

## **Biology Paper 2 2002 June Marking Scheme**

Plant Biotechnology 2002 and Beyond  
Developments in Applied Artificial Intelligence  
Turkish Journal of Biology  
Synthetics, Mineral Oils, and Bio-Based Lubricants  
Laser Applications in Medicine, Biology, and Environmental Science  
Index of Conference Proceedings  
Brazilian Journal of Biology  
Graph-Theoretic Concepts in Computer Science  
America's Secret Establishment  
Nelson Modular Science  
State of the World 2003  
Труды По Знаковым Системам  
Farming with the Wild  
Journal of Comparative Physiology  
Evolvable Systems: From Biology to Hardware  
A. I. E. Biology  
The Journal of Cell Biology  
New Perspectives on Turkey  
A Program for Community-based Volunteer Data Collection Using GPS on Creeks in Contra Costa County, CA  
Canadian Books in Print  
Graduate Quarterly  
Working Paper  
Chelonian Conservation and Biology  
The American Biology Teacher  
CIM Bulletin  
Australian Official Journal of Trade Marks  
Bio-science Law Review  
World Population Monitoring, 2003  
Third International Conference on Photonics and Imaging in Biology and Medicine  
DNA Computing  
Barriers to Bioweapons  
Comparative Parasitology  
Bibliographic Guide to Latin American Studies 2003 V3  
Bio-dynamics  
Zoological Record  
Foundations of Intelligent Systems  
IGARSS 2002  
Electronic Media  
Educational Rankings Annual  
State of the World

### **Plant Biotechnology 2002 and Beyond**

### **Developments in Applied Artificial Intelligence**

As the field of tribology has evolved, the lubrication industry is also progressing at an extraordinary rate. Updating the author's bestselling publication, *Synthetic Lubricants and High-Performance Functional Fluids*, this book features the contributions of over 60 specialists, ten new chapters, and a new title to reflect the evolving nature of the

### **Turkish Journal of Biology**

The 10th IAPTC&B Congress, *Plant Biotechnology 2002 and Beyond*, was held June 23-28, 2002, at Disney's Coronado Springs Resort, in Orlando, Florida, USA. It was attended by 1,176 scientists from 54 countries. The best and brightest stars of international plant biotechnology headlined the scientific program. It included the opening address by the President of the IAPTC&B, 14 plenary lectures, and 111 keynote lectures and contributed papers presented in 17 symposia covering all aspects of plant biotechnology. More than 500 posters supplemented the formal program. The distinguished speakers described, discussed and debated not only the best of science that has been done or is being done, but also how the power of plant biotechnology can be harnessed to meet future challenges and needs. The program was focused on what is new

and what is exciting, what is state of the art, and what is on the cutting edge of science and technology. In keeping with the international mandate of the IAPTC&B, 73 of the 125 speakers were from outside the United States, representing 27 countries from every region of the world. The 10th IAPTC&B Congress was a truly world-class event. The IAPTC&B, founded in 1963 at the first international conference of plant tissue culture organized by Philip White in the United States, currently has over 1,500 members in 85 countries. It is the largest, oldest, and the most comprehensive international professional organization in the field of plant biotechnology. The IAPTC&B has served the plant biotechnology community well through its many active national chapters throughout the World, by maintaining and disseminating a membership list and a website, by the publication of an official journal (formerly the Newsletter), and by organizing quadrennial international congresses in France (1970), the United Kingdom (1974), Canada (1978), Japan (1982), the United States (1963, 1986, 2002), The Netherlands (1990), Italy (1994), and Israel (1998). In addition, the IAPTC&B has a long tradition of publishing the proceedings of its congresses. Individually, these volumes have provided authoritative quadrennial reports of the status of international plant biotechnology. Collectively, they document the history of plant biotechnology during the 20th century. They are indeed a valuable resource. We are pleased to continue this tradition by publishing this proceedings volume of the 10th IAPTC&B Congress. Regrettably, we are not able to publish seven of the lectures in full (only their abstracts are included). The American and Canadian chapters of the IAPTC&B, the Plant Section of the Society for In Vitro Biology, and the University of Florida hosted the 10th IAPTC&B Congress. The Congress was a true partnership between academia and industry, and was generously supported by both groups (see list of donors/sponsors on back cover). A number of prominent international biotechnology companies and publishers participated in the very successful Science and Technology Exhibit (see accompanying list of exhibitors) The IAPTC&B awarded 84 fellowships to young scientists from 31 countries (see accompanying list of fellowship recipients) to support their participation in the Congress.

