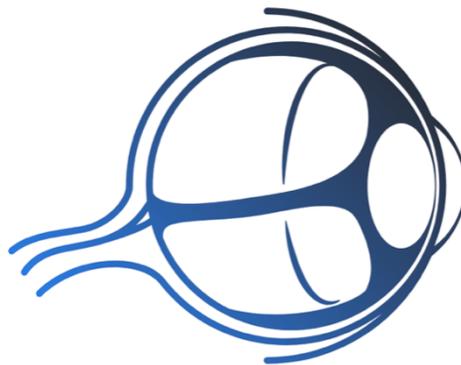


**DNB Ophthalmology
Question Bank
Drugs and Community
Ophthalmology
1999-2019**



Eye Learn

All about the Eye

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A. Drugs

1. Drugs in ophthalmology
 - a) Antiviral drugs
 - b) Antibiotic drugs
 - c) Antifungal drugs
 - d) Cycloplegics
 - e) Antimetabolites
 - f) Other drugs
 - g) Preservatives
2. Drug delivery systems
3. Ocular bioavailability
4. Ocular toxicity
5. Dyes in ophthalmology
6. Ocular pathology
7. Lasers in ophthalmology
8. Sutures in ophthalmology
9. Systemic diseases and eye
10. Immunology
11. Genetics

B. Community ophthalmology

1. Biostatistics
2. National programs
 - a) Vision 2020
 - b) NPCB
3. Childhood blindness
4. Tele-ophthalmology
5. Visual disability

C. Miscellaneous

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DRUGS, COMMUNITY OPHTHALMOLOGY AND MISCELLANEOUS

DRUGS

ANTIVIRAL DRUGS

1. Describe pharmacological properties, mechanism of action and side effects of antiviral drugs used in ophthalmology. J2009
2. a) Role of newer anti-viral agents used in Ophthalmology. b) What are the specific advantages of these over available anti-viral? 5+5 D2016

ANTIBIOTIC DRUGS

3. Antibiotics used in Ophthalmology. (2003)
4. Fluoroquinolone in Ophthalmology. (2002)

ANTIFUNGAL DRUGS

5. Classify antifungal drugs, their clinical uses and side effects of each drug. (3+4+3) D2014

CYCLOPLEGICS

6. Write down indications, contraindications, pharmacology, side effects of cycloplegics commonly used in ophthalmology. D2010

ANTI-METABOLITES

7. Discuss role of anti-metabolites and immunosuppressive drugs in Ophthalmology. 10 D2011
8. What are the anti-metabolites used In Ophthalmology? Discuss their clinical uses and side effects. 3+3+4 D2013
9. a) Uses of MMC in ophthalmology
b) Mention side effects 8+2 J2018

OTHER DRUGS

10. Role of anti-oxidants in ophthalmology. (2007)

PRESERVATIVES

11. a) What are various preservatives in eye drops? b) What are their side effects and how does one treat them? 4+(3+3) J2016
12. Commonly used preservatives for ophthalmic preparations, their advantages and disadvantages. 4+3+3 D2017
13. a) Name 3 commonly used ophthalmic preservatives in topical medications
b) What are the adverse effects of preservatives in ophthalmic medications?
c) What are the various means of preventing these adverse effects? 1+4+5 J2018

DRUG DELIVERY SYSTEMS

14. a) Drug delivery systems utilized in Ophthalmology. b) Antimetabolites used in Ophthalmology. (5+5) D2019

OCULAR BIOAVAILABILITY

15. Methods to increase the ocular bioavailability and efficacy of drugs used in treatment of ocular disorders, along with example. (10) J2017

OCULAR TOXICITY

16. Common systemic medications and ocular toxicity. (10) J2017
17. Side Effects of a) Vitamin A b) MAO inhibitors. (2004)
18. Ocular effects of sildenafil (Viagra). (2001)

DYES IN OPHTHALMOLOGY

19. a) Uses of various dyes in Ophthalmic Surgery. b) What are types of multifocal IOL? What are their disadvantages? (5+5) D2019(GUWAHATI)
20. a) Define and enumerate vital dyes used in Ophthalmology.
b) Clinical applications of vital dyes in diagnosis and treatment of ophthalmic diseases 1+2+7 D2018
21. Describe salient features of the various dyes used in ophthalmology. Give their indications and complications. (2008)
22. Staining of Lens capsule. (2003)



OCULAR PATHOLOGY

23. a) Chemical fixatives for histopathological examination of ophthalmic specimens.
- b) Application of routine and special stains in histopathology. 4+6 D2018

LASERS IN OPHTHALMOLOGY

24. a) Enumerate various types of LASERs used in ophthalmic practice.
- b) Uses of LASERs in ocular disorders.
- c) Safety precautions in LASER delivery (2+6+2) J2019
25. Various laser used in ophthalmology. J2010
26. Basic principles of LASER. (2003)
27. Discuss ophthalmic Lasers and their indications. (2003) (2003)
28. Coagulative lasers in ophthalmology. (2000)
29. Photoablation. (2000)

