

Reg. No.

MANIPAL UNIVERSITY

FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER – II: LOW VISION AND REHABILITATION

Saturday, June 01, 2013

Time: 10:00 – 11:30 Hrs.

Maximum Marks: 40

✍ Answer all the questions.

1. Describe the importance of refraction in low vision care. Explain the different methods for calculating the near vision add.
(5+5 = 10 marks)
2. Discuss WHO visual impairment data-2002 in detail. Describe the clinical classification of low vision patients.
(5+5 = 10 marks)
3. A 12 year old child presented with the complaints of severe glare, reduced vision, constructive field and nystagmus. He is also having hearing problem. What are the possible diagnoses? How you will manage this case?
(10 marks)
4. Describe the importance of lighting in low vision care. Give a brief account on the uses of filters and prisms in low vision practice.
(5+5 = 10 marks)



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FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER – III: PAEDIATRIC OPTOMETRY

Tuesday, June 04, 2013

Time: 10:00 – 11:30 Hrs.

Maximum Marks: 40

Answer all the questions:

1. Describe the tests for stereopsis.
2. Write on pseudo isochromatic tests.
3. What are the components of an abnormal head posture? What are the causes of abnormal head posture in a child?
4. What are clinical characteristics of congenital infantile nystagmus?
5. What are the ophthalmic manifestations of juvenile arthritis?

(8×5 = 40 marks)



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FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER – IV: OCCUPATIONAL OPTOMETRY & PUBLIC HEALTH OPTOMETRY

Thursday, June 06, 2013

Time: 10:00 – 11:30 Hrs.

Maximum Marks: 40

☞ Attempt questions as instructed.

☞ Draw diagrams and flowcharts wherever necessary.

☞ Answer the following questions:

1. Comment on different types of visual display units in term of their advantages and disadvantages.
2. Write a note on management of CVS.
3. Describe your plan of management for a swimmer who came to your clinic seeking your advice to correct her refractive error.
4. How do you justify the role of an Optometrist in primary eye care level for benefit of the society?

(10×4 = 40 marks)



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FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATION – MAY/JUNE 2013 SUBJECT: PAPER V: RESEARCH METHODOLOGY & BIOSTATISTICS

Tuesday, May 28, 2013

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

Answer all questions.

1. Define the following:

1A. Alternate hypothesis

1B. Type II error

1C. P- value

1D. Level of significance

1E. Parameter

(1×5 = 5 marks)

2A. Define various measures of central tendency and write the situations where each one is appropriate.

2B. Explain the method of systematic sampling and state its merits and demerits.

(5+5 = 10 marks)

3A. A researcher identified coronary risk factors among men and women in a long term health care facility. Of the 250 male subjects, 62 had hypertension. Of the 1100 female subjects, 265 had hypertension. Construct 95% confidence interval for difference in proportions of hypertension between male and females and interpret it.

3B. A sample of 500 students participated in a study to evaluate the level of their knowledge of risk factors for a certain group of diseases and the result is given below:

Course	Knowledge of risk factors		
	Good	Poor	Total
Paramedical	72	50	122
Engineering	58	320	378
Total	130	370	500

Do these data suggest that there is an association between knowledge of risk factors for the group of disease and major field of study from which the present sample is drawn? (Let $\alpha=0.05$, Chi square for 1 degree of freedom= 3.84).

(5+5 = 10 marks)

- 4A. Explain the design, conduct and analysis of cohort study.
- 4B. A group of 5000 men with the habit of chewing tobacco and another group of 8000 men without the habit were followed up for a specified length of time, to assess the association between tobacco chewing and oral cancer. At the end of follow up 45 cases were observed among the chewing group and 22 cases among non-chewers group. Construct a 2×2 table for this information. Obtain the strength of association between tobacco chewing habits and oral cancer. Interpret the findings.

(10+5 = 15 marks)

- 5A. Discuss about materials and methods in a research report.
- 5B. Briefly explain the multivariate technique used for the analysis of time-to event data.

(5+5 = 10 marks)

6. Write short notes on:

- 6A. Sample size determination for estimation of mean
- 6B. Wilcoxon signed rank test
- 6C. Analysis of Variance
- 6D. Regression
- 6E. Systematic reviews
- 6F. Binomial distribution

(5×6 = 30 marks)



MANIPAL UNIVERSITY**FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATION – MAY/JUNE 2013****SUBJECT: PAPER – I: ADVANCED CONTACT LENS STUDIES – I**

Thursday, May 30, 2013

Time: 10:00 – 11:30 Hrs.

Maximum Marks: 40

1. Write short notes on:

- 1A. What is oxygen flux and its clinical relevance? How can the oxygen transmissibility of contact lens materials be increased?
- 1B. Explain on the factors affecting the toric lens rotation and stability. Name two silicon hydrogel torics with the base curve and power availability.
- 1C. List six causes for contact lens induced red eye. How can you differentiate between sterile and infective infiltrates?
- 1D. Briefly write on chemical disinfection of contact lens. List the common antimicrobial agents used for chemical disinfection.
- 1E. Why do you need to verify contact lens parameters and what all should be verified? Add a note on the methods used for measuring BOZR of soft contact lenses.

(6×5 = 30 marks)

Answer the following:

2. A 22 year old computer engineer has come to you for contact lenses. She is using conventional lenses (OU:-6.00 DS) and complains of burning and itching of eyes. Write in detail on your approach and management of the case. She insists on wearing contact lenses.

(10 marks)

