C–5670	Sub. Code 91411/12

Common for all U.G. B.Sc./B.B.A. DEGREE EXAMINATION, APRIL 2022

First Year/First Semester

English

Part II – ENGLISH PROSE AND COMMUNICATION SKILLS

(2016 to 2018 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is vocational education?
2. What it is it that Indira Gandhi does not demand?
3. What did Stevenson ride on?
4. What was the boy's reaction to the punishment?
5. What was remarkable about Ernest Thompson Seton's *Wild Animals I have Known*?
6. What are the tree visions that Sarojini Naidu talks of?
7. He _____ my uncle yesterday. (Use correct form of verb)
8. Define Noun.
9. Seenu is a boy _____ poor family. (use appropriate preposition)
10. _____ you like to have tea or coffee? (Use correct auxiliaries)

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write a short note on how to attain Excellence I education emphasized by Livingstone.

Or

(b) Substantiate Indira Gandhi's view that the youth are the backbone of India.

12. (a) What is the usefulness of forming habits?

Or

(b) How does the teacher try to repair the damage done and with what result?

13. (a) What books did Margaret Atwood enjoy reading?

Or

(b) What does Sarojini Naidu say about the vision of patriotism?

14. (a) Write a short note on types of sentences.

Or

(b) Fill in the blanks using Present Perfect Continuous Tense:

(i) The _____ (work) all day.

(ii) He eyes were red because she _____ (cry).

(iii) She _____ (sing) upto that morning.

(iv) They _____ (wait) for her since 8 0' clock.

(v) Mani _____ (read) this book for the past three hours.

15. (a) Write the correct sentence pattern.

(i) I finished the work.

(ii) She worked in a reputed company.

(iii) Our headmaster Sideline was a lending library.

(iv) They made David Chairman of the Rotary Club.

(v) We wish you happy new year.

Or

(b) Fill in the blanks using appropriate Prepositions:

(i) He came _____ the office _____ a big hurry.

(ii) We drove _____ the store.

(iii) Four armed men held _____ the bank.

(iv) We finally lived _____ that incident.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) What, according to Livingstone, are the essentials of education?

Or

(b) Write an essay on personality of Indira Gandhi as revealed in her speeches.

17. (a) What are Gardiner's views on the desirability or otherwise of forming habits?

Or

(b) Write an essay in 500 words about the relationship between the rich student and the poor teacher.

18. (a) Write an essay on present tenses.

Or

(b) Fill in the blanks with correct preposition.

Nehru was called _____ to say a few words _____ the occasion _____ the assassination _____ Gandhi _____ an utter sense _____ shame, Nehru expressed his regret _____ the failure out country _____ give protection _____ the life _____ this great man, as well as that _____ many an innocent man, woman and child.

_____

C–5674	Sub. Code
	91421/22

B.Sc./B.B.A. DEGREE EXAMINATION, APRIL 2022

Second Year/Second Semester

Common for all UG Degree Courses

Part II – ENGLISH - PROSE, EXTENSIVE READING AND COMMUNICATION SKILLS

(2016 to 2018 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. Kalam is proud of having worked with three great men. Who are they?

2. What kind of society did we have in the pre-war period?

3. What are the two ways in which science benefits man?

4. Why does Nehru regard Gandhi as the sun?

5. What experiences do students in schools and colleges have in arguing?

6. What was the agreement between Bob and Jimmy twenty years before, when they parted?

7. How did the Quick man explain it away?

8. What did the stranger want to know?

9. What are the types of adjective clause?

10. What is Sub-ordinate Conjunctions? Give example.

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) What does Kalam say about the passivity of Indians?

Or

(b) What are the contradictory views of Plato on the artist's role in society?

12. (a) How does Nehru reconciles himself with Gandhi's death?

Or

(b) What is Lynd's conversion to socialism and nationalism?

13. (a) How does the true friendship reflect in *After Twenty Years*?

Or

(b) How did the conjuror take his revenge on the Quick Man?

14. (a) How did the father test the skills of his sons?

Or

(b) How do Phrase help in making of Simple sentence?

15. (a) Jot down the changes/ rules while transforming the Exclamatory sentences of Direct speech into Indirect speech.

Or

(b) Write a paragraph on the 'Formation of Positive and Superlative Degrees'.

Part C $(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Write an essay on Kalam's three visions.

Or

(b) What does Holt say about ballet training? What does he deduce from it?

17. (a) How are the two friends contrasted?

Or

(b) Elucidate how the conjuror's tricks and the Quick Man's deflationary comments for it.

18. (a) What are the kinds of Conjunctions? Explain in detail.

Or

(b) What are the Degrees of comparison? Explain with examples.

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C–5675	Sub. Code
	31

B.Sc./B.B.A. DEGREE EXAMINATION, APRIL 2022

Third Semester

Part II — ENGLISH — COMMUNICATIVE SKILLS

(Common for all U.G. Degree Courses)

(2016 to 2018 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Mention two barriers to communication.

2. Give two examples for negative gestures.

3. What are homonyms? Give an example.

4. Replace the infinitives in the given sentences with gerunds:

   (a) Bheema loves to eat.

   (b) Sandhya's hobby is to make dolls.

5. Choose the right adjectives to fill in the blanks:

   (a) There isn't ———— milk, left in the fridge. (much/many)

   (b) Karkuzhazhi is a ———— girl. (handsome/ beautiful)

6. Choose the right prepositions to fill in the blanks:

   (a) The discussion was ———— politics.(on/ about)

   (b) Isai is junior ———— Arun. (than/to)

7. What is primary stress?

8. What are the kinds of intonation?

9. What is SQ3R?

10. What is scanning?

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Write briefly on the ways of challenging the barriers of communication.

Or

(b) Define communication and mention the types of communication.

12. (a) Distinguish between active voice and passive voice with examples.

Or

(b) What are phrasal verbs and prepositional phrases? Give examples.

13. (a) Write briefly on unnecessary articles and prepositions with examples.