SUTURES IN OPHTHALMOLOGY

30. Sutures used in ophthalmology. (2001)

STERILIZATION, PREOPERATIVE PROPHYLAXIS AND OPERATING THEATRE

31. Sterilization techniques - Ophthalmic operation theatre, surgical instruments and logistics. 4+3+3 D2019
32. a) Essential components of modular ophthalmic operating room. b) Disinfection and sterilization of operating room. 5+5 D2018
33. Discuss various preoperative and perioperative aseptic approaches for prevention of intraocular infection. 10 D2018
34. Method of sterilization of (A) Linen, sharp instruments, blunt instruments, Diamond knife. (B) Disinfection of operation theatre. (2003)

SYSTEMIC DISEASE AND EYE

35. a) Phacomatoses — Definition, types & ocular manifestations. b) Management of ocular manifestations of neurofibromatosis. 6+4 D2019
36. (a) Diagnostic criteria for Neurofibromatosis. (b) Ocular features of Neurofibromatosis Type 1 & 2. [3+(4+3)] D2015
37. a) Ocular manifestations of dengue fever.
- b) How will you monitor and manage a case of dengue fever from ophthalmic standpoint? (5+5) D2015
38. Various systemic diseases affecting eye. J2010
39. Ocular manifestations of leukemia. Highlight the differential diagnosis of each sign. (2008)
40. Von-Hippel-Lindau Syndrome. (2007) (2005)
41. Name different oculo-muco-cutaneous disorder. (2006)
42. Ocular Features of neurofibromatosis. (2005)
43. Ocular involvement in Mucopolysaccharidosis. (2005)
44. Crouzon's Disease. (2005)
45. Ocular manifestations of High altitude. (2005)
46. Alcoholism and Eye. (2007)

IMMUNOLOGY

47. Enumerate and describe role of biomarkers which may be beneficial in diagnosis, pathogenesis, treatment strategies and prevention of various ocular morbidities. 10 D2019
48. Enumerate important pro-inflammatory cytokines. What roles do they play in ocular inflammation? (4+6) J2011
49. What are cytokines? Enumerate important pro-inflammatory cytokines. What role do they play in ocular inflammation? (5+5) D2014

GENETICS

50. Enumerate few gene mutations for ophthalmic disorders. 4 D2019 (GUWAHATI)
51. a) Role of immunosuppressive drugs in ocular disorders.
- b) Gene therapy. (5+5) J2019
52. Discuss the role of genetics In Ophthalmology. 10 J2013



COMMUNITY OPHTHALMOLOGY

BIOSTATISTICS

53. a) What is RCT?
b) What is randomization why is it required
c) What are confounding factors in a study & how to avoid them? (3+3+4) J2018
54. a) What are the types of prospective studies and their advantages? b) What are the methods to avoid bias in a study? (6+4) J2017
55. a) Enumerate two broad headings for study designs and give one example under each category. b) Define specificity and sensitivity in evaluating screening tests. What is their relevance to positive and negative predictive value of the test? [2+(2+2+2+2)] D2016
56. a) Tests of significance b) Standard deviation c) Confidence interval (4+3+3) J2016
57. a) What are bias and confounding in statistical analysis?
b) A sample of 100 patients was segregated into 2 groups to check the IOP lowering effect of 2 different anti-glaucoma medications. Give 5 possible causes of bias and 5 possible confounders. [2X (2.5+2.5)] D2015

NATIONAL PROGRAMS

VISION 2020

58. What is vision 2020? What are the diseases covered under this scheme? Briefly describe its functioning strategy. 2014 D2013 (2009) (2006) (2003) (2001)
59. Aims and Objective of vision 2020. (2009) (2005)

NPCB

60. What are the objectives and action plan of “National Programme for Control of Blindness” (NPCB)? Give the definition of blindness as per NPCB and WHO. (4+4) +(1+1) D2015
61. National Programme of control of blindness. D2011 (2003) (2002)
62. Write down constitution and functions of district eye relief society as mentioned in National Program for Control of Blindness. J2010
63. District blindness control society-composition and role. (1999)

CHILDHOOD BLINDNESS

64. Enumerate causes of childhood blindness. How will you calculate sample size and plan survey of childhood blindness in India? J2014
65. Discuss causes and problems in management of childhood blindness. J2012 (2002)

TELE-OPHTHALMOLOGY

66. Tele-ophthalmology — role and application/set up. (2+8) D2019

VISUAL DISABILITY

67. a) How do you certify a case of visual disability? 5 D2019 (GUWAHATI)
68. Answer the following: (2+2+2+4) D2013
- A. Define low vision as per WHO Criteria.
B. How do you evaluate a person with low vision?
C. What are the goals of visual rehabilitation?
D. Enumerate and discuss various management options of low vision
69. Write the definition of blindness as per WHO standards. Enumerate important causes of blindness as per 4 important surveys in India. D2012
70. Visual impairment classification by WHO. Briefly discuss common causes of visual impairment in India and remedial steps. (2008)

MISCELLANEOUS

71. Describe three most ophthalmic emergencies requiring immediate management. (2009)
72. Discuss hysterical blindness and its management. (2008)
73. Causes of glare and how to manage it. (2006)
74. Atrophic Bulbi. (2006)
75. Aniseikonia. (2004)
76. Eye strain. (2002)



Eye Learn
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77. Causes and management of ocular hypotony. (2001)
78. Malingering in relation to eye. (2001)
79. CAM VISION Stimulator. (2000)

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