

**MEDICAL EXAMINATION  
REVIEW BOOK**

**VOLUME 21**

# **Dermatology**

**Third Edition**

**1200 Multiple Choice Questions  
And Referenced  
Explanatory Answers**

**DENNIS A. WEIGAND, M.D.**

# Medical Examination Review Book

VOLUME 21

## DERMATOLOGY

third edition

1,200 MULTIPLE CHOICE QUESTIONS  
AND EXPLANATORY ANSWERS REFERENCED  
TO TEXTBOOKS AND JOURNALS

MEDICAL BOOKS

by

DENNIS ALLEN WEIGAND, M.D.

Veterans Administration Hospital

and

Associate Professor of Dermatology

Department of Dermatology

University of Oklahoma

Health Sciences Center

Oklahoma City, Oklahoma

MEDICAL EXAMINATION PUBLISHING COMPANY, INC.

65-36 Fresh Meadow Lane

Flushing, N.Y. 11365

Copyright © 1976 by  
MEDICAL EXAMINATION  
PUBLISHING CO., INC.

Library of Congress Card Number  
75-18558

ISBN 0-87488-121-7

November, 1976

All rights reserved. No part of this publication may be reproduced in any form or by any means, electronic or mechanical, including photocopy, without permission in writing from the publisher.

Printed in the United States of America

Medical Examination Review Book

Volume 21

DERMATOLOGY

Third Edition

CONTENTS

I	Anatomy, Physiology and Biochemistry Questions 1-172. . . . .	7
II	Pathology Questions 173-357. . . . .	26
III	Immunology and Microbiology Questions 358-529. . . . .	45
IV	Clinical and Laboratory Diagnosis Questions 530-1051 . . . . .	64
V	Therapy Questions 1052-1200. . . . .	128
	References. . . . .	148
	Explanatory Answers . . . . .	172

# Medical Examination Review Book

VOLUME 21

## DERMATOLOGY

third edition

1,200 MULTIPLE CHOICE QUESTIONS  
AND EXPLANATORY ANSWERS REFERENCED  
TO TEXTBOOKS AND JOURNALS

**MEDICAL BOOKS**

by

**DENNIS ALLEN WEIGAND, M.D.**

Veterans Administration Hospital

and

*Associate Professor of Dermatology*

Department of Dermatology

University of Oklahoma

Health Sciences Center

Oklahoma City, Oklahoma

MEDICAL EXAMINATION PUBLISHING COMPANY, INC.

65-36 Fresh Meadow Lane

Flushing, N.Y. 11365

Copyright © 1976 by  
MEDICAL EXAMINATION  
PUBLISHING CO., INC.

Library of Congress Card Number  
75-18558

ISBN 0-87488-121-7

November, 1976

All rights reserved. No part of this publication may be reproduced in any form or by any means, electronic or mechanical, including photocopy, without permission in writing from the publisher.

Printed in the United States of America

## **PREFACE**

In compiling this board examination review book, the author has sought to fulfill two needs: first, to familiarize the reader with the types of questions he will encounter on the written examination of the American Board of Dermatology, and second, to provide a comprehensive, referenced study of recent dermatologic literature. Realizing the difficulties involved in writing really good objective questions, the author has tried to avoid those for which few facts would be available. However, controversy alone should not preclude a question from such an examination, since the ability to evaluate the sides of a controversy is part of being a medical scientist. Obviously, the author has tried to ensure that the answers given for the questions are the correct ones, or that they accurately reflect the views expressed in the literature cited. However, the reader must not be satisfied with just finding the correct responses on the answer pages. He must, from that starting point, do what is necessary to review and reinforce his comprehension of the various topics.