Or

(b) Put the adverbs in the given sentences in the right position:

(i) Jenny cries without sometimes a reason.

(ii) Selvi comes often early to office.

(iii) The lark sings in the morning happily.

(iv) Do not forget regularly to take your medicines.

(v) Dr. Salim Ali lovingly spoke to his students.

14. (a) Distinguish between primary and secondary stress with examples.

Or

(b) Use appropriate intonation symbols for the given expressions.

(i) Where do you live?

(ii) Thanks, my friend,

(iii) Are you happy?

(iv) What a beautiful picture!

(v) God is love.

15. (a) Write a paragraph on the characteristics of good handwriting.

Or

(b) Write briefly on the mechanics of hand-writing.

Part C $(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Write in detail on the kinds of verbal and non-verbal communication.

Or

(b) Frame questions to suit the following responses:

(i) There are twenty- nine states in India

(ii) May is the hottest month in our country.

(iii) I would like to have some coffee.

(iv) Raji is my friend.

(v) Kodai is my favourite tourist location.

(vi) My mother is a doctor.

(vii) This chair costs Rs. 500.

(viii) Rithika works in a dance school.

(ix) Ameer's father is a famous poet.

(x) The Quran is the holy book of the Muslims.

17. (a) Identify the sentences as simple, compound and complex:

(i) I believe that God exists.

(ii) Seeing the snake, Ravi shouted.

(iii) Tell me the truth and you won't be punished.

(iv) He worked, while I sang.

(v) When Shree came in, Gautam was playing the piano.

(vi) Pravin and Valli are working on a new project.

(vii) The bird cannot fly unless it has wings.

(viii) Rahul loves dancing, therefore he has joined a dance school.

(ix) Nikil hates garlic, but his mother forces him to eat it.

(x) Being slim and agile, Krishil climbs the mango tree easily.

Or

(b) How are nouns, verbs, adjectives and adverbs often confused? Explain in detail and give examples.

18. (a) Write an essay on 'the importance of reading'.

Or

(b) Write in detail on vowel and consonant sounds.

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C–5676	Sub. Code
	41

COMMON FOR ALL U.G. DEGREE COURSES
B.Sc./B.B.A. DEGREE EXAMINATION, APRIL 2022

Fourth Semester

EMPLOYABILITY SKILLS

(2016 to 2018)

Duration : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. What is meant by telephone etiquettes?

2. What are the different types of interview?

3. Mention few techniques for formal letter writing.

4. What are the key elements for writing resume?

5. Why do we great people / others?

6. What is meant by review writing?

7. What are the different types of composition?

8. How do we develope our creative competency?

9. What is meant by non-verbal communication?

10. How does personal appearance help non – verbal communication?

Part B

$(5 \times 5 = 25)$

Answer **all** questions.

11. (a) What are the different ways to express our opinions?

Or

(b) Write a short note on techniques of interview.

12. (a) Describe the steps to be followed while filling a bank challan.

Or

(b) What are the steps to be followed to write a resume?

13. (a) What are the different types of greetings? Write short note on it.

Or

(b) Write a short note on developing topic sentences into paragraph.

14. (a) Write a paragraph on controlled composition.

Or

(b) Write a note on different steps to develope creative competency.

15. (a) Write a short note on different types of non-verbal communication.

Or

(b) What are the uses of visual aids?

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Describe in detail on interview skills and its techniques.

Or

(b) Write a letter to your father about your health issues at the hostel

17. (a) Write a short note on the following

(i) Note-making.

(ii) Note-taking.

Or

(b) Prepare a report of your annual project.

18. (a) Write an essay on different kinds of composition.

Or

(b) Write an essay on merits and demerits of visual aids.

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C–5699	Sub. Code
	91412

B.Sc. DEGREE EXAMINATION, APRIL 2022

First Semester

Optometry

GENERAL ANATOMY AND PHYSIOLOGY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is the function of stomach?

2. Name the functional unit of brain and lung.

3. What is blood grouping?

4. Define ABO system.

5. What is sympathetic hormones?

6. Mention the parts of brain.

7. Name the respiratory gases.

8. Write any two point about cardiac muscle.

9. What is reflex action?

10. Identify the importance of salivary secreation.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Anatomy of stomach.

Or

(b) Anatomy of pancreas.

12. (a) Cardiac output.

Or

(b) Female reproductive system.

13. (a) Write a brief note on functions of cerebellum.

Or

(b) Summarize the regulations of respiration.

14. (a) Explain types of cartilage.

Or

(b) Discuss Bile.

15. (a) Write a short note on pancreatic juice.

Or

(b) Discuss about lung volume and capacities.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail structure and functions of kidney.

Or

(b) Summarize functions of hemoglobin and its types.

17. (a) Explain in detail the composition of blood and its functions.

Or

(b) Write a detail essay about spinal cord and nerve system.

18. (a) Write a detailed essay on pituitary glands

Or

(b) Discuss in detail pregnancy and child birth.

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C–5700	Sub. Code 91413

B.Sc. DEGREE EXAMINATION, APRIL 2022.

First Semester

Optometry

GENERAL AND OCULAR BIOCHEMISTRY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Mention the subclasses of monosaccharides.

2. What are ketone bodies? Explain.

3. What is denaturation of protein? Explain.

4. Mention the diseased conditions of scurvy.

5. List out the layers of cornea.

6. What are the Factors involved in the refractive power of the cornea?

7. Write short notes on ciliary process.

8. Mention the accommodation of lens.

9. Discuss briefly on the normal and abnormal levels of serum cholesterol,

10. Write the blood groups.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write the chemistry of disaccharides

Or

(b) Explain the classification and chemistry of fatty acids.

12. (a) Give an account on structure, chemistry and uses of essential amino acids.

Or

(b) Describe the sources and biological uses of Vitamin - A and vitamin – D.

13. (a) How is anterior champer of eye protected? Explain.

Or

(b) Mention the changes of tear Film when using contact lens.

14. (a) Elaborate the steps involved in the formation of aqueous humour.

