary.

GENERAL ANATOMY

Part III — Optometrics

First Year

B.Sc. DEGREE EXAMINATION, DECEMBER 2010.

Q.P. Code: [07OPT01]
7. The example for condylar joint is
   (a) Shoulder joint
   (b) Elbow joint
   (c) Temporomandibular joint
   (d) Sternoclavicular joint

6. Absence of sweating on face and neck is called
   (a) Anhidrosis
   (b) Miosis
   (c) Enophthalmus
   (d) Brachial plexus

5. The length of the naso lacrimal duct is
   (a) 16 mm
   (b) 15 mm
   (c) 18 mm
   (d) 20 mm

4. The nerve which supplies stylohyoid muscle is
   (a) Mylohyoid nerve
   (b) Anterior belly of digastric nerve
   (c) Infrahyoid muscles
   (d) Anterior cervical sympathetic chain

3. Dangerous area of scalp is
   (a) Loose areolar tissue
   (b) Pericranium
   (c) Aponeurosis
   (d) Connective tissue

2. The tube is
   (a) 24 mm
   (b) 22 mm
   (c) 20 mm
   (d) 26 mm

11. The length of the cartilaginous part of Auditory tube is
   (a) Posterior interosseous nerve
   (b) Ulnar nerve
   (c) Median nerve
   (d) Radial nerve

10. Musician's nerve is
   (a) Brachialis
   (b) Biceps muscle
   (c) Serratus anterior muscle
   (d) Deltoid muscle

9. Boxer's muscle is
   (a) Syringophyma
   (b) Medial medullary syndrome
   (c) Weber's syndrome
   (d) Lateral medullary syndrome

8. Thrombosis of anterior spinal artery causes
   (a) Syringomyelia
   (b) Boxer's syndrome
   (c) Sprengel's deformity
   (d) Weber's syndrome
17. Muscles forming pelvic diaphragm is  

18. The nerve supply to the sartorius muscle is  

19. The longest cutaneous nerve of the body is  

20. The most common nerve injury of lower limb is  

(a) Saphenous nerve  
(b) Sciatic nerve  
(c) Peroneal nerve  
(d) Obturator nerve  

(d) Lower subclavian  
(c) Left common carotid  
(b) Brachiocephalic  
(a) Except  

16. Branches of Arch of Aorta includes following  

(c) Liver (left lobe)  
(b) Stomach  
(a) Pancreas  

15. The diaphragm separates the base of Left Lung  

(a) Radial nerve  
(b) Saphenous nerve  
(c) Peroneal nerve  
(d) Lateral cutaneous nerve of the body is  

(a) Common peroneal nerve  
(b) Medial plantar nerve  
(c) Lateral plantar nerve  
(d) Tibial nerve  

12. Round window of tympanic cavity is otherwise  

13. Coverings of tests includes following except  

(a) Transverse abdominis  
(b) Oblique abdominis  
(c) External oblique  
(d) Levator Ani  

14. Tunica adventitia  
(b) Tunica albuginea  
(c) Tunica vasculosa  
(a) Chorionic fascia  

11. Anterior of pelvis includes following except  

(a) Base of Shakes  
(b) Pubis  
(c) Peenea posterior  
(d) Peenea anterior  

10. Lt subclavian  
(c) Left common carotid  
(b) Brachiocephalic  
(a) Except
D I 153

7.

Branches of the glossopharyngeal nerve and artery.

29. (a) Branches of internal carotid and external carotid.

Write briefly about the contents in the root of the femoral triangle and the femoral triangle and contents of femoral.

Or

28. (a) Write the parts of uterine supports of uterus and causes of uterine prolapse.

Write the differences between jejunum and ileum.

Or

27. (a) Contents of inferior mesenterium and middle mesenterium.

Contents and functions of carpal tunnel syndrome and disorders.

Or

26. (a) Write about cells, fibers, and functions of connective tissue.

Long questions.

SECTION C — (5 x 10 = 50 marks)

6.

(b) Structures that cross pelvic brim.

Or

25. (a) Deltoide ligament of ankle joint.

Or

24. (a) Branches of internal iliac artery.

Or

23. (a) Nerves related to pectoral girdle.

Or

22. (a) Classification of synovial joints.

Or

21. (a) Functions of the skin.

Short notes.

SECTION B — (6 x 6 = 36 marks)
cerebellar peduncle.

Superior cerebellar peduncle and inferior.

(b) Write briefly about constituent fibers of

Or

popliteal fossa.

popliteal fossa and structures contained in

popliteal fossa.

Structures that forming boundaries of

30.
2. The specific gravity of whole blood is
(a) Leucocytosis.
(b) Leucopenia.
(c) Anaemia.
(d) Lymphocytosis.
(e) Lymphopenia.

A condition with decreased number of platelets in blood is known as

Given,
Select the most appropriate answers from the answers (20 x 1 = 20 marks)

SECTION A

Answer all questions.

