



وزارة التربية والتعليم
MINISTRY OF EDUCATION

34th International Biology Olympiad , United Arab Emirates

Final Report



34th International
Biology Olympiad
United Arab Emirates 2023



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The 34th International Biology Olympiad in Al Ain, United Arab Emirates



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1.1 Event Overview:



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- **Dates:** July 3 to July 10, 2023
- **Hosted by:** Ministry of Education and United Arab Emirates University (UAEU)
- **Participants:** Over 300 talented students from 76 different nations
- **Duration:** 8 intense days
- **Purpose:** To showcase skills and knowledge in biology across the globe



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Catalysing Excellence: The Role of the International Biology Olympiad

- Pivotal role in nurturing a culture characterized by creativity, innovation, and scientific exploration.
- It stands as a beacon supporting the pursuit of knowledge excellence among aspiring young students.
- Empowers students to ascend into the roles of future scientists, researchers, innovators, and inventors.
- Contributes to the construction of a brighter and more promising future.



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1.2 Discovering the UAE

Land of Culture and Innovation



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UAE

- The United Arab Emirates (UAE) is a country located in West Asia, in the Middle East.
- It is situated at the eastern end of the Arabian Peninsula and shares borders with Oman and Saudi Arabia
- UAE Federation: Seven emirates
Abu Dhabi (Capital)
Ajman
Dubai
Fujairah
Ras Al Khaimah
Sharjah
Umm Al Quwain



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UAE Population

Approximately 9.2 million (2023)

Emirati citizens: 1.4 million

Expatriates: 7.8 million

Languages

Official Language: Arabic

Commonly Spoken: Gulf Arabic
and English

UAE Culture

Diverse Population: People from
all over the world

Cultural Preservation: Museums,
art galleries, cultural institutions





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Education

Education Investment: Literacy rate over 90%
UAE University (UAEU): Leading institution, partner for the 34th International Biology Olympiad
International Junior Science Olympiad (IJSO): Hosted in a hybrid format in 2021

Science and Research

Research Institutions: Khalifa University, Masdar Institute, etc.
Science Museums: Sharjah Science Museum, Dubai Science Park
International Universities: NYU Abu Dhabi, Sorbonne University Abu Dhabi

Technology and Innovation

Innovation Initiatives: Dubai Future Accelerators program
Technology Parks: Dubai Silicon Oasis, Abu Dhabi Global Market Square



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Al Ain: The Oasis City



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- **Al Ain** translates to 'The Spring' in English.
- Al Ain is a city east of the city of Abu Dhabi and borders the country of Oman.
- Al Ain is known for its sprawling oasis which is watered via an ancient irrigation system called falaj. The system still runs to this day.
- Jebel Hafit, Abu Dhabi's tallest peak is also in Al Ain. It has a vibrant cultural scene and is much quieter than the bustling streets of Dubai and Abu Dhabi.

Top Attractions:

- Jebel Hafit, Al Jahili Fort, Al Ain Oasis (UNESCO Heritage Site), Qasr Al Muwaiji Fort, Al Ain Zoo



1.3 United Arab Emirates University



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UAEU Overview

Founded in 1976 by *Sheikh Zayed Bin Sultan Al Nahyan*
UAE's first comprehensive federal university
Aspires to become a research-intensive university

Enrollment

Approximately 14,200 Emirati and international students
Offers a full range of accredited graduate and undergraduate programs

Colleges at UAEU

Nine Colleges:

Business and Economics

Education

Engineering

Agriculture & Veterinary Medicine

Humanities and Social Sciences

Information Technology

Law

Medicine and Health Sciences

Science



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Campus and Facilities

State-of-the-art new campus
Distinguished international faculty
Comprehensive student support services

Research at UAEU

Collaboration with industry partners
Research centers in critical areas: water resources,
cancer treatments

Rankings

Current Ranking: #5 in the Arab World and #296 worldwide

Employability

Graduates in high demand in industry, commerce,
and government



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Reasons to Choose UAEU

Excellence in every aspect
International Recognition (QS Rankings)
Strong Employability of Graduates
Supportive Learning Environment
Vibrant Living Environment
Magnificent New Campus with Rich Facilities
Cutting-Edge Research
Community Outreach
Diverse Range of Academic Programs
52 bachelor's degree programs
37 master's programs
PhD programs



The Masterminds Initiative: Nurturing Bright Students in the UAE



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The Mastermind's Project

Initiated by the *Ministry of Education in the UAE*

Objective: Identify and train gifted and talented students

Focus Areas: Science, Math , Economics , Technology

Program Goals

Goal: Help exceptional students excel in various subjects

Method: Participation in contests and events

Key Events: International Mathematical Olympiad, International Physics Olympiad, International Chemistry Olympiad

Fostering Skills and Learning

Opportunities for students to showcase their talents

Enhancing knowledge and skills in science, math, and technology



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UAE's Commitment to Education and Research

Notable Research Institutions:

Khalifa University of Science and Technology

Masdar Institute of Science and Technology

Focus: Cutting-edge research in various fields

Hosting International Events

International Biology Olympiad , International Junior Science Olympiad

UAE as a Global Hub for Learning

Attracting smart minds from around the world

Encouraging collaboration and knowledge exchange





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Benefits of The Mastermind's Project

Opportunity for talented students to shine
Nurturing future scientists, researchers, and inventors
Solving complex problems in a changing world

Guiding Toward a Brighter Future

The Mastermind's Project as a beacon of hope
Lighting the way towards a better future

The UAE's commitment to education and talent development is paving the way for a brighter and more innovative future.



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34th IBO at a Glance



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2.1 IBO Facts & Figures

IBO 2023 in Numbers

TITLE	Numbers
Countries	76
Student	300
Jury Members	262
Academic Committee(UAE + International)	24
Event Management	20
Volunteers(Event)	160
Volunteers(Academic-UAEU)	60
Media & IT Team	40
Observers & Visitors	20
Ministry of Education	40





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Host and Support

- 34th IBO is hosted by Ministry of Education, UAE and

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الإمارات العربية المتحدة
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- United Arab Emirates University, Al Ain was the strategic and Knowledge Partner

UAEU

جامعة الإمارات العربية المتحدة
United Arab Emirates University



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Countries participating in 34th IBO



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Argentina	Canada	France	Iraq	Moldova	Portugal	Spain	United Arab Emirates
Armenia	China	Georgia	Israel	Mongolia	Qatar	Sri Lanka	United Kingdom
Australia	Chinese Taipei	Germany	Italy	Montenegro	Romania	Sweden	United States
Azerbaijan	Colombia	Greece	Japan	Netherlands	IOD-2	Switzerland	Uzbekistan
Bangladesh	Croatia	Hong Kong, China	Kazakhstan	New Zealand	Saudi Arabia	Syria	Vietnam
IOD-1	Cyprus	Hungary	Kyrgyzstan	North Macedonia	Singapore	Tajikistan	
Belgium	Czech Republic	Iceland	Latvia	Norway	Slovakia	Thailand	
Bolivia	Denmark	India	Lithuania	Pakistan	Slovenia	Turkey	
Brazil	Estonia	Indonesia	Luxembourg	Philippines	South Africa	Turkmenistan	
Bulgaria	Finland	Iran	Mexico	Poland	South Korea	Ukraine	

UAE Breaks record while hosting 34th IBO.
75 Countries are participating in IBO hosted by MoE.
This is the highest ever attendance in history of 34 years of IBO



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2.2 Objective of the 34th IBO



Mental Well-Being of Jury members and Host Country



Discuss Better using schedule and guidelines



Sleep Early to ensure we enjoy and reduce mistakes



Adopt technology to save paper and time



Make the Olympiad community better

ArIBO

- **Answer to IBO/ ArabicIBO**
- Custom built for IBO
- Same PC for all students
- Safe Exam Browser based
- Demo for students – 3rd July
- One question of each type of questions (MTF, Fill in the Blanks, Numerical answer)
- Auto Graded and excel/pdf results for each student



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Mental Well being



Break after Experiment Discussion Day for Jury members



Schedule based discussion clearly indicating when you need to participate for what subject area?



Student appear for Theory on different days to make it easier



Lesser printing for the Jury members for both theory exam(No Answer sheet and only one question paper) and one experiment(Bioinformatics) – No Answer Sheet



3.3 34th IBO Logo and story



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أولمبياد الأحياء الدولي
الرابع والثلاثون
الإمارات العربية المتحدة 2023



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ARABIAN ORYX



PALM TREE



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Our logo represents five elements that can be commonly seen in UAE: The Arabian Oryx, The Palm Tree, The coastline of Arabian Ocean, The Desert and The Sky.

- **The orange represents the majestic golden sand dunes....and the golden opportunity that the land creates for those who call it their home**
- **The blue represents the mystical ocean and the hope it carries for connecting us to the 70% of the world which is water**
- **The white represents the ethereal sky which represents the ambitions and aspirations of UAE to be the best country in the world.**
- **The petal shapes represent the Palm branch which represents UAE's peace and love for tolerance.**

The Arabian Oryx is one of the natural conservation priorities in the region because of its heritage and biological value. Before the union, The Arabian Oryx number have begun to decrease and threatened with extinction due human and urban development. Sheikh Zayed Bin Sultan Al Nahyan had a special interest and care towards the environment and had established many protected areas and issued environmental laws and regulations to ensure the sustainability of this natural wealth ‘May Allah rest his soul in Peace. Based on the successful story of reviving The Arabian Oryx on the region, it was chosen as the logo to represent The **International Biology Olympiad** that was hosted by United Arab Emirates 2023. A message to all participants and the world about the importance of conservation wildlife and nature as a whole.



2.4 Locations - Opening, closing, Exam, Jury Room, Accommodation (Jury & Students)

AL AIN, UNITED ARAB EMIRATES



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Infrastructure

Host University | Jury Meeting & Accommodation | Student Accommodation

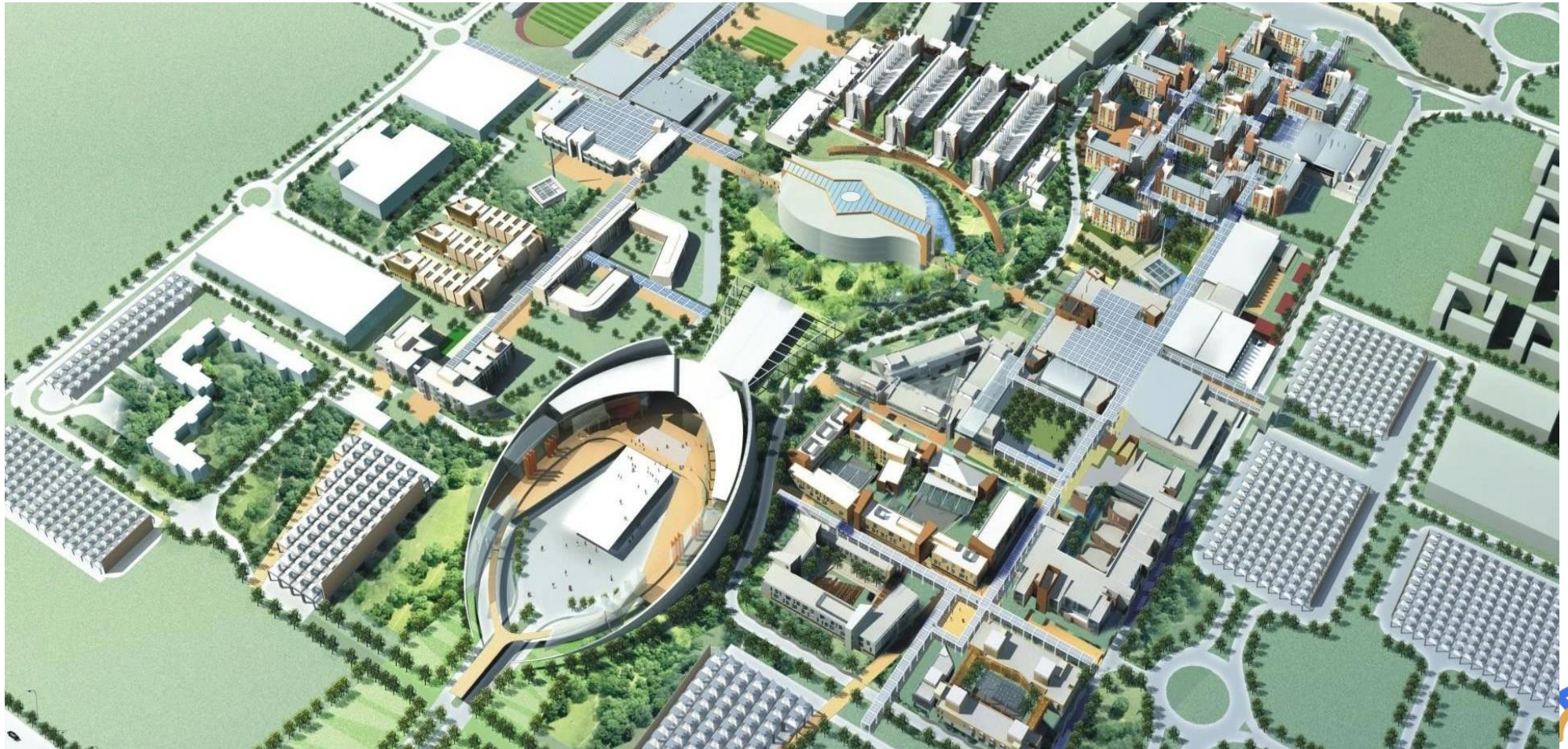


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United Arab Emirates University , Al Ain



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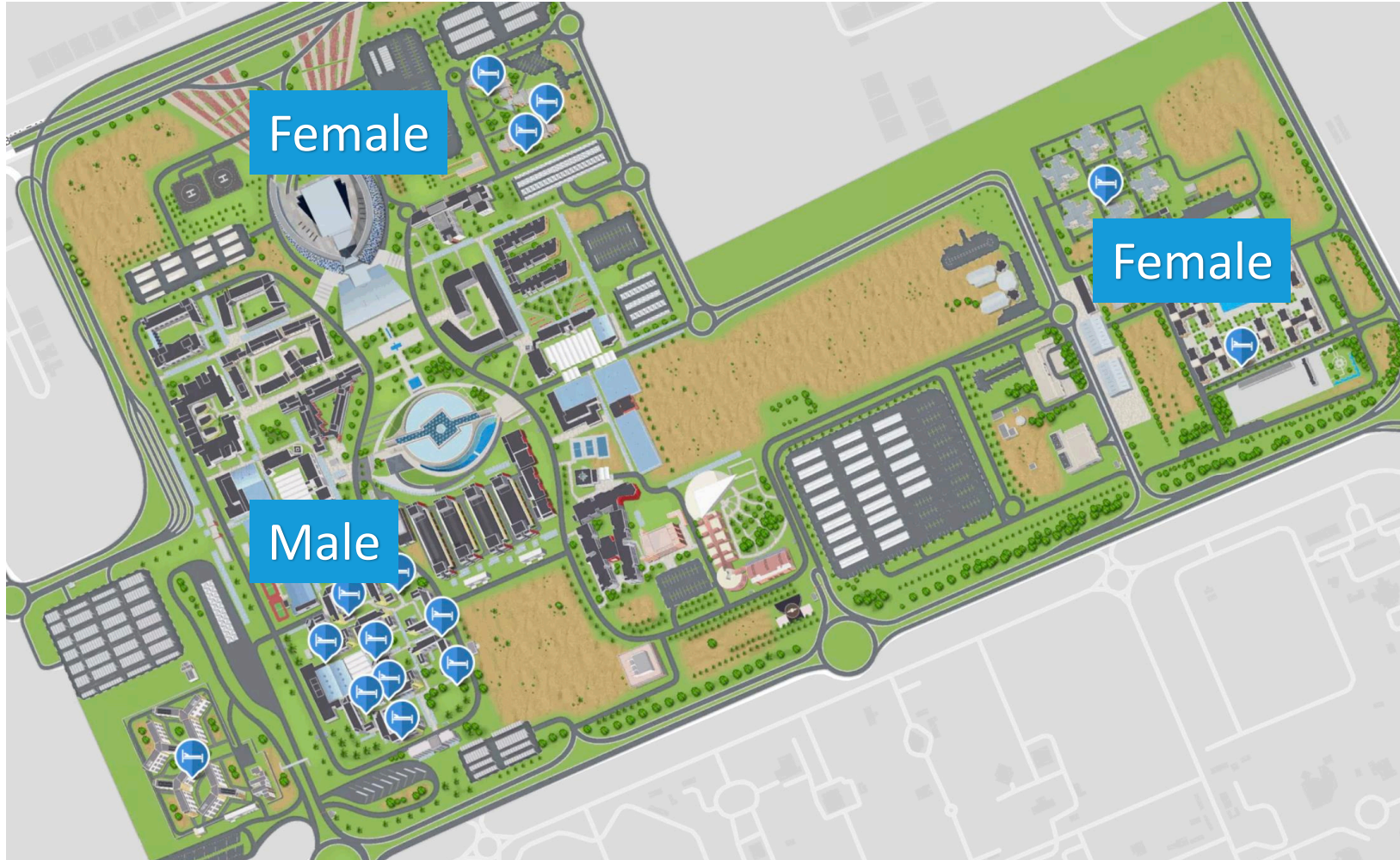


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Student Accommodation



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Lab Setups in Indoor Sports & Exam Hall



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Restaurants



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Student Accommodation



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No Access to Wifi/Devices/Computer Lab

Internal Transportation using Bus

Clinic(Within campus)

Sports facilities(Outdoor)



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Jury Accommodation

**Al Ain Rotana, Al Ain
&
Radisson Blu**



**34th International
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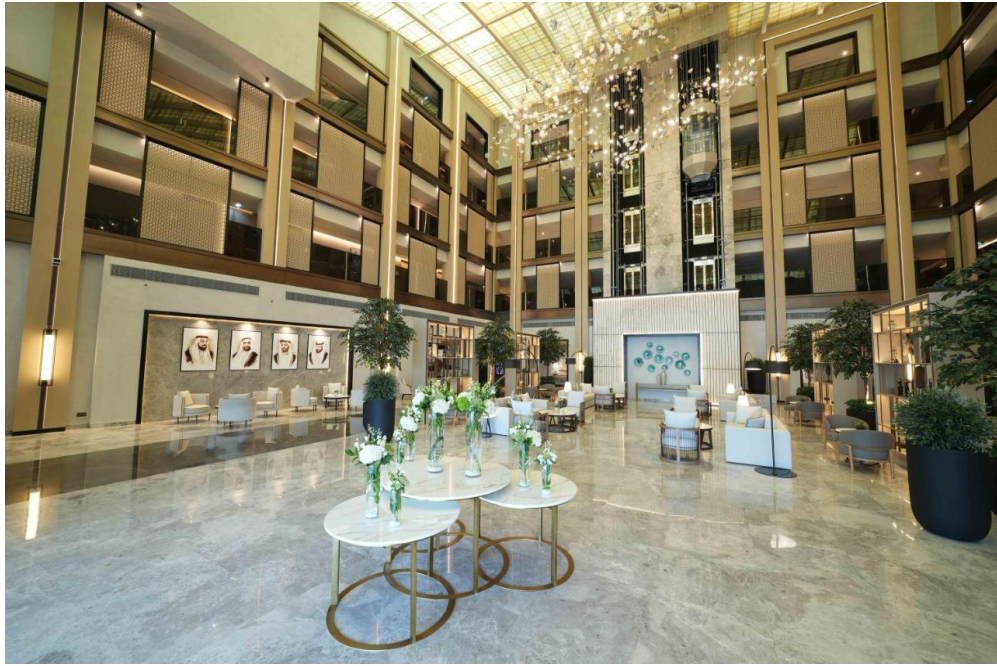
Al Ain Rotana



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Radisson Blu, Al Ain



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2.5 Schedule and Flow of Event

2nd and 3rd July



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2.5 Program for Students

Date	Jury Schedule
02-Jul	Arrival & Check-in after 3 PM
03-Jul	Opening Ceremony(2 PM to 5 PM) & Intro to Oly-Exams(8 PM to 10 PM)
04-Jul	Experiment Discussion
05-Jul	Tour - Dubai
06-Jul	Theory-1 Discussion
07-Jul	Theory-2 Discussion
08-Jul	Tour - Abu Dhabi
09-Jul	Arbitration of students' Experiment Scores (10 AM to 4 PM) OR Optional Tour-Al Ain IBO Annual General Assembly(7 PM to 10 PM)
10-Jul	Score Review(9 AM) , Conference(10 AM to 1 PM) & Closing Ceremony Ceremony(4 PM to 7 PM)
11-Jul	Departure



Program for Jury Members

Date	Student Schedule
02-Jul	Arrival & Check-in after 3 PM
03-Jul	Opening Ceremony(2 PM to 5 PM)
04-Jul	Tour - Al-Ain
05-Jul	Experiment Exam
06-Jul	Tour - Dubai
07-Jul	Theory -1 Exam
08-Jul	Theory -2 Exam
09-Jul	Tour - Abu Dhabi
10-Jul	Closing Ceremony Ceremony(4 PM to 7 PM)
11-Jul	Departure





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2.6 Day Wise Photos (Student side and Jury Side)



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Day 1: Arrival



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Day 2: Opening Ceremony



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Day 2: Opening Ceremony



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Her Excellency Dr. Amna Al Dahak Al Shamsi
Chairperson, 34th IBO, UAE



RNDr. Lenka Libusová, Ph.D.
Chairperson, IBO



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Day 2: Opening Ceremony



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Day 2: Opening Ceremony



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Day 3: Excursion (Abu Dhabi)





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Day 4: Experiment Exam

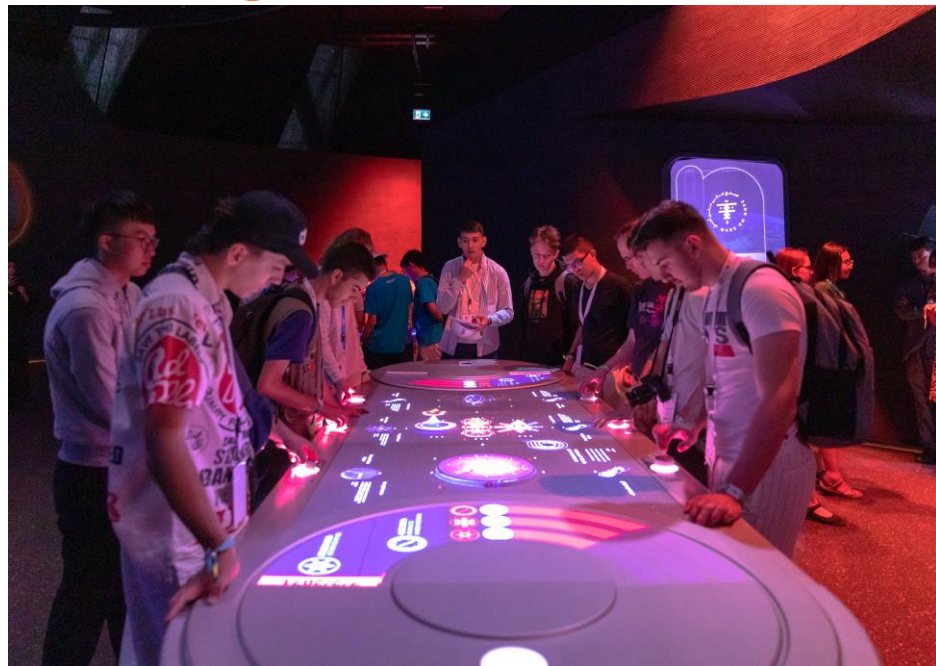


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Day 5: Excursion (Dubai)



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Day 6: Theory Exam 1



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Day 7: Theory Exam 2



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Day 8: Excursion (Al Ain)





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Day 9: Closing Ceremony



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His Excellency Dr. Ahmed Belhoul Al Falasi

In his compelling address during the closing ceremony, His Excellency Dr. Ahmed Belhoul Al Falasi extended a warm welcome to an esteemed assembly comprising students, jury members, biology specialists, researchers, and experts. With great pride, he highlighted the significance of this momentous Olympiad being hosted in the UAE for the first time in the history of the Arab world. Dr. Al Falasi conveyed heartfelt congratulations to the gifted participants who emerged triumphant in this competition – an event acclaimed as one of the foremost contests in the global sphere of biology.