Medical Examination Review Book

Volume 21

DERMATOLOGY

Third Edition

CONTENTS

I	Anatomy, Physiology and Biochemistry Questions 1-172. . . . .	7
II	Pathology Questions 173-357. . . . .	26
III	Immunology and Microbiology Questions 358-529. . . . .	45
IV	Clinical and Laboratory Diagnosis Questions 530-1051 . . . . .	64
V	Therapy Questions 1052-1200. . . . .	128
	References. . . . .	148
	Explanatory Answers . . . . .	172



## I. ANATOMY, PHYSIOLOGY, AND BIOCHEMISTRY

For each of the following multiple choice questions, select the one best answer:

1. Langer's cleavage lines are caused by:  
A. Aging  
B. Actinic degeneration  
C. Muscular tension  
D. Elastic tension  
E. Collagen tension  
Ref. 185 - p. 13
2. The cutaneous "lines" produced by muscular tension and decreased elasticity are:  
A. Wrinkles  
B. Dermatoglyphics  
C. Mast cells  
D. Langer's lines  
E. Flexure lines  
Ref. 185 - pp. 5-6
3. Prostaglandins of human skin are synthesized in:  
A. Capillaries  
B. Venules  
C. Mast cells  
D. Histiocytes  
E. Epidermal cells  
Ref. 318 - pp. 377-385
4. A typical early (about 8 hours) response to epidermal injury is:  
A. Glycogen depletion  
B. Glycogen accumulation  
C. Shrinkage of basal cells  
D. Increased numbers of mitoses  
Ref. 185 - p. 46
5. The presence of glycogen and the process of keratinization are:  
A. Directly related  
B. Inversely related  
C. Unrelated  
D. Incompatible  
Ref. 185 - p. 46
6. The absence of light below 290nm at the earth's surface, from solar radiation, is due to:  
A. Inability of this light to traverse great distances  
B. Atmospheric ozone and other gases  
C. Absence of this light from the solar spectrum  
D. Water vapor  
E. The van Allen belt  
Ref. 166 - p. 9

7. When keratinocytes are stimulated to migrate up through the epidermis, e. g., by stripping off the stratum corneum, the desmosomes:  
A. Remain intact  
B. Completely disintegrate  
C. Divide into half-desmosomes  
D. Retract into one or the other contiguous cell  
Ref. 182 - pp. 89-102
8. The site of essentially all mitoses in normal epidermis is:  
A. Basal layer  
B. Rete ridges  
C. Lower spinous layer  
D. Malpighian layer  
Ref. 159 - p. 9
9. In normal epidermis, movement of a cell from the basal layer into the spinous layer is requisite to its:  
A. Proliferative capacity  
B. Differentiation  
C. Survival  
D. None of the above  
Ref. 108 - pp. 131-132
10. The definitive organelle of the melanocyte is the melanosome, and the definitive organelle of the melanophore is the:  
A. Premelanosome  
B. Melanophore  
C. Mitochondrion  
D. Lysosome  
Ref. 181 - pp. 70-75
11. Which of the following characterizations of tumor angiogenic factor is untrue?  
A. Protein of about 100,000 molecular weight  
B. Produced by tumor cells  
C. Action mediated by IgG  
D. Diffuses 2 to 5 mm from the tumor  
E. Induces formation of new blood vessels  
Ref. 329 - p. 96
12. The follicles in which acne lesions develop generally contain:  
A. Only sebum  
B. No hair  
C. A vellus hair  
D. A terminal hair  
E. Only keratin  
Ref. 116 - p. 354
13. In the contraction of full thickness wounds of the skin, the force responsible resides in the:  
A. Granulation tissue  
B. Wound edges  
C. Skin peripheral to the wound  
D. Regenerating epithelium  
Ref. 127 - p. 228

14. In healing of superficial (into but not through dermis) wounds of the skin:
  - A. Mitosis is the primary event, preceding migration
  - B. The advancing epithelium moves at a level determined by the depth of surface drying of the wound
  - C. Epithelial coverage is more rapid with dry than with moist wounds
  - D. Dermal regeneration precedes epidermal regeneration
 Ref. 298 - pp. 126-127
  
15. Normally, most of the epidermal cell replication cycle is occupied by:
 

A. G1 phase	D. M phase
B. S phase	E. None of these
C. G2 phase	

 Ref. 313 - p. 33
  
16. Penetration of skin by ultraviolet light is:
  - A. Greater for longer wavelengths than for shorter wavelengths
  - B. Greater for shorter wavelengths than for longer wavelengths
  - C. Unrelated to wavelength
  - D. Negligible
 Ref. 28 - p. 453
  