Time: Three hours
Maximum: 100 marks

GENERAL PHYSIOLOGY
Part III - Options
First Year
B.Sc. Degree Examination, December 2010
(For the candidates admitted from 2007 onwards)
1. Normal plasma ACTH level is
   (a) 6.8
   (b) 8.8
   (c) 8.6
   (d) 6.8

2. The pH of fetal section is
   (a) India
   (b) Australia
   (c) USA
   (d) UK

3. AIDS was first detected in
   (a) myxodema
   (b) myxoedema
   (c) cretinism
   (d) cretinoid

4. Oxygen consumed by heart at rest is
   (a) 2 to 2.5 ml / minute
   (b) 1.5 to 2 ml / minute
   (c) 1 to 1.5 ml / minute
   (d) 0.5 to 1 ml / minute

5. Vitamin C deficiency causes
   (a) beriberi
   (b) pellagra
   (c) xerophthalmia
   (d) scurvy

6. The length of the large intestine is
   (a) 2.5 meters
   (b) 2.0 meters
   (c) 1.5 meters
   (d) 2.5 meters

7. Temporary cessation of breathing is known as
   (a) apnoea
   (b) bradypnoea
   (c) hypopnoea
   (d) hyperpnoea

8. The normal eugonerialpiration rate is
   (a) 120 ml / min
   (b) 10 ml / min
   (c) 210 ml / min
   (d) 130 ml / min

9. Normal refractive function of the eye is
   (a) hypermetropia
   (b) myopia
   (c) astigmatism
   (d) emmetropia

10. A condition of hyperthyroidism appearing in adults
    (a) myxoedema
    (b) hypermetropia
    (c) myopia
    (d) hyperthyroidism
12. Normal WBC count is

17. Oxygen capability of 1 cm of Hg is

16. The length of the trachea is

15. The amount of air left behind in the lungs at the

20. The amount of air left behind in the lungs at the

19. pH value of urine normally varies from

18. pH value of stomach secretion is

11. Chemical composition of the muscles.

SECTION B — (6 × 6 = 36 marks)

Complete ventilatory volume
Supplemental volume
Residual volume
Minimal volume

end of deep expiration is known as

21. (a) 25 cm
22. (a) 12 cm
23. (a) 6.5 - 7.5
24. (a) 4.8 - 7.5

(a) 7.25
(b) 7.28
(c) 7.25
(d) 7.25

(a) 3.000 - 6.000 / cm²
(b) 2.000 - 7.000 / cm²
(c) 2.000 - 8.000 / cm²
(d) 4.000 - 6.000 / cm²
Write in detail about mid-brain.

Or

28. (a) Write about the functions of skin.
   (b) Write briefly about acute renal failure.

Or

27. (a) Explain about basal metabolic rate.
   (b) Functions of spleen.

Or

26. (a) Functions of blood.

Long answers.

SECTION C — (6 marks)

25. (a) Functions of kidney.
   (b) Functions of placenta.

24. (a) Deep reflexes.
   (b) Functions of thalamus.

29. (a) Write briefly about formation, composition and absorption of C.S.F.

Or

30. (a) Write briefly about sympathetic and actions of adrenaline.

Or

Functions of osteogenes.
OPTICS AND REFRACTION

PAPER I - OPERATIONS
FIRST YEAR
B.Sc. DEGREE EXAMINATION, DECEMBER 2010

FOR THE CANDIDATES ADMITTED FROM 2007 ONWARDS

P.R. Code : 07 OPT 03

Reg. No. :
3. Premature cataract of the lens
   (a) Uncorrected myopia
   (b) Primary open angle glaucoma
   (c) General debility
   (d) Following except
   Causes of premature presbyopia included all of the
   (d) Compound hypermetropic astigmatism
   (e) Mixed astigmatism
   (f) Compound myopic astigmatism
   (g) Simple myopic astigmatism
   (h) Vision is comparatively good in
   Because of circle of least dilution the distant
   (d) Chromatic aberration
   (e) Bare distortion
   (f) Spherical aberration
   (g) Prismatic distortion

Commonly notice
An aphakic wearing aphakic glasses will most

7. The visual axis of the eye meet the retina at a
   (a) Vitreous humor
   (b) Lenses
   (c) Cornea
   (d) Aqueous humor
   (e) Cornea

9. The most common type of refractive error is
   (d) Astigmatism
   (e) Hypermetropia
   (f) Myopia
   (g) None of the above

6. One millimeter increase in the radius of curvature
   of corneal leads to hypermetropia of
   (d) Astigmatism
13. The principle of the stenopaeic SGT test is based on (a) Aesthetic fan (b) Pin hole phenomenon (c) \( \text{Pin hole phenomenon} \) (d) Strum's conoid

12. Subjective verifications of refraction are not required (a) Quick procedure (b) Gives information about spherical and cylindrical error (c) Measures interpapillary distance except (d) Subjective verifications of refraction is not required

