BRAINWARE UNIVERSITY

Term End Examination 2020 - 21

Programme – Bachelor of Optometry

Course Name – Optometric Optics-I

Course Code - BOPTO303

Semester / Year - Semester III

Time allotted : 75 Minutes Full Marks : 60

[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 60=60

1. *(Answer any Sixty)*

(i) Which of the following is correct?

a) (near power) - (distance power) = (near Rx)

b) (near power) - (distance power) = (near addition)

c) (near addition) = (distance power) - (near power)

d) None of these

(ii) The image formed by a prism is

a) Deviated towards Apex

b) Magnified

c) Real

d) Diminished

(iii) An Executive lens is an example of which type of construction?

a) fused

b) one piece

c) Cement segment

d) PAL

(iv) The following prescription has against-the-rule astigmatism:

a) +1.00 / +0.25 X 180

b) 1.00 / -025 X 180

c) -1.00 / +0.25 X 90

d) +1.00 / -0.25 X 135

(v) In frame measurement ‘B’ refers to

a) 2 × (longest radius)

b) vertical boxing dimension

c) GCD

d) All of these

(vi) An image seen through the prism

a) Inverted

b) Titled

c) Near the Apex

d) Near the Base

(vii) . The back vertex power:

a) is the reciprocal of the back vertex distance

b) of a convex meniscus lens can be calculated from its second focal length

c) of a convex meniscus lens is stronger than its front vertex power

d) gives the equivalent power of a lens

(viii) The prism diopter is the unit for prisms and it represents

a) The angle of incidence in degree

b) The angle of the apical angle

c) The amount of image displacement

d) All are wrong

(ix) 1 prism diopter =____ degrees

a) 0.57

b) 57

c) 1.57

d) 105

(x) Which of the following is not an important criterion in choosing a frame for a progressive addition lens wearer?

a) a minimal vertex distance

b) adequate pantoscopic tilt

c) suf?cient vertical depth in the nasal portion of the frame shape

d) all of the these are important criterion when choosing a frame for a progressive addition lens wearer

(xi) A semi?nished lens blank has

a) only one side of the lens ?nished

b) Both of the sides are finished

c) has the correct power but not the other components

d) All are wrong

(xii) A new bifocal wearer must:

a) keep the head erect and drop the eyes to see the ?oor
b) drop the eyes to read a book
c) drop the chin and head to engage in near work
d) All of these

(xiii) A distometer is used to:

a) measure the distance between lenses and the frame eye size
b) measure the segment height
c) measure the power of a spectacle lens
d) measure the vertex distance

(xiv) To check for strain in a lens, what instrument is used?

a) Retinoscope
b) Ophthalmoscope
c) Colmascope
d) Lensmeter

(xv) What is the meridian of highest absolute power for this prescription: ?1.50 ?2.75 × 180?

a) ?1.50 D
b) ?4.25 D
c) ?2.75 D
d) ?1.25 D

(xvi) Of the lens materials listed, which material is most likely to break, crack, or develop stress splits at the mounting point when used for rimless drill mountings?

a) Polycarbonate
b) CR-39 plastic
c) Trivex
d) All of these

(xvii) Abbe value of Crown glass

a) 58
b) 47
c) 59
d) 46

(xviii) Refractive index for High index plastic

a) 1.66
b) 1.7
c) 1.532
d) 1.596

(xix) Which of the following multifocal construction methods are used only with glass?

a) fused
b) one piece
c) Cement segment
d) All of these

(xx) When children are ?t with progressive addition lenses, yet still have the ability to accommodate just as other children do, the ?tting cross is usually ?t

a) at the lower lid
b) 4 mm above pupil center
c) 2 mm above pupil center.
d) in the center of the pupil

(xxi) An aphakic patient wears +10D glasses at a vertex distance of 10mm.What power of the contact lens should be ordered to fit?

a) +9D
b) +10D
c) +11D
d) +9.5D

(xxii) Transposed form of -5.00/+3.00@50 Degree will be

a) -2.00/-3.00@140
b) +2.00/-3.00@50
c) -2.00/+3.00@140
d) +2.00/-3.00@140

(xxiii) ____ Made especially for those needing a reading correction but no distance correction

a) Balgrip
b) Full rim
c) Half eye
d) Semi rimless

(xxiv) A frame material that is generally made into sheets and milled to make frames

a) kevlar
b) polycarbonate
c) cellulose acetate
d) optyl

(xxv) ____ Used primarily for sport or safety purposes

a) propionate
b) polycarbonate
c) polyamide
d) carbon ?ber

(xxvi) The image produced by a Concave lens is _____, _____ and _____.

a) Real,Inverted,Diminished
b) Virtual,Erect,Diminished
c) Virtual,Inverted,Magnified
d) Virtual,Inverted,Diminished

(xxvii) The refracting power of a cylindrical lens is at _____ degrees to the axis.

a) 360
b) 180
c) 90
d) 45

(xxviii) Which type of temple curves around the ear following the crotch of the ear where ear and head meet, extending to the level of the earlobe? This type of temple is usually plastic, and is often used in children's and safety frames.

a) riding bow
b) convertible
c) library
d) skull

(xxix) Match the following: ED equals to

a) A + DBL
b) vertical boxing dimension
c) Eye size
d) 2 × (longest radius)

(xxx) GCD equals to

a) vertical boxing dimension
b) 'C'
c) A + DBL
d) All of these

(xxxi) If the top of the frame front touches the eyebrows, what is not a possible solution to the problem?