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Day 1: Arrivals



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Day 2: Opening Ceremony



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Day 3: Experiment Discussion



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Day 4: Excursion (Dubai)



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Day 5: Theory 1 Discussion



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Day 6: Theory 2 Discussion



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Day 7: Excursion (Abu Dhabi)



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Day 8: Arbitration



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Day 9: Closing Ceremony

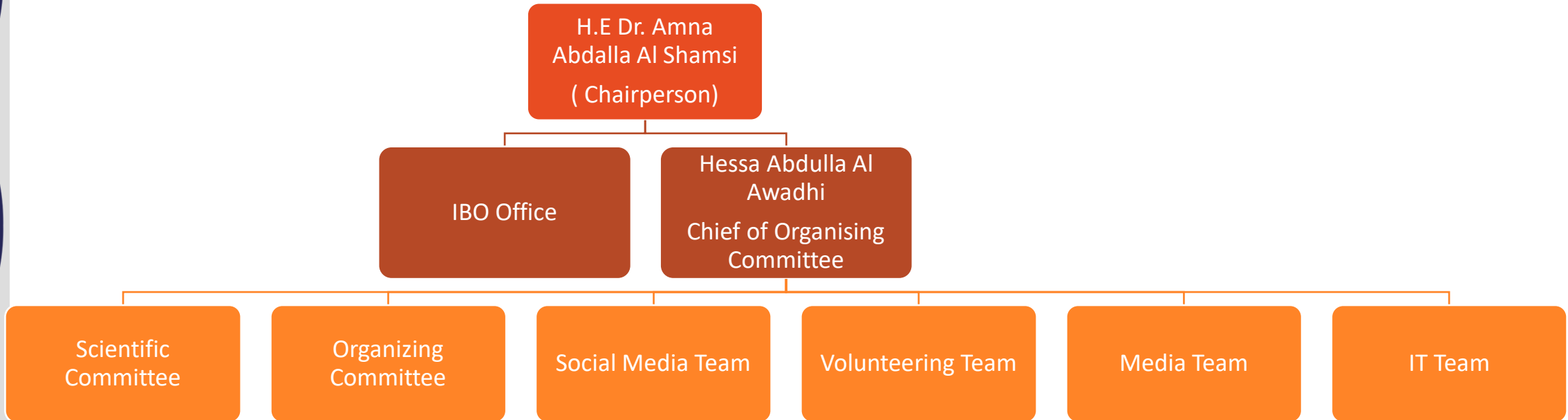


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2.7 Organizational Chart-Overall



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2.8 Local Organizing Committee

- Logistics – **Airport to Airport**
- Stay and Food – Dorm and Al Ain Rotana
- All the transportation locally
- Opening Ceremony, Closing Ceremony & Educational Conference
- Meeting Areas and Exam Areas
- Media, Social Media and Press coverage
- Invites, Certificates, Registration Kits, Gifts, Mementos & Medals
- Team of 600 people were involved in this since Sep-2022





2.9 Scientific Committee

- Core Team of 13 Professors from UAE and all over the world
- Designing of 2 Theory Exams and 4 Experiments
- We had over 1500 hours of academic work and discussions since sep-22 to complete the challenge of designing tasks for IBO
- Engaged and trained over 120 Masters, PhD, RA and UG students in the IBO academic process
- Rigorous Academic Process was followed
- Innovations have been done keeping in mind the GREEN Education Policy of UAE and COP-28
- We displayed the whole world how prepared the UAE academic community is to welcome and challenge the best biology minds in the 34th edition



Scientific Committee

Chair Scientific Committee

Prof. Sabir Muzaffar, UAEU, UAE
Dr. Mayank Gururani, UAEU, UAE

Prof. Aleksandr Rubtsov, Professor, Moscow State University, Russia

Prof. Anindya Sinha, Professor, Natl. Inst. of Advanced Studies, India

Dr. Evgeny Shilov, Faculty, Moscow State University, Russia

Prof. Jan Černý, Professor, Charles University, Czech Republic

Dr. Joshua Hodgson, United Kingdom Biology Competitions, UK

Margaret Linford, United Kingdom

Dr. Poonpipope Kasemsap, Professor, Kasetsart University, Thailand

Prof. Pradeep Burma, Professor, University of Delhi, India

Prof. Saman Hosseinkhani, Professor, University of Tehran, Iran

Dr. Takao Ishikawa, Asst. Prof., University of Warsaw, Poland

Dr. Vasili Pankratov, cGEM, University of Tartu, Estonia



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Scientific Leaders



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UAEU,
United
Arab
Emirates

Abdul Rasheed

Ahmed Abubaid

Dhanya Vijay

Hidaya Mohammed Abdul Kader

Amanpreet Behl

Archana Mathew Mathai

Irfa Anwar

Sajeesh Kappacherry

Balamurugan

Mohammed Shata



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ROLE OF SCIENTIFIC VOLUNTEERS

- **Perform the experiment**
- **Record the Observation**
- **Give feedback along the following**
 1. Missing items
 2. Ambiguous instructions
 3. Discrepancies between the text provided and actual outcomes
 4. Sufficiency of the items/chemical supplies provided
 5. Any technical difficulty in using the apparatus procured
 6. Comment on the length of time - (whether it is sufficient or short or long)



ROLE OF ACADEMIC TEAM

- Measure the timing of the experiment to see if it fits in the window of 90 minutes
- Measure the clarity of the text provided
- Measure the sufficiency of the quantity of items provided to perform experiment
- Arrive at a reasonable range of answers that will be acceptable for the final IBO
- Evaluate the answer sheet of the tester
- Review the feedback sheet of the tester
- Review the apparatus list for deficiency



Scientific Assistants & Volunteers



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UAEU,
United
Arab
Emirates

Abdallah Mahammad Arbabi

Abdelrahman Hassan Ibrahim

Abdulla Abdulqader Alhashmi

Abdulla Ayman

Abdulla Mohamed Hassan Albasri

Abdullah Ayman Khalaf

Abdulrahman Abdulla

Ahmad Al Hasbani

Ahmed Abdullah Alaqel

Ahmed Alaqel

Al Maha Alshamsi

Alya Ghanem Alblooshi

Alyazia Mohammed Hamad Almansouri

Amer Mohammed Ali

Ammar Eshaq Pour



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MINISTRY OF EDUCATION

UAEU,
United
Arab
Emirates

Dalal Saeed

Faisal Al Barghouthy

Fatima Hraiz

Fatma Mohammed Alfarsi

Ghalia Salem Omar Sahel Alameri

Hagar Ahmed Mohammed

Hajar Abdulla Alnaqbi

Hanan Elhadi

Hesham Adam

Heyam Ibrahim Aljneibi

Hind Zeidane

Jonna Gill B Masih

Khadeijah Salem Alzahmi

Khulood Alshehhi

Kinen Adnan Khadir



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UAEU,
United
Arab
Emirates

Maitha Mohammed Ali
Mohammed Makki
Mouaz Chkhachirou
Ola M O Abu Draz
Omar Ayman Khalaf
Omar Samir Alawa
Reem Alghaithi
Saeed Mohammed Alyassi
Saja Adeeb Jarrah
Salama Saeed Alhindasi
Shamma Ahmed Alblooshi
Shouq Ahmad Amiri
Shouq Mohammed Amiri
Sora Adeeb Jerrah
Wadima Hareb Alshamsi
Wasayef Saif Altaneiji
Younes Ait Elhadi
Zaina Mahmoud Kadoura
Zayed Mohammed Khudhair



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2.10 Logistics Committee & Volunteers



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Why Volunteer?



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PRIDE OF UAE

- To showcase to the world about the capabilities of UAE in Scientific events like Olympiad



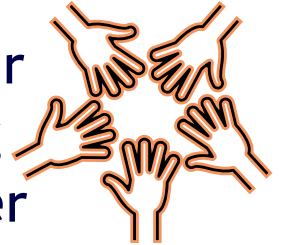
HOSPITALITY OF UAE

- Help people from 80 countries experience the world famous arabian hospitality



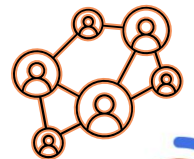
SERVICE FOR UAE

- Be an important pillar for success for IBO in UAE making UAE famous all over the world



NETWORKING

- Opportunity to work with 80 different nationalities and exchange UAE's culture with them



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Volunteer (3 Types)

Jury Side (40)

Student Side(Student management) (80)

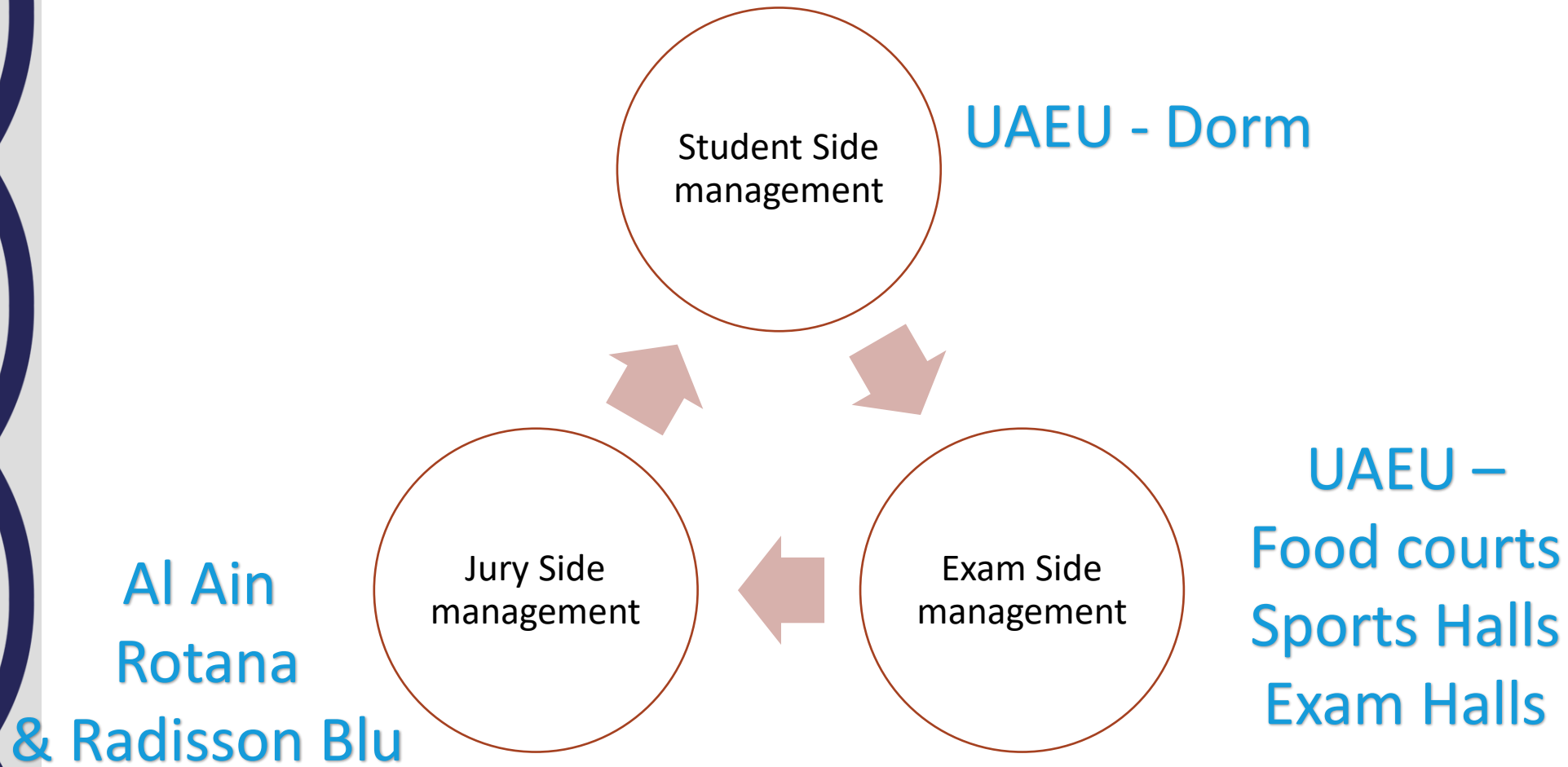
Student Side(Exam Management) (40)



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Three Strategic Sides to Event





Volunteers

• Jury Side

- Support Jury Members
- (80 countries with their routine for the entire duration of IBO)
- Manage the IT, Jury Room, Printing Room, Transportation, Excursion, Documents transfer, Signing of important papers
- 4 Volunteers for every 10 countries
- Total of **40 Volunteers**

• Student Side

- Support students(80 countries and 4 students each)
- Manage the student attendance for exams, activities, excursions, breakfast, lunch, dinner, and amenities
- 1 Volunteer for each Country, so **80 Volunteers for student management – UAEU**
- **40 Volunteers for exam room management**



Role



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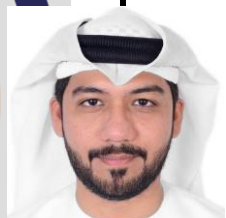
Volunteering Team Leaders



وزارة التربية والتعليم
MINISTRY OF EDUCATION



Ibrahim Ismail Alhammadi
Manager



Omar Mohamed Aqeel
Hotels Admin



Hawra Ishaq Zakri
Volunteers Admin



Fatma Obaid Kas
Girls Dorm Leader



Mohammed Saif Alghefli
Boys Dorm Leader



Ahmed Sahal Mahil
Examination Committee Leader



Ahmed Abubaker Al Aidarous
Tour Committee Leader



Hamad Hassan Mohammad
Transportation Leader



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Volunteering Team (Jury Management)

Mariam Hamed Helal
Sultan Mohamed Alhosani
Gazalah Fadhl Dad
Shereen Bassam Mohammad
Homa Amir Foroozan
Ahlam Hassan Ahmad
Yousif Mohamed Alkaabi
Salem Malalla Alshamali
Mohamed Emad Abdelati
Moustafa Emad Abdelati
Amna Ahmad Almadani
Asmaa Mohamed Alsager
Maha Khaled Alkaabi
Reem Khaled Alkaabi
Sareh Abdolhamid Ahmed
Abeer Mohammed Ahmed
Ahmed Abdullah Ali
Nasser Abdullah Ahmed

Mohammad Alhaj Nasser
Hassan Ahmed Abusim
Ali Abdelrahman Alsuwaidi
Karim Adel Mohamed
Shams Saeed Alblooshi
Khuloud Ali Alnuaimi
Asma Ahmad El Masri
Ehsas Mohammed Abdulkhaleg
Fatmah Mohamed Aldhuhoori
Maryam Ali Aldhuhoori
Nahed Fahmi Al Sayed
Fatma Younis Aljaberi
Abdallah Jassem Ali
Sood Abdulrahman Saleh
Mohamed Ali Aldhuhouri
Ahmed Abdulsalam Abdulghani
Ahmed Sahal Mahil
Mahmoud Mohmmmed Ibrahim





Volunteering Team (Exam Management)

Ibrahim Ismail Alhammadi
Jassim Yaqoob Alblooshi
Sarrah Budalal
Bassima Mammad
Yassamina Benouaz
Raheel Mohamed Aqeel
Khadija Almarzouqi
Maeen Tawfig Ibrahim
Esra Adil Mohamed
Ahlam Hamidallah Balidai
Batoul Eshagh Zakeri
Hind Hassan Alblooshi
Ali Abdulla Alhumaigani
Hassan Ishaq Zakeri
Harib Mohammed Almemari
Saood Faisal Alshehhi
Haider Abbas Mousa
Anwr Mohamed Abonowir
Ali Abootaleb Mohammadi
Khaled Abootaleb Mohammadi

Alharth Abdulwahab Enezan
Alhumam Abdulwahab Enezan
Abdelrahman Ali Alhosani
Khalifa Abdulkareem Al Hammadi
Anood Hasan Alshehhi
Anood Ali Alshehhi
Hamad Hasan Mohammad
Ammar Mohamed Thabet
Noorah Abdulla Almahri
Shamma Saleh Almahri
Norah Saleh Ali
Amna Ahmed Aldhuhoori
Abdelrahman Mohamed Alyassi
Rashid Saif Almheiri
Shaikha Ahmed Almarzooqi
Reem Khalil Mohammad
Hussein Ali Ahmad
Hamad Ali Ahmad
Doaa Khaled Elgayyar
Khatoon Ali Hattawi





Volunteering Team (Student Management)

Fatma Obaid Kas
Marwa Issa Ali
Maryam Obaid Kas
Salama Salem Alameemi
Namarig Saleh Mohamadain
Nawafil Saleh Mohammadain
Jawaher Muhammad Akram
Nouf Faisal Mahmoud
Amnah Alsayed Ashrafi
Hamdah Hassan Alkindi
Muzna Sultan Albalushi
Maitha Omar Alteneiji
Alaa Mostafa Zaki
Hend Hussain Alkawl
Remas Ahmad Al Ashqar
Rwan Ibrahim Almheiri
Moza Rabeea Almaqbali
Muna Matar Alqaydi
Omar Mohamed Aqeel
Abdulla Jasem Alblooshi
Rashed Ammar Alblooshi

Mahmoud Adil Karmustahi
Hazaa Jasim Al Ali
Nasser Mohammed Salem
Musab Omer Elagib
Mohamed Noureldein Mahmoud
Abdul Rahman Ahmad Abdl Hamid
Mumin Mohamed Elmamoun
Youssef Abdelsalam Abdelkawy
Mohamad Ibrahim Alhello
Monzer Mohamedalkhatem Mustafa
Ebrahim Ismail
Mohammed Mohsan Salah
Ahmed Sahal Mahil
Mahmoud Mohmmed Ibrahim
Omar Mahmood Saeed
Yassine Omar Addadi
Mohamed Sidi Alhashimi
Abdulhakim Abdullah Alnuaimi
Anas Eddib
Mohammad Issam Younes



Volunteering Team (IT & Printing Management)



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Abeer Ali
Anian
Axel
Evander William
Fayiz Muhamed
Kaeshaun Singh
Kevin Juvanse
Naga Sai Varun
Rakesh Kumar
Rikshitha Ravikumar
Rikshitha Ravikumar
Saood Fayyaz Butt
Sumithra Srinivasan
Venkat Sai Karanam



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2.11 Social Media Report



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HIGHLIGHTS



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- Followers Trippled : Opening count : 624 Closing Count : 2087
- Over 20,000 accounts reached
- Static Post Count : 225
- Reel Count : 38
- Story Count : 181
- Start Date : June 4 2023
- End Date : July 15 2023



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وزارة التربية والتعليم
MINISTRY OF EDUCATION

Overview

Dates from June 5 - July 15

Note: The percentage numbers are high as there were no posts from April 26 to June 4

Profile activity ⓘ

vs 26 Apr - 4 Jun

15,136

+6,128%

Profile visits

14,761

+6,431%

External link taps

370

+2,366%

Email button taps

0

0%

Call button taps

5

+150%

20,911

Accounts reached

+5,807% vs 26 Apr - 4 Jun

901

Followers •



20K

• Non-followers

You reached +27,310% more accounts that weren't following you compared to 26 Apr - 4 Jun.

1,907

Accounts engaged

+9,936% vs 23 Apr - 3 Jun

638

Followers •



1,269

• Non-followers

You engaged +63,350% more accounts that weren't following you compared to 23 Apr - 3 Jun.

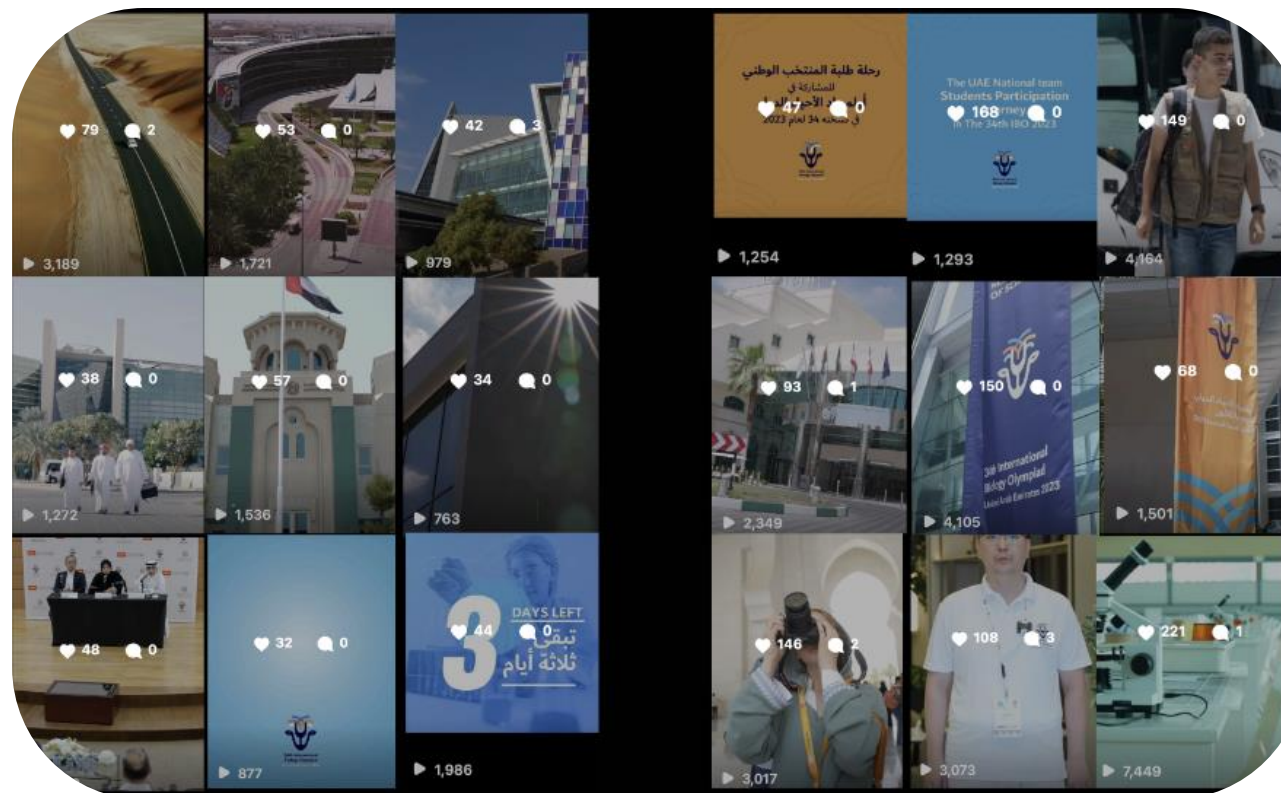


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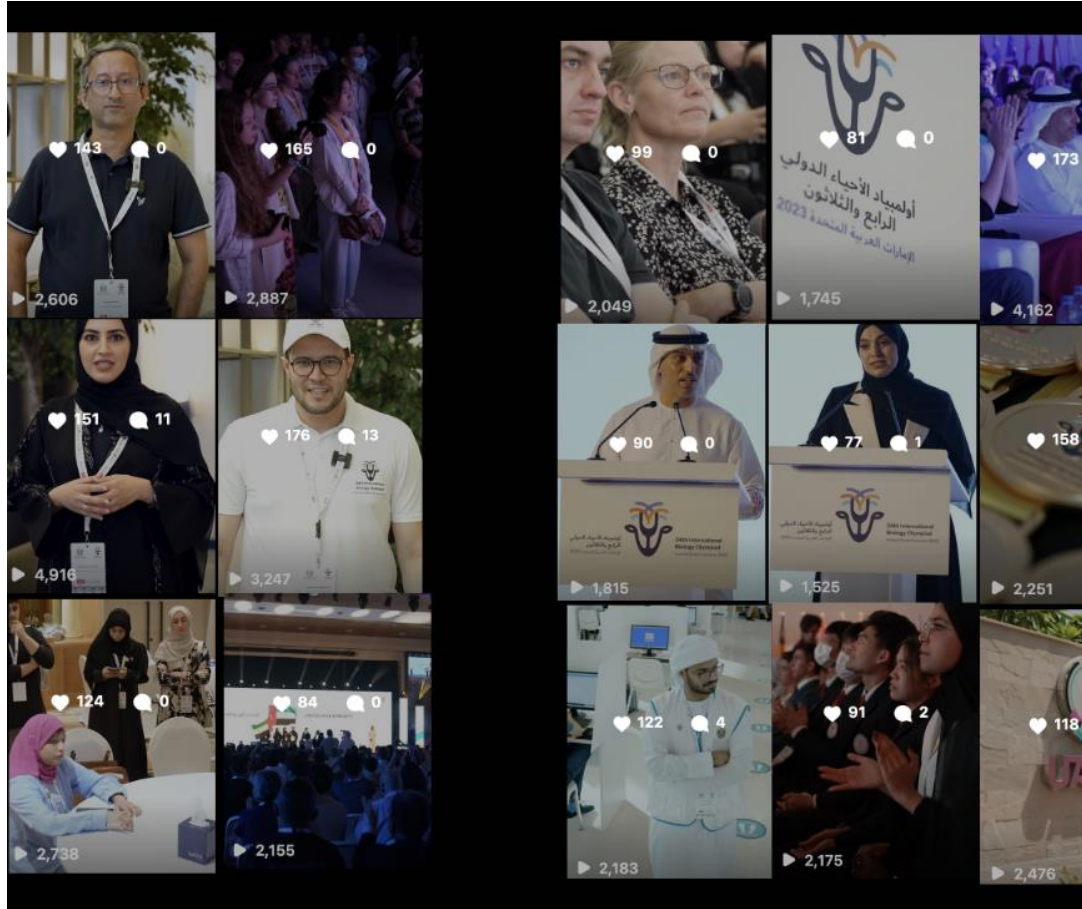
Accounts Reached Reels

"Accounts Reached" refers to the number of unique user accounts that have been exposed to or seen our content during a specific period. It represents the potential audience size or the total number of individual accounts that have encountered our posts, advertisements, or any other content you have shared on a particular social media platform.





Accounts Reached Reels



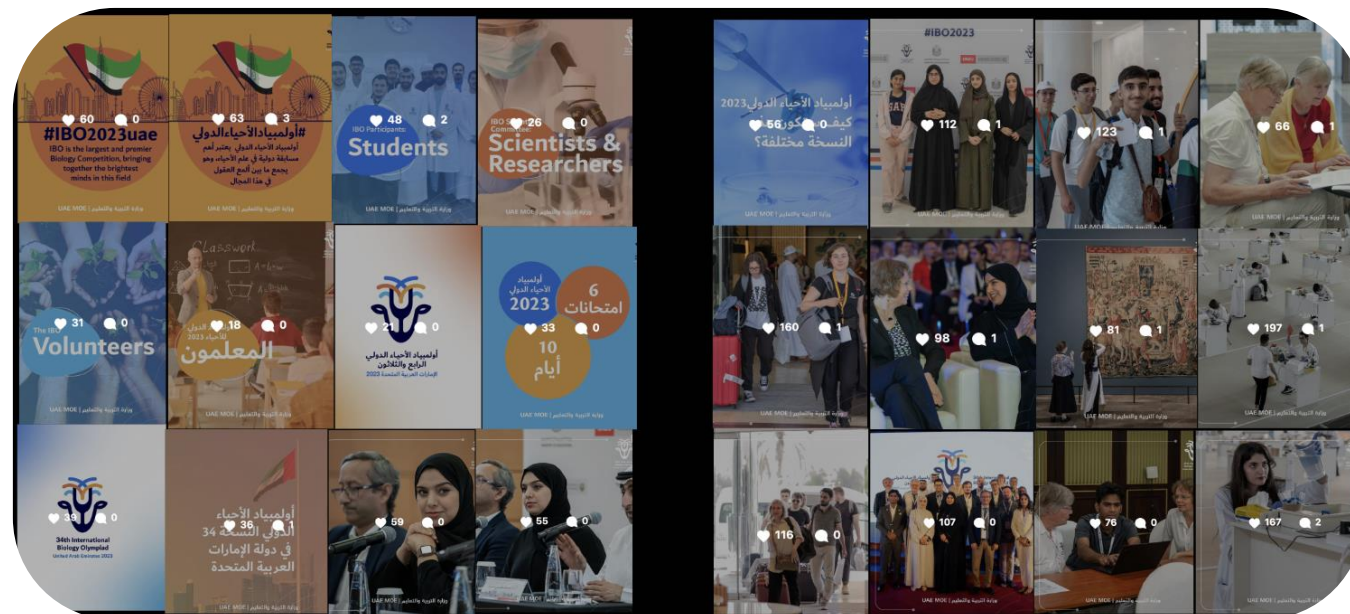
- "Accounts Reached" refers to the number of unique user accounts that have been exposed to or seen our content during a specific period. It represents the potential audience size or the total number of individual accounts that have encountered our posts, advertisements, or any other content you have shared on a particular social media platform.





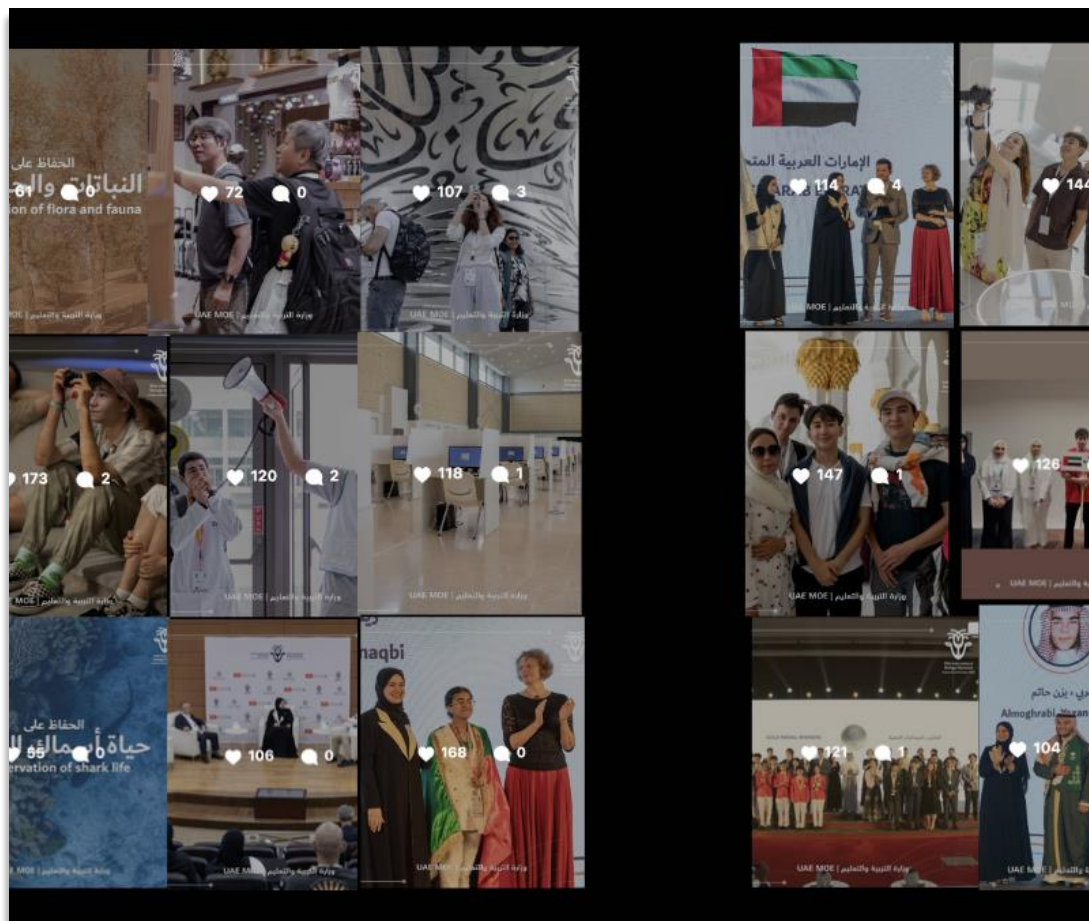
Accounts Reached Posts

"Accounts Reached" refers to the number of unique user accounts that have been exposed to or seen our content during a specific period. It represents the potential audience size or the total number of individual accounts that have encountered our posts, advertisements, or any other content you have shared on a particular social media platform.