Or

(b) Explain the diabetic cataract.

15. (a) Discuss on the finding bleeding time and urine sugar.

Or

(b) Explain the measurement of blood sugar level.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Elaborate the pathophysiology of Diabetes Mellitus

Or

(b) Write the chemistry and biological uses of beta-oxidation of fatty acid.

17. (a) Describe the classification of structure of protein with examples

Or

(b) Discuss in detail on mode of action and factors affecting enzyme action.

18. (a) Elaborate on the biochemical composition and maintenance of corneal transparency.

Or

(b) Write an essay on dehydration and transparency process of lens.

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C–5701	Sub. Code 91414

B.Sc. DEGREE EXAMINATION, APRIL 2022.

First Semester

Optometry

GEOMETRICAL OPTICS

(2016 onwards)

Duration: 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** the questions.

1. Define dual nature of light.

2. Define wavelength.

3. What is absolute refractive index?

4. What is critical angle?

5. Define focal point for convex surface.

6. What is magnification?

7. What are all cardinal points?

8. What is lens aberration?

9. Define dispersive power of prism.

10. Write any two classification of fiber based on material

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write short note about Fermat's principle for reflection.

Or

(b) Briefly explain wave nature, frequency and speed of light.

12. (a) Explain the condition for getting total internal reflection.

Or

(b) Write the concepts of convergence equation.

13. (a) Write a short note on dioptic power lens

Or

(b) Write a short note on different types of lenses.

14. (a) Write short note on matrix theory of paraxial optics.

Or

(b) Explain in brief refraction through thick lens.

15. (a) Write short note reflecting prisms.

Or

(b) Explain classification of optical fiber.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. (a) Explain in detail the refraction of light in plane parallel glass slab.

Or

(b) Derive the relation between U,V and R for the concave reflecting surface.

17. (a) Describe in detail the geometrical theory of optical fiber.

Or

(b) Explain in detail different types of lens aberrations.

18. (a) Find the equivalent focal length of two thin lenses separated by finite distance.

Or

(b) Define the detailed relationship between lateral and axial magnification of spherical surface.

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C–5702	Sub. Code
	91415

B.Sc. DEGREE EXAMINATION, APRIL 2022

First Semester

Optometry

NUTRITION

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Balanced diet.
2. Define BMI.
3. What are antioxidants?
4. Free Radicals.
5. Essential fatty acids.
6. Complete and incomplete proteins.
7. Two antioxidants and its role.
8. Sources of complete and incomplete protein.
9. List vitamin A deficiency disorder.
10. What is morbid Obesity?

Part B

$(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Management of Obesity.

Or

(b) Excess and deficiency of iodine.

12. (a) Write about 11 food groups.

Or

(b) Role of fibre in diet.

13. (a) Role of Vitamins in infancy.

Or

(b) Nutrients with antioxidants properties.

14. (a) Sources and functions of carbohydrates.

Or

(b) Classification of amino acids.

15. (a) Bomb calorimeter.

Or

(b) Atherosclerosis.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Discuss in detail about PEM.

Or

(b) Sources, kinds and functions of carbohydrates.

17. (a) Write in detail about iron and its role in eye.

Or

(b) Zero birth weight.

18. (a) Macro and micro minerals associated with eye.

Or

(b) Methods of nutritional assessment.

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C–5703	Sub. Code 91416

B.Sc. DEGREE EXAMINATION, APRIL 2022

First Semester

Optometry

COMPUTERS

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What basic knowledge you need in computers?

2. What are the functions of peripheral devices?

3. What do you mean by representation in a computer system?

4. What do 101 mean in binary?

5. Classify software.

6. What does windows program manager perform?

7. How do you cut the selected text in MS Word?

8. Why do we use charts and graphs in MS Excel?

9. Which software is used for sending and receiving mails?

10. Give names of any two antivirus tools.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) List and explain the scope of basic computer courses for beginners.

Or

(b) What is digital computer? Explain it with a neat block diagram.

12. (a) What is the basic numbering system that a computer uses to represent data and how does it work?

Or

(b) How numbers are represented in decimal number system? Give illustration.

13. (a) List and explain briefly about the advantages of using an operating system.

Or

(b) What is the difference between project manager and program manager? Explain.

14. (a) Bring out the advantages of using header and footer in MS Word.

Or

(b) What is the purpose of worksheet in excel? Discuss its importance.

15. (a) How do you send and receive a mail? Explain.

Or

(b) What are the different ways of online communications? Discuss.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about various input and output devices with their structures and functions.

Or

(b) What is called a binary operation? Explain its types through examples.

17. (a) Elaborate any two types of software and their features.

Or

(b) What is the purpose of using mail merge? How do you use mail merge to forward letters to a group of people? Explain the steps.

18. (a) What are called functions in excel? Discuss in detail about the important functions in excel with an example.

Or

(b) What is called a virus? Discuss in detail about different types and their mal functions.

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C–5704	Sub. Code 91422

B.Sc. DEGREE EXAMINATION, APRIL 2022

Second Semester

Optometry

OCULAR ANATOMY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Enlist extra ocular muscles.
2. Muscles of eyelids.
3. Components of aqueous humor.
4. Name the muscles of iris and its action.
5. Nerve supply of inferior oblique, superior oblique.
6. Write about superior orbital fissure.
7. Orbicularis oculi.
8. Layers of conjunctiva with its blood supply.
9. Crystalline lens.
10. Meibomian gland.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write a short note on macula lutea.

Or

(b) Write a short note on anatomy of Layers of retina.

12. (a) Parts of uvea with its nerve supply.

Or

(b) Diagram of lacrimal apparatus.

13. (a) Anatomy of upper eyelid with diagram.

Or

(b) Development of retina.

14. (a) Corneal transparency.

Or

(b) Anterior chamber.

15. (a) Write in short about episcleral.

Or

(b) Fovea centralis.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Layers of cornea and factors which maintain corneal transparency.

Or

(b) Describe the bones forming the orbit, orbital contents.