11. The most long acting cycloplegic drug is (a) Atropine (b) Homatropine (c) Cyclenolate (d) Tropicamide

10. Bilateral paralysis of accommodation can occur in (a) Malaria (b) Diphtheria (c) TB (d) Mumps

9. Excessive accommodation causes (a) Hypermetropia (b) Pseudomyopia (c) Myopia (d) Hypermetropia

8. Connect lens is best used in (a) Hypermetropia (b) Myopia (c) Pseudomyopia (d) Hypermetropia

7. Connect lens is best used in (a) Hypermetropia (b) Myopia (c) Pseudomyopia (d) Hypermetropia

6. Hard contact lenses are made of (a) HEMA (b) Glass (c) PMMA (d) Glass

5. A difference in the size of two retinal images of different diameters can be well tolerated (a) 5% (b) 2% (c) 10% (d) 3%

4. Excessive accommodation causes (a) Hypermetropia (b) Pseudomyopia (c) Myopia (d) Hypermetropia
(b) Write in detail about low vision aids.

2. (a) Define hypermetropia, clinical types, signs and symptoms and treatment of hypermetropia.

Essay:

SECTION C — (6 x 10 = 60 marks)

(b) Investigation of hypermetropia.

26. (a) Jackson's crossed cylinder.

27. (b) Astigmatism.

28. (a) Asthenopia.

29. (a) Congenital strabismus.

30. (b) Mechanism of accommodation.

31. (b) Refraction of aphakic.

32. (a) Classification of regular astigmatism.

33. (b) Chromatic aberration.

34. (a) Summ's corneal.

SECTION B — (5 x 6 = 30 marks)

35. (b) Dimmetropic

36. (b) Myopic

37. (a) Hypermetropic

38. (a) Across eye is usually

39. (a) 21 mm

40. (a) 23 mm

41. (a) 31 mm

42. (a) back of cornea is absent.

19. In an aphakic eye posterior focal point from the

18. Irregular surface

17. Tonic surface

16. Convex spherical

15. Concave spherical surface

14. Refracted through
27. (a) Write in detail about aphakia.

Or

30. (a) Define astigmatism clinically type and sign and advantages and disadvantages of contact lenses.

Or

29. (a) What are the special types of spectacles?

Or

28. (a) Various pathologic optical defects in eye.

Or

Various anatomies of accommodation.

Or

What is the need of accommodations and

Or

Various physiological optical defects in eye.
SECTION A — (20 x 1 = 20 marks)

1. The drug example for alkaloid is
   (a) phenylephrine
   (b) morphine
   (c) insulin
   (d) penicillin
   (e) amphetamine
   (f) Interferon
   (g) Insulin
   (h) Anti-rabies vaccine

Principles of clinical drug evaluation that apply to medicine is
   (a) therapeutically
   (b) chemically
   (c) pharmacologically
   (d) pharmaceutically
   (e) mechanism of action

Choose the correct answer:
   (a) Antihypertensive drug includes following except
      (b) solution
      (c) emulsion
      (d) ointment
      (e) lotion
   (a) Antihypertensive drug includes following except
      (b) solution
      (c) emulsion
      (d) ointment
      (e) lotion

2. A genuine preparation containing insoluble material for external application is called
   (a) sublingual
   (b) intravenous
   (c) subcutaneous
   (d) intradermal
   (e) intramuscular

3. When the drug is introduced in the subarachnoid space it is called as
   (a) intravenous
   (b) intradermal
   (c) subcutaneous
   (d) intramuscular
   (e) intermuscular

PREVIOUS YEAR'S DEGREE EXAMINATION, DECEMBER 2010

1. The code is [07 OPT 07]
2. Ref. No. 164
D I64

4. Antiviral agents
   (a) Antibiotics
   (b) Antimicrobics
   (c) Antifungals
   (d) Antimalarials
   (e) Emetics
   (f) Antihistamines
   (g) Antivirals
   (h) Chloroquine is an example for antimalarials.

11. Drugs which promote protein absorption is known as transfer of a drug from the site of administration.
   (a) Mydriatics
   (b) Anti-glaucoma agents
   (c) Miotics
   (d) Alpha blockers
   (e) Atropine is a drug of anticholinergic action.

12. Antidotes for narcotics
    (a) Analgesics
    (b) Narcotics
    (c) Regional anaesthetics
    (d) Spinal anaesthetics
    (e) Local anaesthetics
    (f) General anaesthetics
    (g) Locally is a nerve block which nerve conduction when applied locally.

9. Drugs which improve quality and quantity of RBC
   (a) Blood substitutes
   (b) Plasma substitutes
   (c) Hematinics
   (d) Chemotherapy
   (e) Chemophobia

8. Prevention of disease as well as prevention of infection by chemical agent is known as.
   (a) Hydrolysis
   (b) Solubility
   (c) Absorption
   (d) Hydration
   (e) Dilution
26. (a) Factors influencing drug metabolism.
(b) Long question:
SECTION C — (6 × 10 = 60 marks)
(c) Metabolic functions of Vitamin C.
(d) Uses of cortisone.
(e) Uses of cortisone.
(f) Uses of cortisone.

27. (a) Drugs used in urinary tract infections.
(b) Toxicity of antidepressants.