Accounts Reached Posts

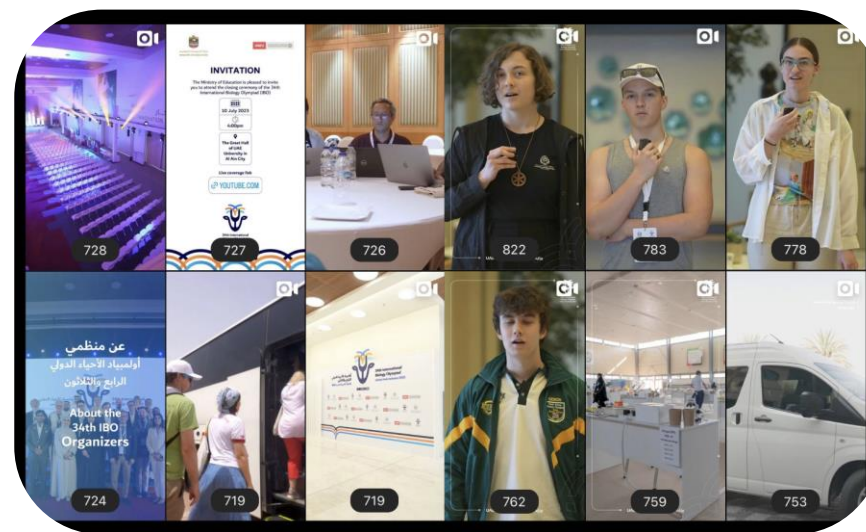
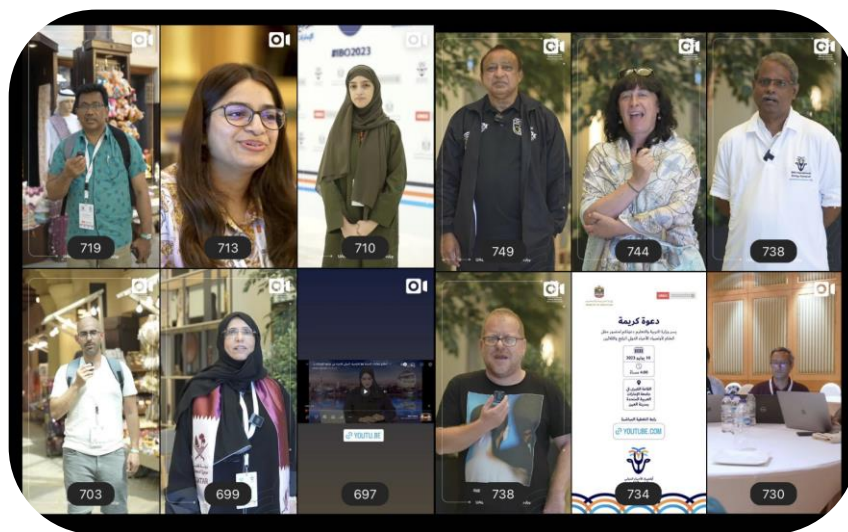


- "Accounts Reached" refers to the number of unique user accounts that have been exposed to or seen our content during a specific period. It represents the potential audience size or the total number of individual accounts that have encountered our posts, advertisements, or any other content you have shared on a particular social media platform.





Accounts Reached Stories

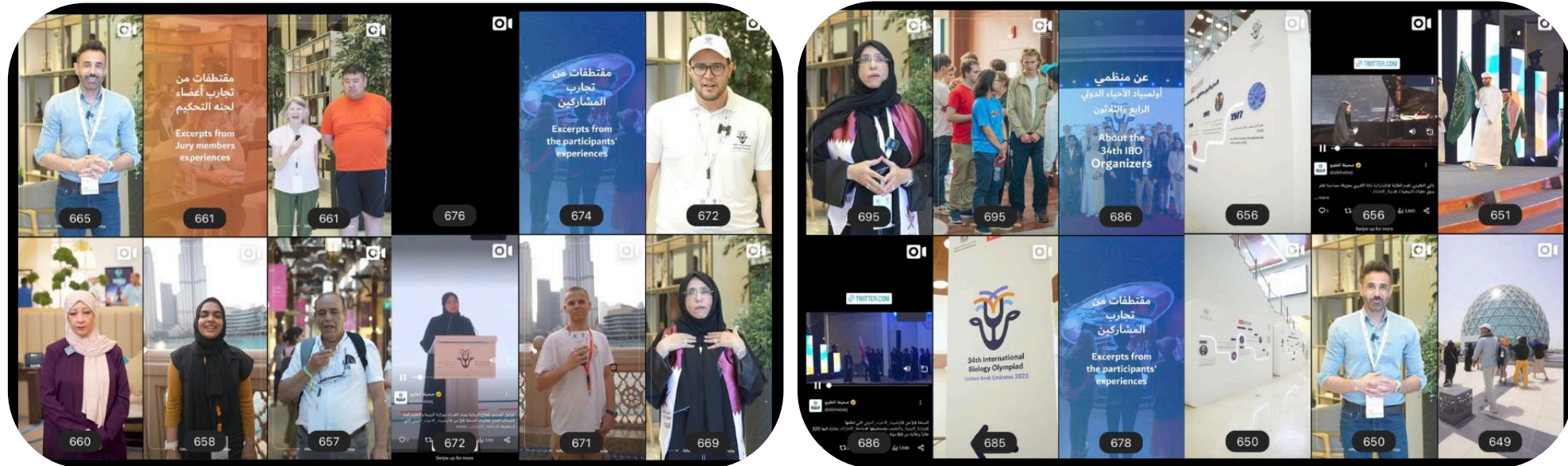


"Accounts Reached" refers to the number of unique user accounts that have been exposed to or seen our content during a specific period. It represents the potential audience size or the total number of individual accounts that have encountered our posts, advertisements, or any other content you have shared on a particular social media platform.





Accounts Reached Stories

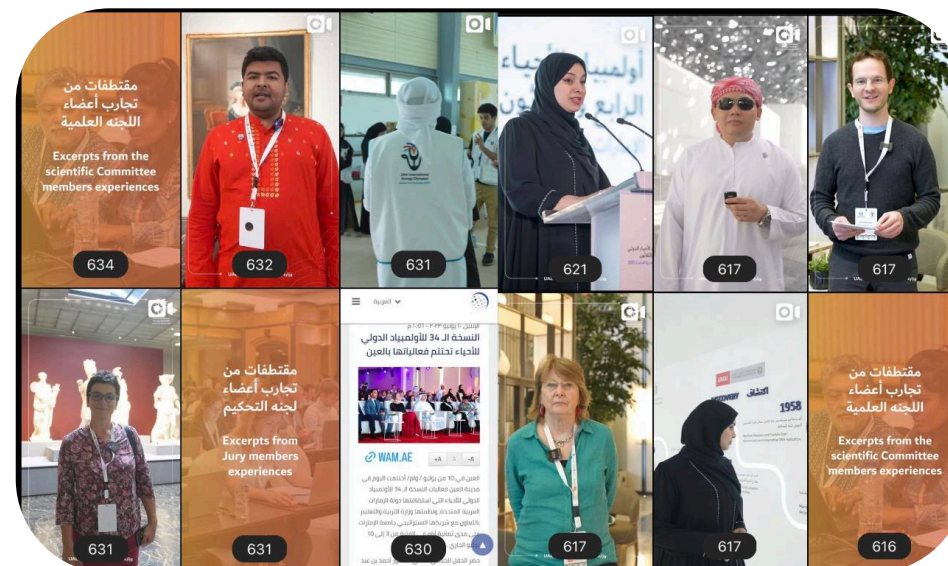
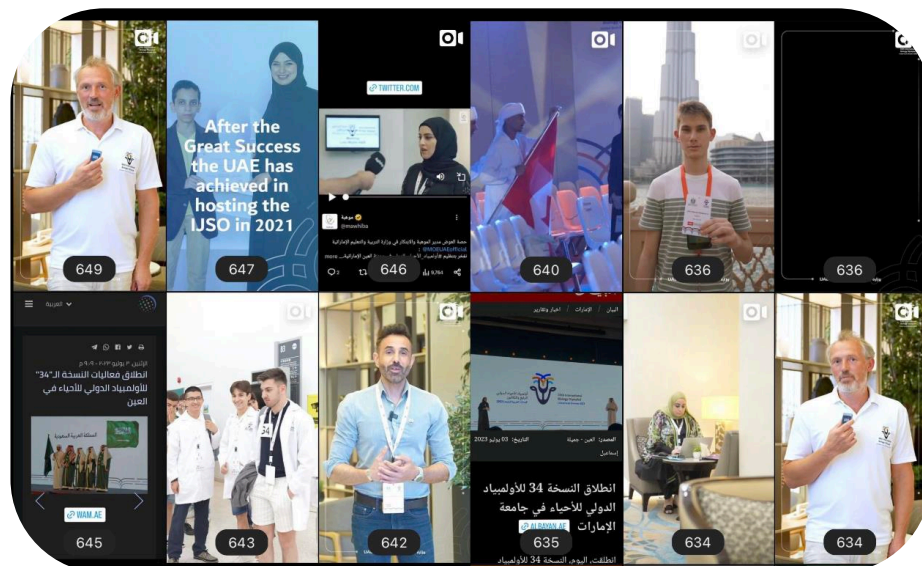


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Accounts Reached Stories

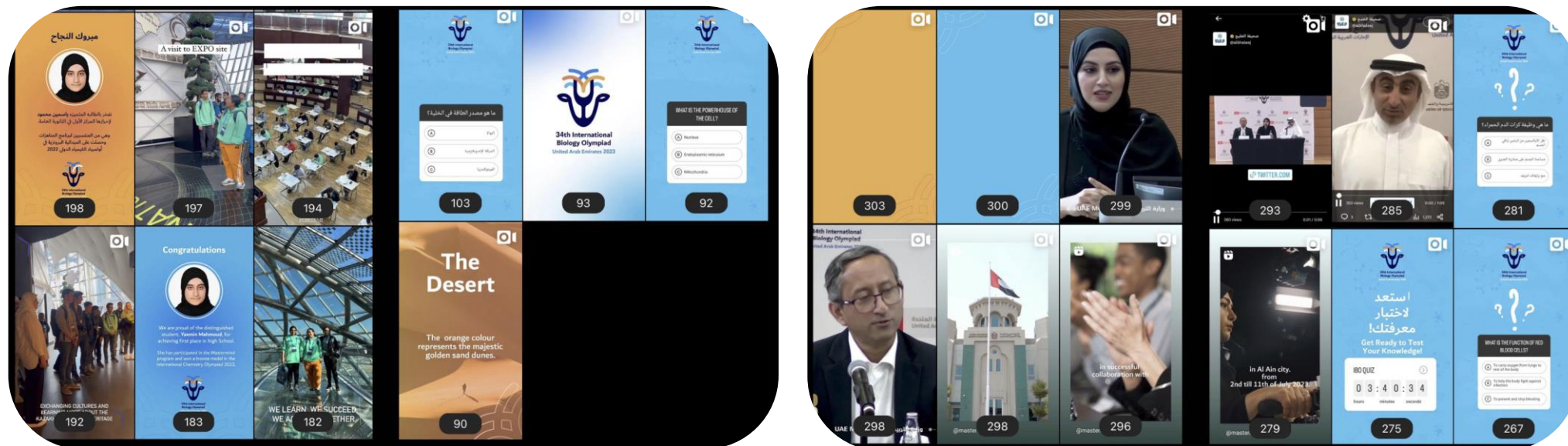


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Accounts Reached Stories

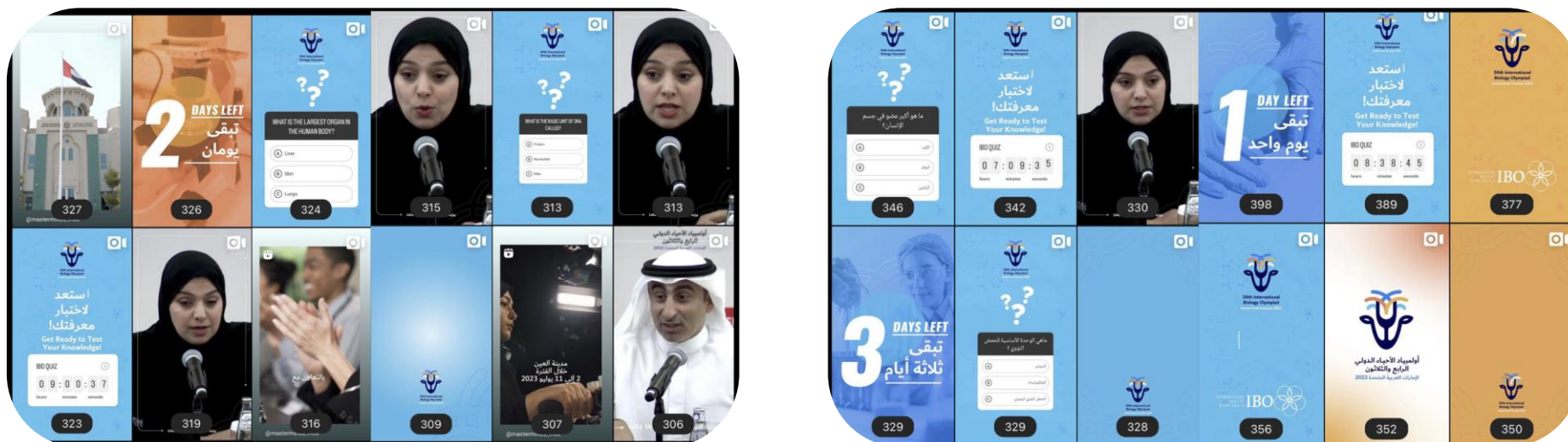


"Accounts Reached" refers to the number of unique user accounts that have been exposed to or seen our content during a specific period. It represents the potential audience size or the total number of individual accounts that have encountered our posts, advertisements, or any other content you have shared on a particular social media platform.





Accounts Reached Stories

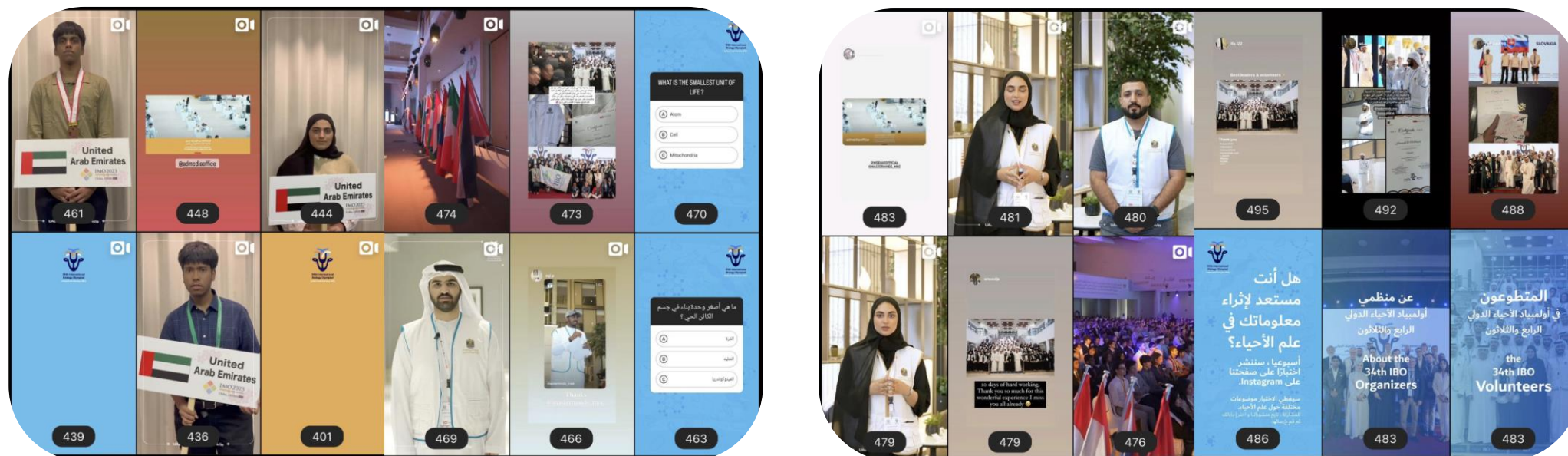


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Accounts Reached Stories

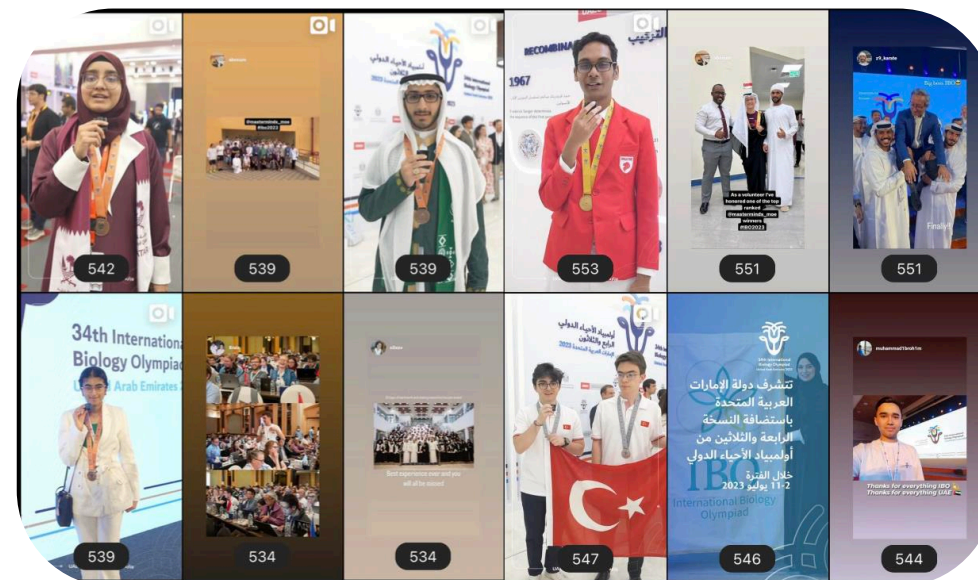
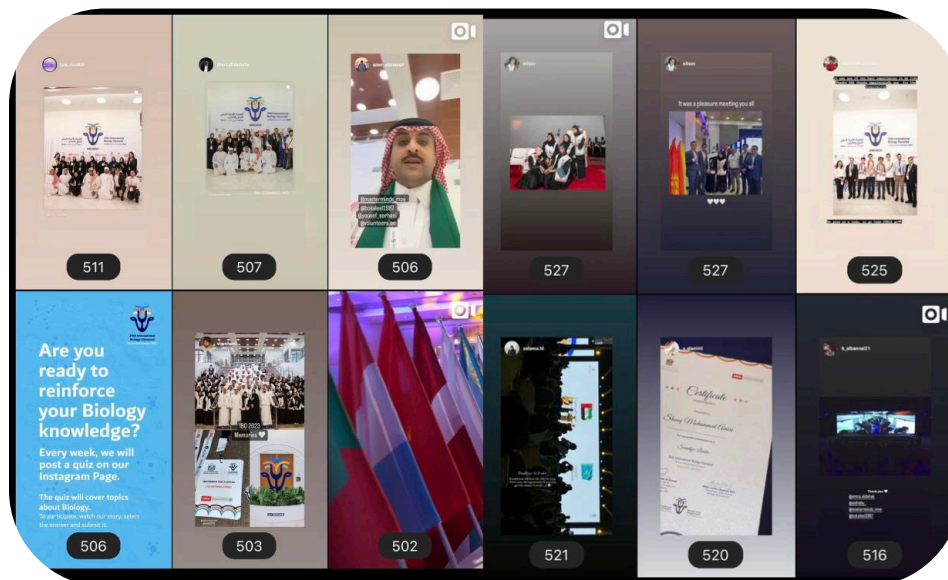


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Accounts Reached Stories

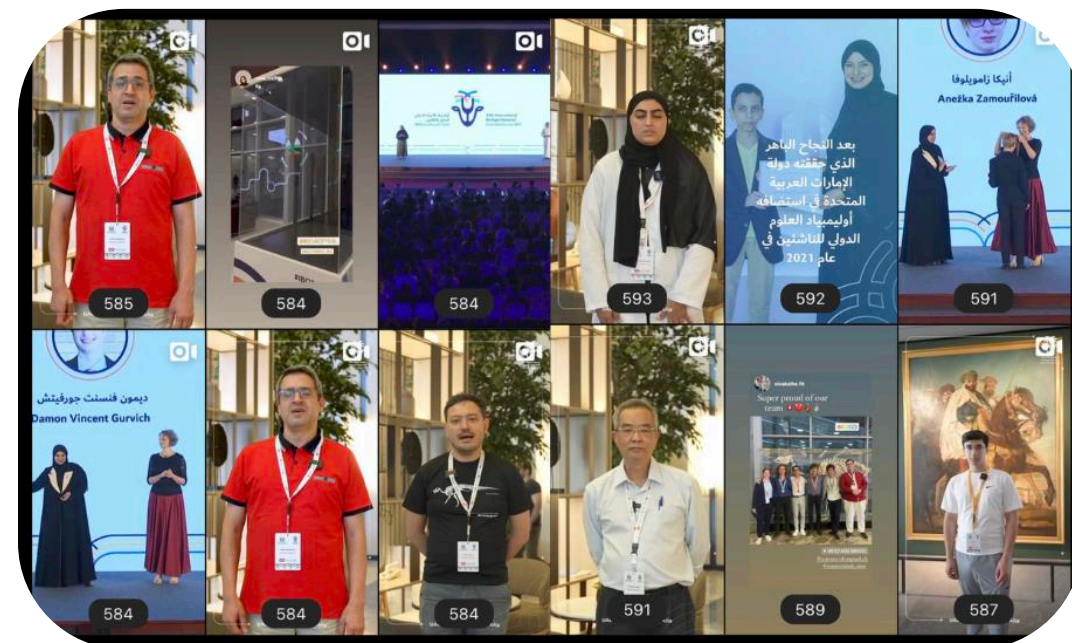
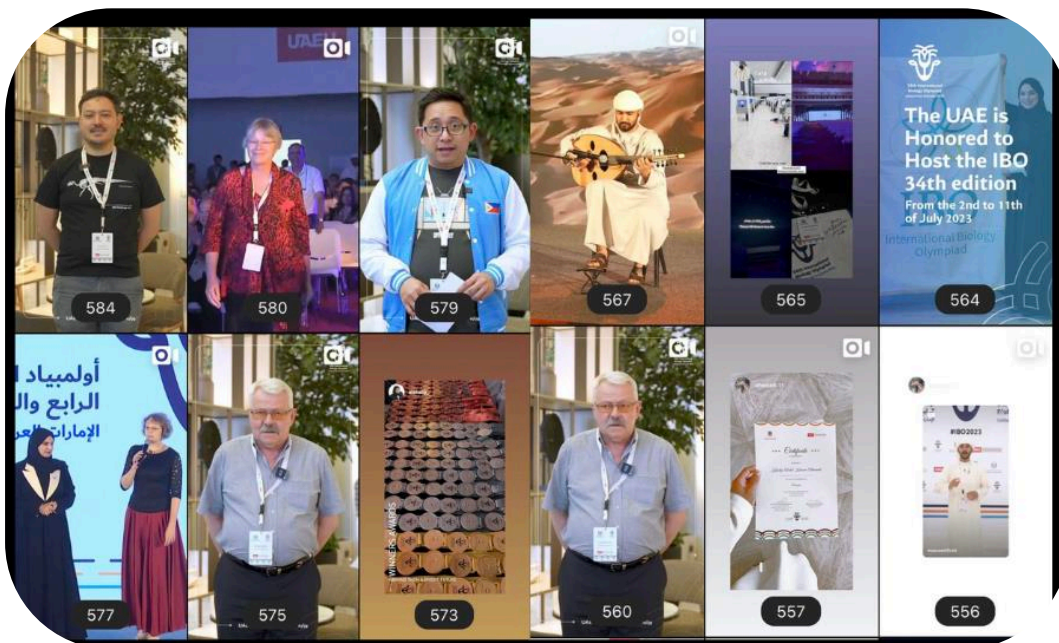


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Accounts Reached Stories

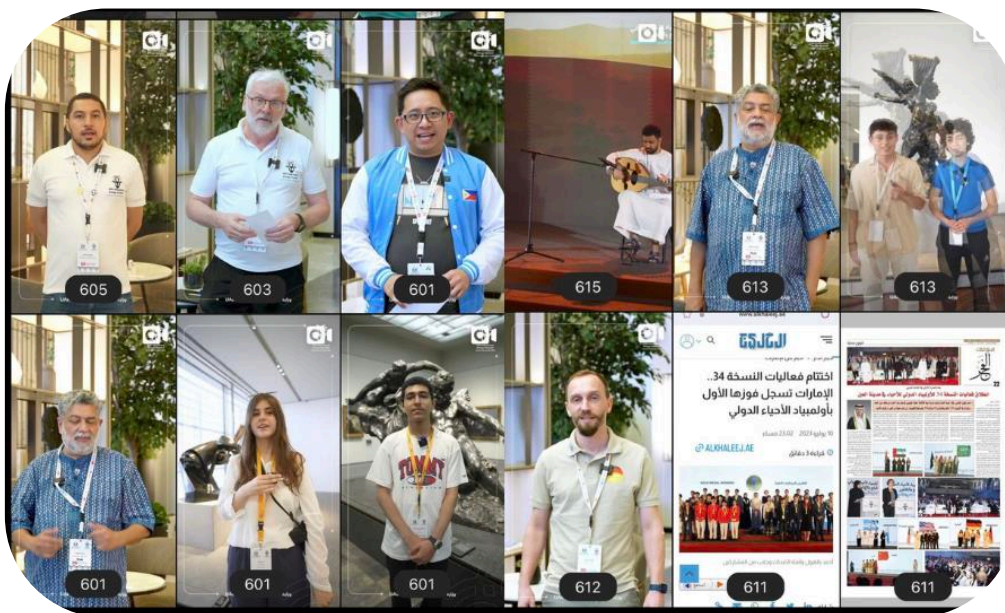


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Accounts Reached Stories



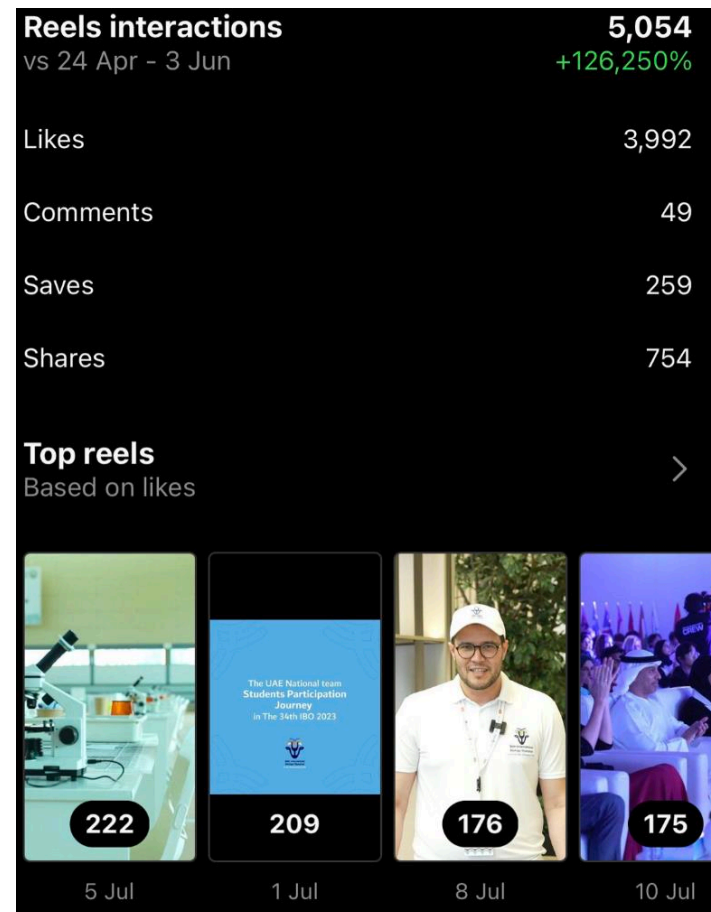
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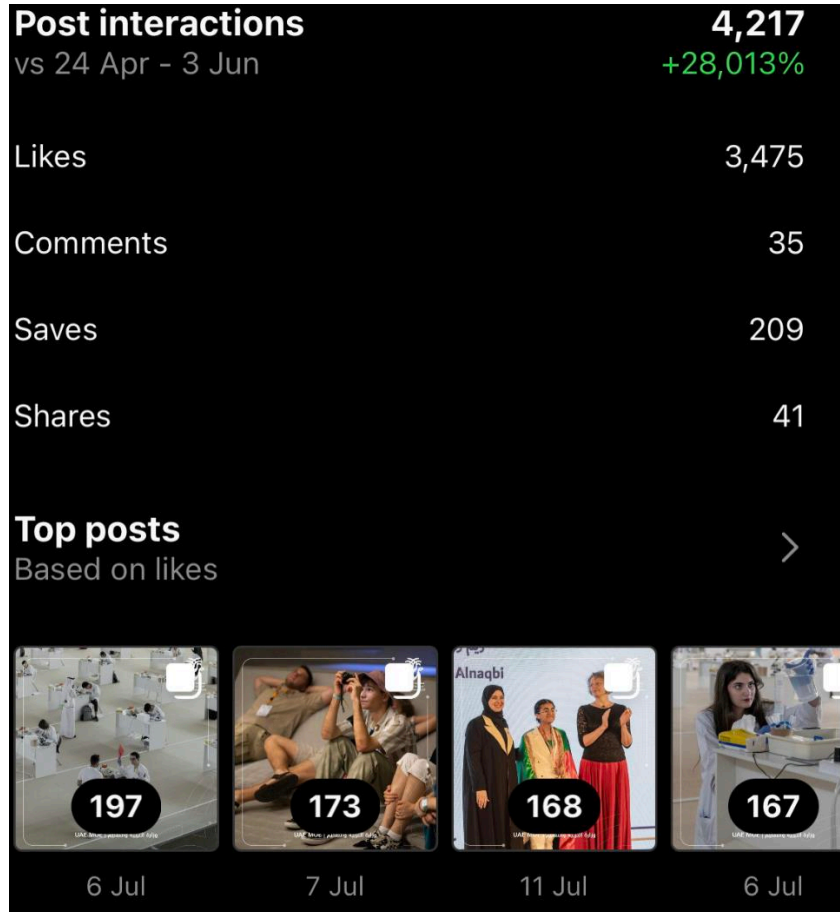
Reels Interactions

Reels interactions" refer to the actions taken by users in response to the content shared in our social media reels. Reels are short, engaging video clips typically found on platforms like Instagram. Reels interactions encompass various engagement metrics that indicate how users are engaging with our reels and the level of interest or interaction they have shown.





