

VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM
(Deemed to be University)

B.Sc OPTOMETRY DEGREE EXAMINATION – August 2018
Second Year

STATISTICS AND OCCUPATIONAL OPTOMETRY

Time: Three hours

Maximum: 80 marks

Use Separate answer books for Part A and Part B
PART – A - STATISTICS

Time: One and half an hour

Maximum: 40 marks

SECTION – A

I. Answer ALL Questions:

(5 x 1 = 5)

1. ANOVA stands for _____.
2. _____ diagram is one of the simplest ways of diagrammatic representation of a bivariat distribution
3. Co-efficient of _____ is given by the square root of co-efficient of non determination
4. _____ data represents the time of occurrence of an event.
5. Research in the field of animal behavior has become more _____

II. Match the following:

(5 x 1 = 5)

1. Mean – cohort of subject and watching them over a long period.
2. Range – methods for analysis data
3. Prospective studies – central tendency
4. Survival analysis relationship b/w variable to predict
5. Regression – highest value minus lowest value.

SECTION – B

II. Write short notes on any TWO of the following:

(2 x 5 = 10)

6. Types of investigation
7. Screening and diagnosis
8. Give the symbols of the following
 - (a) summation of variable
 - (b) Frequency
 - (c) Arithmetic mean
 - (d) Summation of frequencies
 - (e) Class interval
9. Histogram, line chart

(p.t.o)

SECTION – C

III. Write an essay on any **TWO** of the following: (2 x 10 = 20)

10. Prepare questionnaire for dry eye survey
11. Explain in detail about cohort study
12. Calculate mean deviation from mean values of following dates.

Class interval	0-4	4-8	8-12	12-6	10-20
Frequency	4	6	8	5	2

13. Describe the following (a) case control study (b) census

PART – B – OCCUPATIONAL OPTOMETRY

Time: One and half an hour

Maximum: 40 marks

SECTION - A

I. Multiple Choice questions: (5 x 1 = 5)

1. Adhesions between palpebral and balbar conjunctiva.
 - a. Symblepharon
 - b. Ankyloblepharon
 - c. Layophthalmos
 - d. Blepharitis
2. Sunflower cataract is produced by deposition of
 - a. calcium
 - b. Iron
 - c. Copper
 - d. Protein
3. Nagles anomaloscope is used to check
 - a. colour vision
 - b. field of vision
 - c. Binocular vision
 - d. Steriopsis
4. Units of illumination is
 - a. mm/Hg
 - b. cm²
 - c. LUX or foot candles
 - d. Jule

--(3)--

5. Bjerrum's screen is used to measure.

- a. AC/A ratio
- b. field of vision
- c. visual acuity
- d. Intraocular pressure

II. State whether the following statements are **TRUE** or **FALSE**: (5 x 1 = 5)

1. Orbital blow out fracture mainly involves in orbital floor and medial wall
2. Ionizing radiations include x-rays or gamma rays.
3. Chemical sampling usually done by gas chromatography or mass spectrometry methods
4. Visual acuity test the form sense
5. colour vision testing mandatory for drivers.

III. Fill in the blanks: (5 x 1 = 5)

1. _____ and _____ are the benefits of EST act.
2. _____ amount of illumination needed for tunnels and underground.
3. Near vision is recorded at the distance of _____ cm
4. The muscle involves orbital blow out fractures is _____
5. _____ are used to protect laser hazards

SECTION - B

IV. Answer any **THREE** of the following: (3 x 5 = 15)

1. What is colour vision? How is colour vision tested? Name few colour vision defects.
2. What are the effectiveness of radiation on the eyes?
3. Name few occupational disease.
4. How will you prevent occupational eye disease?
5. (a) Definition of occupational health (b) Occupational safety

SECTION - C

V. Discuss in detail on any **ONE** of the following questions: (1 x 10 = 10)

1. Describe various protective equipments
2. Causes of accidents.

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