28. (a) Classification of antihtensive drugs.
(b) Routes of excretion of drugs.

29. (a) Differences of drug therapy.
(b) Uses of products.

30. (a) Agents which promote skin pigmentation.
(b) Agents which promote skin pigmentation.

31. (a) Effects of receptors.
(b) Activity of receptors.

32. (a) Measures of the tendency of the drug to disintegrate.
(b) Antiseptics.
(c) Immune agents.
(d) Immuno suppressive agents.

33. (a) Differences.
(b) Antiseptics.
(c) Immune agents.
(d) Called as suppressive agents.

34. (a) Drugs used to suppress immune reaction are.
Failure of diagnosis in consecutive cardiac

Or

Drugs used in mental disorders.

Or

Classification of antiepileptic drugs.

Or

Classification of anিহপস.

Or

Respiratory stimulants.

Or

Anti-inflammatory agents.

Or

Modes of administration of drugs.

Or

Factors determining drug action.
8. The milk production by the lactating mother is
   (a) 950 ml/day
   (b) 850 ml/day
   (c) 750 ml/day
   (d) 650 ml/day

   The iron requirement for the pregnant woman is
   (a) 11 mg
   (b) 10 mg
   (c) 9 mg
   (d) 8 mg

6. Daily requirement of calcium for the following
   (a) 40 mg
   (b) 50 mg
   (c) 60 mg
   (d) 70 mg

5. Daily requirement of vitamin C for an adult is
   (a) 2000 Kcal/day
   (b) 2200 Kcal/day
   (c) 2300 Kcal/day
   (d) 2400 Kcal/day

4. Caloric requirement for the sedentary male
   (a) 10 Em
   (b) 9 Em
   (c) 8 Em
   (d) 7 Em

3. Protein content of an egg is
   (a) 9 Em
   (b) 8 Em
   (c) 6 Em
   (d) 4 Em

2. Daily requirement of vitamin A for infant is
   (a) 400 - 600 IU
   (b) 0 - 400 IU
   (c) 2000 Kcal
   (d) 2800 Kcal

Choose the correct answers:

SECTION A - (20 x 1 = 20 marks)

Answer all questions.

Time : Three hours

Maximum : 100 marks

NUTRITION

Part III - Option B

Second Year

B.S. Degree Examination, December 2010

For the candidates admitted from 2007 onwards

Q.P. Code : [07 OPT 06]

Re#: No: ————

D 158
15. The daily requirement of iron for the old people is
   (a) 20 mg
   (b) 30 mg
   (c) 40 mg
   (d) 50 mg

16. Daily requirement of potassium is
   (a) 1.2 g
   (b) 2.4 g
   (c) 3.6 g
   (d) 4.8 g

17. Increased calcium level is called as
   (a) Hypercalcemia
   (b) Hypokallemia
   (c) Hyperkalemia
   (d) Hypocalcemia

18. Daily requirement of pyridoxine is
   (a) 1 mg
   (b) 2 mg
   (c) 3 mg
   (d) 4 mg

19. The chemical name of vitamin B1, (Thiamine) is
   (a) Pyridoxine
   (b) Thiamine
   (c) Calcium
   (d) Retinol

20. Vitamin D is chemically known as
   (a) Calciferol
   (b) Retinol
   (c) Aminopterin
   (d) Locopheryl

11. Specific gravity of saliva is
   (a) 1.004 - 1.008
   (b) 1.002 - 1.004
   (c) 0.996 - 1.010
   (d) 1.004 - 1.008

12. 16 ounce is equal to
   (a) 1 pound
   (b) 1 gallon
   (c) 1 pint
   (d) 1 quart

13. National Colorectal Cancer Program was started in the year
   (a) 1993
   (b) 1994
   (c) 1995
   (d) 1996

14. The amount of sugar in cow's milk compares to
   (a) 1972
   (b) 1973
   (c) 1974
   (d) 1975

15. None of the above.
   (a) High
   (b) Equal
   (c) Low
   (d) None of the above.
Write briefly about the meaning of:

- Functions of saliva and sialochemicals.
- Types of diet.
- Curative effect of beta-carotene.
- Functions and sources of vitamin B1.
- Functions of fat.
- Classification of fat.
- Classification of proteins.

26. (a) Classification of carbohydrates.

27. (a) Supplementary reading programme.

28. (a) Methods of cooking.

29. (a) Write a brief presentation of fibre.

30. (a) Functions of water.

Long questions:

SECTION C — (6 x 10 = 60 marks)
Write about Sources, Functions, Daily

(b)

Vitamin C: Requirement and Deficiency diseases of

Vitamin B: Requirement and Deficiency diseases of
8. The nerve supply of the extracocular muscles is mainly by
   (a) 4th cranial
   (b) 5th cranial
   (c) 3rd cranial
   (d) ophthalmic nerve.

9. The length of the optic foramina is
   (a) 6.0 mm
   (b) 8.0 mm
   (c) 10.0 mm
   (d) 12.0 mm

Choose the correct answer:

SECTION A - (20 x 1 = 20 marks)

Answer all questions.