Post Interactions

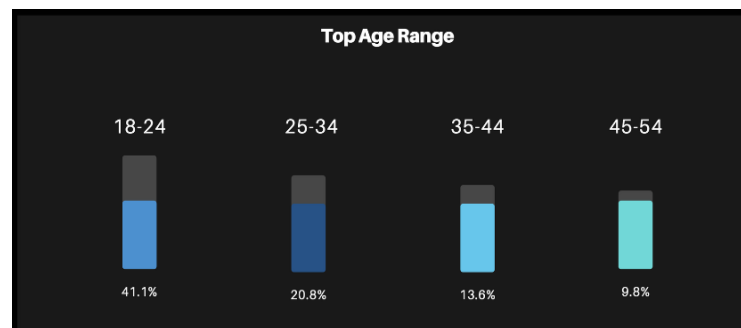
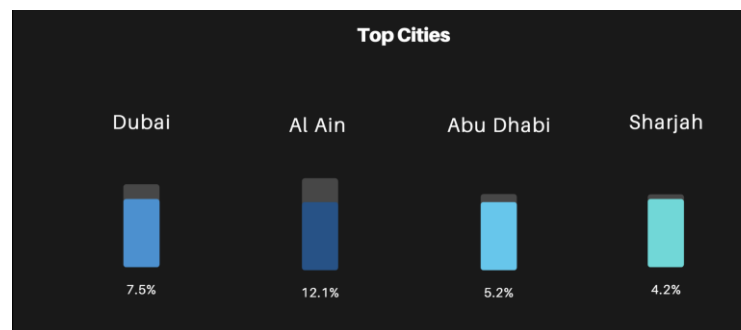
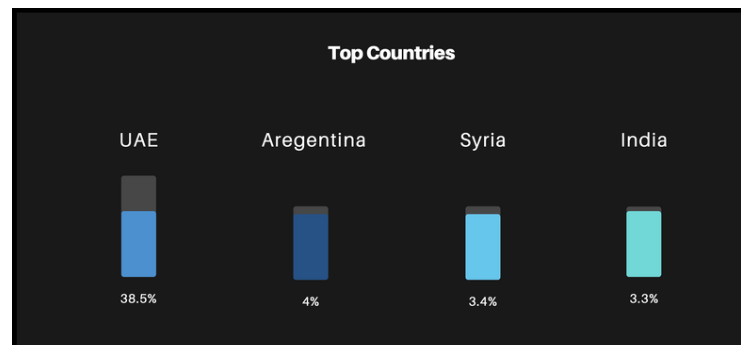
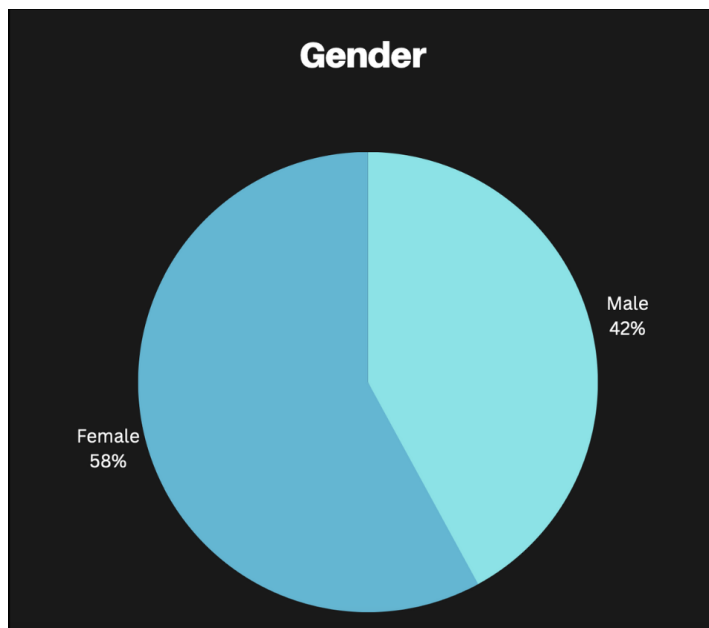


- "Post Interactions" refers to the collective actions taken by users in response to a specific post or content on a social media platform. It encompasses various engagement metrics that indicate how users are interacting with our posts and the level of interest or involvement they have shown.





Engagement





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2.12 Transportation



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Pre-Event Arrivals & Departure

- Transportation was arranged for the pre IBO events
- Receive the Sub-Jury and ACE team members from Dubai, Sharjah and Abu Dhabi Airport
- **Arrivals for the pre-event: 25th June to 29th June**
- Drop off: Leave from airport and head to Jury Hotel-Al Ain Rotana
- **Departure: 10th and 11th July, 2023**
- Pick Up: Jury Hotel-Al Ain Rotana, and then head to airport
- **Mode:** Car and small van depending upon the number of travelers



Arrival & Departure

- Receive the guest from 76 countries from Dubai, Sharjah and Abu Dhabi Airport
- Schedule of the arrival and departure will be provided to Bin Ham on or before 26th June
- **Arrivals:** 2nd and 3rd July, 2023
- Drop off: Leave from airport and head to
1st Stop: Jury Hotel-Al Ain Rotana, 2nd stop: Jury Hotel-Radisson Blu, 3rd Stop: Girls Hostel(Maqam-4) 4th Stop: Boys Hostel(Seeh Bin Ammar)
- **Departure:** 10th and 11th July, 2023
- Pick Up: 1st Stop: Boys Hostel(Seeh Bin Ammar) 2nd stop: Girls Hostel(Maqam-4), 3rd Stop: Jury Hotel-Radisson Blu, 4th Stop: Jury Hotel-Al Ain Rotana, and then head to airport
- **Mode:** Small van and medium buses or big buses depending upon the density



Students and Volunteers

- **2nd July to 11th July** – Internal bus transport for movement of Volunteers and scientific committee members from E3 to G1/G2/G3/B1/B2/B3.
- This was for exams , food
- Additional Big busses were engaged for the excursions
- **4 Small Vans**
- **2 Golf Carts**
- **Timing: 5.30 AM to 10 PM**





Jury Side & Excursions

- **2nd July to 11th July** – Fifty-seater buses in the mornings for movement of Jury members and volunteers from Radisson Blu to Al Ain Rotana.
- **6 Small Vans from Timing: 5.00 AM to 1 AM for additional transport on request by Jury Members.**
- **Excursions :** Fifty-seater buses busses for all excursions





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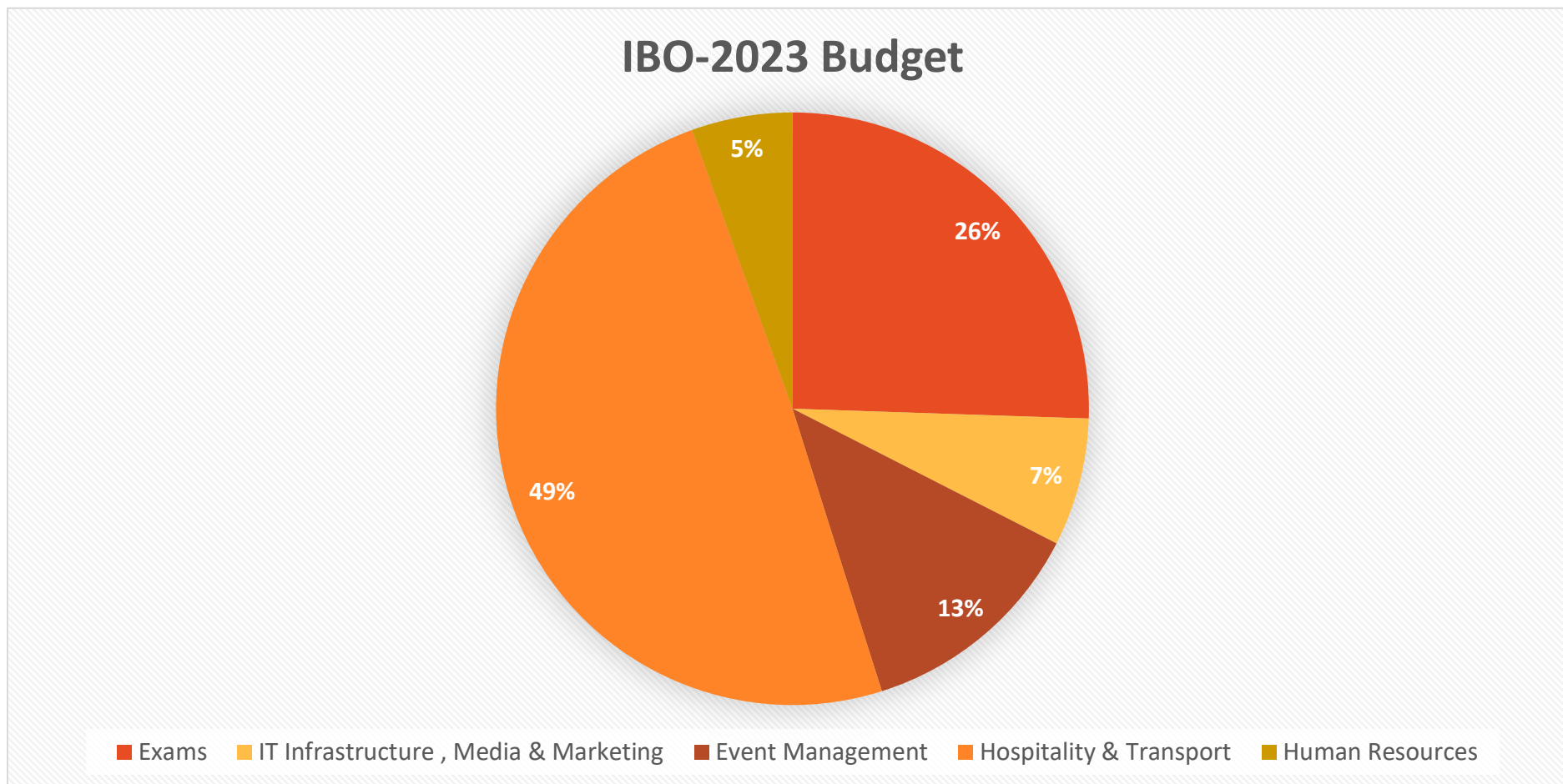
2.13 Budget & Financials



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IBO-2023 Budget





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2.14 List of Merchandise



List of Merchandise



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Item No	Merchandise Items With Logo
1	T-Shirt with logo
2	Water Bottle with logo
3	Lab Coats with logo
4	Cap with multi color logo
5	Bag with Logo in front
6	Pen with Logo
7	Sunscreen Bottle with Logo
8	Premium Dates
9	Lapel Pins
10	IBO Diaries
11	Leader Mementos
12	Calculator for Students

Each team member to receive one of each item.



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34th IBO Merchandise



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34th IBO Merchandise



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34th IBO Merchandise



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34th IBO Merchandise



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34th IBO Merchandise



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34th IBO Merchandise



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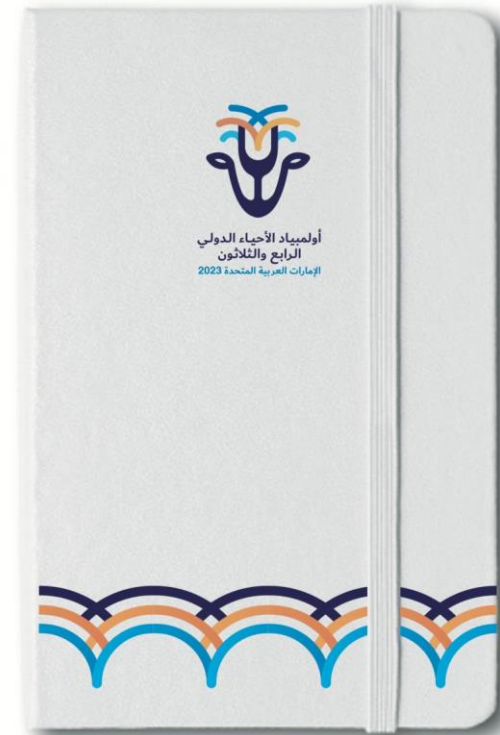


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34th IBO Merchandise



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IBO 2023 Preparations



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3.1 Visa Support

Visa Helpdesk Extension:

- Assistance from visa helpdesk provided to nations needing support.
- Letters issued for countries requiring visas.

Visa-Required Countries:

Out of 76 countries, 26 needed visas for UAE entry.

Nigeria's Visa Application:

- Nigeria's visa application could not be processed.
- Resulted in missing the event and refund of registration fee.





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3.2 Manpower - Recruitment and Training



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Volunteer



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PRIDE OF UAE

- To showcase to the world about the capabilities of UAE in Scientific events like Olympiad



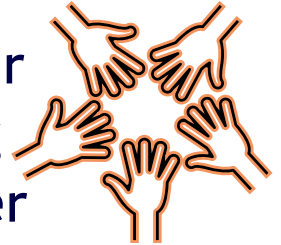
HOSPITALITY OF UAE

- Help people from 80 countries experience the world famous arabian hospitality



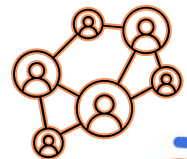
SERVICE FOR UAE

- Be an important pillar for success for IBO in UAE making UAE famous all over the world



NETWORKING

- Opportunity to work with 80 different nationalities and exchange UAE's culture with them



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Volunteer (3 Types)

Jury Side (40)

Student Side(Student management) (80)

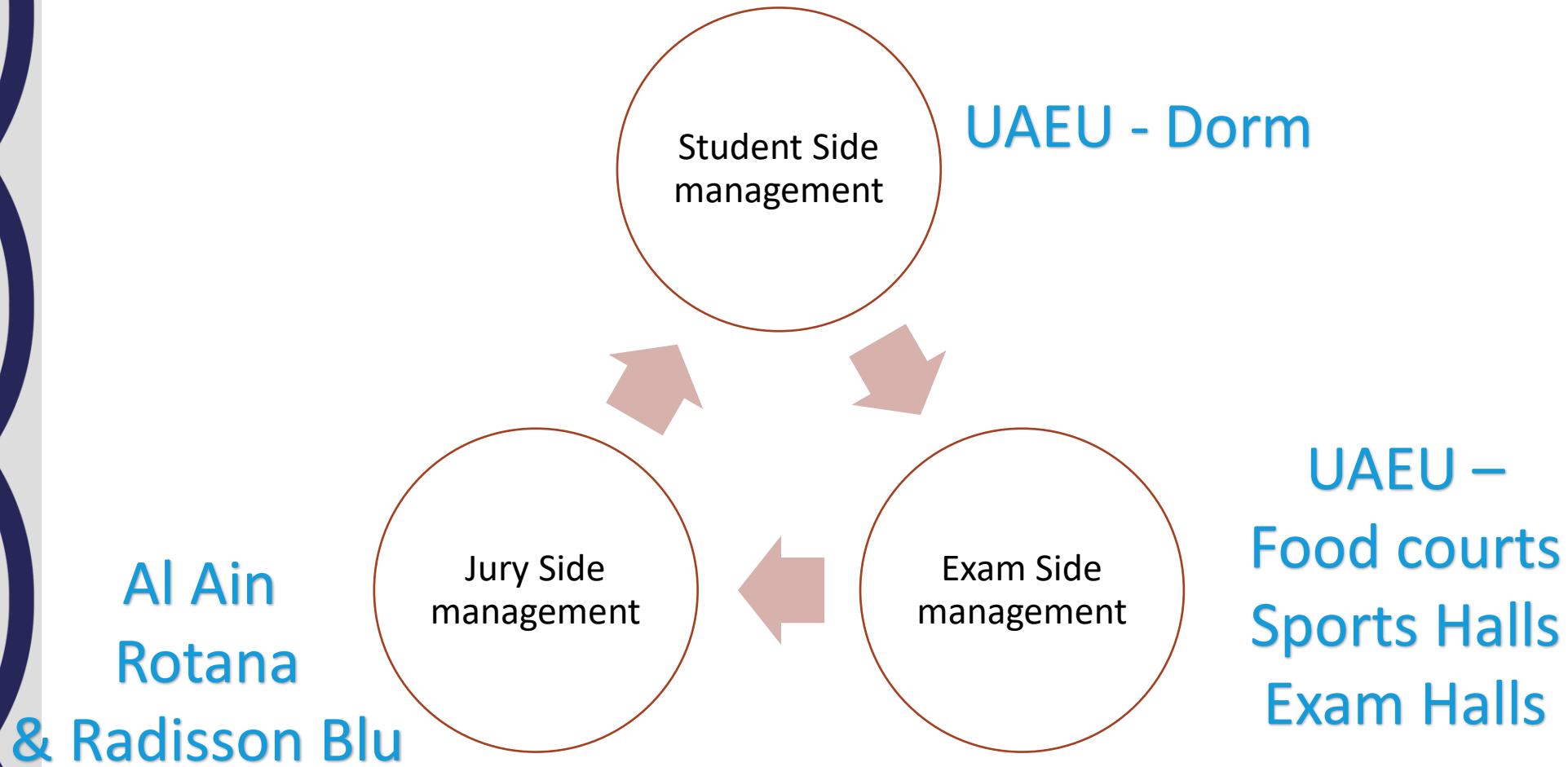
Student Side(Exam Management) (40)



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Three Strategic Sides to Event





Volunteers

• Jury Side

- Support Jury Members
- (80 countries with their routine for the entire duration of IBO)
- Manage the IT, Jury Room, Printing Room, Transportation, Excursion, Documents transfer, Signing of important papers
- 4 Volunteers for every 10 countries
- Total of **40 Volunteers**

• Student Side

- Support students(80 countries and 4 students each)
- Manage the student attendance for exams, activities, excursions, breakfast, lunch, dinner, and amenities
- 1 Volunteer for each Country, so **80 Volunteers for student management – UAEU**
- **40 Volunteers for exam room management**



Role



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4.1 TEAM

Scientific Committee



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Prof. Sabir bin Muzaffar

Professor, United Arab Emirates University, UAE

- Expert in Ecology, Ethology & Biosystematics
- Chair of the Academic Committee for IJSO 2021
- Worked as an Author, Proof reader & Editor at various National Olympiads



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Dr. Mayank Gururani

Associate Professor, United Arab Emirates University, UAE

- Expert in Cell biology, Molecular biology, Microbiology, Plant anatomy and Physiology , Bioinformatics
- Worked as an Author, Proofreader & Editor at various National Olympiads
- Academic Committee member for IJSO 2021



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Prof. Jan Černý

Professor, Charles University, Czech Republic

- Served as Sub Jury member of IBO
- President of Czech Biology Olympiad
- Expert in Animal anatomy, Physiology, Cell biology, Molecular biology, Microbiology, Genetics, Population genetics and Evolution, Biochemistry
- Worked as an Author at various IBOs
- Organising Committee member for European Union Science Olympiad & various other National Olympiads



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Prof. Alexander Rubtsov

Professor, Moscow State University, Russia

- Served as Sub-Jury Member of IBO
- Expert in Cell biology, Molecular Biology, Biochemistry and Microbiology
 - Worked as an Author, Proofreader & Editor at various National Olympiads
 - Organising Committee member for various National Olympiads



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Dr. Poonpipope Kasemsap

Professor, Kasetsart University, Thailand

- Served as IBO Chairman: 2008-2018
- Served as Sub Jury member of IBO
- Expert in Plant anatomy and Physiology
- Worked as an Author, Proofreader & Editor at various National Olympiads



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Prof. Anindya Sinha

Professor, Natl. Inst. of Advanced Studies, India

- 14 years as Sub Jury member for IBO
- Expert in Genetics, Population genetics, Evolution, Ecology, Ethology & Biosystematics
- 15 years experience as Author, Proof-reader & Editor in various IBOs
- Academic Committee Head & International Advisor for various IBOs
- Holding adjunct faculty positions at ten other research and teaching institutions in India and in the United Kingdom.



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Dr. Joshua Hodgson

United Kingdom Biology Competitions, UK

- Served as Sub Jury member of IBO
- Expert in Animal Anatomy, Physiology, Cell biology, Molecular biology, Microbiology, Genetics, Population genetics and Evolution, Plant anatomy, Ecology, Ethology & Biosystematics.
- Head of exams at various IBOs
- Worked as an Author, Proof-reader & Editor at various IBOs
- Organising Committee member for various IBOs
- Co-author of the British Biology Olympiad and Intermediate Biology Olympiad since 2018





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Dr. Evgeny Shilov

Faculty, Moscow State University, Russia

- IBO Gold Medal Winner
- Served as IBO Jury member
- Jury member of Russian National Biology Olympiad since 2010
- Trainer for Russian National team since 2018
- Expert in Animal anatomy, Cell biology, Molecular biology, Microbiology, Genetics, Population genetics and evolution, Physiology, Biosystematics, Animal anatomy & Bioinformatics
- Worked as a Proofreader & Editor at various IBOs
- Worked as an Author at various National Olympiads
- Organising Committee member for various National Olympiads



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Dr. Takao Ishikawa

Asst. Prof., University of Warsaw, Poland

- Served as Sub Jury member of IBO
- Expert in Cell biology, Molecular biology, Microbiology, Genetics, Population genetics and Evolution, Biochemistry & Bioinformatics
- Worked as an Author, Proofreader & Editor at various National Olympiads



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Prof. Pradeep Burma

Associate Professor, University of Delhi, India

- Served as Sub Jury member of IBO
- Expert in Cell biology, Molecular biology, Microbiology, Genetics, Population Genetics and Evolution & Biochemistry
- Best Teacher award by Indian National Science Academy (INSA) Teachers Award, 2016
- Worked as an Author, Proof reader & Editor at various National Olympiads
- Academic Committee member for IJSO 2021



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Prof. Saman Hosseinkhani

Professor, University of Tehran,
Iran

- Vice-Chairperson & Steering Committee member of IBO
- Expert in Cell biology, Molecular biology, Microbiology & Biochemistry
- Worked as an Author, Proof-reader & Editor at various IBOs
- Organising Committee member for various IBOs



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Dr. Vasili Pankratov

cGEM, University of Tartu, Estonia

- Served as Sub Jury member of IBO for several years
- Expert in Genetics, Population genetics and Evolution, Ecology, Ethology & Bioinformatics
- Worked as an Author at various IBOs

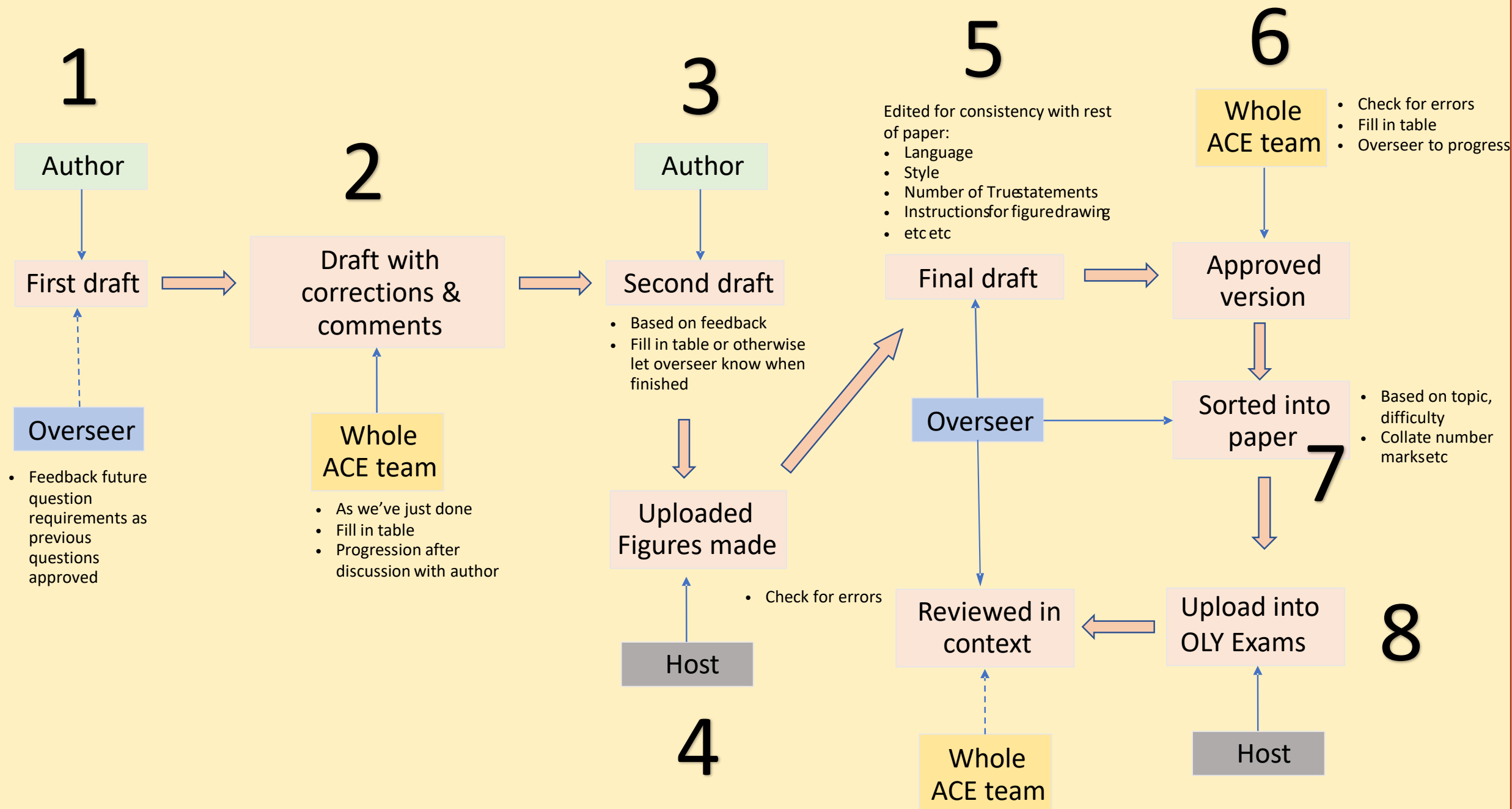


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4.2 Framework for development - Theory





