

Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

THIRD YEAR B.SC. OPTOMETRY DEGREE EXAMINATION – AUGUST 2006

SUBJECT: RESEARCH METHODOLOGY AND STATISTICS

Wednesday, August 16, 2006

Time: 3 Hrs.

Max. Marks: 80

Answer all questions.

1A. Enumerate advantage of random sampling over Non random sampling.

1B. Describe simple random sampling and random number table.

(5+5 = 10 marks)

2A. State which type of diagrams are used for presentation of

i) Quantitative data ii) Qualitative data

Illustrate giving familiar examples.

2B. State the four uses of statistics in health science.

((4+4)+2 = 10 marks)

3A. Mid arm circumference of 10 male children aged 4 months is given below:

14 11 11 10 12 13 10 14 12 13

Estimate its Mean and Standard deviation.

3B. Describe Skewness and Kurtosis.

(6+4 = 10 marks)

4A. Write in brief about Normal distributions and Normal curve.

4B. Define Epidemiology. Enumerate the uses of epidemiology.

(5+5 = 10 marks)

5. Write short essays on:

5A. Research Methodology.

5B. Formulation of Hypothesis.

5C. Mortality indicators.

5D. Correlation coefficient.

5E. Scales of measurement.

5F. Sources of health information.

5G. Case-series analysis.

5H. Reliability.

(5×8 = 40 marks)



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THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – AUGUST 2006

SUBJECT: SQUINT AND BINOCULAR VISION

Thursday, August 17, 2006

Time: 3 Hrs.

Max. Marks: 80

☞ All questions are compulsory. Draw diagrams wherever necessary.

1. Define amblyopia. You have a boy of 4 years at your clinic diagnosed elsewhere as amblyopia on your examination, you found, OD: +6.00 DS(6/18), OS +1.00(6/6). What can be the most probable reasons for amblyopia? Explain about the conditions and your management plan.

(2+10+8 = 20 marks)

2A. Define binocular vision.

2B. Write on:

- i) Mechanism of Binocular single vision.
- ii) Advantages of BSV.
- iii) Horopter, Panum's area of single binocular vision.
- iv) Abnormalities of binocular vision.

(2+(3+3+5+7) = 20 marks)

3. Write short notes on:

3A. Essential Infantile Esotropia.

3B. Differentiate between Hirsch berg test and Krimsky test (with examples).

3C. A and V patterns of strabismus.

3D. Differentiate between a paralytic and a non paralytic strabismus.

3E. Fundamental laws of ocular motility.

(8×5 = 40 marks)



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THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – AUGUST 2006

SUBJECT: CONTACT LENS

Friday, August 18, 2006

Time: 3 Hrs.

Max. Marks: 80

☞ **All questions are compulsory. Draw diagrams wherever necessary.**

1. Write in detail on the indications and contraindications of contact lens fitting.
(10+10 = 20 marks)
2. Elaborate on your methodology of work up and dispensing contact lens to a monocular aphake of age 15 years, on retinoscopy OD: + 10.00/ -2.00 × 180. He is an initial wearer.
(15+5 = 20 marks)
3. Write short notes on:
 - 3A. Giant Papillary Conjunctivitis.
 - 3B. As used in rigid gas-permeable lens fitting, describe the appearance of a fluorescein pattern with diagram diagram indicating
 - i) An alignment or “on-K” fit
 - ii) A “flatter than K” fit
 - iii) A “steeper than K” fit
 - iv) A satisfactory fit on a cornea having with the rule astigmatism.
 - 3C. Briefly discuss on the bifocal designs of contact lenses available in the market now a days.
 - 3D. Differential diagnosis and solution of common post fitting problems of contact lenses.
 - 3E. Contact Lens fitting following refractive surgeries and dispensing.

(8×5 = 40 marks)



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THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – AUGUST 2006

SUBJECT: OCULAR DISEASES + EYE AND SYSTEMIC DISEASES

Saturday, August 19, 2006

Time: 3 Hrs.

Max. Marks: 80

☞ All questions are compulsory. Draw diagrams wherever necessary.

1. Classify Uveitis. Describe etiopathogenesis, clinical features, complications and treatment of anterior uveitis.
(20 marks)

2. Classify Central Retinal Vein Occlusion. Etiology, clinical features, complications and management of Central Retinal Vein Occlusion.
(20 marks)

3. Short notes:
 - 3A. Aphakia
 - 3B. Ectropion
 - 3C. Ophthalmia neonatorum
 - 3D. RGP contact lens
 - 3E. Topical antiglaucoma drugs.

(8×5 = 40 marks)



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THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – AUGUST 2006

SUBJECT: LOW VISION AIDS

Monday, August 21, 2006

Time: 1½ Hrs.

Max. Marks: 40

✍ All questions are compulsory.

1. List the conditions without demonstrable field defect. What will be the characteristics of those patients and what would be your corrective measures?

(20 marks)

2A. What are the special categories of accessory aids for low-vision patients?

2B. Discuss the optics of low-vision lenses.

(10+10 = 20 marks)



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THIRD YEAR B.Sc. OPTOMETRY DEGREE EXAMINATION – AUGUST 2006

SUBJECT: GERIATRIC OPTOMETRY AND PAEDIATRIC OPTOMETRY

Tuesday, August 22, 2006

Time: 1½ Hrs.

Max. Marks: 40

✍ **All questions are compulsory. Draw diagrams wherever necessary.**

1. Give an account of the Optometric evaluation of a preschool child.
(20 marks)
2. Describe age related structural and physiological changes that can be seen in crystalline lens and uvea in geriatric population.
(15 marks)
3. Explain various options of ophthalmic lenses that can be prescribed for paediatric subjects.
(5 marks)

