FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATIONS
Model Question paper

PAPER I - ADVANCED CONTACT LENS STUDIES - I

Time: 3 Hours   • **Answer all the questions**   **Max Marks: 80**
          • **Draw diagrams wherever necessary**

Essay: **(20)**

1. A 25 years old female patient wants to wear contact lenses. She is a borderline dry eye patient, a computer professional and has to wear lenses for long duration and is planning to get married in near future. How will you manage this case

Short Essay: **(6 x 10 = 60)**

2. Describe corneal topography. Comment on computer assisted topographic analysis system and mention its uses.

3. Comment on correction of astigmatism with contact lenses

4. Discuss in detail about disinfection system for soft contact lenses

5. The spectacle refraction of a myope at a vertex distance of 12 mm was found to be:

    OD: -5.00DS/-2.00DC x 180

    OS: -4.00DS/-1.00DC x 180

    Compute the ocular refraction.

    Explain how does accommodation and convergence changes from wearing spectacle to contact lenses

6. Describe about various diagnostic tests for tear film   List the common cases of dry eye. Mention about lubricating drops and their uses. Describe contact lens option for such cases.

7. List out the soft contact lenses available in Indian market. Explain any five in detail

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FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATIONS
Model Question paper

PAPER II - LOW VISION AND REHABILITATION

Time: 3 Hours   • **Answer all the questions**   **Max Marks: 80**
                            • **Draw diagrams wherever necessary**

Essay: **(20)**

1. Ms. Wright is 70 years old. She has been diagnosed as age-related macular degeneration Visual Acuity: RE) < 6/60   LE) HM⁺. She is a very forceful lady who is vocally decrying the lack of services and assistance available to her. And you establish the following history: her left eye deteriorated some years ago, the right eye only began to deteriorate two months ago .Ms Wright is a retired professor, she was particularly involved in women's issues and was on a number of Government advisory bodies in this regard. Answer the following

    • Consider the functions associated with the macula. Describe the functional difficulties Ms Wright might be experiencing justifying why you select these functions.

    • What impact do you think this change in vision will have on her well-being. Discuss this response in both emotional and social terms.

    • Ms Wright is your patient. Select a multi-disciplinary team to support her vision rehabilitation. Which professionals will you include and why.

Short Essay: **(6 x 10 = 60)**

2. Describe bioptic telescope. Explain in detail about the guidance on selecting the suitable candidate to refer for a trial with a bioptic telescope. Mention about the types of bioptic telescope available.

3. A 54-years old white man, who had been diagnosed with retinitis pigmentosa 10 years earlier, was referred to your low vision center for rehabilitation how would you manage this case.

4. Elaborate on the principles of modern low vision rehabilitation.

5. What additional power would have to be added to the eyepiece of 2X Galilean telescope consisting of a +25D objective lens and -50D ocular lens that is focal for 20cm. Write about the possible factors, why patient experience difficulty when looking through telescope.

6. Comment on the importance of illumination in low vision practice. Write a note on contrast enhancement and glare control.

7. An emmetropic patient looking through both +2.50D biofocal & +10D handheld magnifier to read the newspaper. What is the equivalent power when the magnifier is held 5cm from the bifocal. Describe about the prescribing strategies for magnifiers.

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FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATIONS
Model Question paper

PAPER III - PAEDIATRIC OPTOMETRY

Time: 3 Hours   • **Answer all the questions**   **Max Marks: 80**
• **Draw diagrams wherever necessary**

Essay: **(20)**

1. A 10 months old child came to clinic with a complaint of redness in both eye since two days .Discuss the possible differential diagnosis in detail.

Short Essay: **(6 x 10 = 60)**

2. Explain developmental anomalies of uvea and lens and also regarding the congenital optic nerve abnormality.

3. Discuss the functional organization of the visual system.

4. Explain detail about the differential diagnosis of vertical strabismus in childhood

5. Approach to a male child 2years of age with history of inward deviation of eyes noting from 8 months of age. Now the patient has 35 prism of esodeviation in modified krimsky test. How will you manage the case.

6. Classify amblyopia and also give a note on pathophysiology of amblyopia

7. A 6yr old male child visited your clinic with a spectacle prescription of

    RE: -4.00DS / -1.00DC * 180

    LE: -4.50DS/ -0.50DC * 140

 Mention the things to be considered before dispensing a spectacle.

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FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATIONS
Model Question paper

PAPER IV - OCCUPATIONAL OPTOMETRY & PUBLIC HEALTH OPTOMETRY

Time: 3 Hours • **Answer all the questions** **Max Marks: 80**
• **Draw diagrams wherever necessary**

Essay: **(20)**

1 . Discuss about computer vision syndrome and its management. Design a work station for a computer user, who works in a stretch of 13 hours a day in his work

Short Essay: **(6 x 10 = 60)**

2. Define blindness. Explain in detail about global initiatives for preventing blindness.

3. Mange a patient with age 38/M with a refractive status of +8.75 Dsph/-3.50DCyl×145º in RE and +3.50Dsph/-2.00DCyl×110º in LE. What all are the various corrective options available. Mention its advantages and disadvantages in various forms of corrections.

4. Explain the components of sports vision eye examination.

5. Explain various chemical which are been seen in a general clinical practice. Mention the treatment methods for chemical eye injuries.

6. Explain in brief about electromagnetic spectrum and the effect in eye.

7. Explain brief about various occupational diseases.

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FIRST YEAR MASTER OF OPTOMETRY DEGREE EXAMINATIONS
Model Question paper

PAPER V - RESEARCH METHODOLOGY &BIOSTATISTICS

Time: 3 Hours   • **Answer all the questions**   **Max Marks: 80**

Essay: **(20)**

1. In an anti-malaria campaign in a certain area, quinine was administered to 812
   persons out of a total population of 3248. The number of fever cases is shown below:

Treatment	Fever	No fever
Quinine	20	792
No quinine	220	2216

   Discuss the usefulness of quinine in checking malaria. (Table value of chi-square at
   5% probability level for one degree of freedom is 3.84)

Short Essay: **(6 x 10 = 60)**

2. What is meant by probability distribution. Enumerate the properties of normal
   distribution curve.

3. Discuss the structure of a research report.

4. What is non-parametric test and When it is used. Explain the different non parametric
   tests

5. In a health survey of schoolchildren, it is found that the mean hemoglobin level of 55
   boys is 10.2 per 100 ml with a standard deviation of 2.1. Can we consider this group
   as taken from population with a mean of 11.0 g/100ml.

6. Explain the criteria for good sampling procedure in detail.

7. Explain in brief about stratified random sampling method and measures of variations.

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