17. (a) List out the extra ocular muscles with their origin, insertion and nerve supply.

Or

(b) Anatomy of 3rd cranial nerve.

18. (a) Explain orbital nerve supply in detail.

Or

(b) Write in detail about vitreous humour in detail.

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C–5705	Sub. Code
	91423

B.Sc. DEGREE EXAMINATION, APRIL 2022

Second Semester

Optometry

OCULAR PHYSIOLOGY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is Papilledema of optic nerve?

2. Write briefly on corneal vascularisation

3. Name the glands which are constructing tear.

4. List any two dry eye syndrome.

5. Mention the position of Fick's axes.

6. Brief on supra nuclear control of eye movements.

7. Write short notes on retinal projection.

8. Mention the color blindness.

9. Discuss briefly on any two abnormalties of ophthalmic diagnostic drugs.

10. Write the types of drug drops used to ocular system.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write short notes on Uveo-scleral drainage.

Or

(b) Explain the physiology of vitreous humour.

12. (a) Brief the displacement phenomena of tear.

Or

(b) Describe the blinking reflexes.

13. (a) Explain the extra muscles and their nerve supply.

Or

(b) Discuss the Vergences of eye movement.

14. (a) Elaborate the structure of geneculate cortex

Or

(b) Explain the mechanism of accommodation.

15. (a) Elaborate the physiology of vision.

Or

(b) Explain the factors affecting visual acuity.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Elaborate the retinal layers with structural representation.

Or

(b) Write in detail note on ocular circulation and protective mechanism.

17. (a) Describe the cross sectional area and functions of extra ocular muscles.

Or

(b) Discuss in detail on factors influencing the IOP.

18. (a) Discuss the neurophysiology of perception.

Or

(b) Write an essay on ocular electro diagnostic tests.

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C–5706	Sub. Code
	91424

B.Sc. DEGREE EXAMINATION, APRIL 2022

Second Semester

Optometry

PHYSICAL OPTICS

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define polarization.
2. Define double refraction.
3. What is Newton's ring?
4. What is the condition for constructive interference?
5. Define diffaraction.
6. Write any two application of laser.
7. What is plane of polarization and vibration?
8. Define resolving power.
9. What is the condition for getting population inversion?
10. What is wave velocity and group velocity?

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Write short note about Hygen's principle.

Or

(b) Derive an expression for superposition of simple harmonic wave.

12. (a) Explain briefly dispersive power of grating.

Or

(b) Explain how the Nicol prism acts as polarizer.

13. (a) Explain the principle and working of quarter wave plate.

Or

(b) Write a short note on Lloyd's mirror.

14. (a) Write short note on Nicol prism as polarizer.

Or

(b) Explain in brief the concept of young's double slit.

15. (a) Write short note on principle of laser.

Or

(b) Explain Rayleigh criterion for resolving an object.

Part C

$(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Explain in detail any one method to find the velocity of light.

Or

(b) Explain the theory of Newton's rings with neat construction diagram.

17. (a) Describe in detail with neat diagram the diffraction pattern due to double slit.

Or

(b) Explain in detail the construction and reconstruction of hologram.

18. (a) With neat diagram, explain the construction of plane, circular and elliptically polarized light.

Or

(b) Explain with neat diagram diffraction due to double slit and discuss its significance.

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C–5707	Sub. Code
	91425

B.Sc. DEGREE EXAMINATION, APRIL 2022

Second Semester

Optometry

MICROBIOLOGY AND PATHOLOGY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Mention the classes of bacteria based on their structure

2. Give any two examples each from Gram Positive and Gram Negative bacteria.

3. How do you prepare the 10% KOH solution?

4. Mention the disease caused by Trepanemapallidum.

5. List out the disease caused by picorna virus.

6. How does the mucor spread?

7. What are the functions of fibro plast cell?

8. There is no scare after catract surgery. Justify.

9. List out the carcinogenic agents.

10. Write the difference between benign and malignent tumor.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Mention the normal flora of eye and Elaborate the techniques involved in collection of ocular sample.

Or

(b) Explain the methods of bacterial culture and antibiotic sensitivity test.

12. (a) Give an account on pathophysiology of enterobacteriae.

Or

(b) Describe the clinical features of acantameoba and taxacara.

13. (a) Give an account on ocular lesions of fusarium and candida.

Or

(b) Elaborate on Hypersensitivity reaction.

14. (a) Mention the structures and chemistry of immunoglobulins.

Or

(b) Explain the agents causing tissue injury and repair system.

15. (a) Discuss on the pathology of eye lid.

Or

(b) Mention the types and clinical features of orbital tumor.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Elaborate the methods of sterilisation.

Or

(b) Explain the clinical importance, pathology, diagnosis and treatment of mycobacterias.

17. (a) Describe the pathology, diagnosis and treatment of Gram negative cocci.

Or

(b) Discuss on clinical importance, ocular lesions and treatment of Rubella and retro virus.

18. (a) Elaborate on the Corneal ulcer and keratocannus.

Or

(b) Write an essay on pathology of retinoblastoma.

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C–5710	Sub. Code
	91434

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Third Semester

Optometry

OPTOMETRIC INSTRUMENTS – I

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Write about optics of Retinoscope.

2. Write an Retro illumination in slit lamp illuminations.

3. Principle of Schiotz tonometer.

4. Draw the optical system of Javal-Schiotz Kratometer.

5. Describe Farnsworth 100 hue test.

6. Principle of Simple microscope.

7. Mention any two uses of Radiuscope.

8. Define Visual angle.

9. Mention any two visual acuity chart for 1-3 yrs of childrens.

10. Principle of PAM.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write briefly on Aberrometer.

Or

(b) Describe subjective AR.

12. (a) Write on simple microscope.

Or

(b) Brightness Acuity Tests.

13. (a) Describe Trial case and its lenses in detail.

Or

(b) Write on various colour vision tests.

14. (a) Describe Schiotz tonometer.