## **Synthetics, Mineral Oils, and Bio-Based Lubricants**

No. 2, pt. 2 of November issue each year from v. 19 (1963)-47 (1970) and v. 55 (1972)- contain the Abstracts of papers presented at the Annual Meeting of the American Society for Cell Biology, 3d (1963)-10th (1970) and 12th (1972)-

## **Laser Applications in Medicine, Biology, and Environmental Science**

The Nelson Modular Science series is made up of three books divided into Single, Double and Triple Award modules. Book 1 covers six Single Award modules and one coursework module, Book 2 contains six Double Award modules whilst Book 3 covers the six Triple Award modules. Each module is covered in self-contained units. The series matches the Edexcel Modular Science (B) specifications. It is fully covered with links throughout to supplementary reading materials and ICT activities on a dedicated website.

## **Index of Conference Proceedings**

## **Brazilian Journal of Biology**

## **Graph-Theoretic Concepts in Computer Science**

## **America's Secret Establishment**

## **Nelson Modular Science**

## **State of the World 2003**

Breaking 170 years of secrecy, this intriguing exposé takes a behind-the-scenes look at Yale's mysterious society, the Order of the Skull and Bones, and its prominent members, numbering among them Tafts, Rockefellers, Pillsburys, and Bushes. Explored is how Skull and Bones initiates have become senators, judges, cabinet secretaries, spies, titans of finance and industry, and even U.S. presidents, including George W. Bush. This book reveals that far from being a campus fraternity, the society is more concerned with the success of its members in the postcollegiate world. Included are a verified membership list, rare reprints of original Order materials revealing the interlocking power centers dominated by Bonesmen, and a peek inside the Tomb, their 140-year-old private clubhouse.

## **Труды По Знаковым Системам**

The challenges are still immense, of course, as the book also documents, but the building blocks for a historic reinvention of human civilization are now within reach.

## **Farming with the Wild**

## **Journal of Comparative Physiology**

This book constitutes the thoroughly refereed post-proceedings of the 8th International Workshop on DNA Based Computers, DNA8, held in Sapporo, Japan, in June 2002. The 30 revised full papers presented were carefully selected during two rounds of reviewing and improvement from an initial total of 68 submissions. The papers are organized in topical sections on self-assembly and autonomous molecular computation, molecular evolution and application to biotechnology, applications to mathematical problems, nucleic acid sequence design, and theory.

## **Evolvable Systems: From Biology to Hardware**

This book constitutes the refereed proceedings of the 7th International Conference on Evolvable Systems, ICES 2007, held in Wuhan, China, in September 2007. The 41 revised full papers collected in this volume are organized in topical sections on digital hardware evolution, analog hardware evolution, bio-inspired systems, mechanical hardware evolution, evolutionary design, evolutionary algorithms in hardware design, and hardware implementation of evolutionary algorithms.

## **A. I. E. Biology**

## **The Journal of Cell Biology**

## **New Perspectives on Turkey**

In both the popular imagination and among lawmakers and national security experts, there exists the belief that with sufficient motivation and material resources, states or terrorist groups can produce bioweapons easily, cheaply, and successfully. In *Barriers to Bioweapons*, Sonia Ben Ouagrham-Gormley challenges this perception by showing that bioweapons development is a difficult, protracted, and expensive endeavor, rarely achieving the expected results whatever the magnitude of investment. Her findings are based on extensive interviews she conducted with former U.S. and Soviet-era bioweapons scientists and on careful analysis of archival data and other historical documents related to various state and terrorist bioweapons programs. Bioweapons development relies on living organisms that are sensitive to their environment and handling conditions, and therefore behave unpredictably. These features place a greater premium on specialized knowledge. Ben Ouagrham-Gormley posits that lack of access to such intellectual capital constitutes the greatest barrier to the making of bioweapons. She integrates theories drawn from economics, the sociology of science, organization, and

management with her empirical research. The resulting theoretical framework rests on the idea that the pace and success of a bioweapons development program can be measured by its ability to ensure the creation and transfer of scientific and technical knowledge. The specific organizational, managerial, social, political, and economic conditions necessary for success are difficult to achieve, particularly in covert programs where the need to prevent detection imposes managerial and organizational conditions that conflict with knowledge production.