Maximum: 100 marks

OCULAR ANATOMY

Part III - Optional

Second Year

B.A. DEGREE EXAMINATION, DECEMBER 2010

FOR THE CANDIDATES ADMITTED FROM 2007 ONWARDS

G.P. CODE: [07 OPT 04]

REG. NO.:
1.8. Sclera has 3 layers.
1.7. The cornea consists of:
   - Ciliary artery
   - Lachrymal artery
   - Optic nerve
1.6. The blood supply of the eye is by:
   - Ibtoloid
   - Forenx
   - Pupillar
1.5. The confluence at the corneal junction
   - 6 ml
   - 3.5 ml
   - 4.5 ml
1.4. Volume of the vitreous cavity is
1.3. Middle vascular coat of eyeball consists of:
   - 24.5 mm
   - 22.5 mm
   - 23.5 mm
1.2. Horizontal diameter of the eyeball is:
   - 13.5 mm
   - 12.5 mm
   - 11.5 mm
1.1. The circular diameter of the cornea is:
   - 7 (p)
   - 6 (q)
   - 3 (a)
1.0. The thickness of the Bruch's membrane is
   - Bowman's layer
   - Substantia posterior
   - Descemets membrane
   - Endothelial layer
9. Hassel-Henle's bodies present in
Long questions

SECTION C — (6 x 10 = 60 marks)

26. Write briefly about choroid.
27. Write in detail about chambers of the eye.
28. Write briefly about extraocular muscles.
29. Write briefly about ciliary muscles.
30. Describe in detail about the cornea.
31. Write about blood supply of the eye.
32. Write briefly about ciliary body.
33. The contents of the orbit.
34. Limbus
35. Pupillary membrane
36. Ciliary processes
37. Functions of the pupil.
38. Regions of the retina.
39. Structure of the iris.
40. Structure of sclera.
41. Epiphora
42. Parts of conjunctiva.
43. Formation of aqueous humour is by
44. Choroid
45. Retina
46. Ciliary muscle
47. Ciliary processes
11. Cherry red spot is seen in ___________.

10. Plane shaped hemorrhage are commonly in ___________.

9. Hyperlipidemia can cause ___________.

8. Pseudo membrane conjunctivitis is caused by ___________.

7. Angular conjunctivitis is caused by ___________.

6. Interstitial keratitis is seen in ___________.

5. Active infection of rubella is indicated by raised ___________.

4. Deficiency of Vitamin A is due to deficiency of ___________.

3. Oral form of Vitamin A is ___________.

2. Hypophaemia, subconjunctival hemorrhage can be of WHO classification of Xerophthalmia ___________.

1. Cornea xerosis is seen in ___________.

SECTION A — (10 x 2 = 20 marks)

Maximum : 100 marks

Time : Three hours

Systemic Pathology

Part III - Ophthalmic

Third Year

B.Sc. Degree Examination, December 2010

For the candidates admitted from 2007 onwards

Q.P. Code : [07 OPT 10]

Re-E. No.
Differentiate between Granulomatous and Non-granulomatous Uveitis

Or

33. (a) Discuss on classification and clinical features of Uveitis.
        (b) Write a short note on Endophthalmitis.

Or

22. (a) Vitamin deficiencies. Discuss on various ocular manifestations and treatment of ocular complications.

Or

21. (a) Discuss a role of Vitamin A in a patient.

Answer all questions.

SECTION B — (6 x 5 = 30 marks)

16. Stevens Johnson Syndrome leads to
   (a) Rosacea
   (b) Punctal Infection
   (c) Acanthamoebae
   (d) Both above
   (e) None of above

17. Peripheral marginal keratitis seen in
   (a) Adenoviral keratitis
   (b) Fungal keratitis
   (c) Tuberculosis
   (d) None of above

18. Papilloedema is seen in intracranial Tumor of all
   (a) Optic Nerve
   (b) Optic tract
   (c) Optic chiasma
   (d) None of above

19. Disc edema with macular exudates is
   (a) Optic neuritis
   (b) Neuroretinitis
   (c) Retinal detachments

20. Inferior homonymous quadrantanopia is seen in
   (a) Sulpher Dioxide
   (b) Herpes simplex
   (c) Both above
   (d) None of above

21. Stevens Johnson Syndrome can be caused by
   (a) Adenoviral keratitis
   (b) Fungal keratitis
   (c) Tuberculosis
   (d) None of above
26. (a) Describe WHO classification and prevention of keratoconus.

SECTION C — (5 x 10 = 60 marks)

27. (a) Discuss clinical feature, complication and management of Toxoplasmosis chorioretinitis.

Or

28. (a) Discuss clinical features, management of Vitamin A deficiency.

Or

29. (a) Discuss clinical features, management and measurement of Ocular manifestation of AIDS.

Or

30. (a) Discuss clinical features, classification and measurement of Prophylactic diabetic retinopathy.

Or

Discuss classification and complications of Neuritis Optica.

Or

Discuss the characteristic and management of Abnormal pupil light reaction.