Theory Practices

- Plagiarism check – using Grammarly
- Permissions from author for re-using figures/graphics
- Re drawing graphs to reduce the details(redundant ones) and make it color independent, when possible
- Drawing the figures that will be oly-exam friendly
- Sub group distribution
- Stem length and number of words (10,000 Paper or 200 words per question)
- Standardising the language and grammar



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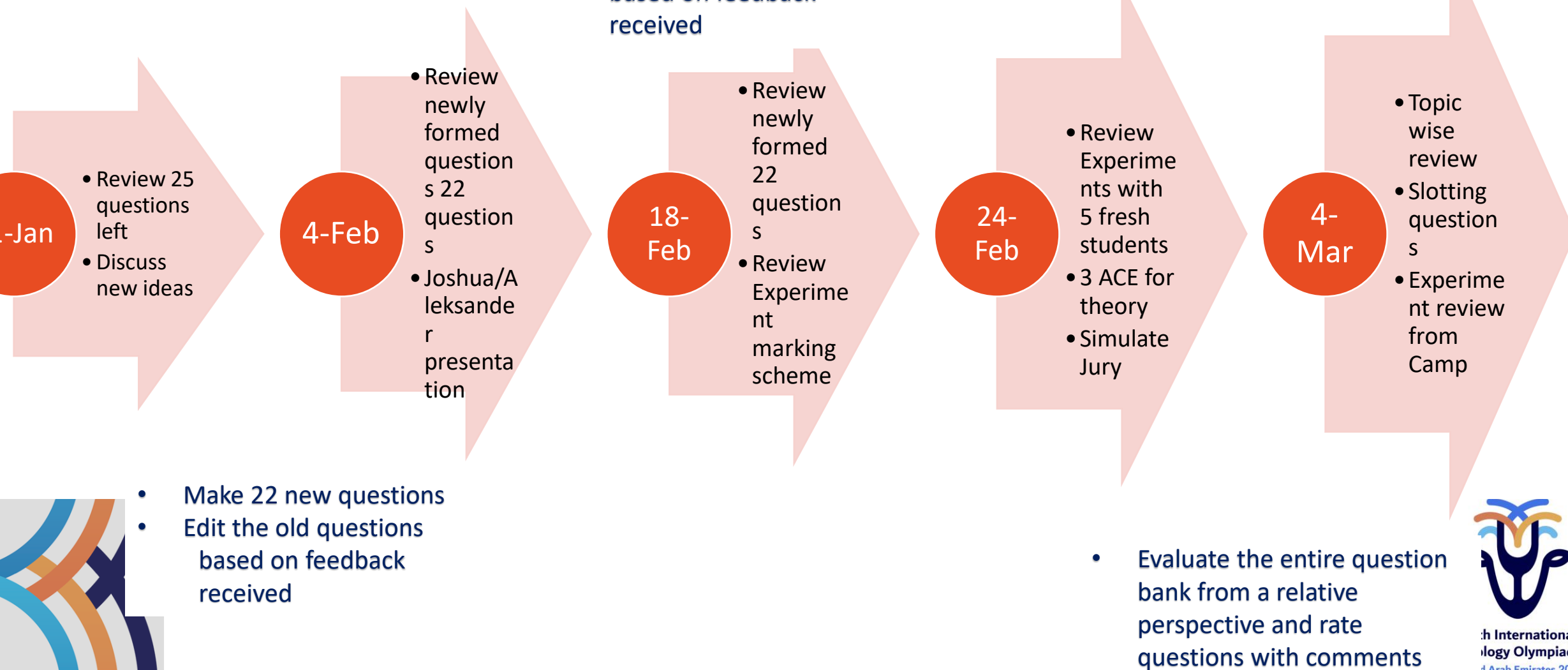


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Roadmap



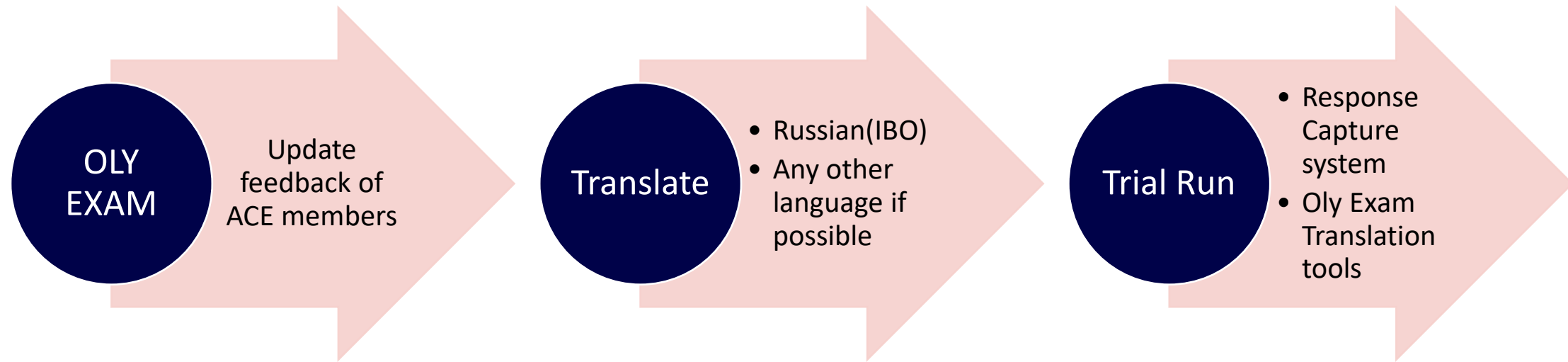
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HOST steps to be followed after flowchart





Format and Nature

- Theory Paper-1 will consist of Multiple True False type questions(called as “MTF”) with minimum four responses.
- Theory Paper-2 will consist of
 1. MTF(Approximately upto 25)
 2. Questions which are a mix of MTF & other type responses(Numerical, Match the following etc)-Called as “MIXED”
 3. Other type of responses-Called as “OTHER”
- In paper-1 and paper-2 the segregation of questions will be done, sub-topic wise. In the paper-2, within a sub-topic, questions will be segregated as “MTF” followed by “Mixed” and “Other”
- Marking: We will provide the Jury with two options and majority vote can be adopted
 - Simple Marking – Each response = 1 Mark
 - Variable scoring(Reference Iran-2018)
- Response deletion: If one or more responses are deleted by majority voting during the Jury meeting, a sub-academic committee which consists of UAE academic team and volunteer Jury members will be formed the chair and will be entrusted with responsibility to create a response. The newly formed response would be presented to the Jury for approval.





Two Marking Schemes Possibility

• Simple Scoring:

- Each correct response would receive **1 Mark**.
- Each incorrect response would receive **0 Mark**.
- Each blank response would get **0 Mark**

• Variable Scoring:

4-Response Questions

Correct Responses	0	1	2	3	4
Points	0.0	0.0	0.0	0.5	1.0

5-Response Questions

Correct Responses	0	1	2	3	4	5
Points	0.0	0.0	0.0	0.25	0.75	1.0





Simple Marking Scheme (34th IBO)

- **Simple Scoring:**
- Each correct response would receive **1 Mark**.
- Each incorrect response would receive **0 Mark**.
- Each blank response would get **0 Mark**

4-Response Questions

Correct Responses	0	1	2	3	4
Points	0.0	0.0	0.0	0.5	1.0

5-Response Questions

Correct Responses	0	1	2	3	4	5
Points	0.0	0.0	0.0	0.25	0.75	1.0





Layout – Dropbox for Editing

- We renamed all the questions in the sub-topic area(4.1 Animal Prof Evgeny.docx)
- Which have the question no. according to the sub-topic and has author name as part of it along with subject area.
- After receiving comments from all the ACE members, authors are requested to edit and upload the questions in the sub-folder round-2 with filename changed to *.2(4.2 Animal Prof Evgeny.docx)





Beauty Contest to select final question

- Length of stem
- Difficulty level
- Basis (Knowledge, Application, Out of Syllabus)





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Beauty Contest Results Sample



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What were the data points considered?



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th of the stem(Rate from 1 to 5)	Difficulty level(Rate from 1-5)	Nature of the question(Knowledge, Application, Unknown syllabus)	Does this question require different/higher scoring
3.33	2.67	3.00	3.00
2.67	3.33	3.00	-
2.67	4.00	3.00	1.00
2.33	2.00	3.00	2.00
2.33	3.00	3.00	1.00
2.67	2.67	3.00	2.00
2.33	2.00	3.00	3.00
4.00	3.00	2.00	2.00
4.67	3.00	1.00	2.00
2.00	3.00	3.00	2.00
3.67	2.00	2.00	3.00
4.00	4.67	2.00	2.00
4.00	3.67	3.00	1.00
2.00	3.00	3.00	3.00
2.33	2.67	3.00	3.00
1.67	2.33	3.00	3.00
2.67	2.33	3.00	3.00
1.00	1.67	2.00	3.00
2.33	3.00	2.00	3.00
1.00	1.33	2.00	3.00
1.67	3.67	3.00	-
3.00	3.67	3.00	3.00
2.00	2.00	3.00	3.00
3.00	3.00	3.00	-
2.67	2.33	-	3.00
2.00	2.00	3.00	3.00
1.67	3.00	3.00	3.00



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Based on the results the questions were selected and segregated

- Segregate the questions as – Theory-1, Theory-2, Backup

Length of the stem(Rate from 1 to 5)	Difficulty level(Rate from 1-5)	Nature of the question(Knowledge, Application, Unknown syllabus)	Does this question require different/higher scoring
3.00	3.67	3.00	3.00

4.00	4.67	2.00	2.00
4.00	3.67	3.00	1.00





Segregation as per difficulty

- The Questions were discussed and tagged as– Easy, Moderate, Difficult

Length of the stem(Rate from 1 to 5)	Difficulty level(Rate from 1-5)	Nature of the question(Knowledge, Application, Unknown syllabus)	Does this question require different/higher scoring
1.00	1.33	2.00	3.00

4.00	4.67	2.00	2.00
4.00	3.67	3.00	1.00



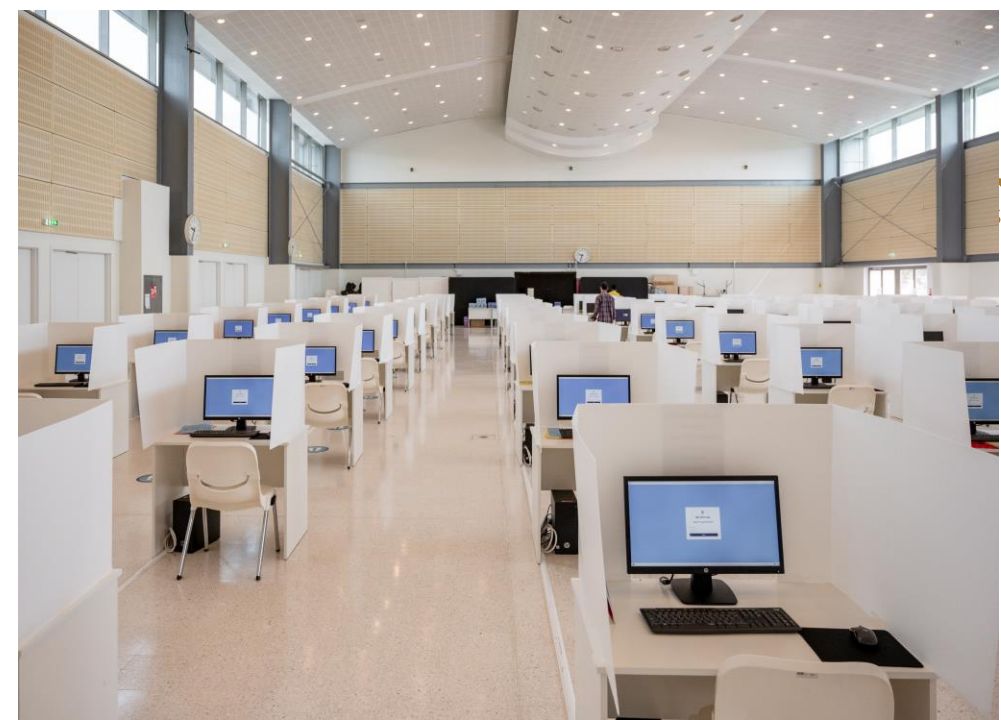
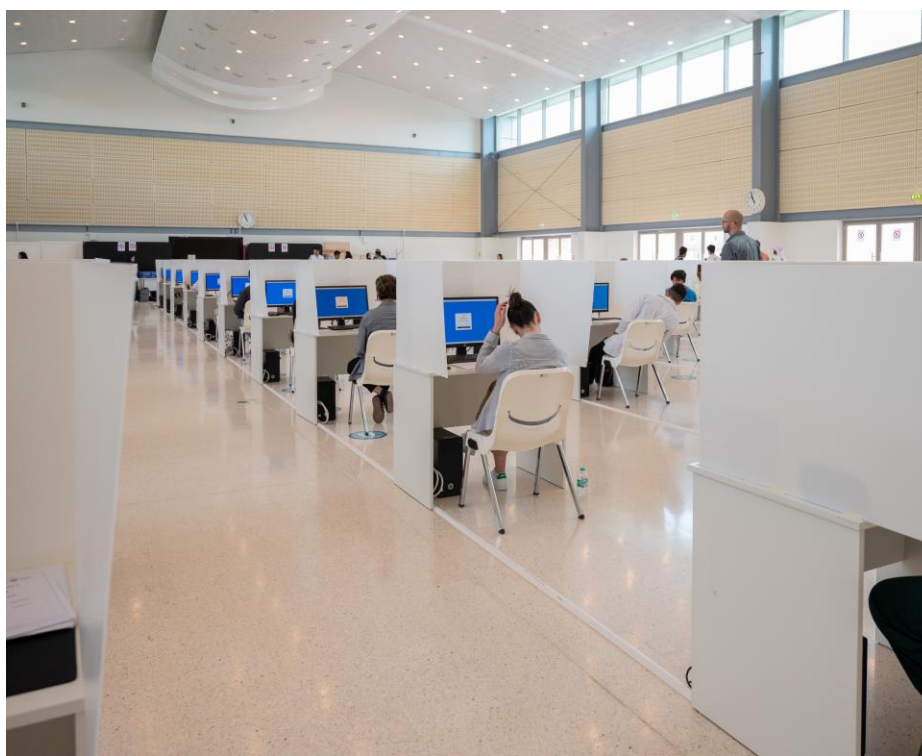


4.3 Theoretical Exams

	Theory-1(7 th July)		Theory-2(8 th July)	
	Morning	Afternoon	Morning	Afternoon
Group-A (Consisting of 20 countries/80 students)	Exam	Free	Free	Exam
Group-B (Consisting of 20 countries/80 students)	Exam	Free	Free	Exam
Group-C (Consisting of 20 countries/80 students)	Free	Exam	Exam	Free
Group-D (Consisting of 20 countries/80 students)	Free	Exam	Exam	Free

- Exams for theory was conducted across two days due to limited availability of space in the University.
- A total of 76 participating countries were divided in to four groups (A,B,C,D) equally
 1. Group remains the same for all exam days
 2. Groups were identified using different colors of Lanyard and stickers
 3. Groups did not interact with each other when they transition from one exam to the other





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Simple Marking Scheme

- **Simple Scoring:**
- Each correct response would receive **1 Mark**.
- Each incorrect response would receive **0 Mark**.
- Each blank response would get **0 Mark**

4-Response Questions

Correct Responses	0	1	2	3	4
Points	0.0	0.0	0.0	0.5	1.0

5-Response Questions

Correct Responses	0	1	2	3	4	5
Points	0.0	0.0	0.0	0.25	0.75	1.0



4.4 Experimental Exams



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4.4 Experimental Exams



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3rd July 10:00 PM

Experiment was open for reading & commenting, making it accessible Jury across both Hotel

7:30 to 8:30 AM

Introduction of the Scientific Committee and Wi-Fi/Oly-Exam Trouble shooting for those need it in Jury Room

Introductions	Phase-1
Biochemistry Experiment Introduction 8:30 AM to 9:00 AM (Main Jury Room)	Our version of the tasks were explained to all Jury members
Bio Informatics Experiment Introduction: 9:00 to 9:30 AM (Main Jury Room)	
Molecular Biology Experiment Introduction: 9:30 to 10:00 AM (Main Jury Room)	
Ecology & Ethology Introduction: 10:00 to 10:30 AM (Main Jury Room)	
Commenting on Oly Exams	Phase-2
Cut off for commenting for Biochemistry and Bioinformatics : 12:00 Noon (Main Jury Room)	Jury members express their views and offer comments to improvise the task
Cut off for commenting for Molecular Biology and Ecology & Ethology : 1:00 PM (Main Jury Room)	



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4th July (Experiment Discussion)



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Discussion of Experiments		Phase-3
Jury and Paper-setter Discussion on comments received in Oly-Exams directly through online commenting or direct discussion with Jury Members (Biochemistry): 12:15 PM to 1:30 PM (Main Jury Room)	Jury and Paper-setter Discussion on comments received in Oly-Exams directly through online commenting or direct discussion with Jury Members (Bioinformatics): 12:15 AM to 1:30 PM (Breakout Room near Gym)	Collaboration between Scientific Committee of UAE and Jury Members to review all the comments and resolve them. There will be three outcomes: Resolved: Comments from Jury members are accepted by scientific committee Resolved with explanation: Feedbacks of Scientific committee is satisfactory to Jury members to approve or reject the comments made Not Resolved: Discussion between the Jury Members and Scientific committee has not led to a conclusion. In this case, the discussion will be delegated to a group of Jury members willing to work towards resolution or common discussion in Main Jury Room(Phase-4)
Version-2 Release for review Biochemistry and Bioinformatics: 2:15 PM		
Jury and Paper-setter Discussion on comments received in Oly-Exams directly through online commenting or direct discussion with Jury Members (Molecular Biology): 2:00 PM to 3:15 PM (Main Jury Room)	Jury and Paper-setter Discussion on comments received in Oly-Exams directly through online commenting or direct discussion with Jury Members (Ecology & Ethology): 2:00 PM to 3:15 PM (Breakout Room near Gym)	
Version-2 Release for review for Molecular Biology and Ecology & Ethology: 4:00 PM		
Voting on Version-2 (Main Jury Room)		Phase-4
Voting & common discussion of all Jury Members on Version-2 with all changes incorporated for questions & answer key Biochemistry 3:30 to 4:30 PM Bioinformatics 4:45 PM to 5:45 PM Molecular Biology: 6:00 to 7:00 PM Ecology & Ethology: 7:15 to 8:15 PM		Journey towards the final version: All the Jury members and Scientific committee will hold a common discussion in the main Jury Room to discuss, deliberate, vote and agree on the final version of the paper.
Final version release		Phase-5
Biochemistry 5:30 PM Bioinformatics 6:45 PM Molecular Biology: 8:00 PM Ecology & Ethology : 9:15 PM		Final version of the tasks will be released along with track changes tracker to indicate what changes have been implemented from the draft version.
Translation and Printing		Phase-6
Translation cut-off time(Recommended): 1:00 AM		All the Jury Members will print and submit the papers.



6th July and 7th July – Start at 8:00 AM

	Phase-1 Reading Time	Phase-2 Cut-off for entering comments in Oly Exams	Discussion of Comments	Release of Version-2	Room
1. Animal anatomy and physiology	7:00 AM to 8:45 AM	12:30 PM	1:30 PM to 2:30 AM	3:30 PM	Main Jury Room
2. Cell biology, molecular biology and microbiology	7:00 AM to 8:45 AM	12:30 PM	1:30 PM to 2:30 PM	3:30 PM	Breakout Room
3. Genetics, population genetics and evolution	7:00 AM to 10:15 AM	2:00 PM	2:45 PM to 3:45 PM	4:45 PM	Main Jury Room
4. Plant anatomy and physiology	7:00 AM to 10:15 AM	2:00 PM	2:45 PM to 3:45 PM	4:45 PM	Breakout Room
5. Ecology, Ethology & Biosystematics	7:00 AM to 1:00 PM	3:00 PM	4:00 PM to 5:00 PM	6:00 PM	Main Jury Room

6th Evening (10:00 PM)

Theory-2 is open for reading & commenting, making it accessible for all members of Jury across both Hotel. In Oly Exam, jury were able to see the answer key and explanation as well.





6th July and 7th July – Start at 8:00 AM

	Release of Version-2	Phase-3 Final discussion and Voting on Version-2	Recommended Cut-off for translation	Room
1. Animal anatomy and physiology	3:30 PM	5:15 PM to 6:00 PM	2:00 AM	Main Jury Room
2. Cell biology, molecular biology and microbiology	3:30 PM	6:15 PM to 7:00 PM	2:00 AM	Main Jury Room
3. Genetics, population genetics and evolution	4:45 PM	7:15 PM to 8:00 PM	2:00 AM	Main Jury Room
4. Plant anatomy and physiology	4:45 PM	8:15 PM to 9:00 PM	2:00 AM	Main Jury Room
5. Ecology, Ethology & Biosystematics	7:45 PM	9:15 PM to 10:00 PM	2:00 AM	Main Jury Room





6:30 AM – 7:30 AM: 7th July – Pack Theory 1 Paper for your students

7:30 AM: 7th July – Theory-2 Discussion

	Phase-1 Reading Time	Phase-2 Cut-off for entering comments in Oly Exams	Discussion of Comments	Release of Version-2	Room
1. Animal anatomy and physiology	7:30 AM to 8:45 AM	12:30 PM	1:30 PM to 2:30 AM	3:30 PM	Main Jury Room
2. Cell biology, molecular biology and microbiology	7:30 AM to 8:45 AM	12:30 PM	1:30 PM to 2:30 PM	3:30 PM	Breakout Room
3. Genetics, population genetics and evolution	7:30 AM to 10:15 AM	2:00 PM	2:45 PM to 3:45 PM	4:45 PM	Main Jury Room
4. Plant anatomy and physiology	7:30 AM to 10:15 AM	2:00 PM	2:45 PM to 3:45 PM	4:45 PM	Breakout Room
5. Ecology, Ethology & Biosystematics	7:30 AM to 1:00 PM	3:00 PM	4:00 PM to 5:00 PM	6:00 PM	Main Jury Room

6th Evening (10:00 PM)

Theory-2 is open for reading & commenting, making it accessible for all members of Jury across both Hotel. In Oly Exam, jury were able to see the answer key and explanation as well.





7th July – Page 2 of 2

	Release of Version-2	Phase-3 Final discussion and Voting on Version-2	Recommended Cut-off for translation	Room
1. Animal anatomy and physiology	3:30 PM	5:15 PM to 6:00 PM	2:00 AM	Main Jury Room
2. Cell biology, molecular biology and microbiology	3:30 PM	6:15 PM to 7:00 PM	2:00 AM	Main Jury Room
3. Genetics, population genetics and evolution	4:45 PM	7:15 PM to 8:00 PM	2:00 AM	Main Jury Room
4. Plant anatomy and physiology	4:45 PM	8:15 PM to 9:00 PM	2:00 AM	Main Jury Room
5. Ecology, Ethology & Biosystematics	7:45 PM	9:15 PM to 10:00 PM	2:00 AM	Main Jury Room



Print out station(For each student)

Process for printing(Translation/English)



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Name of Experiment	Question (Translation)	Question (Official English)	Answer (English)	Additional items	Packing Items
Plant Molecular Biology	Yes	Yes	Yes	1-Graph Paper (write student code behind using pen)	Individual Student envelope Sticker with Student code Large envelope to pack all students' packet One sticker for the country envelope
Biochemistry	Yes	Yes	Yes	1-Graph Paper (write student code behind using pen)	
Ecology & Ethology	Yes	Yes	Yes	-----	
Bioinformatics	Yes	Yes	-----	Student Username & Password sheet	

ANSWER SHEET WAS ENGLISH FOR ALL



Experiment Exams - Format

	9:00 AM to 10:30 AM	11:30 AM to 1:00 PM	2:00 PM to 3:30 PM	4:30 PM to 6:00 PM
Group-A	Ecology & Ethology	Bioinformatics	Plant Molecular Biology	Biochemistry
Group-B	Bioinformatics	Ecology & Ethology	Biochemistry	Plant Molecular Biology
Group-C	Plant Molecular Biology	Biochemistry	Ecology & Ethology	Bioinformatics
Group-D	Biochemistry	Plant Molecular Biology	Bioinformatics	Ecology & Ethology

- Exams for experiment were conducted across 4 slots on the same day.
- Each slot was followed by an hour long break for snacks/lunch/transport to next exam hall
- All the students got the list of apparatus and a checklist to verify items present 10 minutes before start of the exam
- A total of 76 participating countries were be divided in to four groups (A,B,C,D) equally
 1. Group remains the same for all exam days
 2. Groups were identified using different colors of Lanyard and stickers
 3. Groups did not interact with each other when they transition from one exam to the other

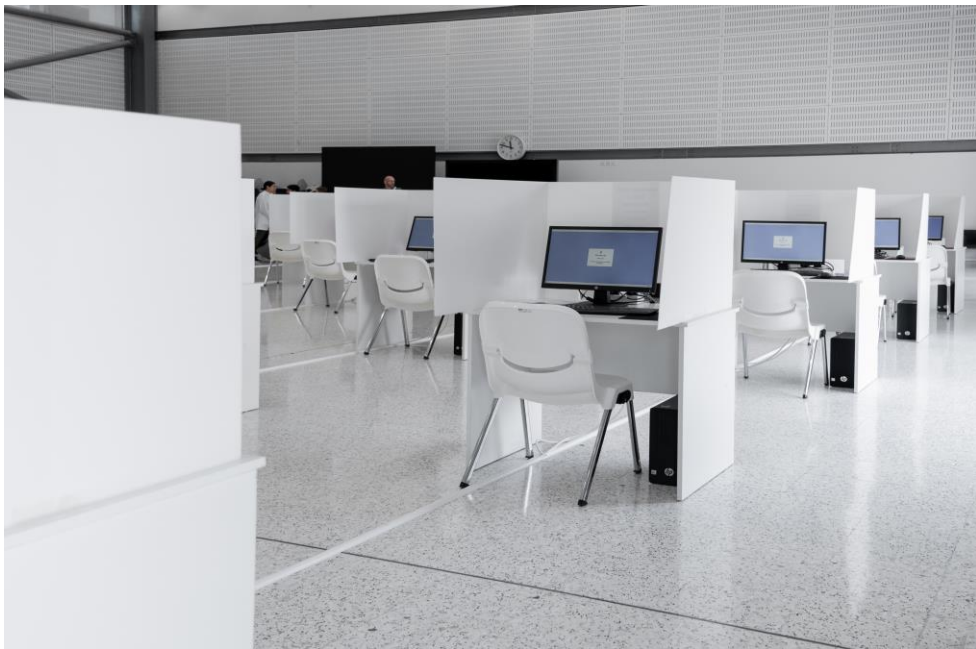




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Olympiad
Emirates 2023



وزارة التربية والتعليم
MINISTRY OF EDUCATION



34th International
Biology Olympiad
United Arab Emirates 2023



4.5 Quality Assurance and Plagiarism Checks





Quality Assurance



Expert Proofreading:



All examination questions underwent a stringent proofreading process by international experts in the field of biology.