## **A Program for Community-based Volunteer Data Collection Using GPS on Creeks in Contra Costa County, CA**

### **Canadian Books in Print**

The 2003 edition of this UN annual report on population matters focuses on the links between population, education and development issues, including trends in the total and school-age populations, school enrolment, literacy and educational attainment; education and entry into reproductive life; the interrelationships between education and fertility; education, health and mortality; education and international migration. The report also examines progress towards meeting the goals endorsed by the World Conference on Education for All including actions to tackle rates of illiteracy, gender inequalities and lack of access to primary education.

### **Graduate Quarterly**

### **Working Paper**

This book constitutes the refereed proceedings of the 15th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, IEA/AIE 2002, held in Cairns, Australia, in June 2002. The 79 revised full papers presented were carefully reviewed and selected from more than 150 submissions. The papers are organized in topical sections on neural computation, image and speech processing, evolutionary and genetic algorithms, autonomous agents, Internet applications, expert systems, AI applications, knowledge processing, model-based reasoning, and adaptive systems.

### **Chelonian Conservation and Biology**

## **The American Biology Teacher**

## **CIM Bulletin**

## **Australian Official Journal of Trade Marks**

Accompanying CD-ROM covers topics in the same order as the text, with a quiz and flashcards for each chapter, as well as hundreds of animations, interactive sequences, and movies, and a link to the publisher's biology website.

## **Bio-science Law Review**

Featuring profiles from more than 20 states and illustrated with over 200 color photographs, *Farming with the Wild* offers a compelling view of a future in which farming and ranching operations are integrated into regional networks of protected wildlands. Dan Imhoff records his travels to the far reaches of the United States in search of farmers, ranchers, government agencies, and nonprofit organizations who are striving to develop and renew successful agricultural practices that are compatible with wild Nature. Combining elements of narrative, travelog, photo essay, and resource guide, Imhoff provides valuable information and inspiration for conservationists, farmers, ranchers, gardeners, students, landowners, and anyone interested in a truly sustainable future for agriculture and biodiversity. *Farming with the Wild* demonstrates persuasively that such a future is possible. Book jacket.

## **World Population Monitoring, 2003**

## **Third International Conference on Photonics and Imaging in Biology and Medicine**

## **DNA Computing**

This book constitutes the refereed proceedings of the 28th International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2002, held in Cesky Krumlov, Czech Republic in June 2002. The 36 revised full papers presented

were carefully selected from initially 61 submissions during two rounds of reviewing and improvement. The papers provide a wealth of new results for various classes of graphs, graph computations, graph algorithms, and graph-theoretical applications in various fields.

## **Barriers to Bioweapons**

## **Comparative Parasitology**

## **Bibliographic Guide to Latin American Studies 2003 V3**

## **Bio-dynamics**

## **Zoological Record**

A semiannual journal of research devoted to helminthology and all branches of parasitology.

## **Foundations of Intelligent Systems**

Electronic Media connects the traditional world of broadcasting with the contemporary universe of digital electronic media. It provides a synopsis of the beginnings of electronic media in broadcasting, and the subsequent advancements into digital media. Underlying the structure of the book is a "See It Then, See It Now, See It Later approach that focuses on how past innovations lay the groundwork for changing trends in technology, providing the opportunity and demand for change in both broadcasting and digital media. FYI and Zoom-In boxes point to further information, tying together the immediate and long-ranging issues surrounding electronic media. Career Tracks feature the experiences of industry experts and share tips in how to approach this challenging industry. Check out the companion website at <http://www.routledge.com/cw/medoff-9780240812564/> for materials for both students and instructors.

## **IGARSS 2002**

## **Electronic Media**

## **Educational Rankings Annual**

This book constitutes the refereed proceedings of the 13th International Symposium on Methodologies for Intelligent Systems, ISMIS 2002, held in Lyon, France, in June 2002. The 63 revised full papers presented were carefully reviewed and selected from around 160 submissions. The book offers topical sections on learning and knowledge discovery, intelligent user interfaces and ontologies, logic for AI, knowledge representation and reasoning, intelligent information retrieval, soft computing, intelligent information systems, and methodologies.

## **State of the World**

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