Or

Discuss the pathology of Optic Neuritis.
Excessive movement of lenses over cornea indicates

- None of above.
- (c) = HVID
- (q) < HVID

Over all domain of a soft contact lenses is

- None of above.
- (c) ideal fit
- (q) near fit

Intermediate dark zone in lens fitting indicates

- None of above.
- (c) ideal fit
- (q) near fit

Central bright green hexagonal standing with

- None of above.
- (c) ideal fit
- (q) near fit

Hexagonal standing indicates

- Central dark area with peripheral bright green
- None of above.
- (c) remains same
- (q) decreases

As the lens thickness increases, the oxygen
- None of above.
- (c) remains same
- (q) decreases

Oxygen permeability of a lens increases if
- As the water of hydration of a lens increases, it
- None of above.
- (c) remains same
- (q) decreases

PMMA - PPD.
- (c) Silirene
- (q) PMMA

Hydrogel materials include
- None of above.
- (c) Silicone Acrylate
- (q) HEMA
- (a) PMMA

RGP lens materials include

Answer all questions.

SECTION A - 20 x 1 = 20 marks

Time: Three hours
Maximum: 100 marks

CONTRACT LENSES

PART III - OPMER

Third year

B.S.C. DEGREE EXAMINATION, DECEMBER 2010

For the candidates admitted from 2007 onwards

G.P. Code: [07 OPT 12]

Re: No.
12. Large Lens Cells can be glued in
   (a) Prephyrin
   (b) Pseudophakia
   (c) Aphakia
   (d) Keratoconus
   (e) Pseudophakia

13. An example of a therapeutic contact lens is
   (a) Pseudo-Lenses
   (b) Permanent Lenses
   (c) CSI Lenses
   (d) Hydrocurve Lenses

14. A cosmetic contact lens is used for
   (a) Cosmetic Enhancement
   (b) Coloured Lenses
   (c) Ophthalmology
   (d) Polycarbonate

15. Clear edge with high brown tint is seen in
   (a) Polycarbonate
   (b) Aluminin
   (c) Ophthalmology
   (d) cosmetic enhancement

16. Ultrathin or membrane lenses are indicated in
   (a) C (b) A
   (c) A
   (d) B

17. Endothelial polymorphism and polymorphisms are seen mostly with use of
   (a) All the above
   (b) All the above
   (c) Bulbus Keratopathy
   (d) Desmeatalization
   (e) Perforated defect

18. Use of homodense saline causes Keratite due to
   (a) Sof# Lenses
   (b) RGP Lenses
   (c) PMMA Lenses
   (d) All the above

19. Percent of water content in low water content extended wear lenses with high water
   (a) CSI lenses
   (b) Solution lenses
   (c) Hydrocurve lenses
   (d) Perma lenses
SECTION A — (6 x 10 = 60 marks)

26. (a) Explain in detail contact lens materials

Answer ALL questions.

(SECTION C — 6 x 10 = 60 marks)

27. (a) What is enzyme cleaning of contact lenses?

Or
c. Contact lens use
25. (a) Write briefly on complications and
are they needed?

What are bandage contact lenses and where

Or
24. (a) How can contact lenses be used for

(d) Write short notes on extended wear rigid

Or
23. (a) Write short notes on extended wear hydrogel

Or
19. Polyvinyl alcohol is a

20. Benzenonium chloride is a

(d) Soaking solution

(c) Enzymatic cleaner

(b) Cleaning agent

(c) Watering agent

Or

Write short notes on hard lens problems.

Or

Fill the properties of an ideal contact lens

Answer ALL questions.

(SECTION B — 6 x 6 = 36 marks)

22. (a) Write short notes on HCP lens materials.

Or
Write briefly on care of contact lenses.

Or

What are the complications of contact lenses? (b) 30.

Or

Wear therapeutic contact lenses? What are the indications for use of contact lenses? (a) 29.

Write about contact lens fitting in asshole.

Or

Write briefly on extended wear lenses.

Or

Explain fitting procedure of soft contact lenses.

Or

Explain fitting procedure of rigid contact lenses.
1. Direct opthalmoscope with +20 D lens.
   - Condensation nubes
   - Age related macular degeneration
   - Hereditary retinopathy
   - Glaucoma
   - Conditions except
2. Direct opthalmoscope can be used in the following
   - Real, inverted and magnified
   - Virtual, inverted and magnified
   - Real, inverted and magnified
   - Image in indirect opthalmoscope is
   - Traumatic cataract
   - Cataract
   - PCO
   - YAG laser is used for
   - Anterior segment
   - Posterior segment
   - Iris vessels
   - Retinal vessels
   - Disc
   - All except structures seen with indirect opthalmoscope are

SECTION A — (20 x 1 = 20 marks)

Time: Three hours
Maximum: 100 marks

OPTICAL INSTRUMENTS IN OPHTHALMOLOGY

PART III — Ophthalmology

Third Year

R.S.E., DEGREE EXAMINATION, DECEMBER 2010

For the candidates admitted from 2007 onwards

G.P. Code: [07 OPT III]