Or

(b) Describe ultrasconic pachymeter and its uses in detail.

15. (a) Radiuscope

Or

(b) Glare tests

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Describe opthalmic LASER's in detail and its uses in opthalmology.

Or

(b) Explain briefly about various illuminations by using slit lamp.

17. (a) Indirect opthalmoscope.

Or

(b) Elaborate Retinoscope.

18. (a) Microscope – optics, types and its uses.

Or

(b) Various types of projection charts.

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C–5711	Sub. Code
	91435

B.Sc. DEGREE EXAMINATION, APRIL 2022

Third Semester

Optometry

GENERAL AND OCULAR PHARMACOLOGY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. List out the three important steps involved in the excretion of drug through urine.

2. Draw a neat diagram of cross section of blood-brain-barrier.

3. Mention briefly on types of drug receptor.

4. What is second messenger?

5. List out the antipyretics.

6. Mention the side effect of steroid antiinflammatory drugs.

7. State any two adrenergic drugs used to treat eye disease.

8. Name the cholinergic antogenistics.

9. Mention the ointments used to treat ocular disease.

10. Why should we avoid the usage of coticosteroids often for eye disease?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write the factors influencing drug absorption from small intestine.

Or

(b) Explain the phase II drug metabolism.

12. (a) Give an account on structure activity relationship of a drug.

Or

(b) Mention the drug dose response relationship.

13. (a) Explain the local anesthetics.

Or

(b) Discuss the mechanism of action and therapeutic action of sedative drugs.

14. (a) Describe the types and Functions of adrenergic receptor.

Or

(b) Explain the mechanisms of direct acting adrenergic drugs.

15. (a) Discuss on the uses of viscoelestic drug with examples.

Or

(b) Explain the drugs used to treat glaucoma.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Elaborate the general route of drug administration.

Or

(b) Write short notes on:

(i) Classification of drug (5)

(ii) Treatment of acute drug poisoning. (5)

17. (a) Describe the chemistry and function of analgesics.

Or

(b) Discuss on mechanism of action of cholinergic drugs.

18. (a) Elaborate on the ophthalmic diagnostic drugs.

Or

(b) Write short notes on:

(i) NSAID

(ii) Antibacterial drugs for ocular disease.

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C–5713

Sub. Code
91442

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fourth Semester

Optometry

OPTOMETRIC OPTICS

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Light.

2. Spherocylinder.

3. Vertex power

4. Magnification.

5. What is Surfacing?

6. Abbe value - Define.

7. Occupational lenses - Define.

8. PAL - Define.

9. Principle of ARC.

10. Edging technique - Define.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Prisms in detail.

Or

(b) Cylindrical lens in detail.

12. (a) Abberration in ophthalmic lenses in detail.

Or

(b) Note on (i) Prentice rule (ii) Sag formula.

13. (a) Manufacturing of ophthalmic blanks.

Or

(b) History of ophthalmic blanks.

14. (a) Detail note on Hi-Index lenses.

Or

(b) PAL in detail with diagram.

15. (a) Description of lens defects.

Or

(b) SRC in detail.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) What is Bifocals types and their designs in detail?

Or

(b) Spherical and spherocylindrical lenses in detail.

17. (a) Terminology used in lens workshops and manufacturing in detail.

Or

(b) Properties of ophthalmic lenses in detail.

18. (a) Transpositions and its types in detail with an example.

Or

(b) Various types of lenses available in Indian market.

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C–5714	Sub. Code
	91443

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fourth Semester

Optometry

OCULAR DISEASE – II

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Asteroid hyalosis
2. Optic disc
3. Hutchinson's pupil
4. Diffuse sclerosis
5. Marcus Gunn pupil
6. Saccadic movement
7. Extorsion
8. Sherrington's law
9. Suppression
10. Hamarlopia

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Posterior vitreous detachment

Or

(b) CRAO

12. (a) Vitreous Haemorrhage

Or

(b) CME

13. (a) Lesions of visual pathway

Or

(b) Malingering

14. (a) Supra nuclear control of eye movements

Or

(b) Amblyopia

15. (a) Neurofibromatosis

Or

(b) Binocular single vision

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Diabetic Retinopathy

Or

(b) Retinal Detachment

17. (a) Artery occlusions of retina

Or

(b) Papillodema

18. (a) ARMD

Or

(b) Sixth nerve palsy

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C–5715	Sub. Code
	91444

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fourth Semester

Optometry

OPTOMETRIC INSTRUMENTS – II

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Mention any two test for assessment of visual acuity in childrens of 1-3 yrs of age.

2. EOG.

3. Principle of B-Scan.

4. Any two condition of Hyper fluorescence in FFA.

5. Photo coagulation.

6. TBUT.

7. Diffuse illumination.

8. Kinetic Perimetry.

9. Roenne's Nasal step.

10. Principle of Gonioscopy.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write on various colour Vision tests.

Or

(b) Write about ENG.

12. (a) Explain Diathermy.

Or

(b) Write briefly about cryo technique.

13. (a) Elaborate Flourescein in Opthalmological uses.

Or

(b) Anatomy of lacrimal gland.

14. (a) Tear film Evaluation.

Or

(b) Explain briefly on optics of Manual lensometer.

15. (a) Write about Javal-Schiotz Keratometer.

Or

(b) Berman's locator.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain B-Scan.

Or

(b) Indirect Gonioscopy.

17. (a) Discuss about objective autorefractometer.

Or

(b) Elaborate Slit lamp biomicroscopy.

18. (a) Explain VEP.

Or

(b) Humphery Field Analyser.

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C–5716	Sub. Code
	91451

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fifth Semester

Optometry

CONTACT LENS – I

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Find effective power for contact lens patient having spectacle power of –7.00 Dsph vertex distance of 12 mm.

2. List out the layers of tears film.

3. Write down FDA classification.

4. Explain extended keratometry

5. Write short notes on FSAs

6. What is lonicity?

7. What is cleaning solution?

8. What is astigmatism?

9. Explain cast molding method of manufacturing.

10. What is BCL?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the history of contact lenses.

Or

(b) Draw and explain different parts on contact lenses.