a) choosing a different frame
b) moving the adjustable nosepads farther

away from the frame front

c) increasing the pantoscopic angle

d) All of the these are possible solutions to the problem

(xxxii) If a lens has dimensions of F1 = +6.00 D, F2 at 90 = ?8.00 D, and F2 at 180 = ?6.00 D, what form does the lens have and what is its total power?

a) -2.00@180

b) -1.00@90

c) 2.00@90

d) +1.00@90

(xxxiii) A lens has the following speci?cations F1 = +7.25 D F2 at 90 = ?6.00 D F2 at 180 = ?8.00 D What is the base curve?

a) +7.25 D

b) ?6.00 D

c) ?8.00 D

d) All are wrong

(xxxiv) If a person with a high minus spectacle Rx switches to contact lenses, the power in the contact lens would be _____ the power in the spectacle lens.

a) greater than

b) less than

c) the same as PGP

d) All are wrong

(xxxv) If a single-vision lens is placed in the lensmeter in the reverse position (concave side toward the observer), the power value obtained is a measure of:

a) back vertex power

b) front vertex power

c) effective power

d) true power

(xxxvi) In bifocals,when the segment is round, the segment's OC will be in the _____of the seg

a) right

b) left

c) middle

d) All are wrong

(xxxvii) When wearers drop their eyes while wearing single vision lenses, prismatic effect _____as the eyes travel downward

a) increases

b) decreases

c) has no change
d) become nil

(xxxviii) Abbe value of CR-39 is

a) 58
b) 59
c) 46
d) 24

(xxxix) The correct ophthalmic terminology for eyewear that is used for everyday and not for sports or safety wear

a) casual eyewear
b) everyday eyewear.
c) formal eyewear
d) dress eyewear

(xl) Transposed form of +12.00/+3.00@90 will be

a) +15.00/-3.00@90
b) +15.00/-3.00@180
c) +13.00/-5.00@90
d) -13.00/+5.00@90

(xli) A ?2.00 D thin lens having a front surface power equal to +6.00 D could be described as:

a) Meniscus
b) planoconcave
c) equiconcave
d) planoconvex

(xlii) Complaints about spatial distortion, such as slanting ?oors, tilted walls, or ground too close or too far away may indicates to

a) Amblyopia
b) Suppresion
c) Anisekonia
d) Alternating squint

(xliii) The condition in which one eye may see an image that is symmetrically larger than the other eye is known as

a) symmetrical aniseikonia
b) meridional aniseikonia
c) anatomic aniseikonia
d) refractive anisekonia

(xliv) The following can be used to reduce prismatic jump in bifocal glasses

a) adding base down prism to the distance portion
b) adding base-up prism to the reading section
c) Include Intermediate power
d) pantoscopic tilt

(xlv) In trifocals the intermediate lens usually has _____ power over the distance correction

a) Equal
b) Half
c) Double
d) One-forth

(xlvi) When two prisms are combined in power and base orientation to form one prism that is the equivalent of both, the process is known as

a) compounding prism
b) Base up prism
c) Oblique prism
d) Fresnel prism

(xlvii) The process of expressing a single oblique prism as two perpendicular components is known as

a) Fresnel prism
b) resolving prism
c) Risley prism
d) All are wrong

(xlviii) Transposed form of +7.50/-1.50@170 will be

a) -6.00/-1.50@90
b) -7.50/-1.50@170
c) +6.00/+1.50@80
d) All are wrong

(xlix) A lens of +10 dipotres fully correct an hyperopia and now the lens is moved forward 10mm, what is the new lens power needed to correct the hyperopia?

a) +7D
b) +3D
c) +5D
d) +9D

(l) Option for Protecting the Eyes From Ultraviolet (UV) Radiation

a) Lenses speci?cally made to be UV blocking
b) Wraparound sunglasses

c) Glare control-type lenses d) All of these

(li) Yellow tint is specially advised for

a) Sun protection b) Driving in haze or fog

c) Unfavorable indoor lighting conditions d) All of these

(lii) AR coating of photochromic will increase both the maximum and the minimum_____by a certain amount

a) Internal reflection b) transmission

c) deviation d) All of these

(liii) Caring for an Antire?ection-Coated Lens includes

a) Avoid using ultrasonic cleaners b) Avoid salt or bead frame warmers

c) Avoid marking lenses with heavy inks d) All of these

(liv) If F1 = +8.00 D and F2 = ?8.00 D, the lens is:

a) Equiconvex b) equiconcave

c) planoconvex d) meniscus

(lv) A frame has been selected for a progressive addition lens wearer. Some of the parameters of the frame and frame ?tting are listed below. Which is problematic?

a) The frame is an aviator shape b) specifying the nasal rotation of the progressive channel

c) After being adjusted, the pantoscopic tilt of the frame is 12 degrees d) None of these are problematic

(lvi) A lens that looks similar to a ?at-top trifocal with an upside-down ?at-top bifocal in the upper half is called:

a) Quadrafocal b) an ED

c) a DBL d) a Rede-Rite

(lvii) Transposed form of -3.00/+3.00@175 will be

a) -3.00/+3.00@175 degree
b) -3.00@85 degree
c) +3.00/+3.00@175 degree
d) +3.00@85 degree

(lviii) For a plano cylinder, light passes through the _____ meridian undeviated

a) Power
b) Major
c) axis
d) minor

(lix) F1 of a lens is +3.25 D, and F2 is +3.25 D. The lens may be said to be:

a) Biconvex
b) meniscus
c) equiconvex
d) both Biconvex and equiconvex

(lx) The angle of deviation of a prism is determined by:

a) the refracting angle
b) the angle of incidence
c) the refractive index of the prism material
d) the width of the base