

Microbiology and Virology: Revise Your Competence

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Dina Yarullina
Vera Ulyanova
Raihan Shah Mahmud
Aliya Suleimanova
Yuliya Surchenko
Elena Dudkina

Kazan Federal University

Correspondence author: Dina Yarullina

Department of Microbiology, Institute of Fundamental Medicine
and Biology, Kazan Federal University, Kremlevskaya str. 18,
Kazan 420008, Republic of Tatarstan, Russian Federation.

Tel. +7 9270 300 950, fax +7 843 238 71 21.

E-mail: kasfes@gmail.com, Dina.Yarullina@kpfu.ru



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Foreword

“Microbiology and Virology: Revise Your Competence” is a book which comprises over 1000 original self-assessment MCQs with keys. All MCQs are prepared with great care, well-constructed, reliable, and valid. Grouped in 12 chapters, they cover a wide range of topics in microbiology, i.e. an introduction to microbiology, methods for studying microorganisms, systematics of prokaryotes, anatomy of bacterial cells, genetics of *Bacteria*, their reproduction, bacterial endospores, microbial growth, nutrition, metabolism, basics of environmental microbiology, microbe-human interactions, the human microbiome, infections, viruses. Thus, this book also covers many questions of medical microbiology.

The book is written by a panel of expert authors presently working as microbiologists, bacteriologists and virologists at Kazan Federal University, Kazan, Russia. Their sum teaching experience in microbiology exceeds 20 years.

This book is designed to bridge the gap between theoretical knowledge and practical skills for Life Science students. 1000+ MCQs included in this book serve for comprehensive studying of microbiology, for better understanding and for more interesting learning of microbiology.

This book will facilitate students of all levels (undergraduate, graduate, and post-graduate) in assessing their potential and score high in entrance examinations at Universities, admission examinations to UG and PG Programs, as well as competitive examinations like SAQs, ICAR, ARS, CSIR NET, UGC NET, SRF, PCS and others. Organization of MCQs into separate chapters and topics is intended to help students assess their understanding of certain topics. In addition, this book will appeal to lecturers, teachers and members of an examination board or test committee.

Team of Authors

Preface

Multiple choice questions (MCQs) are an integral part of the examination of students at all stages of higher education. They are also widely used in postgraduate examinations. MCQ examinations are the most reliable, valid, and cost effective method of assessing the competence and knowledge of examinees. Among the advantages of MCQs there are objectivity of scoring, ease of scoring (by computer) and simplicity of test interpretation.

The aim of this book is to give 1000+ sample questions on 12 different areas of microbiology and virology for comprehensive studying, better understanding and more interesting learning of these disciplines.

In this book you will find several formats of MCQs. First, the MCQ may contain an introductory sentence (or stem) followed by two options: true or false. Other formats include matching of statements from two lists. The most commonly used format of MCQ consists of a stem, a lead-in question, and a series of response options. In the first component of a MCQ, in the stem, the problem is presented. The second component of a MCQ is called the lead-in question. This is the actual question that the examinee is asked to answer. Some MCQs contain only lead-in question without a stem. The last component of a MCQ contains the response options. Each question has four or more response options. One or sometimes several options can be chosen to be the correct answer, and the remaining options are called distractors. Read the stem, the question and options carefully and make your decision!

Team of Authors

About the Authors

Dina Yarullina is an associate professor (docent) at the Department of Microbiology and a senior researcher in the Laboratory of Molecular Genetics of Microorganisms, Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia. She graduated from Kazan State University, Kazan, Russia as a specialist in Microbiology in 2004 and then obtained a Ph.D. in Microbiology in 2007. The main focus of her research is to study beneficial and probiotic properties of lactic acid *bacteria* with a view to develop effective science-based preparations for medicine and food industry. She is an author of over 30 articles which were published in the international peer-reviewed scientific journals indexed in Scopus and Web of Science, one monograph, a chapter in the multi-author book and six study guides for students.

Vera Ulyanova is an associate professor (docent) at the Department of Microbiology and a senior researcher in the Laboratory of Biosynthesis and Bioengineering of Enzymes, Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia. She graduated from Kazan State University, Kazan, Russia as a specialist in Microbiology in 2006 and then obtained a Ph.D. in Microbiology in 2009. The main field of her research is the study of phylogenetic diversity, structural and functional features of bacterial extracellular ribonucleases. She is an author of over 30 articles which were published in the international peer-reviewed scientific journals indexed in Scopus and Web of Science, one monograph and five study guides for students.

Raihan Shah Mahmud is an associate professor (docent) at the Department of Microbiology and a senior researcher in the Laboratory of Omics Technologies, Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia. He graduated from Kazan State University, Kazan, Russia as a specialist in Microbiology in 2007 and then obtained a Ph.D. in Microbiology in 2010. The main field of his research is elucidation of the molecular mechanisms underlying antiviral effect of bacterial ribonuclease against pandemic and highly pathogenic influenza A and other RNA-containing viruses. He is an author of over 25 articles which were published in the peer-reviewed scientific journals indexed in Scopus and Web of Science, one monograph and two study guides for students.

Aliya Suleimanova is an associate professor (docent) at the Department of Microbiology and a senior researcher in the Laboratory of Microbial Biotechnology, Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia. She graduated from Kazan State University, Kazan, Russia as a specialist in Microbiology in 2009 and then obtained a Ph.D. in Microbiology in 2013. Her main research interest is the study of bacterial phytases for their application in poultry feeding to increase the bioavailability of phosphorus. She is an author of over 20 articles which were published in the international peer-reviewed scientific journals indexed in Scopus and Web of Science, a chapter in the multi-author book and a study guide for students.

Yuliya Surchenko is an assistant professor and a senior researcher at the Department of Microbiology, Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia. She graduated from Kazan Federal University, Kazan, Russia as a specialist in Microbiology in 2014 and then obtained a Ph.D. in Microbiology in 2019. The main field of her research is related to microbial ribonucleases, their structural organization and antitumor activity. She is an author of over 15 articles which were published in the peer-reviewed scientific journals indexed in Scopus and Web of Science and a study guide for students.

Elena Dudkina is an associate professor (docent) at the Department of Microbiology and a senior researcher in the Laboratory of Biosynthesis and Bioengineering of Enzymes, Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia. She graduated from Kazan State University as a specialist in Microbiology in 2011 and then obtained a Ph.D. in Microbiology in 2017. The area of her scientific interests is related to microbial ribonucleases, their structural organization and antitumor activity. She is an author of over 20 articles which were published in the peer-reviewed scientific journals indexed in Scopus and Web of Science, a monograph “Native dimers of microbial RNases” and two study guides for students.

About the book

- 1500+ original self-assessment MCQs with keys
- 12 chapters
- Extensive coverage of all relevant topics in each chapter
- Written by a panel of expert authors, who have 20+ years of teaching experience in microbiology
- The book is the prerequisite for every Life Science student
- Helps students assess their knowledge in Microbiology and Virology

Acknowledgement

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