

MAHARASHTRA STATE BOARD OF SKILL DEVELOPMENT EXAMINATION, MUMBAI

Examination—July, 2020

CERTIFICATE COURSE IN OPHTHALMIC TECHNICIAN

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(BEŮHÉ MŮĚ—100)

$$\hat{E}_j \partial V / \partial E_0 + h b \div \hat{E}_j \partial V / \partial E_0 + \hat{E}_j \partial V / \partial E_0 + \hat{E}_j \partial V / \partial E_0 \quad (\hat{E}_j + \text{®} 2)$$

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1. (+) $\hat{E}^{\otimes 2} \hat{e}_\alpha \hat{e}_\beta = V_{\alpha\beta} \hat{E}^{\otimes 2}$ ($E_{\alpha\beta} = E_{\beta\alpha}$) :

- [illegible]

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- [illegible]

(E0) $J_{E \oplus E} |_{E \oplus E} = k^{\otimes 2} \otimes (E \otimes E) \otimes \{E\} :-$

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- [illegible]

$$[\pm E] \text{ 或 } \{E/2\}$$

(ENGLISH)

[TIME ALLOWED—3 HOURS]

(MARKS—100)

PHYSICAL AND PHYSIOLOGICAL OPTICS (THEORY-II)**Marks**

1. (a) Multiple choice question (any five) :—

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(i) In Hypermetropia the parallel rays of light focus of retina.

- (a) Front (b) behind
(c) on the retina (d) anywhere in the eye.

(ii) Condition which arises after the age of 40 is called

- (a) Myopia (b) Hypermetropia
(c) astigmatism (d) presbyopia.

(iii) Steam under pressure is principle of

- (a) Fumigator (b) autoclave
(c) ETO (d) all the above.

(iv) There are in all number of extra ocular muscles.

- (a) 6 (b) 4
(c) 9 (d) 2.

(v) Centre part of IOL is called

- (a) haptic (b) optic
(c) lens holder (d) none of the above.

(vi) Retina is seen by

- (a) Indirect ophthalmoscope (b) direct ophthalmoscope
(c) retinoscope (d) both a and b.

(b) Write *true* or *false* (any five) :—

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- (i) Betadine is sterilizing agent.
(ii) After refraction through glass slab the refracted ray moves towards the normal.
(iii) Keratometer is used to calculate the power of cornea.
(iv) In JCC power is confirmed first and then the axis.
(v) There are in all 6 cardinal points.
(vi) Pin cushion is a type of spherical aberration.

(c) State long forms (any five) :—

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- (i) Define blindness. State two causes of childhood blindness.
(ii) Mention any two signs of Vit A deficiency.
(iii) Mention types of astigmatism.
(iv) Mention aberrations seen in eye.
(v) Mention types of rehabilitation.
(vi) Name optical devices in low vision.

[turn over

- (d) Match the pairs :— 5
- | ‘ A ’ Group | ‘ B ’ Group |
|-----------------------|------------------------|
| (i) Talking watch | (a) Axial length |
| (ii) Reduced eye | (b) Xerosis of eye |
| (iii) Trachoma | (c) Non optical device |
| (iv) Vit A deficiency | (d) Donders |
| (v) A Scan | (e) Hot humid weather. |
2. Attempt any *two* of the following :— 16
- Write short note on school screening program.
 - Write down the WHO classification of blindness.
 - Write down points to be mentioned in paediatric history taking.
 - Draw neat labelled diagram of schematic eye.
 - Define accommodation. What all changes take place in eye during accommodation.
 - Mention two types of chemical injuries. Which is more dangerous ? Why ?
3. Attempt any *two* of the following :— 16
- What is amblyopia ? Classify and write down the treatment.
 - Write down actions of extraocular muscles in primary gaze.
 - Short note on autoclave.
 - Short note on chromatic aberrations of eye.
4. Brief answers (any *two*) :— 16
- Name the non optical devices of low vision.
 - Write down advantages and disadvantages of stand magnifier and hand magnifier.
 - Draw neat labelled diagram of refraction of light through glass slab.
 - Write a note on presbyopia.
5. Write short notes on (any *two*) :— 16
- Which investigations are done prior to cataract surgery ? (Write both systemic and ocular.)
 - Mention different types of cataract (acc to morphology and grade of cataract)
 - Classify diabetic retinopathy and write down its signs.
 - Short note on JCC.
6. Attempt the following (any *two*) :— 16
- Draw neat labelled diagram of strums conoid.
 - Write down in detail on keratometer.
 - How to use JCC ?
 - Define visual acuity. Mention the principle of snellens chart.