

## MANIPAL UNIVERSITY

THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – DECEMBER 2011

SUBJECT: SQUINT AND BINOCULAR VISION  
(COMMON FOR BOTH OLD AND NEW REGULATION)

Monday, December 12, 2011

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Draw diagrams wherever necessary.

**1. Fill up the blanks.**

- 1A. Absence of elevation in adduction is a feature of \_\_\_\_\_.
- 1B. Yoke muscle of right superior rectus is \_\_\_\_\_.
- 1C. Convergence sufficiency is diagnosed if NPC is \_\_\_\_\_.
- 1D. Hall mark of retinal disparity is \_\_\_\_\_.
- 1E. \_\_\_\_\_ diplopia is seen in esotropia.

(1×5 = 5 marks)

**2. Write short notes on (any SEVEN)**

- 2A. Third cranial nerve palsy
- 2B. Microtropia
- 2C. A and V pattern squint
- 2D. Brief on the following tests:
  - i) Maddox rod
  - ii) Maddox wing
- 2E. Eccentric Fixation
- 2F. Differentiate between sensory fusion, motor fusion and retinal rivalry.
- 2G. Empirical clues
- 2H. Define Accomodation. NPA, its determination and clinical significance.

(5×7 = 35 marks)

**3. Answer BOTH the questions.**

- 3A. Define BSV. Brief on pre requisites, advantages and four abnormalities of BSV.
- 3B. What is concomitant squint? What are the steps followed in examination of a concomitant squint patient of age 2 years to reach a diagnosis.

(10×2 = 20 marks)

**4. Answer any ONE of the following:**

- 4A.
  - i) Define amblyopia.
  - ii) Classify it briefly based on etiology.
  - iii) Give your management plan of an unilateral aphake of age 7 years with corrected vision 6/36 and other eye plano 6/6. Write briefly about the diagnosis of this patient.
- 4B.
  - i) What is eso deviation? Classify eso deviations.
  - ii) Outline your management plan for a girl of 4 years whose cycloplegic refraction shows + 7.00/+1.00 DS (OU). She has squint (OU). Brief on the differential diagnosis you would think on. Justify.

(2+12+6 = 20 marks)

(8+6+6 = 20 marks)



**MANIPAL UNIVERSITY****THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – DECEMBER 2011****SUBJECT: CONTACT LENS  
(NEW REGULATION)**

Tuesday, December 13, 2011

Time: 10:00-13:00 Hrs.

Max. Marks: 80

**✍ Draw diagrams wherever necessary.****1. Fill up the blanks**

- 1A. The percentage of anterior corneal astigmatism neutralized by posterior cornea is \_\_\_\_\_.
- 1B. Vat dye process is used in manufacture of \_\_\_\_\_.
- 1C. First contact lens was developed by \_\_\_\_\_.
- 1D. \_\_\_\_\_ is an example of intentional alteration of corneal shape.
- 1E. Retinal image size \_\_\_\_\_ for a myope when shifting from spectacles to contact lenses.

(1×5 = 5 marks)

**2. Write short notes on (any SEVEN):**

- 2A. Mechanical and pressure related complications of RGP lens wear
- 2B. What are the applications of bandage contact lenses? List the post operative uses of BCL.
- 2C. i) Effect of sagittal height on contact lens fit  
ii) Changing the diameter of a contact lens from 9.20mm to 9.60 mm will result in a looser lens fit. True or false? Justify.
- 2D. i) A patient's keratometry is OD:  $K_1=42.50@180, K_2=47.00 @ 90$ . and subjective refraction in the same eye is  $-4.00/-2.75 \times 180$ . What is the residual astigmatism if a non flexing spherical lens is placed in OD?  
ii) Draw a neat diagram showing fluorescein pattern in with the rule astigmatism with spherical RGP.
- 2E. Monovision contact lens fitting
- 2F. Brief on the tests for assessing tear film stability. List the accessory lacrimal glands.
- 2G. Differentiate between effective power, back surface power and surface power of contact lenses.
- 2H. Write on lenticular and single cut RGP design used in aphakia.

(5×7 = 35 marks)

**3. Answer BOTH the questions.**

- 3A. Write on the stabilization methods used in soft toric lens (any four). List the aims of any toric contact lens design.
- 3B. Brief on tear related contact lens deposits.

(10×2 = 20 marks)

**✍ Answer any ONE of the following:**

4. Elaborate on your methodology of work up and management of a girl of 20 years visiting your clinic with a complaint of blurred vision inspite of changing her glasses 3 months back. Her objective refraction OU is +3.00/-6.00 ×170. The probable differential diagnosis of the given case with justification is to be written down.

(14+6 = 20 marks)

- 5A. Why must we verify contact lens parameters? Brief on the lens parameters that should be verified and how?
- 5B. Brief on microbial keratitis, 3 and 9 O'clock staining and MGD.

(10+10 = 20 marks)



Reg. No.

# MANIPAL UNIVERSITY

**THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – DECEMBER 2011**

**SUBJECT: OCULAR DISEASES + EYE AND SYSTEMIC DISEASES  
(COMMON FOR BOTH OLD AND NEW REGULATION)**

Wednesday, December 14, 2011

Time: 10:00-13:00 Hrs.

Max. Marks: 80

**☞ All questions are compulsory.**

**☞ Draw diagrams wherever necessary.**

1. Describe the Laser tissue interactions. Discuss the types of lasers and their uses in ophthalmology.

(10+10 = 20 marks)

2. Discuss the Management of paediatric cataract.

(10+10 = 20 marks)

**3. Write short notes on:**

3A. Tonometry

3B. Acanthamoeba Keratitis

3C. Retinitis Pigmentosa

3D. Macular function tests

3E. Bandage contact lenses

(8×5 = 40 marks)



Reg. No.

**MANIPAL UNIVERSITY**

**THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – DECEMBER 2011**

**SUBJECT: LOW VISION AIDS  
(NEW REGULATION)**

Thursday, December 15, 2011

Time: 10:00-11:30 Hrs.

Max. Marks: 40

**1. Fill in the blanks.**

- 1A. Ishihara colour vision plates does not allow the assessment of \_\_\_\_\_ colour vision defects.
- 1B. Keplarian telescope incorporate with an image-erecting lens system is described as \_\_\_\_\_.
- 1C. The expected near vision addition required for a low vision patient with 6/36 distance vision is \_\_\_\_\_.
- 1D. \_\_\_\_\_ is a sensory substitution device for the identification of currency.
- 1E. \_\_\_\_\_ lens is used in paperweight magnifier.

(1×5 = 5 marks)

**2. Answer any THREE of the following:**

- 2A. Enlist the modes of treatment for patients with visual field defects in detail.
- 2B. Write a short note on diabetic patients with low vision.
- 2C. Explain briefly about the importance of hearing impairment considerations in low vision rehabilitation.
- 2D. Compare LogMAR and Snellen distance visual acuity charts.

(5×3 = 15 marks)

**3. Answer BOTH the questions.**

- 3A. Give an account on various types of optical low vision aids.
- 3B. Explain the causes of low vision and their low vision management briefly.

(10×2 = 20 marks)