17. Cutaneous barrier function is largely attributable to the:
 

A. Surface lipid film	D. Stratum granulosum
B. Stratum corneum	E. Basement membrane
C. Stratum lucidum	

 Ref. 145 - p. 387
  
18. Mucous membrane is generally more permeable than skin because it lacks:
  - A. Keratin
  - B. A surface lipid film
  - C. A stratum corneum
  - D. Pilosebaceous follicles
 Ref. 145 - p. 397
  
19. Normal human scalp hair grows at a daily rate of about:
 

A. 0.1 mm	C. 1.0 mm
B. 0.35 mm	D. None of these

 Ref. 185 - p. 174
  
20. The alopecia commonly seen in the first few months of life is caused by:
  - A. Loss of hair synchronized in telogen phase at birth
  - B. Telogen effluvium secondary to the trauma of childbirth
  - C. Hereditary predisposition
  - D. Local trauma
  - E. Seborrheic dermatitis
 Ref. 14 - p. 169

21. Which of the following structures contributes substantially to the nail as it appears at its distal free margin?  
A. Matrix D. Hyponychium  
B. Nail bed E. All of these  
C. Proximal nail fold  
Ref. 116 - p. 332
22. In the presence of high humidity, as opposed to low humidity, the erythemagenic effect of ultraviolet light is:  
A. Absent D. Delayed  
B. Decreased E. Unchanged  
C. Increased  
Ref. 323 - pp. 250-252
23. Sebaceous gland activity and vaginal discharge in infancy are usually due to:  
A. Maternal sex hormones  
B. Adrenal hyperplasia  
C. Maternal diabetes mellitus  
D. Maternal prenatal vitamin therapy  
Ref. 14 - p. 169
24. In the presence of wind, as opposed to calm air, the erythema-genic effect of ultraviolet light is:  
A. Absent D. Delayed  
B. Decreased E. Unchanged  
C. Increased  
Ref. 324 - pp. 200-201
25. The physiological function of human sebum is:  
A. A barrier layer D. A water retainer  
B. A natural antiseptic E. Undetermined  
C. A buffer  
Ref. 116 - p. 47
26. Eccrine ductal reabsorption of sodium is primarily under the control of:  
A. Dietary sodium intake C. Aldosterone  
B. ADH D. Testosterone  
Ref. 66 - p. 3
27. Deficient repair of UV light-induced DNA damage in xero-derma pigmentosum is seen:  
A. In all cases  
B. In most cases  
C. In a minority of cases  
D. Only in fibroblasts  
E. Only in epidermal cells  
Ref. 326 - pp. 150-155

28. Normal human eccrine function is:  
A. Sympathetic adrenergic  
B. Sympathetic cholinergic  
C. Parasympathetic adrenergic  
D. Parasympathetic cholinergic  
Ref. 185 - p. 364
29. The primary pathogenetic event in all forms of miliaria is:  
A. Bacterial infection                      C. Ductal leakage  
B. Poral occlusion                          D. None of these  
Ref. 164 - pp. 460-461
30. Cold vasodilatation occurs in the acra when the environmental temperature is lowered to about:  
A. 35°C    D. 5°C  
B. 25°C    E. 0°C  
C. 15°C  
Ref. 244 - pp. 5-9
31. The necrosis of cold injury is a direct result of:  
A. Thrombosis due to venular stasis and hemoconcentration  
B. Ischemia due to arterial spasm  
C. Hemorrhage  
D. Capillary constriction  
Ref. 153 - pp. 484-495
32. The lunula is:  
A. A hypovascular area  
B. A parakeratotic area  
C. An area of increased nail plate thickness  
D. The visible part of the matrix  
E. Caused by air spaces in the nail plate  
Ref. 116 - p. 331
33. Communication between proliferating cells for the purpose of growth control is a direct function of the:  
A. Nucleus  
B. Nucleolus  
C. Endoplasmic reticulum  
D. Centrioles  
E. Plasma membrane  
Ref. 331 - pp. 232-233
34. Fluorouracil inhibits DNA synthesis by:  
A. Transfer RNA blockage  
B. Dihydrofolate reductase blockage  
C. Thymidylate synthetase blockage  
D. Adenylcyclase blockage  
E. None of these  
Ref. 112 - p. 132