These experts meticulously reviewed each question to ensure accuracy, clarity, and alignment with the curriculum and IBO standards.



The goal was to eliminate any potential ambiguities, errors, or inconsistencies in the questions.



Fairness and Consistency:



The thorough proofreading process aimed to guarantee fairness and consistency in the assessment of all participating students.



Ensuring that questions were clear and unambiguous was essential to providing an equitable testing environment.





Quality Assurance



Plagiarism Checks:



As part of the quality assurance measures, plagiarism checks were conducted to prevent any unauthorized copying or use of external sources.



Cutting-edge plagiarism detection tools, such as Grammarly, were employed to scan and verify the originality of the questions.



Experiment Testing:



The practical examinations, involving experiments, were subjected to rigorous testing.



This testing phase verified the feasibility and reliability of the experiments to ensure they could be conducted effectively by all participants.



Any potential issues or challenges were identified and addressed during this stage.



Quality Assurance



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Theory Exam Craftsmanship:



The theory exams were carefully crafted by experienced testers who possessed deep knowledge of biology and assessment methodologies.



These tests were designed to evaluate not only the participants' factual knowledge but also their critical thinking and problem-solving skills.



Questions were tailored to challenge students at various levels of expertise.



Quality Check and Time Management:



The comprehensive quality assurance processes, including expert proofreading, plagiarism checks, and experiment testing, upheld the overall quality of the examinations.



By ensuring the accuracy and fairness of the questions, time was effectively managed during the competition, preventing unnecessary disruptions or delays.



The goal was to create a well-structured and efficient assessment environment for both participants and organizers.



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4.6 Assessment Software - ArIBO



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ArlBO - Custom software for Theory exams



Answer to IBO/ ArabicIBO



Custom built for IBO



Same PC for all students



Safe Exam Browser based



Demo for students – 3rd July



One question of each type of questions (MTF, Fill in the Blanks, Numerical answer)



Auto Graded and excel/pdf results for each student





Response capturing system:

Task 1

Instructions:

Input Sequence

Copy

Output

Bioinformatics - Experiment Task-1 International Biology Olympiad

Button Button Button Button Button Button Button

Tab Tab Tab

Upload

Choose File no file selected

Or paste it here (load example of sequences)

Clear

More Options

Submit

Centre





IBO 2023

Input SequencesTools

Sequence Alignment

Format: fasta
Length: 175

```
>Seq1
AGCTGCGATGCTCGACTACGATCAGCATCGACTAGCATCAGCTACGACT
>Seq2
AGCTGCGATGCTTGACTACGATCAGCATCGGACTACGACTAGCATCAGCTACGACT
>Seq3
AGCTGCGATGCTCGACCACGATCAGCGACTACGACTAGCGTCAGCTACGACT
```

Submit

IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6

1.7

Section 2

2.1 2.2

Student Information

Student

Student ID

Question:

Open the "Input Sequences" menu.
Click on the "ABC fasta" option.
Copy all the three sequences in the fasta file.
Paste them into the Notepad.
Change the names of the sequences from "SeqA", "SeqB" and "SeqC" to "Seq1", "Seq2" and "Seq3" correspondingly.
Open the "Tools" menu.
Click on the "Sequence Alignment" tool.
Paste your modified fasta (all three sequences) into the input field of the tool.
Press "Submit".
Copy the output of the tool.
Paste it into the input field of this question.

Back Flag Unflag Reset Save

IBO 2023 UAE

Sign in to your account

Username

Password

Sign in

IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6

1.7

Section 2

2.1 2.2

Student Information

Student

Student ID

Question:

Express your opinion about the following areas of biology

	I love it	It's OK	Not my thing
Molecular Biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Animal Biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant Biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Genetics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evolution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ecology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Back Flag Unflag Reset Save





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IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6

1.7

Section 2

2.1 2.2

Student Information

Student

Student ID: 1

Notepad

>SeqA
AGCTGCTGCTCGACTACGATCAGCATCGACTACGACTAGCATCAGCTACGACT
>SeqB
AGCTGCTGCTTACTACGATCAGCATCGGACTACGACTAGCATCAGCTACGACT
>SeqC
AGCTGCTGCTCGACCAAGATCAGCGACTACGACTAGCGTACGCTACGACT

IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6

1.7

Section 2

2.1 2.2

Student Information

Student

Student ID: 1

Question:

Open the "Input Sequences" menu.
Click on the "ABC.fasta" option.
Copy all the three sequences in the fasta file.
Paste them into the Notepad.
Change the names of the sequences from "SeqA", "SeqB" and "SeqC" to "Seq1", "Seq2" and "Seq3" correspondingly.
Open the "Tools" menu.
Click on the "Sequence Alignment" tool.
Paste your modified fasta (all three sequences) into the input field of the tool.
Press "Submit".
Copy the output of the tool.
Paste it into the input field of this question.

Back

Flag

Unflag

Reset

Save

IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6

1.7

Section 2

2.1 2.2

Student Information

Student

Student ID: 1

Question:

For each of the following countries enter the year in which they hosted IBO

Country	Year
UAE	
Armenia	
Portugal	
Japan	

Back

Flag

Unflag

Reset

Save



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4.7 Normalising raw student exam scores and calculation of final student score





Mean

The mean \bar{x} is the "average" student response to a question. It is computed by adding up the number of points earned by all students on the question, and dividing that total by the number of students:

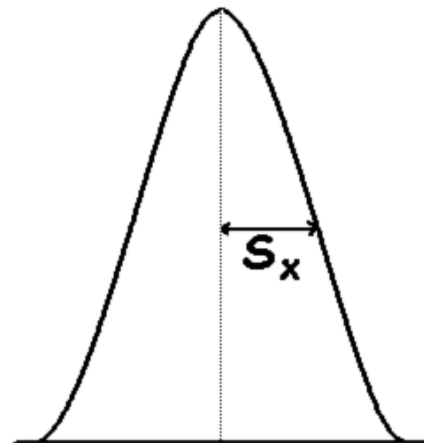
$$\bar{x} = \frac{1}{n} \sum x_i$$



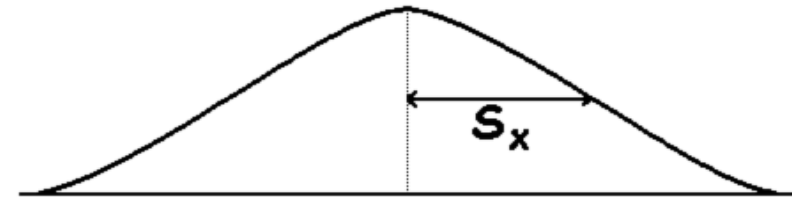
Standard Deviation

The standard deviation, written as SD or S_x , is related to the distribution of the scores of the students. High values of SD means scores are spread out more so the test is more discriminating.

$$S_x = \sqrt{\frac{\sum(x_i - \bar{x})^2}{n-1}}$$



small range
 S_x small



broad range
 S_x bigger



DI-value (Test Discrimination Index DI)

This offers a simple method to check the discriminating power of a test or question

$$DI = p_u - p_l$$

p_u = overall p-value of top-group (top 25%) of the students

p_l = overall p-value of bottom-group (bottom 25%) of the students





Item Test Correlation (Rit)

Rit indicates the quality of individual items in a test. It shows whether a question is differentiating well between students
Rit can be calculated using the following formula

$$\text{Rit} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{(n-1) S_x S_y}$$

x_i = scores of the students on a specific question

\bar{x} = overall average score of students on this question

y_i = total score of each student on the test

\bar{y} = overall average score of students on the test

S_x = standard deviation of the scores of all students on this question

S_y = standard deviation of the totalscores of all students on the test

n = number of students





Reliability

The reliability of a test refers to which extent the test is likely to produce consistent scores. Normally the following formula of Cronbach α is used.

$$\alpha = \left(\frac{n}{n-1} \right) \left(1 - \frac{\sum_{i=1}^n s_i^2}{s_x^2} \right)$$

s_i = Standard deviation of scores per question

s_x = Standard deviation of total scores on the test

n = number of questions





Information about t-score

In t-score procedure both Theory and Practical, the score of each student is converted into a “standard” score:

Standard score =

score - average score of the whole group / standard deviation

In order to avoid the negative scores and too many decimals, usually the standard score is multiplied by 10 and to this number 50 is added.

Standard score =

$10 * (\text{score} - \text{average score of the whole group} / \text{standard deviation}) + 50$





4.8 Summary statistics of student scores at the exams



Score Range for Theory Examinations



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Theory-1	Theory-2
22 to 166	70 to 230



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Score Range for Practical Examinations

Plant Molecular Biology	Ecology and Ethology	Biochemistry	Bio-Informatics
2 to 95	0 to 88	0 to 84.5	12 to 93





Final Score Ranges for Medals

Medal	Max	Min
Gold	144.3673	123.1196
Silver	122.7256	111.2069
Bronze	111.1506	96.81625
Merit	96.71079	90.91623





Total number of medals and mean score

	Mean score	Number of medals	
Theory 1	55,7%	Gold	29
Theory 2	71,2%	Silver	59
Plant	63,1%	Bronze	88
Eco/etho	56,6%	Merit	30
Biochem	44,9%		
Bioinf	58,6%		