12. (a) Explain anatomy and physiology of the cornea.

Or

(b) Explain the role of tear film in contact lens fitting.

13. (a) Explain the physical properties of contact lens.

Or

(b) Explain optical properties of contact lens.

14. (a) Explain fitting philosophies of contact lens.

Or

(b) Explain different slit lamp evaluation techniques.

15. (a) Explain the process of modifying power in RGP lens.

Or

(b) Explain different types of disinfection methods.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain different slit lamp evaluation technique and role of slit lamp in contact lens fitting.

Or

(b) Explain different manufacturing technique of RGP lens.

17. (a) Explain pre fitting evaluation of RGP lens.

Or

(b) Explain fitting evaluation of RGP lens.

18. (a) Explain the advantage of contact lens over spectacles.

Or

(b) Explain care and maintenance of SCL.

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C–5717	Sub. Code
	91452

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fifth Semester

Optometry

BINOCULAR VISION – I

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is egocentric localization?

2. Explain line of direction with diagram.

3. What is retinal rivalry?

4. Define Herrings law of equal innervation.

5. What is primary, secondary and tertiary action RSR and LSO

6. What is reaction and response time of accommodation?

7. What is convergence? List components of vergence.

8. What is penalization?

9. What direct occlusion?

10. What is cyclopean eye?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) What is horopter? Draw and explain horopter and its significance.

Or

(b) What is physiological diplopia? Explain the significance of physiological diplopia.

12. (a) Explain center of rotation, arc of contact, muscle plane and axis of rotation.

Or

(b) Explain uniocular movements and binocular movements of eye.

13. (a) Explain test for fusion.

Or

(b) Explain test for stereopsis.

14. (a) Explain 4 Δ base out.

Or

(b) Explain Bagolini striated lenses.

15. (a) What is amblyopia? Explain classification of amblyopia.

Or

(b) What is suppression? Explain the types, classification and mechanism of suppression.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) What are grades of BSV? Explain grades of BSV.

Or

(b) What are monocular clues? Explain different types of monocular clues.

17. (a) Draw and tabulate action, nerve supply, blood supply, insertion and length of EOM.

Or

(b) What is accommodation? Explain classification of accommodation and anomalies of accommodation.

18. (a) Explain the management of suppression.

Or

(b) Explain the management of amblyopia.

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C–5718	Sub. Code 91453

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Fifth Semester

Optometry

PEDIATRIC AND GERIATRIC OPTOMETRY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Galactosemia

2. Neutral Density filter

3. Clinical features of CRVO

4. Penalization

5. Diplopia charting

6. Neovascular Glaucoma

7. Four prism base out test

8. Hypertelorism

9. Neutral Density filter

10. Double Maddox Rod Test

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Visual acuity examination in Non-verbal children.

Or

(b) Congenital cataract.

12. (a) Corneal endothelial dystrophy.

Or

(b) Physiological changes in cornea due to aging.

13. (a) APGAR score.

Or

(b) Retinoblastoma.

14. (a) Frame selection consideration in elderly.

Or

(b) Anisometropia management in children.

15. (a) Ocular manifestations of atherosclerosis.

Or

(b) Tests for suppression.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Nystagmus.

Or

(b) Ocular manifestations of diabetes.

17. (a) Management of Hyperopia in children.

Or

(b) Senile Cataract.

18. (a) Optometric examination in elderly.

Or

(b) Contact lens considerations in pediatrics.

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C–5719	Sub. Code
	91454

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fifth Semester

Optometry

DISPENSING OPTICS

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Convert into sph/cyl format -2.00 × 180; -2.00 × 90.

2. What is horizontal gradient tint?

3. What is skull temple draw and explain?

4. What is photochromatism? Name a photochromic agent which causes photochromatism in plastic.

5. How to identify presence of prism in spectacle lenses?

6. What is crutch in ptosis frame?

7. What is Pince - nez frame?

8. What is dis advantage of cellulose nitrate?

9. What is monocles?

10. What is face form?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Find out near add intermediate add for prescription reading as follows

(i) DV: -3.00/-3.00 × 120 NV: -2.00/-3.00 × 120

(ii) DV: +4.00/-2.00 × 20 NV: +5.75/-2.00 × 20

(iii) DV: Plano/+2.00 × 100 NV: +2.00/+2.00 × 100

Or

(b) What are lenticular lenses? Explain in detail types of lenticular lenses available.

12. (a) What is aniseikonic lenses? Explain in detail about types.

Or

(b) What are aspheric lenses? Explain the advantages and dispensing of aspheric lenses.

13. (a) Explain different types of frames.

Or

(b) Explain different type of nose bridges and nose pad available.

14. (a) Explain the role of IPD in spectacle dispensing.

Or

(b) Explain the process of frame manufacturing.

15. (a) Explain the instruction to be given while dispensing spectacles.

Or

(b) Explain a safety glasses for chemical industry person.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) What are polarized lenses? Explain the process of manufacturing, advantage, disadvantage and uses of polarized lenses.

Or

(b) What are PALs? Explain the method of dispensing, types, designs, advantage and disadvantage of PALs.

17. (a) Explain different types of plastic and metal frame materials with advantage and disadvantage of each material.

Or

(b) Draw and explain different parts of frames. Explain different type of temples and nose bridge.

18. (a) What is pediatric dispensing? Explain the process of dispensing in pediatric population.

Or

(b) What is occupational dispensing? Explain how to dispense glass for CVS.

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C–5720	Sub. Code
	91455

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fifth Semester

Optometry

PUBLIC HEALTH AND COMMUNITY OPTOMETRY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define crude death rate.
2. Define public health.
3. Abbreviate NPCB, RIO.
4. Define blindness according to WHO.
5. List eye care personnel providing different levels of eye care.
6. Give any four ways of health promotion in community.
7. Mention different types of screening.
8. Define sensitivity.
9. Mention any two leading cause of blindness in India and give ways to prevent it.
10. Draw epidemiological triad of a disease.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write note on indicators of health.