35. The action spectrum of light in the porphyrias peaks at about:  
A. 254 nm D. 380 nm  
B. 290 nm E. 405 nm  
C. 305 nm  
Ref. 330 - pp. 15-16
36. Which of the following is not a precursor of heme?  
A. Delta-aminolevulinic acid D. Uroporphyrinogen III  
B. Porphobilinogen E. Coproporphyrinogen III  
C. Uroporphyrinogen I  
Ref. 116 - p. 1146
37. Human epidermal metabolic pathways include:  
A. Phosphorylation  
B. Glycolysis  
C. Krebs cycle  
D. Hexose monophosphate shunt  
E. All of these  
Ref. 68 - pp. 1024-1025
38. In psoriasis, the changes in epidermal enzymes of carbohydrate metabolism are best characterized as representing:  
A. An abnormal Krebs' cycle  
B. Abnormal glycolysis  
C. Abnormal fatty acid synthesis  
D. General reorganization to favor the process of cell production  
Ref. 110 - p. 67
39. Phenolic germicides may cause cutaneous depigmentation by:  
A. Inhibition of tyrosine formation  
B. Inhibition of tyrosine oxidation  
C. Inhibition of melanin oxidation  
D. Inhibition of cytotrine action  
E. Destruction of all melanocytes  
Ref. 210 - p. 261
40. Prostaglandins are:  
A. Polypeptides  
B. Long chain fatty acid derivatives  
C. Glycosaminoglycans  
D. Steroid compounds  
E. Polyhydric alcohols  
Ref. 174 - p. 102
41. The main visible effect of intradermally injected prostaglandins is:  
A. Brief erythema and edema  
B. Prolonged erythema and edema



- C. Piloerection
  - D. Diaphoresis
  - E. Pronounced vasoconstriction
- Ref. 174 - p. 101

42. The bulk of subcutaneous fat is:
- A. Triglycerides of long chain fatty acids
  - B. Made by the lipocytes from activated acetate and glycerol phosphate
  - C. Available for use in energy production
  - D. All of these
- Ref. 25 - p. 1497
43. Eyebrows may appear not to regrow after shaving because:
- A. Their growth rate is extremely slow
  - B. Their telogen phase is relatively long
  - C. Shaving damages the matrix
  - D. Shaving induces the telogen phase
  - E. None of the above is true
- Ref. 116 - p. 299
44. The underlying abnormality in papular mucinosis (lichen myxedematosus) is:
- |                    |                      |
|--------------------|----------------------|
| A. Hyperthyroidism | C. Mycosis fungoides |
| B. Hypothyroidism  | D. Dysproteinemia    |
- Ref. 128 - pp. 153-166
45. The epidermal cell turnover rate on the scalp in dandruff is:
- |              |                       |
|--------------|-----------------------|
| A. Increased | D. Undetermined       |
| B. Decreased | E. Of no significance |
| C. Normal    |                       |
- Ref. 257 - p. 406
46. In psoriasis, the epidermal cell replication cycle lasts about:
- |               |            |
|---------------|------------|
| A. 1 hour     | D. 7 days  |
| B. 8 hours    | E. 19 days |
| C. 37.5 hours |            |
- Ref. 313 - pp. 33-34

For each of the following multiple choice questions, there may be no correct answer, or there may be one or more correct answers. Select those answers which you think are correct:

47. Oriented smooth muscle fibers in the dermis are characteristic of:
- |            |                 |
|------------|-----------------|
| A. Scrotum | D. Perineum     |
| B. Penis   | E. All of these |
| C. Areola  |                 |
- Ref. 185 - p. 1