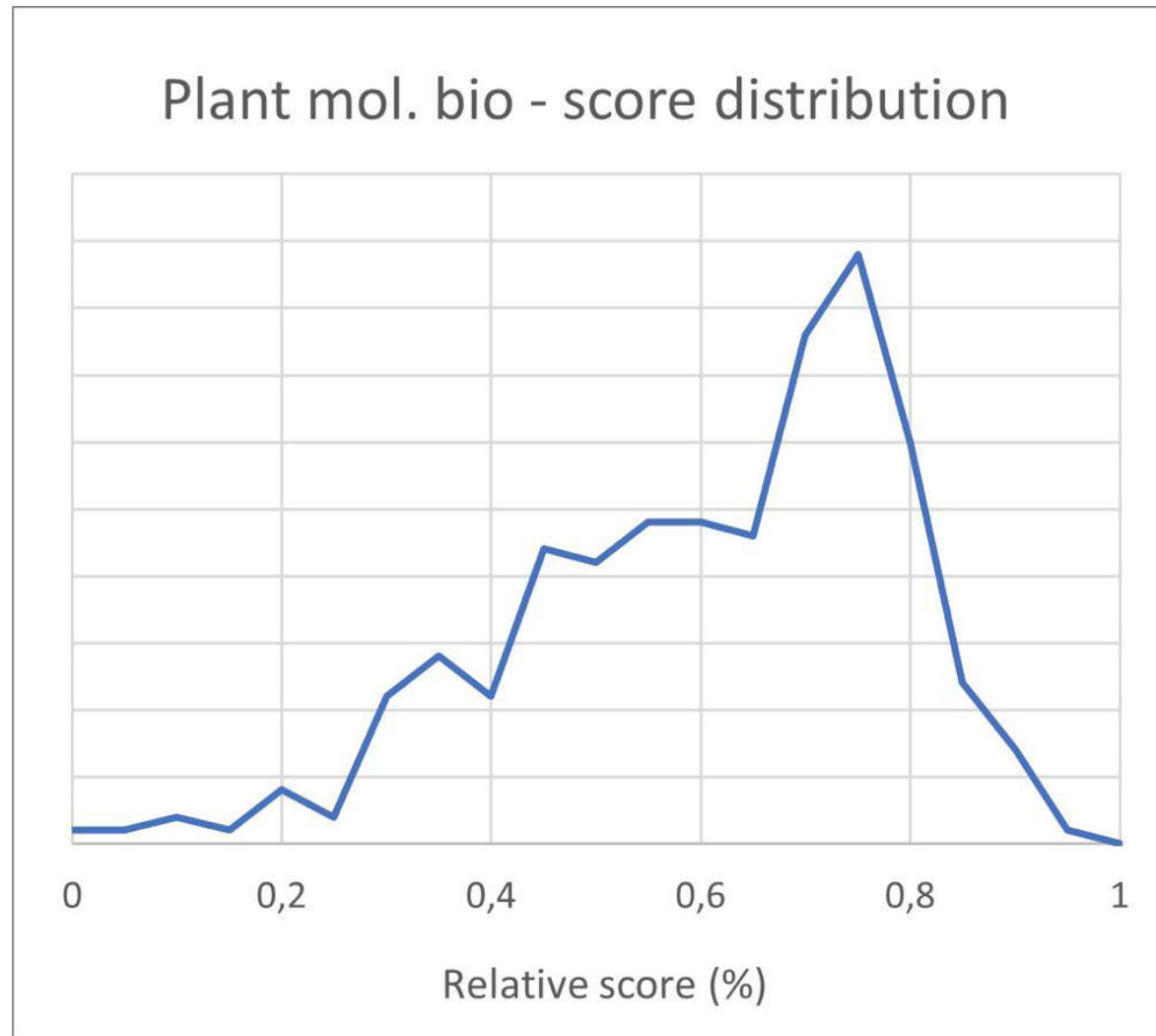


4.9 Students Score Distribution and Scatter Plots



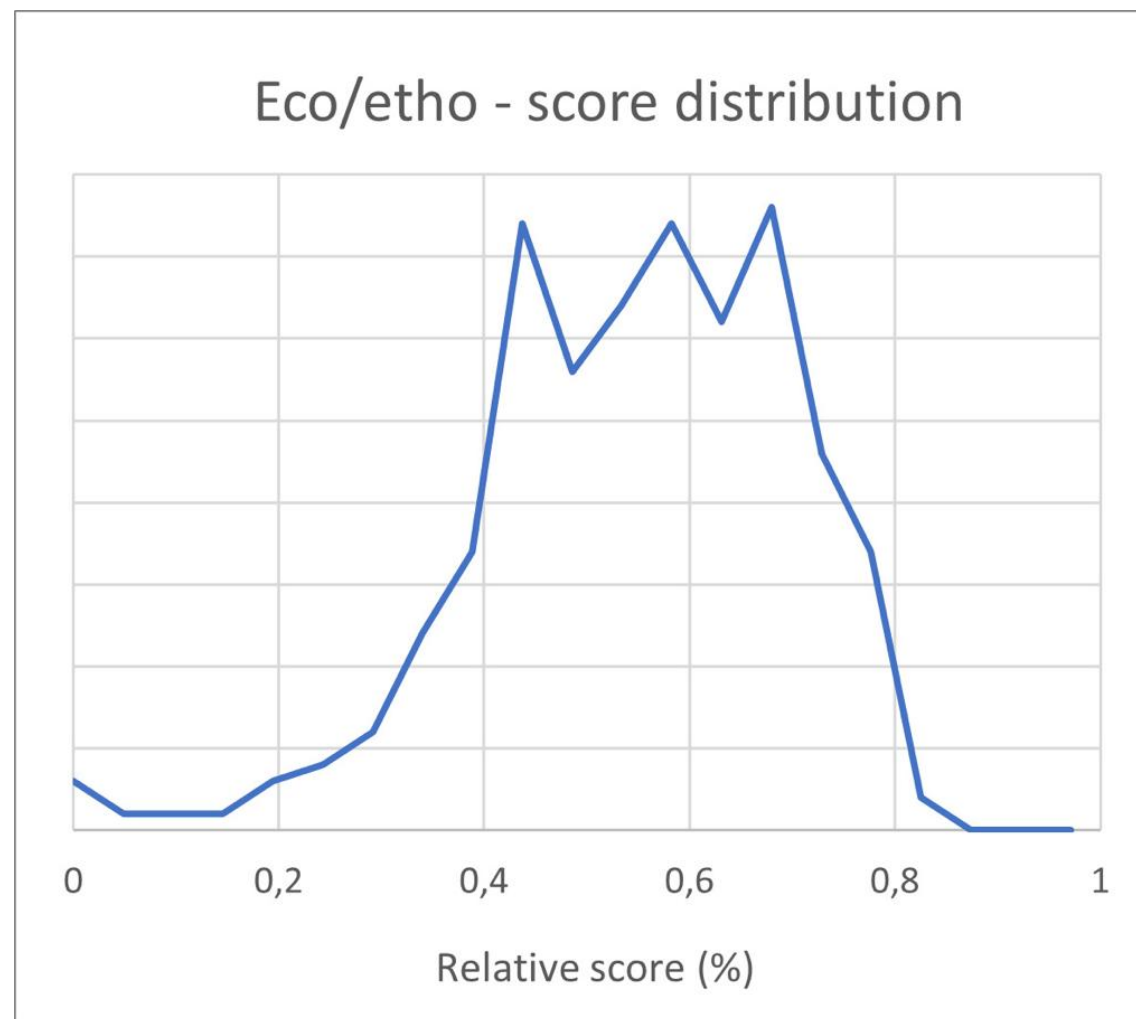


Plant Molecular Biology Score Distribution



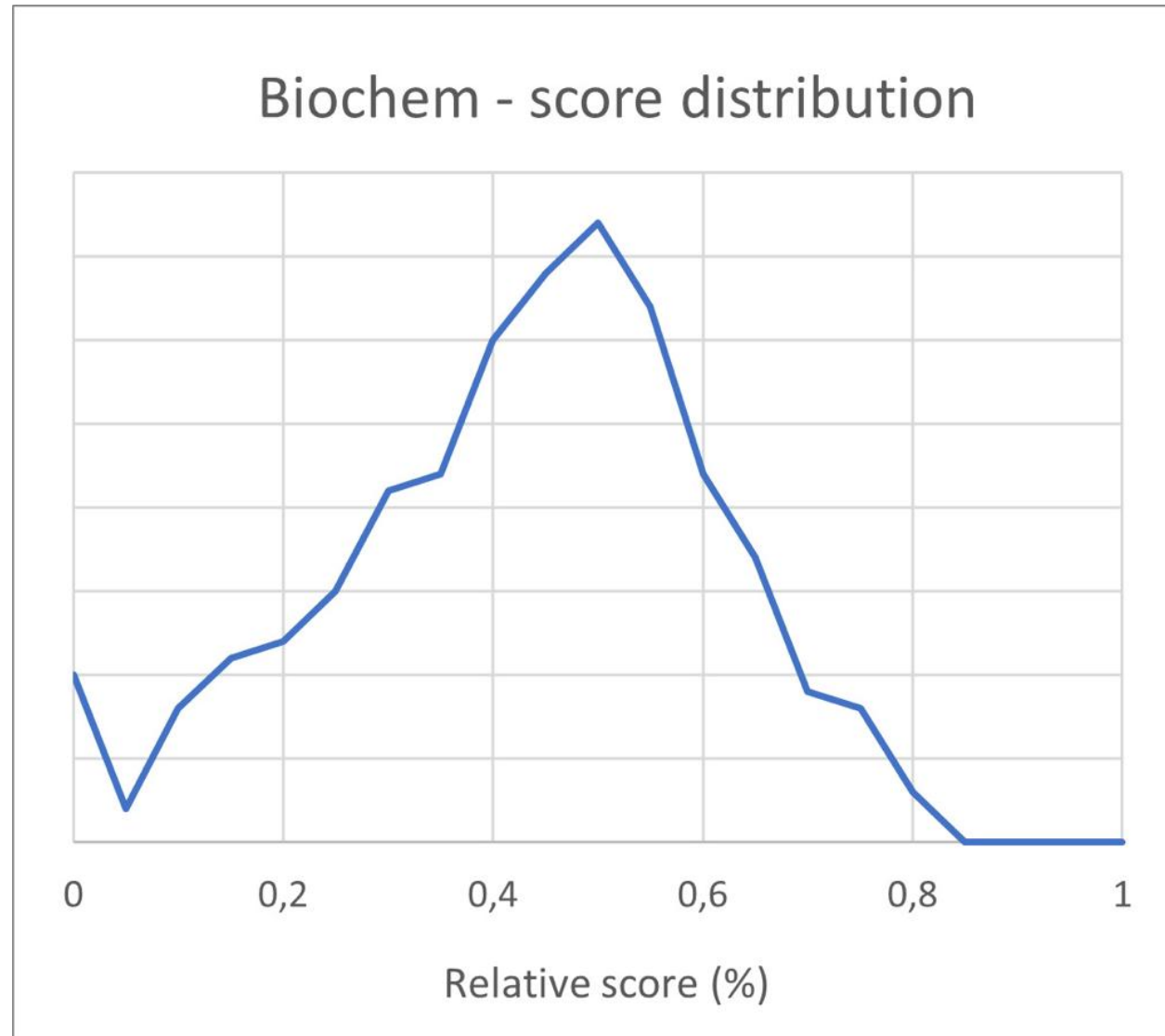


Ecology & Ethology score distribution



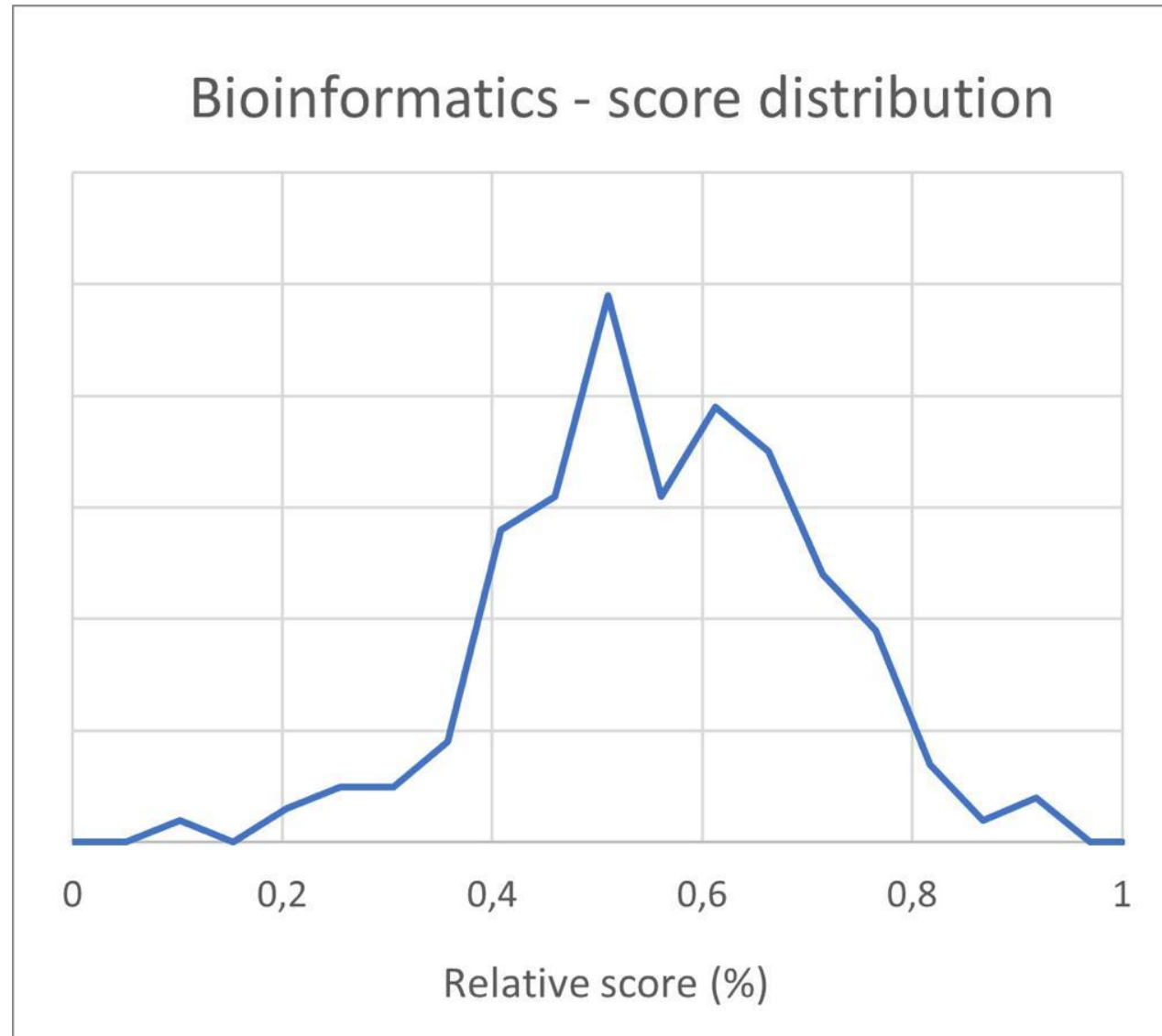


Biochemistry score distribution



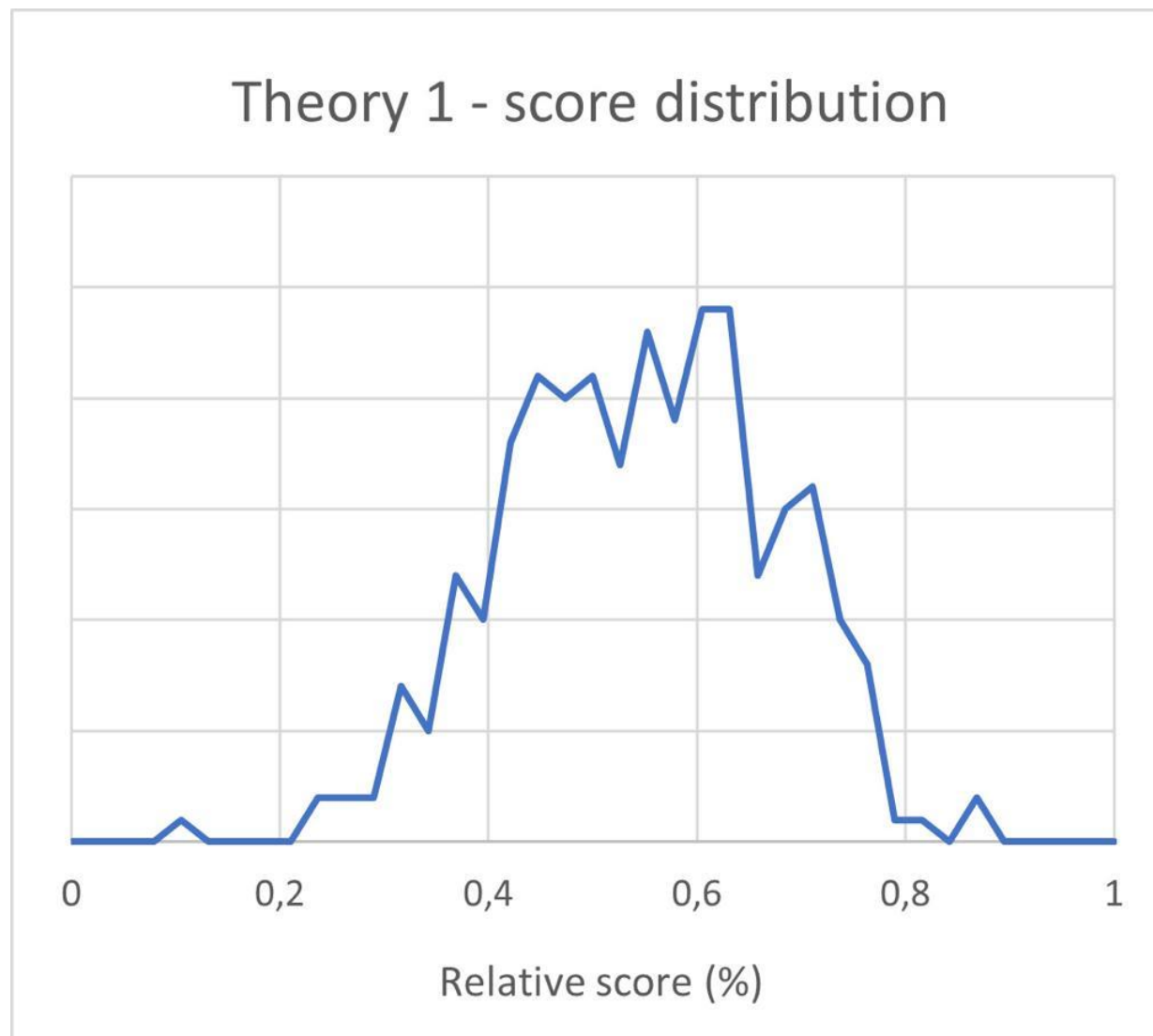


Bioinformatics Score Distribution



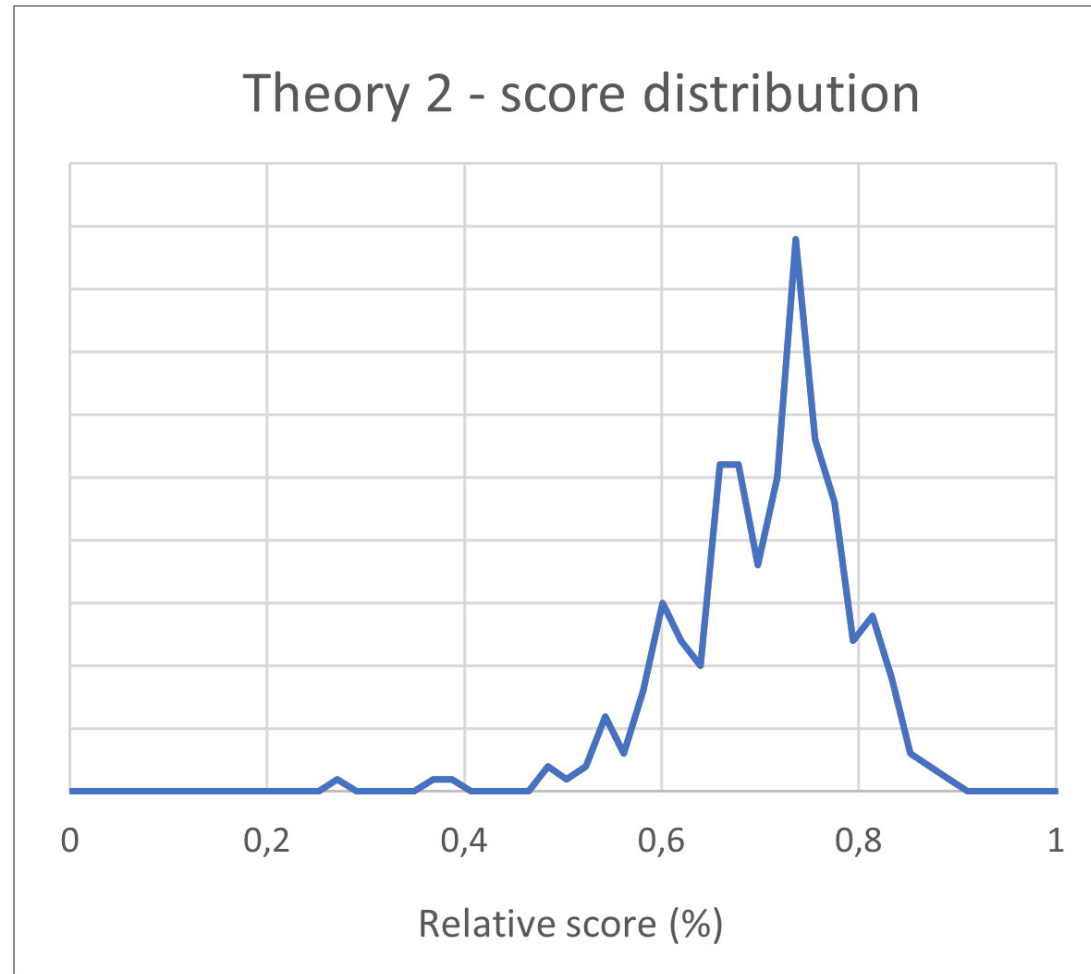


Theory 1 Score Distribution



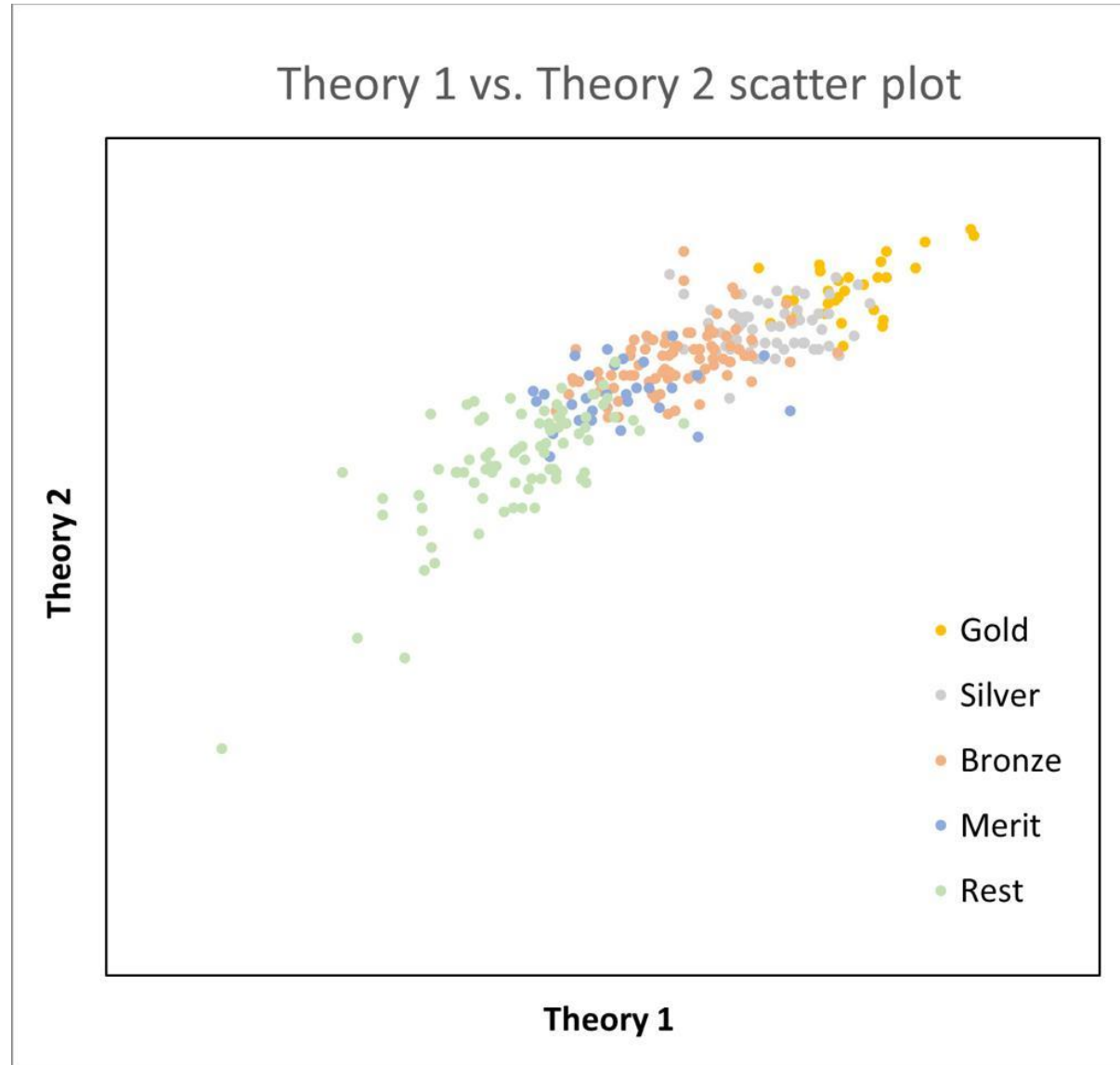


Theory 2 Score Distribution



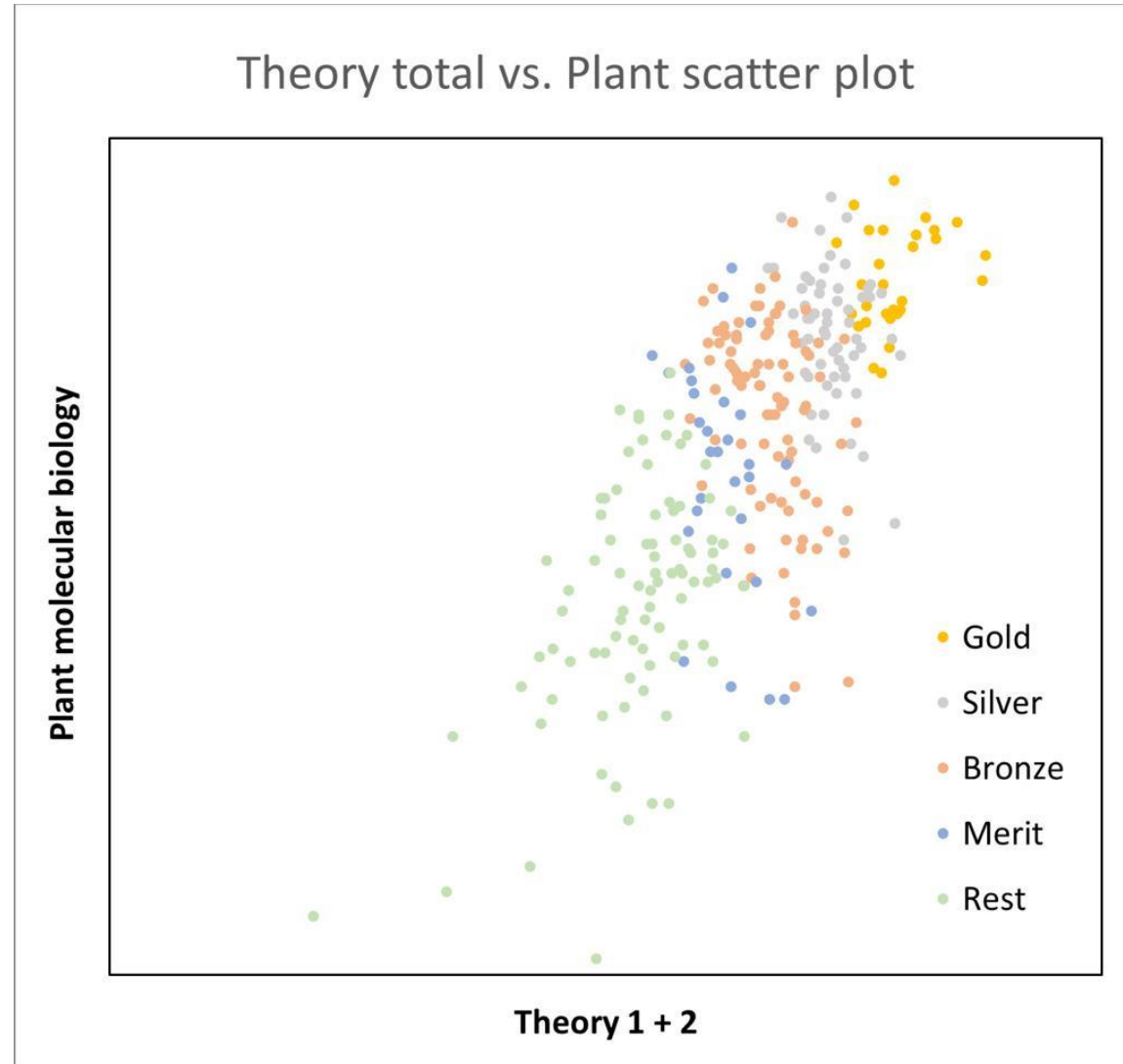


Theory 1 vs Theory 2 Scatter plot



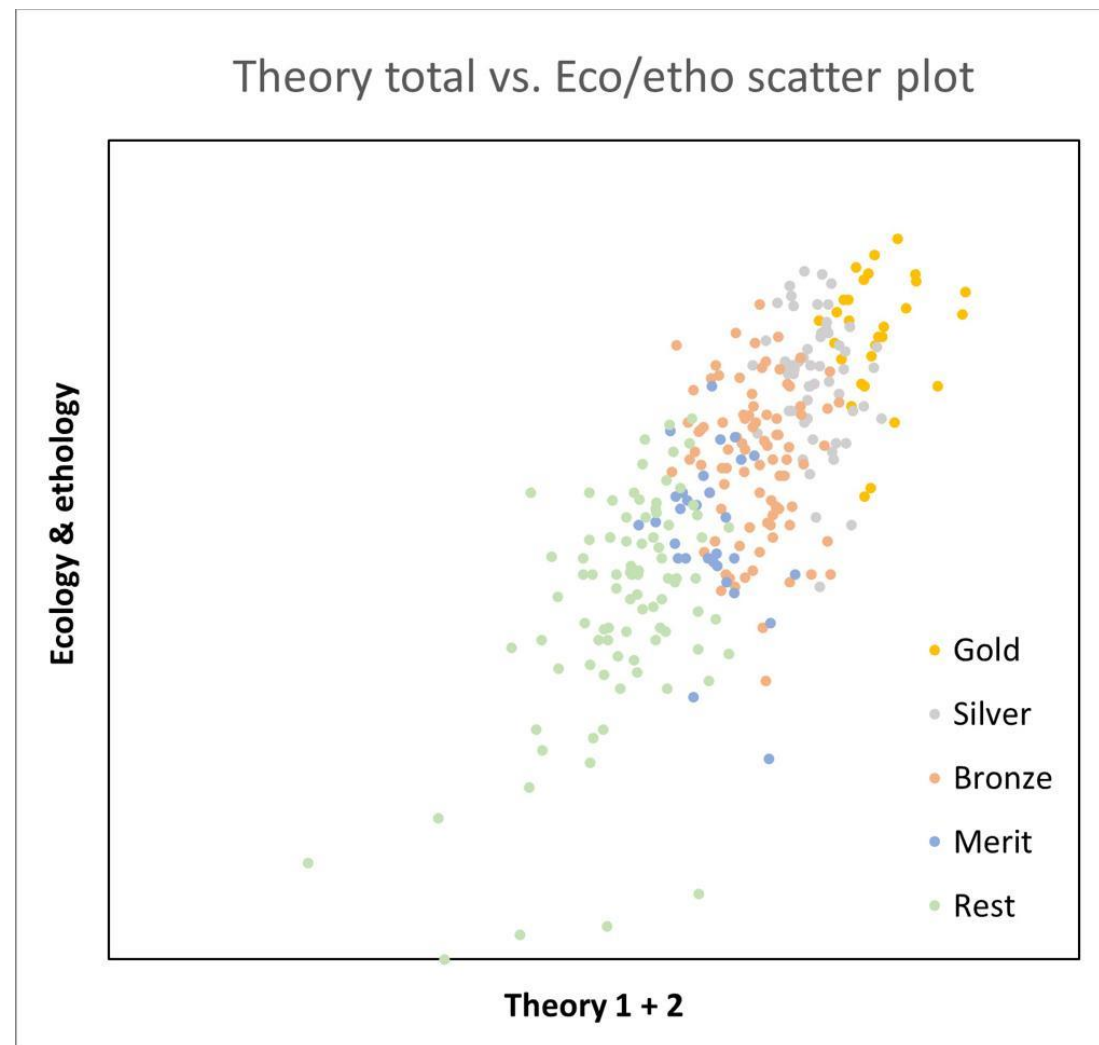


Theory Total vs Plant Biology Scatter Plot



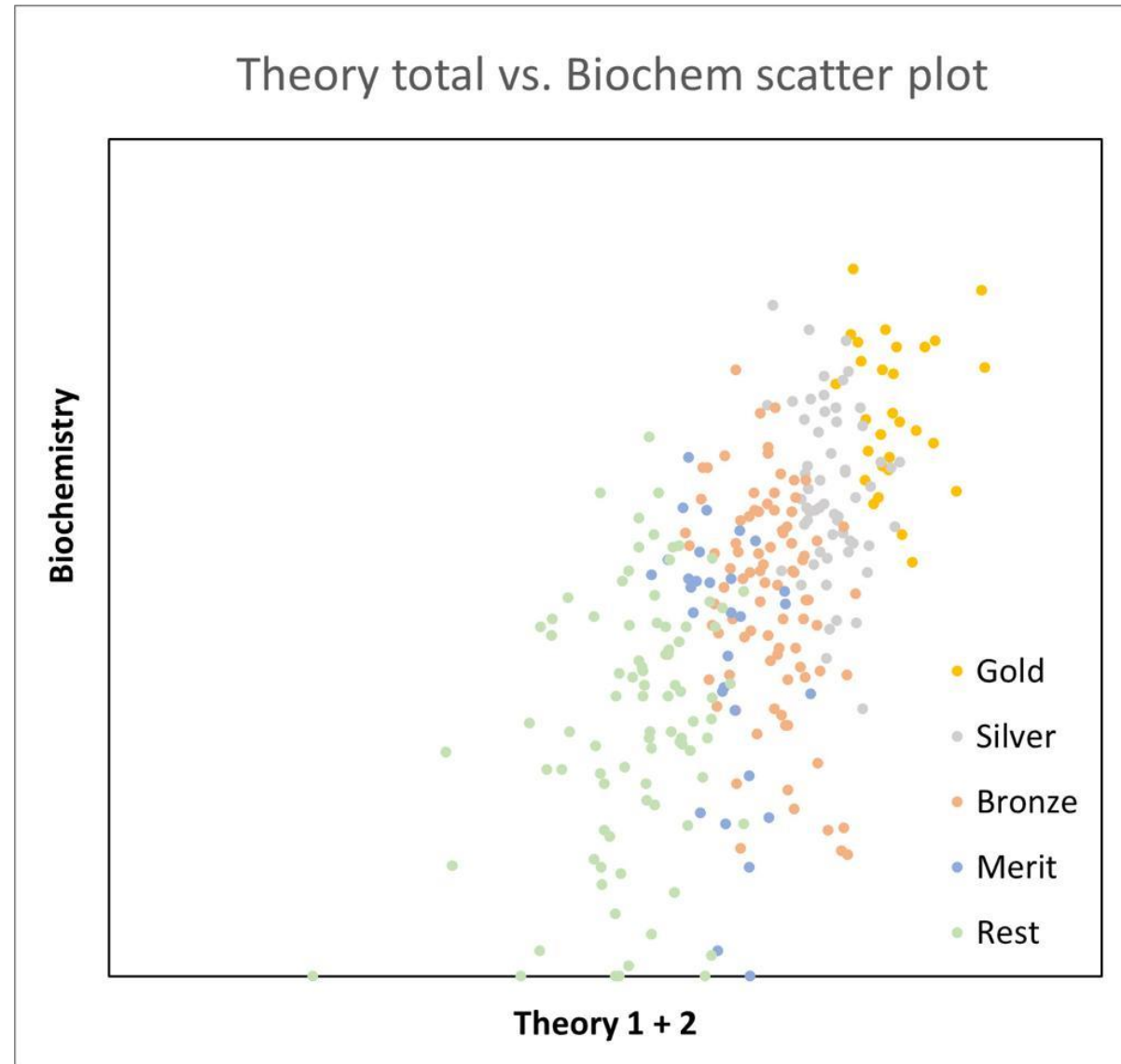


Theory Total vs Ecology Ethnology Scatter Plot



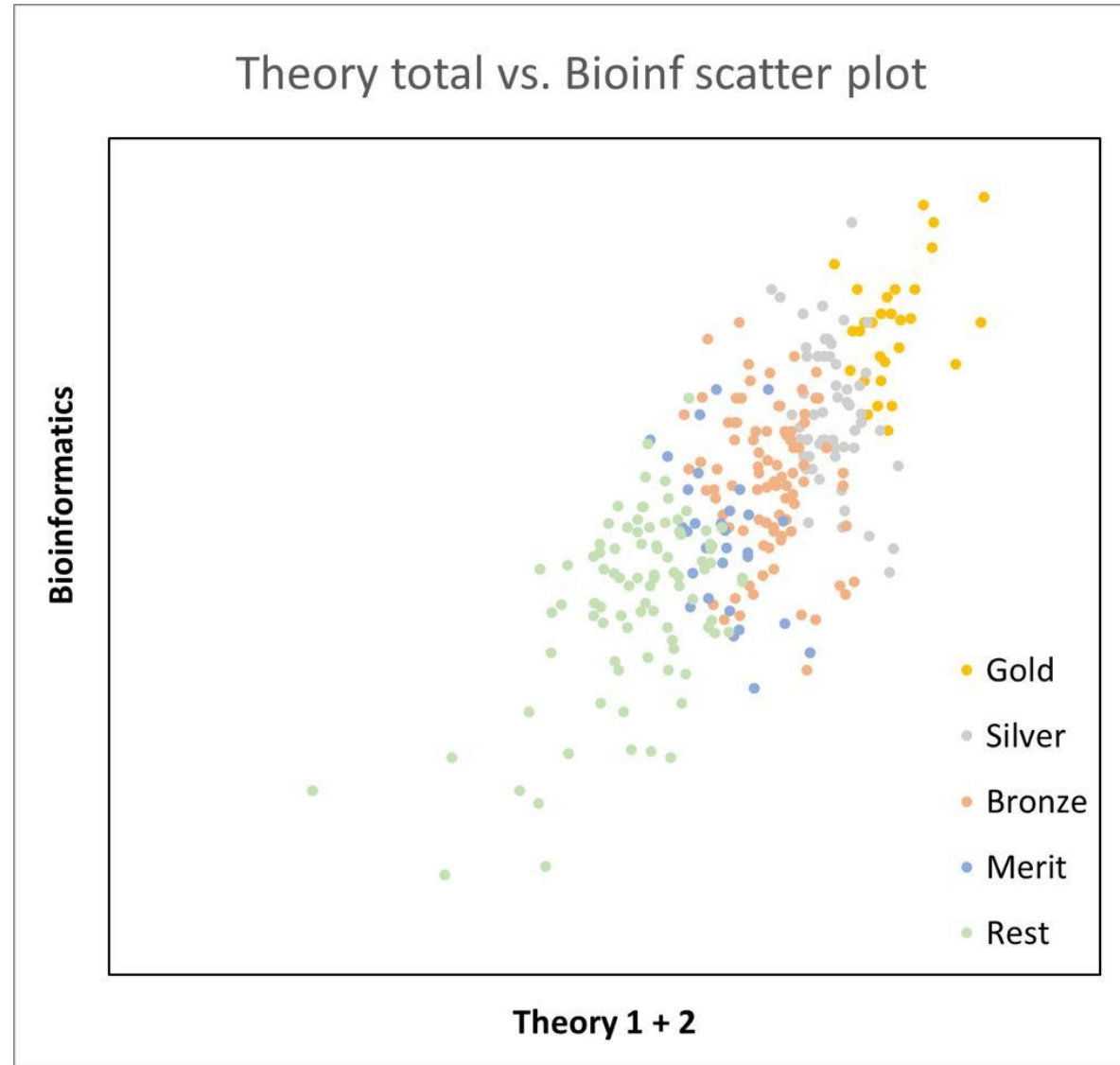


Theory Total vs Biochemistry Scatter Plot





Theory Total vs Bioinformatics Scatter Plot





Total number of medals and mean score

	Mean score	Number of medals	
Theory 1	55,7%	Gold	29
Theory 2	71,2%	Silver	59
Plant	63,1%	Bronze	88
Eco/etho	56,6%	Merit	30
Biochem	44,9%		
Bioinf	58,6%		



