BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Optometry-2021
Course Name – Occupational Optometry
Course Code - BOPTOC604
(Semester VI)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Select the primary focus of occupational optometry.

a) Correcting refractive errors
b) Ensuring efficient and safe visual functioning at work
c) Providing general eye care services
d) Conducting eye surgeries

(ii) Recall the year when was occupational optometry first introduced as a subject in the undergraduate optometry program in India?

a) 1978
b) 1987
c) 1995
d) 2001

(iii) Identify who initiated the inclusion of occupational optometry in the undergraduate optometry program in India.

a) Dr. P.P. Santanam
b) Dr. Sankara Nethralaya
c) Elite School of Optometry
d) Medical Research Foundation

(iv) Which of the following best explains the outcome when the target speed exceeds 60 degrees per second without compensatory head movements?

a) Visual acuity drop
b) Visual acuity improves
c) Visual acuity stabilizes
d) Totally blinds

(v) Which of the following best explains the most appropriate course of action if an air traffic controller fails the color vision test?

a) Not to continue the same job
b) Shift the person to administrative job
c) Advise him with X chrome contact lens
d) Train him again on the job

(vi) Predict which part of the eye is most vulnerable to harm as a result of extended exposure to UV radiation.

a) Retina
b) Lens
c) Cornea
d) Optic nerve

(vii) Select the unit that is commonly used to measure the intensity of light.

a) Joules
b) Lumens

c) Watts
d) Candela

(viii) Which of the following best identifies a unit not used to measure light intensity?

a) Lux
b) Candela
c) Kelvin
d) Lumen

(ix) Identify the primary cause of musculoskeletal disorders (MSDs) in optometry practice.

a) Prolonged standing
b) Repetitive tasks
c) Exposure to chemicals
d) Noise pollution

(x) Select the recommended frequency for contact lens replacement in occupational settings?

a) Every 6 months
b) Monthly
c) Annually
d) Every 2 years

(xi) Which of the following best relates the purpose of the industrial vision test?

a) To evaluate depth perception
b) To assess peripheral vision
c) To measure visual acuity for specific job requirements
d) To screen for color vision deficiencies

(xii) Identify from the following what best illustrates a common requirement for visual acuity in industrial settings?

a) 20/20 vision
b) 20/40 vision
c) 20/200 vision
d) 20/10 vision

(xiii) Identify the organization that sets the vision standards for airline pilots and air traffic controllers in the United States.

a) Federal Aviation Administration (FAA)
b) International Civil Aviation Organization (ICAO)
c) National Transportation Safety Board (NTSB)
d) Department of Transportation (DOT)

(xiv) Determine the specific near vision requirement for railway workers involved in signal operation?

a) N6
b) N8
c) N10
d) N14

(xv) What is the primary characteristic defining the display quality of a monitor?

a) The maximum resolution supported by the monitor
b) The resolution at which the monitor operates most efficiently
c) The resolution at which the monitor was designed to display images
d) The resolution determined by the graphics card

Group-B

(Short Answer Type Questions) 3 x 5=15

2. How would you describe the definition of occupational optometry? (3)
3. Describe the role that prolonged exposure to computer screens plays in occupational hazards for optometrists. (3)
4. Can you explain the specific visual standards for railway workers involved in signal operation. (3)
5. How can ergonomic adjustments be applied to minimize discomfort when using VDUs? (3)
6. Could you explain the relationship between repetitive tasks and occupational hazards in optometry? (3)

OR

Categorize the potential risks associated with exposure to chemical agents in optometric practice. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Describe occupational optometry and the role of the occupational optometrist. (5)
8. Explain in detail the light sources that must be chosen for our eyes. (5)
9. Define the Workmen's compensation act in details. (5)
10. Explain the standards or guidelines used to regulate exposure to electromagnetic radiation. (5)
11. Can you classify the legal and ethical considerations surrounding industrial vision screening in the workplace? (5)
12. What are the recommended guidelines for screen brightness and contrast settings? (5)

OR

Justify how proper lighting in the workspace affects VDU usage. (5)

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