Or

(b) Explain natural history of a disease.

12. (a) Write short note on IEC material.

Or

(b) Write short note on glaucoma screening.

13. (a) Write briefly on applications of Tele-optometry in public health.

Or

(b) Write note on Health man power.

14. (a) Discuss the benefits of evaluation and assessment of health program.

Or

(b) Write note on Vitamin A deficiency in school children and ways to prevent it.

15. (a) Define visual impairment and give WHO classification of visual impairment.

Or

(b) Vision 2020.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail different levels of prevention with example.

Or

(b) Explain vision rehabilitation.

17. (a) Distinguish between clinical and community eye care.

Or

(b) Write in detail about Tele optometry.

18. (a) NPCB.

Or

(b) Explain the role of optometrist in school screening for eye diseases.

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C–5721	Sub. Code
	91456

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fifth Semester

Optometry

BIOSTATISTICS

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define mortality.
2. Write infant mortality rate.
3. List out the non probability sampling methods.
4. Define composite hypothesis.
5. What are the measures of dispersion?
6. Write any two properties of correlation.
7. Write the formula of binomial distribution.
8. Write two applications of Poisson distribution.
9. Define hospital statistics.
10. Write the formula of bed turnover rate.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write the uses of biostatistics in detail.

Or

(b) Explain neonatal mortality rate.

12. (a) What is random sampling method?

Or

(b) Explain the types of testing of hypothesis.

13. (a) What are the sources of secondary data explain with example?

Or

(b) Prove additional theorem of probability when two events are mutually exclusive.

14. (a) Explain Poisson distribution in detail.

Or

(b) Write the properties of Binomial distribution.

15. (a) A hospital with 210 available beds (excluding newborn bassinets) rendered 4780 patient days in June. June has 30 days. Calculate percentage of occupancy for the hospital in June.

Or

(b) Explain bed occupancy rate.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain non probability sampling methods in detail.

Or

(b) Calculate mean, median and mode for the following data.

Weight (pound)	150-160	160-170	170-180	180-190	190-200
No. of students	15	35	46	25	21

17. (a) Calculate Spearman rank correlation for the following data

Heights (cm)	150	152	160	165	168	169	170
Weights (kg)	55	65	75	70	78	81	82

Or

(b) Calculate quartile deviation for the following data

Age in years	18	20	22	24	25
No. of students	25	20	18	15	11

18. (a) Prove Multiplication theorem of probability when two events are independent to each other.

Or

(b) Write the procedure of chi square test for testing hypothesis.

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C–5722	Sub. Code
	91461

B.Sc. DEGREE EXAMINATION, APRIL 2022

Sixth Semester

Optometry

CONTACT LENS – II

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

True or false. Justify your answer

1. RGP lenses can be stored without solution.

2. Poor IQ is a contraindication for CL use

3. Toric CLs are not very useful in oblique astigmatism.

4. Manual keratometer is not of much help in irregular corneas

5. Extended keratometry is reliable in KConus corneas with curvature >60D

6. Apical touch can cause corneal scarring.

7. Type A prosthetic CL comes with opaque pupil and is used for occlusion

8. Distance refraction can be directly prescribed as in infantile aphakia

9. Knapp's law states axial anisometropia does better with contact lenses

10. RSM compares the magnification of ametropic eye to emmetropia.

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Compare SCL with RGP lenses.

Or

(b) Comment on the availability of disposable lenses and its advantages.

12. (a) How do you assess a toric SCL?

Or

(b) Explain three point touch.

13. (a) List the common handling mistakes with Contact Lenses.

Or

(b) Contact lenses in sports vision.

14. (a) Indications for lifting prosthetic shells.

Or

(b) Fitting contact lenses in aphakia.

15. (a) List some of the conjunctival complications of using CL.

Or

(b) Enumerate the common cleaning agents used in CL solutions and its importance.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about various available contact lens options in Keratoconus.

Or

(b) Write in detail on filling procedure of prosthetic shells and fitting assessment.

17. (a) Give detailed notes on stabilisation techniques used in soft toric lenses.

Or

(b) Explain the different types of prosthetic CLs available and their uses.

18. (a) Discuss in detail about CL fitting in presbyopia.

Or

(b) Explain how CLs must be fitted in post refractive surgery corneas.

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C–5723	Sub. Code 91462

B.Sc. DEGREE EXAMINATION, APRIL 2022

Sixth Semester

Optometry

BINOCULAR VISION — II

(2016 batch onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What type of squint in seen in LR palsy?
2. How will you differentiate LR palsy and DRS?
3. Types of Restrictive strabismus.
4. What is Non – Strabismic binocular vision anomaly?
5. Orthoptic management of Accommodative Excess.
6. What is pseudo Myopia?
7. Give the normative value of NPC and PFV.
8. Suppression and its types
9. AV pattern.
10. Strabismus Fixus.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Double Depressor Palsy.

Or

(b) Brown's Syndrome.

12. (a) Write in brief about use of tranaglyphs in Inoffice vision therapy.

Or

(b) Strabismus in high myopes.

13. (a) Ocular Myasthenia Gravis.

Or

(b) Optical treatment of Squint.

14. (a) Pharmacological Treatment of Squint.

Or

(b) Occlusion Test for Intermittent Divergent Squint.

15. (a) How do you measure Near Point of accommodation with Linear and Accommodative Target?

Or

(b) Negative and Positive Fusional Vergence.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Hess Charting.

Or

(b) Bielschowsky Three Step Test.

17. (a) Differentiate comitant and Incomitant Deviation.

Or

(b) Uses of Prism in Exercise and correction.

18. (a) Passive Therapy of Amblyopia.

Or

(b) Write in detail about Occlusion Therapy of Amblyopia.

