[LK 0217] FEBRUARY 2017 **Sub.Code :2704**

B. OPTOM
(New Syllabus 2015-2016)

FIRST YEAR

PAPER IV – PRINCIPLES OF LIGHTING

Q.P. Code: 802704

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Discuss about fiber optic communication and its uses.
2. Explain about the computer vision syndrome.
3. Explain in detail about Goethe's theory.

II. Write notes on: **(8 x 5 = 40)**

1. What are the factors affecting visual task?
2. Write notes on Photometry and the eye.
3. Explain about the modern light sources.
4. What is luminous efficacy?
5. Write short notes on filters.
6. Write about additive colour synthesis.
7. Write short notes on ultraviolet spectrum.
8. What is solid angle?

III. Short answers on: **(10 x 3 = 30)**

1. What is meant by subtractive synthesis of colours?
2. Define Candela.
3. What is colour temperature?
4. Write short notes on discomfort glare.
5. What is Solar constant?
6. Write notes on infrared spectrum.
7. Mention the laws of illumination.
8. Define Contrast sensitivity.
9. Write about some good practices in lighting.
10. Define colour rendering.

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[LL 0817] AUGUST 2017 **Sub.Code :2704**

B. OPTOM
(New Syllabus 2015-2016)

FIRST YEAR

PAPER IV – PRINCIPLES OF LIGHTING

Q.P. Code: 802704

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Explain all theories of light.
2. Write the concept of lighting design.
3. Define Glare, its types, effects and how to prevent it?

II. Write notes on: **(8 x 5 = 40)**

1. What is visual task and write the factors affecting visual tasks?
2. Explain colour temperature and colour rendering.
3. Note on eye and its optical radiation.
4. Filters used in Ophthalmology.
5. What is Lambert's cosine law?
6. Explain utilization factor.
7. Explain the two colour synthesis.
8. Write notes on light source.

III. Short answers on: **(10 x 3 = 30)**

1. Give an diagrammatic representation of luminance, illuminance and Luminaire.
2. What are the parts of an optical fibre?
3. Define secondary colour.
4. Explain Luminous efficiency.
5. Define prism.
6. Define photometry and photometer.
7. What is visual ability?
8. Examples of natural and artificial light sources.
9. What is task lighting?
10. Define filters.

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[LM 0218] FEBRUARY 2018 **Sub. Code: 2704**

B. OPTOM
(New Syllabus 2015-2016)

FIRST YEAR

PAPER IV – PRINCIPLES OF LIGHTING

Q.P. Code: 802704

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Optical fibre communication.
2. Relate light and vision.
3. Briefly explain filters.

II. Write notes on: **(8 x 5 = 40)**

1. Types of lighting.
2. Notes on discomfort glare.
3. Explain the 2 colour synthesis.
4. Write a note on utilization factor.
5. Explain inverse square law.
6. Basic aspects of lighting design.
7. Factors affecting visual task.
8. Notes on light sources.

III. Short answers on: **(10 x 3 = 30)**

1. Define candela.
2. What is a primary colour?
3. Define luminous flux.
4. Give any 3 properties of light.
5. Define prism.
6. What is contrast sensitivity?
7. What is photometry?
8. What is disability glare?
9. Psychological consideration of lighting.
10. What is Illumination?

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[LN 0818] AUGUST 2018 **Sub. Code: 2704**

B. OPTOM
(New Syllabus 2015-2016)

FIRST YEAR

PAPER IV – PRINCIPLES OF LIGHTING

Q.P. Code: 802704

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Explain Laws of illumination.
2. Electromagnetic spectrum of light.
3. Concept of lighting design.

II. Write notes on: **(8 x 5 = 40)**

1. Relate visual ability and lighting.
2. Write notes on light sources.
3. Explain the seven reasoning of Goethe's theory.
4. What is Depreciation factor?
5. Dual nature theory of light.
6. Types of Glare.
7. Filters used in Ophthalmology.
8. Physical consideration of lighting.

III. Short answers on: **(10 x 3 = 30)**

1. Define photometry.
2. Three advantages of Optical fibres.
3. Explain Tertiary colours.
4. What is a light?
5. Define Luminare.
6. What is visual task?
7. Define general lighting.
8. What is Luminous flux?
9. Contrast sensitivity.
10. Define Filters.

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[LO 0219] FEBRUARY 2019 **Sub. Code: 2704**

B.OPTOM
(New Syllabus 2015-2016)

FIRST YEAR

PAPER IV – PRINCIPLES OF LIGHTING

Q.P. Code: 802704

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Explain laws of illumination.
2. Define Glare, its types, effects and how to prevent it?
3. Discuss about fibre optic communication and its uses.

II. Write notes on: **(8 x 5 = 40)**

1. What are the factors affecting Visual task?
2. Write short notes on Ultra Violet spectrum.
3. Explain colour temperature and colour rendering.
4. Filters used in opthalmology.
5. Explain the seven reasoning of Goethe's theory.
6. Dual Natural theory of light.
7. What is Lamberts Cosine law?
8. Write about addictive colour synthesis.

III. Short answers on: **(10 x 3 = 30)**

1. What is solar constant?
2. Contrast sensitivity.
3. Define prism.
4. Explain tertiary colours.
5. Photometry define.
6. Addictive colour synthesis.
7. Define Candela.
8. Electric powered light source.
9. Unit of luminance efficacy.
10. Solid angle.

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[LP 0819] AUGUST 2019 **Sub. Code: 2704**

B.OPTOM
(New Syllabus 2015-2016)

FIRST YEAR

PAPER IV – PRINCIPLES OF LIGHTING

Q.P. Code: 802704

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Computer vision syndrome.
2. Discuss about fibre optic communication and its uses.
3. Theories of light.

II. Write notes on: **(8 x 5 = 40)**

1. Maxwell's theory.
2. Factors affecting visual task.
3. Types of glare.
4. Fitters used in ophthalmology.
5. Colour rendering and temperature.
6. Short notes on ultra violet spectrum.
7. What is Lambert's cosine law?
8. What is solar constant?

III. Short answers on: **(10 x 3 = 30)**

1. Define prism.
2. Write notes on infra red spectrum.
3. Define candela.
4. Discomfort glare.
5. Unit of luminance efficacy.
6. Solid angle.
7. Visual range of electromagnetic spectrum.
8. Addictive colour synthesis.
9. Contrast sensitivity.
10. Tertiary colours.

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[LQ 0220] FEBRUARY 2020 **Sub. Code: 2704**

B.OPTOM
(New Syllabus 2015-2016)

FIRST YEAR

PAPER IV – PRINCIPLES OF LIGHTING

Q.P. Code: 802704

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Explain the seven reasoning of Goethe's theory.
2. Write the concept of lighting design.
3. Write in detail the various proposed colour theories.

II. Write notes on: **(8 x 5 = 40)**

1. Explain the two colour synthesis.
2. Lummer – Brodhum photometer.
3. What is depreciation factor?
4. Write notes on photometry and the eye.
5. What is solid angle?
6. Ultra violet spectrum.
7. Explain colour temperature and colour rendering.
8. Measurement of luminance.

III. Short answers on: **(10 x 3 = 30)**

1. Disability glare.
2. Write notes on infra red spectrum.
3. Electric powered light source.
4. What are Fraunhofer lines?
5. Primary colour.
6. Contrast sensitivity.
7. Define prism.
8. Attributes of colour.
9. Define utilization factor.
10. Mention the laws of illumination.

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