Reg. No.
1. Optic coherence tomography (OCT) is used for:
   - (a) Both of the above
   - (b) Retinal layers
   - (c) Macula
   - (d) None of the above

2. A specular microscope is used for:
   - (a) To detect retinal microaneurysms
   - (b) To diagnose diabetic retinopathy
   - (c) To see opacity in reticulocyte media
   - (d) None of the above

3. ARM stands for:
   - (a) Retinal vessel anomaly
   - (b) Retinal angiography
   - (c) Retinal fluorescent angiography
   - (d) None of the above
Discuss the clinical applications of operant

Or

Discuss the clinical applications of

Or

Explain the advantages and disadvantages

Or

Discuss the advantages and disadvantages

Or

Discuss the advantages and disadvantages

Or

What are the advantages and disadvantages

Or

What are the advantages and disadvantages

Or

Discuss the advantages of keratometer

Or

Discuss the advantages of keratometer

Answer ALL questions.

SECTION B — (6 × 6 = 36 marks)

(a) None of the above

(b) Can be used for IOL power

(c) Assessing visual acuity

(d) Assessing visual field

(e) Perimeter is used for

(f) Automated keratometer

(g) B scan

(h) Otopan scan

(i) Keratometer

19. IOL power calculation requires

(a) None of the above

(b) HIs cannot be visualized

(c) Cup:RD

(d) Puntal shaped RD

18. Total RD is seen in D scan as

(a) All the above

(b) Extracocular muscle insertion

(c) IOL position

(d) Intraocular foreign body

B scan can be used for
27. (a) What is the technique of indirect ophthalmoscopy?
(b) What is the method of analysis of images by indirect ophthalmoscopy and also discuss briefly advantages and disadvantages of indirect ophthalmoscopy.

28. (a) Discuss the clinical application of indirect ophthalmoscopy. Advantages and disadvantages of indirect ophthalmoscopy. Discuss the two techniques of indirect ophthalmoscopy. (b) Discuss the clinical application of ophthalmometer with OCT.

29. (a) Discuss briefly on OCT power calculation. Components of operational microscope. Briefly discuss the components of operational system of ophthalmoscopy. Diagram a schematic diagram depicting advantages and disadvantages. Mention its clinical applications. (b) How OCT is used in today's practice.

30. (a) Discuss briefly on B-scan, its principle and disadvantages of direct ophthalmoscopy. Compare direct vs indirect ophthalmoscopy. Discuss the optics.
4. Phenomena of Interference and Diffraction is

5. The features of an image formed by a plane mirror

6. The features of an image formed by a concave mirror

7. A Real inverted image equal to size of object is

Beyond

8. At infinity

9. (a) A + C

10. (p) (p) (q)

11. Einstein

12. (c) Maxwell

13. (a) Newton

14. (c) Huygens

15. (a) Newton

16. (c) Quantum theory was proposed by

17. (p) (p) (q)

18. Einstein

19. (c) Maxwell

20. (a) Huygens

21. (c) Electromagnetic theory was proposed by

22. (a) Newton

23. (c) 300 - 600 nm

24. (p) 500 - 800 nm

25. (a) 400 - 700 nm

26. (a) 200 - 400 nm

27. Visible spectrum of light is from

28. Answer ALL the questions.

SECTION A - (20 × 1 = 20 marks)

Maximum: 100 marks

Time: Three hours

Third Year

PHYSICAL AND GEOMETRIC OPTICS

PART III - OPTOMETRICS

B.Sc. DEGREE EXAMINATION, DECEMBER 2010.

For the candidates admitted from 2007 onwards

G.P. Code: [OT] OPT 13

Reb. No.
11. Each letter of the Snellen chart subtends an angle of the nodal point of the eye.

10. An example of detection equality test is:
   (a) Snellen's Landolt
   (b) Snellen's Chart
   (c) Dot-in-circle test
   (d) Domino's card test

9. The best example of minimum determinable of
   (a) All of the above
   (b) Cyloroscope
   (c) Application gonioscopes
   (d) Applicating lines

8. Principle of focal internal reflection used in

7. An example of detection equality test is:
   (a) Snellen's Landolt
   (b) Snellen's Chart
   (c) Dot-in-circle test
   (d) Domino's card test

6. An angle formed between the visual axis and:
   (a) Fovea
   (b) Retinal axis
   (c) Retinal line
   (d) Retinal line

5. One diopter is the reciprocal of focal length

4. One diopter is the reciprocal of focal length

3. In listing reduced eye position of the anterior
   (a) Angle kappa
   (b) Angle beta
   (c) Angle alpha

2. Angle formed between the optical axis and visual
   (a) Degrees
   (b) Inches
   (c) Centimeters
   (d) Meters

1. A cone is in front of:
   (a) Anterior chamber
   (b) Posterior chamber
   (c) Iris
   (d) Cornea
D 163

20. Hypoametropia is corrected by

(c) Convex lens

(a) Spherical lens

(b) Simple cylinder

(c) Compound astigmatism is corrected by

(c) None of the above

(a) Astigmatism

(b) Hypermetropia

(c) Myopia

19. Parallel rays of light are brought to focus in front

(c) All of the above

(a) Oblique aberration

(b) Chromatic aberration

(c) Spherical aberration

18. Optical aberrations of eye include

(a) None of the above

(b) Convex lens

(c) Simple cylinder

(b) Concave lens

17. Answer all questions.

SECTION D — (5 x 6 = 30 marks)
26. (a) The nature of light. Explain briefly various theories describing the nature of light.