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C–5724	Sub. Code 91463

B.Sc. DEGREE EXAMINATION, APRIL 2022

Sixth Semester

Optometry

LOW VISION AID

(2016 batch onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Low vision.
2. WHO definition of Low vision.
3. Near vision assessment in Low vision.
4. Explain worth four dot test.
5. What is ERG.
6. Kestenbaum's rule.
7. Uses of Mirrors in Low vision.
8. Uses of Reverse telescope in Low vision.
9. Management of contrast sensitivity in Low vision patient.
10. Management of Glare sensitivity in Low vision patient.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Old and New definition of Low Vision.

Or

(b) Grades of Low Vision.

12. (a) Advantages and disadvantages of Spectacle Magnifier.

Or

(b) Advantages and disadvantages of Stand Magnifier.

13. (a) Explain Monocular telescopes.

Or

(b) CCTV for Low vision.

14. (a) Explain about LOGMAR chart and its uses.

Or

(b) Low Vision and Retinal diseases.

15. (a) Explain Retinitis Pigmentosa.

Or

(b) Braille system.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about Low vision for distance correction.

Or

(b) Explain about Low vision for near correction.

17. (a) Visual assessment for Low Vision in Pediatrics.

Or

(b) Visual assessment of Low vision in Geriatrics.

18. (a) Procedure for prescribing low vision optical devices.

Or

(b) Procedure for prescribing low vision Non – Optical devices.

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C–5725	Sub. Code 91464

B.Sc. DEGREE EXAMINATION, APRIL 2022

Sixth Semester

Optometry

OCCUPATIONAL OPTOMETRY

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Expand ILO. List one of its aims.
2. Expand WHO. List any of its objective.
3. Polycarbonate - two uses.
4. PPE in pandemic. mention two examples.
5. Vision standards for passing driving licence test is 6/6. true or false, justify.
6. Mention any four requirements for proper ergonomics in an Optometrist's clinical setup.
7. Mention any two uses of Hard hats in construction workers.
8. Comment on helmet design of cricket players.
9. Any two ill effects of LASER.
10. Any two precautions that optometrist must take to avoid contracting communicable diseases in OPD.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Define and write brief notes on Occupational Health.

Or

(b) Give notes on hazard of laser.

12. (a) List down the objectives of ILO.

Or

(b) What is the role of WHO in occupational health?

13. (a) Discuss the occupational health hazards in welding workers.

Or

(b) Discuss the occupational health hazards in leather factories.

14. (a) Discuss about improving ergonomics in IT workers.

Or

(b) What is ergonomics in workplace? How do you assess the same?

15. (a) Communicable diseases in workplace – Discuss.

Or

(b) Stress disorders in workplace – Discuss.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write notes on Indian occupational health bodies and their objectives.

Or

(b) What is your take on the role of optometrist in improving ocular health in different occupations?

17. (a) What are the important national acts that ensure occupational health of citizens of India?

Or

(b) Write in detail about the various types of PPE and its uses in different occupations.

18. (a) Write in detail about hazard assessment in industries.

Or

(b) Discuss about potential eye injuries in different occupations.

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C–5726

Sub. Code
91465

B.Sc. DEGREE EXAMINATION, APRIL 2022

Sixth Semester

Optometry

SYSTEMIC DISEASE AFFECTING THE EYE

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. List out the complications of Diabetes Mellitus.
2. Enumerate connective tissue disorder.
3. Signs and symptoms of TB.
4. Classification of leprosy.
5. Eye disorders caused by vitamin deficiency.
6. List genetic disorders affecting eye.
7. Systemic sclerosis.
8. Carcinoma.
9. Roths spot.
10. Argyll Robertson pupil.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Describe Ocular manifestation of TB.

Or

(b) Classification of neurological diseases.

12. (a) Explain Diabetes Mellitus : Def, complication and its treatment.

Or

(b) What are the Grading and Staging of Cancer?

13. (a) Brief Optic neuritis.

Or

(b) Describe Papiloedema.

14. (a) Marfan syndrome. Explain.

Or

(b) Write on Peters anomaly.

15. (a) Write short notes on Syphilis.

Or

(b) In short explain Malaria.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Elaborate Graves disease.

Or

(b) In detail explain Visual pathway lesions.

17. (a) Explain RHD: definition, symptoms, diagnosis, and its treatment.

Or

(b) Write in detail on Vitamin deficiency related eye disorders.

18. (a) What are the effects of Neoplasm of eye.

Or

(b) Explain in detail about Hypertension and its effects on eye.

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C–5666

Sub. Code
17/18/19/24/25 /26/27/28

Common for all UG B.Sc./B.B.A
DEGREE EXAMINATION, APRIL 2022

First Year/ Second Semester

ENVIRONMENTAL STUDIES

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Nature.
2. Name any two non - renewable energy resources.
3. What is conflicts?
4. Define overgrazing.
5. Write a note on sustainable life style.
6. What is Mega Diversity?
7. Define Hot spot.
8. What is Eutrophication'?
9. Make a note on noise pollution.
10. What is pollution?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Give an account on the importance of environmental studies.

Or

(b) How do you make public awareness on environmental issues? Explain.

12. (a) Write about the future problems upon over utilization of ground water.

Or

(b) How the modern agriculture practices affects the quality of food resources? Explain.

13. (a) Give a detailed account on the problems in using fertilizer and pesticides on environment.

Or

(b) Write a note on the concepts of ecosystem.

14. (a) Explain the energy flow in a forest ecosystem.

Or

(b) Briefly explain the value of Biodiversity.

15. (a) What are the major threats to the Biodiversity? Explain.

Or

(b) How do you document an environmental issue during the field visit? Explain.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Give an account on utilization of renewable and non renewable energy resources.

Or

(b) Discuss on the use of alternate energy resources for the future of the nation.

17. (a) Describe the in-situ and ex-situ method of Conservation of biodiversity.

Or

(b) Give a detailed account on the status of Biodiversity at National and Global levels.

18. (a) Explain the control measures of Water pollution.

Or

(b) Write in detail about hazards of radiation raised from Nuclear wastes.

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