27. (a) What is LASER? Explain its principle of operation.

28. (a) Write short notes on ocular chromatic aberrations.

29. (a) Give examples of lenses which measure each type of aberration.

30. (a) What are the components of visual acuity?

Or

31. (a) What are the defects of the eye with spherical significance?

Or

32. (a) Explain the axes and angles of the eye with reference to it.

Or

33. Describe the errors of refraction.

Or

Or

Or

Or
Section A – (20 X 1 = 20 Marks)

Answer all the questions

1. Pannus is a term applied for
   a. Superficial neovascularization
   b. Epithelial oedema
   c. Epithelial keratitis

2. Vascularization in diabetic retinopathy can be detected by
   a. Retroillumination
   b. Appearance of ulcer
   c. Indirect ophthalmoscopy

3. Lipid deposition in cornea follows
   a. Chronic inflammation
   b. Breaks in the membrane
   c. Vascularization

4. ______ is a filamentous fungi
   a. Aspergillus spp.,
   b. Nocardia spp.,
   c. Klebsiella spp.,

5. The lens has _____ parts.
   a. One
   b. Two
   c. Three

6. Identification of pathogens in lens-induced endophthalmitis is by
   a. Aqueous samples
   b. Vitreous samples
   c. Both a & b
7. The common cause of congenital cataract is
   a. Autosomal dominant (AD)
   b. Autosomal recessive (AR)
   c. None of the above

8. Lens is a vital _______ element.
   a. Refractive
   b. Diffractive
   c. Distractive

9. Rubeosis iridis is Vascularization of the
   a. Iris
   b. Choroid
   c. Retina

10. Ingrowths of vessels & associated tissues in the macular region is referred as
    a. Melanoma
    b. Retinal neovascularization
    c. Choroidal neovascularization

11. Mantoux test involves intradermal injection of purified protein derivative from
    a. *Mycobacterium tuberculosis*
    b. *Mycobacterium bovis*
    c. *Mycobacterium leprae*

12. ______ controls the amount of light transmitted into the eye.
    a. Ciliary body
    b. Iris
    c. Choroid

13. Glaucoma is classified as
    a. Congenital
    b. Acquired
    c. Both a & b

14. Vitamin ___ is supplemented for patients with retinitis pigmentosa.
    a. C
    b. K
    c. A

15. ‘Normal’ IOP in elderly women ranges upto
    a. 24 mmHg
    b. 21 mmHg
    c. 16 mmHg
16. Rod-cone dystrophy affects the ________ more severely.
   a. Rod photoreceptors
   b. Cones
   c. None of the above

17. Nocardia is a ________ filamentous bacterium.
   a. Gram positive
   b. Gram negative
   c. None of the above

18. Mycobacterium tuberculosis is stained with ________ as primary stain.
   a. Carbol fuchsin
   b. Crystal violet
   c. Giemsa stain

19. Neisseria gonorrhea is a
   a. Gram positive coccobacilli
   b. Gram negative diplobacilli
   c. Gram positive cocci

20. ________ conjunctivitis is the most common viral infection.
   a. Adenovirus
   b. Varicella zoster virus
   c. Herpes simplex virus

SECTION – B (5 X 6 = 30 Marks)
1. a. How to control the infections & inflammation of cornea?
   (Or)
   b. Write notes on a. Melanosis b. Corneal neoplasia

2. a. Explain the cellular events of the lens.
   (Or)
   b. Describe the clinical features of lens-induced uveitis.

3. a. Write short notes on choroidal neovascularization.
   (Or)
   b. Explain the inflammation of uveal tract.

4. a. Write the clinical features of rod-cone dysplasia.
   (Or)
   b. What is rod-cone degeneration?

5. a. Explain the diagnosis of bacterial eye pathogens.
   (Or)
   b. Write about the fungal eye pathogens.
SECTION – C (5 X 10 = 50 Marks)

1. a. Describe the various types of mycotic keratitis.
   (Or)
   b. Describe general reactions of corneal inflammation.

2. a. Describe the pathogenesis of sugar cataract.
   (Or)
   b. Elaborate on the pathogenesis & prophylaxis of lens-induced endophthalmitis.

3. a. Describe the various stages of equine recurrent uveitis.
   (Or)
   b. Elaborate on the retinal neovascularization.

   (Or)
   b. Write in detail about the pathology of glaucoma.

5. a. Explain the pathogenesis of viral eye pathogens.
   (Or)
   b. Explain the diagnosis & treatment of mycobacterial eye pathogens.