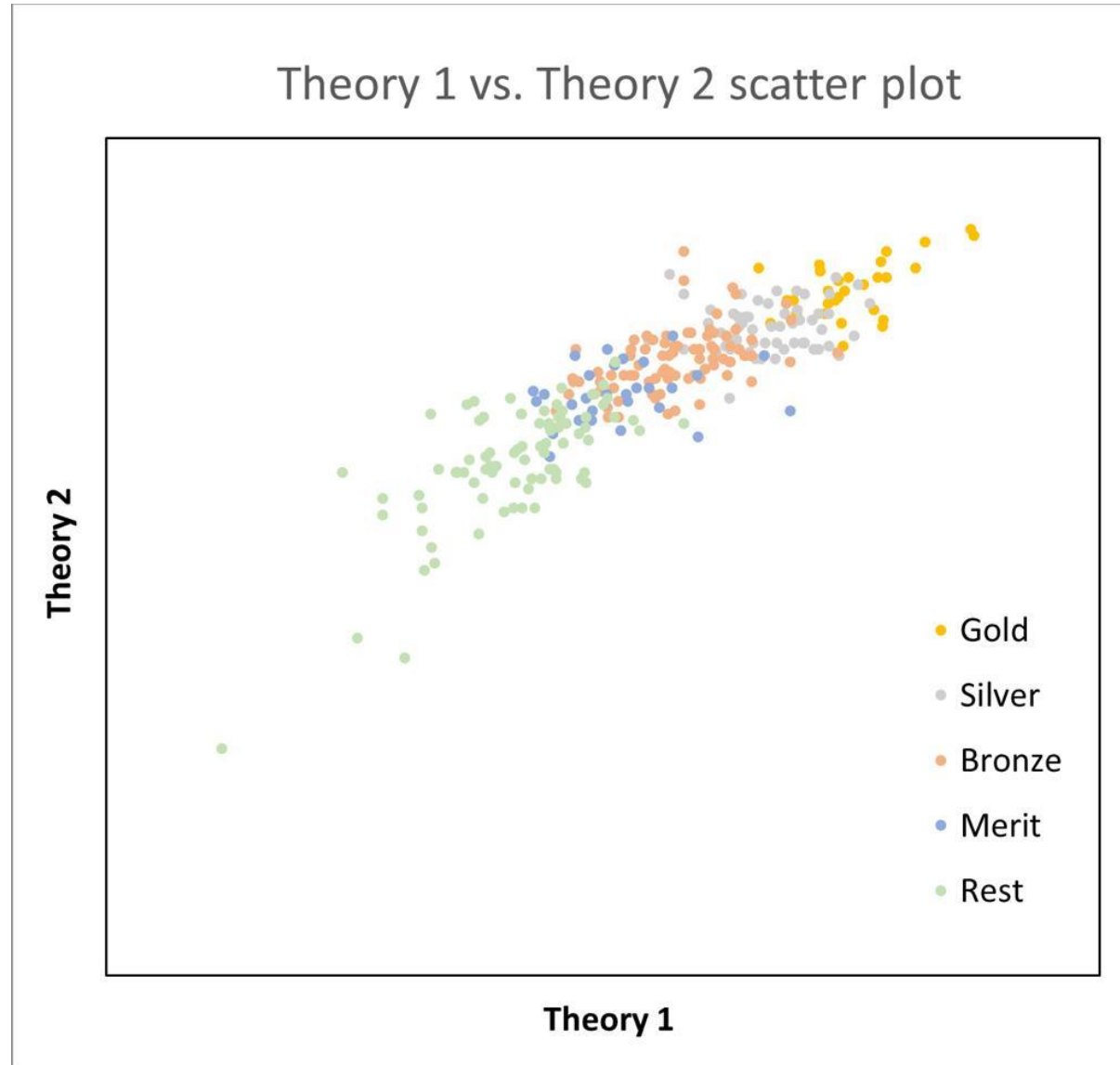


4.10 Relationships between student performance in the different



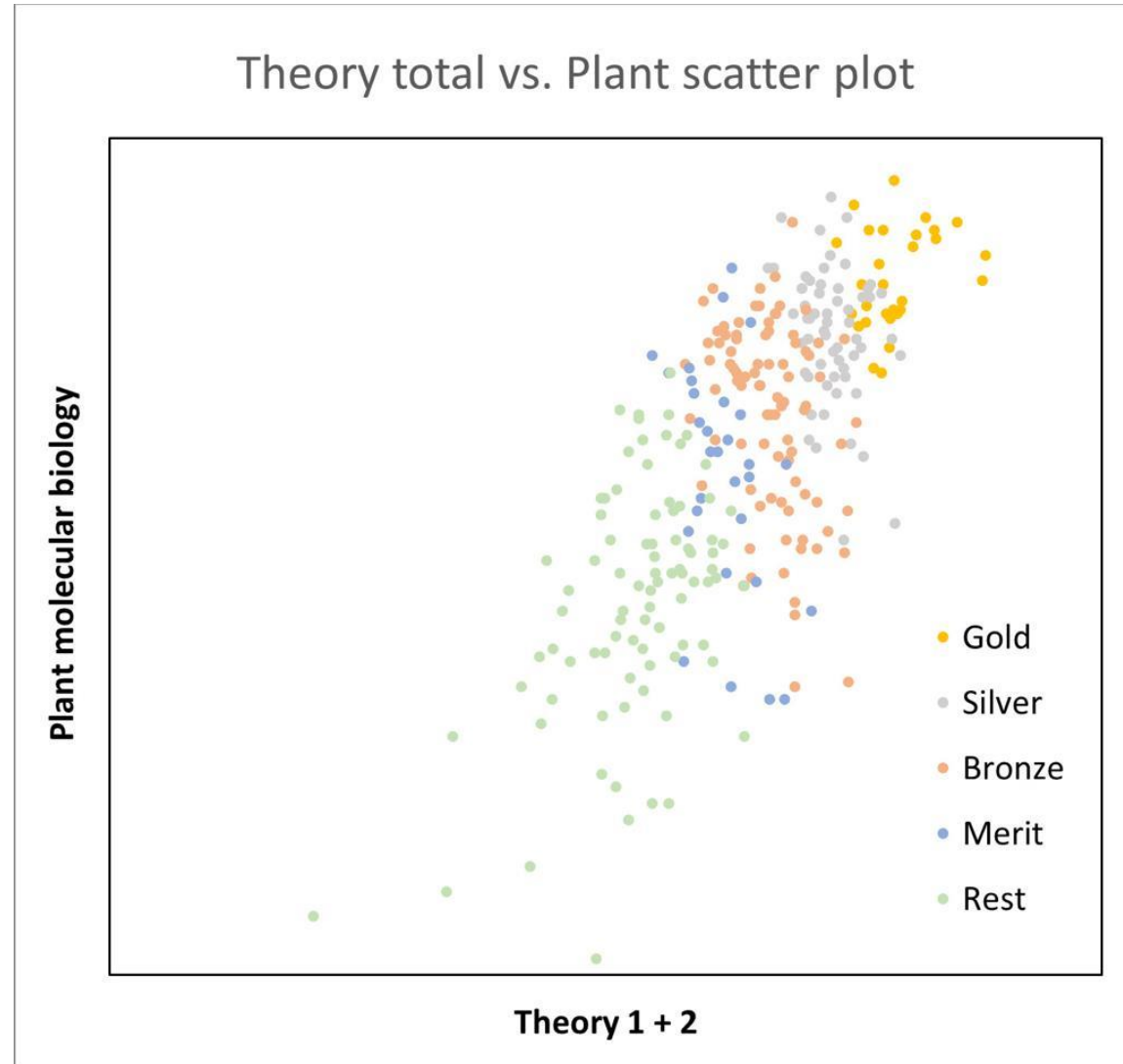


Theory 1 vs Theory 2 Scatter plot



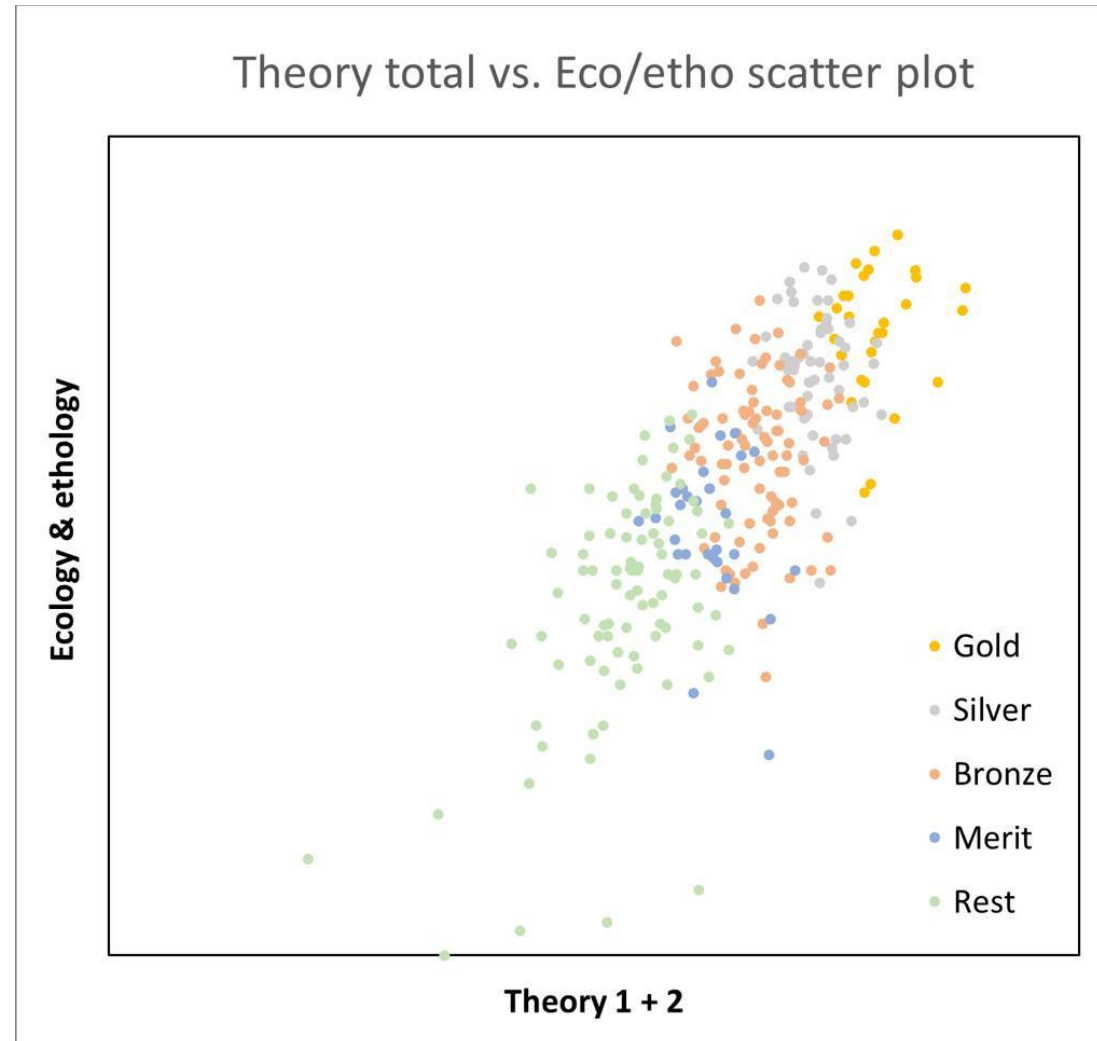


Theory Total vs Plant Biology Scatter Plot



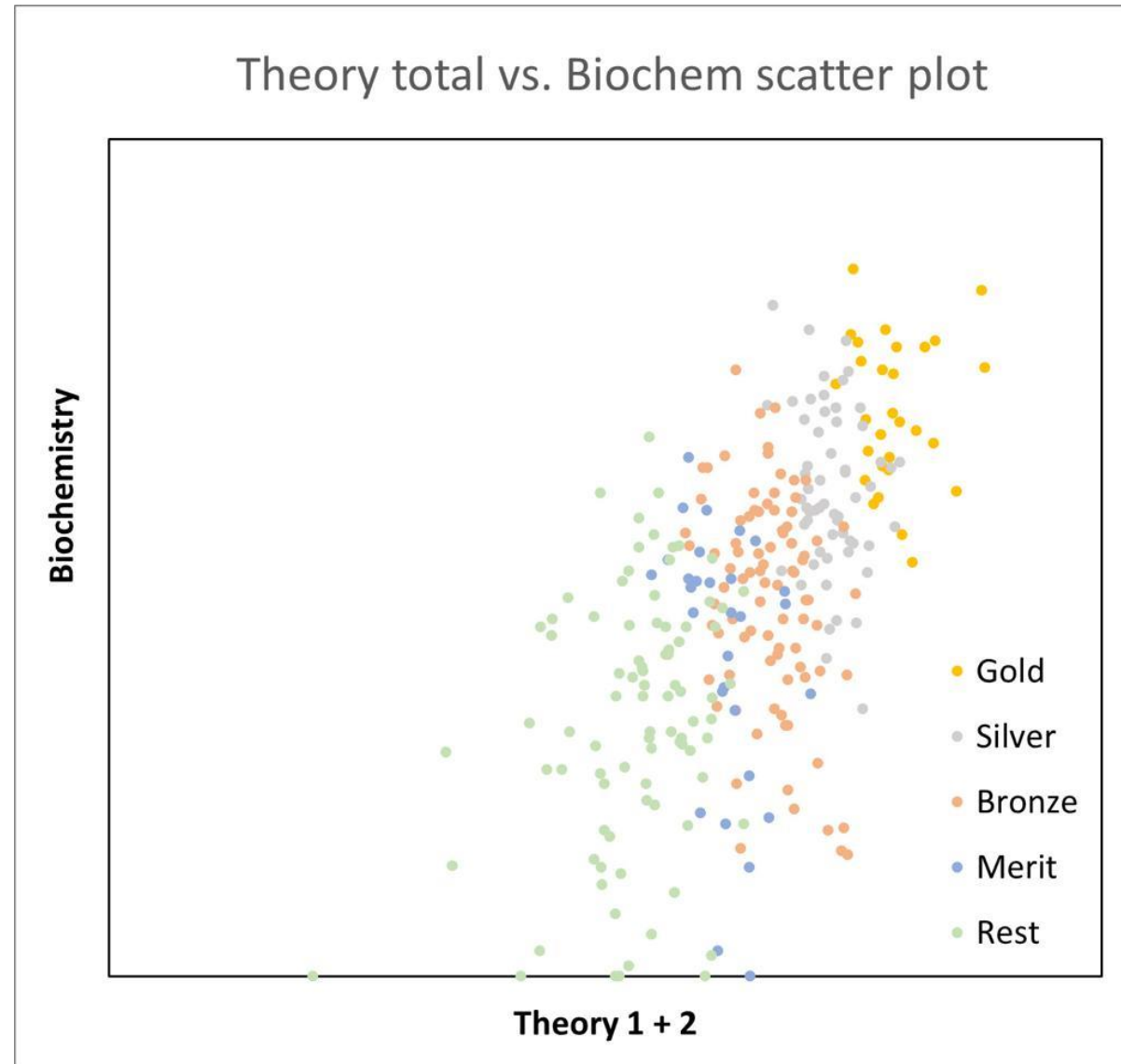


Theory Total vs Ecology Ethology Scatter Plot



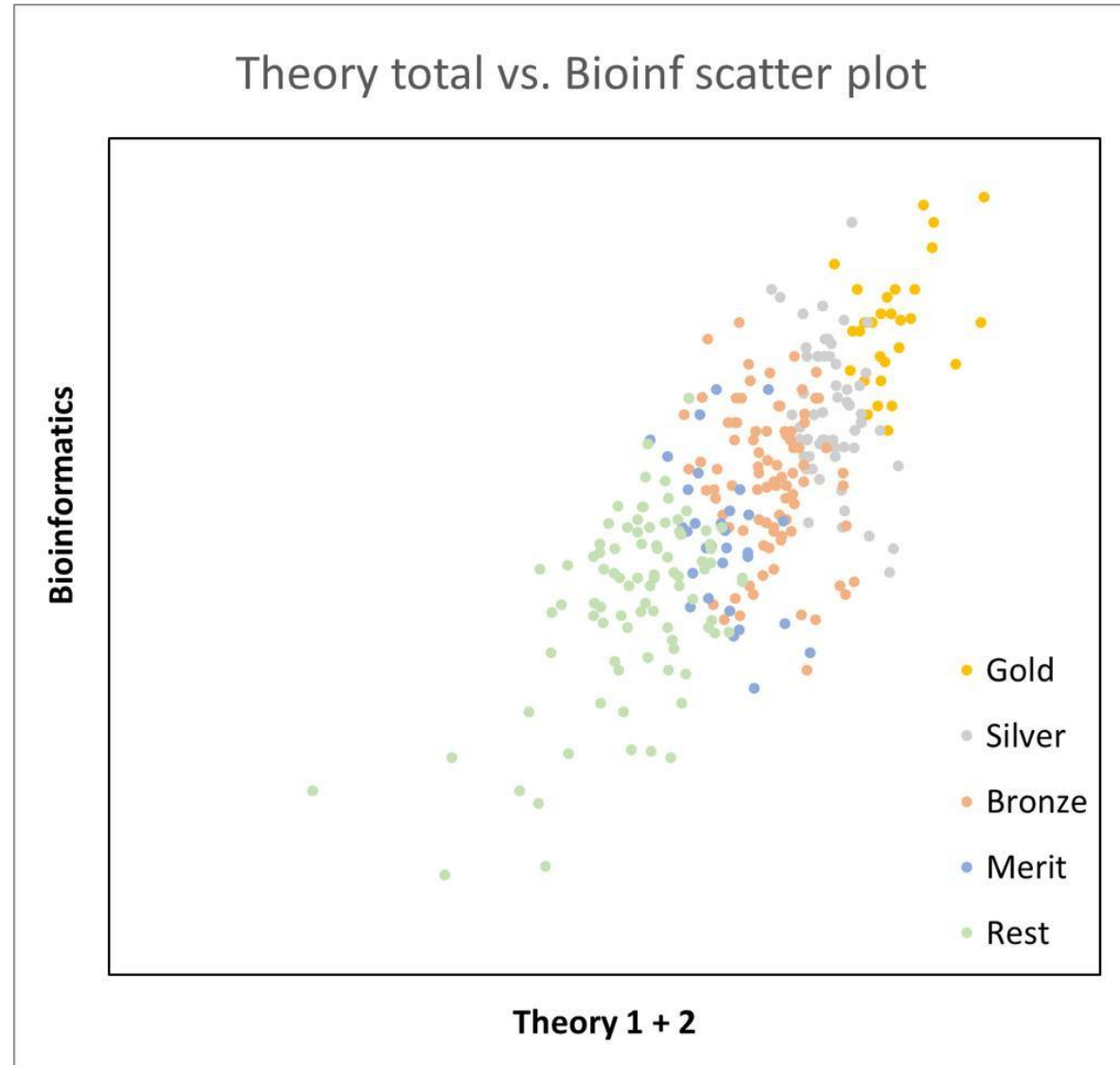


Theory Total vs Biochemistry Scatter Plot





Theory Total vs Bioinformatics Scatter Plot



34th International Biology Olympiad, Al Ain, United Arab Emirates
Final Results



Rank	Student_Code	Student Name	T_1	T_2	T_Total	t_score_total	PMB	EE	BC	BI	t score_PMB	t score_EE	t score_BC	t score_BI	Z_E_SUM	Final_T_SCORE	Final Score	Award
1	USA-04	Yufei Chen	165.4	230	395.4	2.386488685	86	81.5	72.75	93	1.279873963	1.486121146	1.550488032	2.538222219	6.85470536	4.436733581	144.3673358	Gold
2	CHN-01	MAO Shangqing	166	228	394	2.354945257	83	78.75	82	78	1.111874379	1.310257668	2.065322813	1.466486125	5.953940985	4.135771197	141.357712	Gold
3	CHN-03	LIAO Yiyan	154.8	218	372.8	1.877287639	88	82.75	76	90	1.391873685	1.566059091	1.731375928	2.323875	7.013183705	3.974933466	139.4793347	Gold
4	SGP-02	Lai Le Hao Jerome	148.2	220	368.2	1.773644949	90.5	79.5	75.25	92	1.531873339	1.358220434	1.689632568	2.466773146	7.046499487	3.881255538	138.8125554	Gold
5	IRN-03	Arman Forghani	149.2	223	372.2	1.863769027	89	83.62	63.75	87	1.447873547	1.6216959	1.049567705	2.109527782	6.228664933	3.726765001	137.26765	Gold
6	IOD-2-04	Popov Petr	149.2	215	364.2	1.68352087	88.5	88	65.25	82	1.419873616	1.901798458	1.133054426	1.752282417	6.207008917	3.540039521	135.4003952	Gold
7	CHN-04	ZHAO Yuhan	156.6	226	382.6	2.098091633	90	70	58	73	1.503873408	0.750692055	0.729535274	1.109240761	4.093341497	3.322411581	133.2241158	Gold
8	SGP-01	Debraath Pahari	136.4	219	355.4	1.485247896	79	76	75.25	82	0.887874934	1.134394189	1.689632568	1.752282417	5.464184108	3.119587373	131.1958737	Gold
9	SGP-04	Soh Sze Hian, Lionel	136.6	217	353.6	1.444692061	79.5	86	67.25	79	0.915874864	1.773897747	1.244370055	1.537935198	5.472077864	3.081392563	130.8139256	Gold
10	KOR-04	Jeong, Yechan	148.6	202	350.6	1.377099001	79	83.75	77.25	73.3	0.887874934	1.630009446	1.800948196	1.130675483	5.449508059	3.007048867	130.0704887	Gold
11	TWN-03	Wang, Po-Hsiang	132	204	336	1.048146113	92	79	84.5	77	1.61587313	1.326245256	2.204467349	1.395037052	6.541622788	3.004747896	130.047479	Gold
12	BGR-01	Petar Stoilov Zhotev	140	214	354	1.453704468	95	75	72	68	1.783872714	1.070443833	1.508744672	0.751995396	5.115056616	2.983619784	129.8361978	Gold
13	IND-02	Ishan Satish Pednekar	142	215	357	1.521297528	79.5	76	66.25	75	0.915874864	1.134394189	1.188712241	1.252138907	4.491120201	2.864593232	128.6459323	Gold
14	SGP-03	Lim Le Xuan	144.8	213	357.8	1.539322343	80.5	77.25	52.75	78.3	0.971874726	1.214332134	0.43733175	1.487920847	4.111459456	2.76906138	127.6906138	Gold
15	DEU-04	Konrad Jannes Koehler	131.4	208	339.4	1.124751581	82.5	80.5	73.5	77	1.083874448	1.42217079	1.592231393	1.395037052	5.493313684	2.767803725	127.6780372	Gold
16	JPN-02	Miyako Takahashi	147.6	215	362.6	1.647471238	87	65.5	49.5	78.5	1.335873824	0.462915454	0.256443854	1.502210662	3.557443793	2.711503986	127.1150399	Gold
17	IOD-2-02	Demidov Ivan	127	201	328	0.867897956	87.5	78	70.75	85	1.363873755	1.262294901	1.439172404	1.966629636	6.031970695	2.67206261	126.7206261	Gold
18	TWN-02	Lin, Hsuan-Ming	130.2	208	338.2	1.097714357	77.5	73.25	75.75	82	0.803875142	0.958530711	1.717461475	1.752282417	5.232149745	2.662652271	126.6265227	Gold
19	USA-02	Kaiden Zida Wu	148.4	200	348.4	1.327530758	72	83	64.75	74	0.495875905	1.582046679	1.105225519	1.180689834	4.363837937	2.632756291	126.3275629	Gold
20	IOD-2-01	Timonina Alisa	140.6	201	341.6	1.174319824	80	78	66.5	78	0.943874795	1.262294901	1.202626694	1.466486125	4.875282515	2.632518618	126.3251862	Gold
21	TWN-01	Guo, Chen-Jhang	140	209	349	1.34104937	89	70	61	71	1.447873547	0.750692055	0.896508716	0.966342615	4.061416932	2.555820669	125.5582067	Gold
22	IND-04	Rohit Panda	138	211	349	1.34104937	82.5	56.5	72.5	79	1.083874448	-0.112637748	1.536573579	1.537935198	4.054745478	2.551133331	125.5113333	Gold
23	GBR-02	Robert John Halliday	138	207	345	1.250925291	72.5	84.5	56.5	78	0.523875835	1.677972213	0.646048553	1.466486125	4.314382726	2.541358752	125.4135875	Gold
24	IRN-02	Ali Ghaseemlooy	141	194	335	1.025615094	79	75.25	76.75	72.3	0.887874934	1.086431422	1.773119289	1.05922641	4.806652055	2.463286492	124.6328649	Gold
25	DEU-02	Elora Marx	141.2	211	352.2	1.413148633	78.5	73.63	62	65.1	0.859875003	0.982831846	0.92216653	0.544793085	3.339666464	2.412044101	124.120441	Gold
26	AUS-02	James David Johnson	137.4	204	341.4	1.16981362	78	80.5	59.25	71	0.831875072	1.42217079	0.799107541	0.966342615	4.019496019	2.372046358	123.7204636	Gold
27	IND-01	Dhruv Advani	146.8	205	351.8	1.404136225	75	57.5	60.5	81	0.663875489	-0.048687392	0.868679809	1.680833344	3.16470125	2.350699533	123.5069953	Gold
28	JPN-03	Saki Inoue	139.4	208	347.4	1.304999738	85	70.25	57.25	68	1.223874101	0.766679644	0.687791913	0.751995396	3.430341054	2.33101601	123.3101601	Gold
29	IND-03	Megh Dhiraj Chhabda	124.8	218	342.8	1.201357048	89	67.5	62.75	67	1.447873547	0.590816165	0.993909891	0.680546323	3.713145926	2.31196036	123.1196036	Gold
30	IRN-01	Aidin Nazirifard	143	197	340	1.138270192	81	74.25	65.75	66	0.999874656	1.022481067	1.160883333	0.60909725	3.792336307	2.272559377	122.7255938	Silver
31	CHN-02	LIU Tonghang	138.4	210	348.4	1.327530758	81.5	67.5	61.5	65.1	1.027874587	0.590816165	0.924337623	0.544793085	3.08782146	2.251099293	122.5109929	Silver
32	IRN-04	Kiyarash Behboodi	128.2	211	339.2	1.120245377	75	72	68	70.5	0.663875489	0.878592766	1.286113415	0.930618078	3.759199749	2.244623405	122.446234	Silver
33	HKG-04	Zhang Yixuan	138.2	204	342.2	1.187838436	82	77.25	48.25	72	1.055874518	1.214332134	0.186871586	1.037791688	3.494869925	2.233155316	122.3315532	Silver
34	AUS-04	Jonghyeon (Alex) Park	133.6	195	328.6	0.881416567	80.5	76	66.25	73	0.971874726	1.134394189	1.188712241	1.109240761	4.404221916	2.198720963	121.9872096	Silver
35	VNM-02	Nguyen Tien Loc	143.8	213	356.8	1.516791324	74	66	61.5	60.9	0.607875627	0.494890632	0.924337623	0.244706978	2.271810861	2.196290788	121.9629078	Silver
36	TWN-04	Lee, Yen-Wei	122.8	203	325.8	0.818329712	93	70.25	62.5	74	1.671872992	0.766679644	0.979995437	1.180689834	4.599237907	2.193963463	121.9396346	Silver
37	HKG-03	Hui Sze Man	138.2	194	332.2	0.962528239	71.5	76.5	60.5	78.3	0.467875974	1.166369367	0.868679809	1.487920847	3.990845998	2.156191745	121.5619174	Silver
38	LTU-03	Jorūnė Budriūnaitė	124.6	208	332.6	0.971540646	90.5	70.5	76	55.5	1.531873339	0.782667233	1.731375928	-0.141118015	3.904798484	2.13946731	121.3946731	Silver
39	POL-01	Aleksander Wojciech Skóra	136.8	199	335.8	1.04363991	74	63	51.75	90	0.607875627	0.303039565	0.381673935	2.323875	3.616464128	2.125325661	121.2532566	Silver
40	IOD-2-03	Vorobev Nikita	131.2	201	332.2	0.962528239	85	80	60.25	63.1	1.223874101	1.390195612	0.854765356	0.401894939	3.870730008	2.120265008	121.2026501	Silver
41	SAU-04	Almoghrabi Yazan Hatem Q	126.6	207	333.6	0.994071666	79.5	82.5	50.75	70	0.915874864	1.550071502	0.326016121	0.894893542	3.686856029	2.096811661	120.9681166	Silver
42	KOR-02	Lee, Fine	120	196	316	0.597525719	83	79.75	77.25	64.1	1.111874379	1.374208023	1.800948196	0.473344012	4.76037461	2.021355517	120.2135552	Silver
43	IDN-01	Calvin Shevchenko	129.6	193	322.6	0.746230449	77	66	69.5	80	0.775875211	0.494890632	1.369600136	1.609384271	4.249750251	2.017332313	120.1733231	Silver
44	BGR-02	Victor Delyanov Lilov	129.8	204	333.8	0.99857787	78	62	72.25	68.5	0.831875072	0.239089209	1.522659125	0.787719933	3.381343339	2.009938907	120.0993891	Silver
45	CAN-04	Steven Luo	128.8	200	328.8	0.885922771	82	76.5	54.5	70.5	1.055874518	0.534793667	0.534793667	0.930618078	3.687594887	1.988883759	119.8888376	Silver
46	JPN-04	Yuma Osugi	146	207	353	1.431173449	76	72.25	60.75	48.1	0.71987535	0.894580355	0.882594263	-0.669841155	1.827208813	1.977692277	119.7769228	Silver
47	NZL-03	Jacob Liam Miller	136.2	193	329.2	0.894935179	73.5	83.63	55	69.1	0.579875697	1.622335404	0.562561831	0.830589376	3.595362308	1.970309369	119.7030937	Silver
48	THA-04	Wipu Seththawong	115.6	205	320.6	0.70116841	89	73.5	56	74	1.447873547	0.9745183	0.618219646	1.180689834	4.221301326	1.96376119	119.6376119	Silver
49	USA-03	Richard Tianqi Zhu	132	211	343	1.205863252	81	53	51.5	78	0.999874656	-0.336463993	0.367759482	1.466486125	2.497566271	1.952913161	119.5291316	Silver
50	TUR-02	Halil Eren Uyar	128.2	195	323.2	0.759749061	76.5	70	67.5	74	0.747875281	0.750692055	1.258284508	1.180689834	3.937541677	1.937469226	119.3746923	Silver
51	USA-01	Damon Vincent Gurvich	133.6	210	343.6	1.219381863	82.5	67	58.5	52.5	1.083874448	0.558840988	0.757364181	-0.355465234	2.044614383	1.830926778	118.3092678	Silver
52	CHE-02	Davide Petraglio	121.4	210	331.4	0.944503423	72.5	77.75	71.25	53.5	0.523875835	1.246307312	1.467001311	-0.284016161	2.953168297	1.827797147	118.2779715	Silver
53	KOR-01	Kim, Boran	135	202	337	1.070677133	69.5	75	57.25	63	0.355876252	1.070443833	0.687791913	0.394750032	2.50886203	1.821078689	118.2107869	Silver

**34th International Biology Olympiad, Al Ain, United Arab Emirates
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Rank	Student_Code	Student Name	T_1	T_2	T_Total	t_score_total	PMB	EE	BC	BI	t score_PMB	t score_EE	t score_BC	t score_BI	Z_E_SUM	Final_T_SCORE	Final Score	Award
54	NZL-01	Allan Han	121.6	201	322.6	0.746230449	84.5	74.5	56.5	67.3	1.195874171	1.038468656	0.646048553	0.701981045	3.582372424	1.817719359	118.1771936	Silver
55	KAZ-02	Omar Dinmukhammed	103.6	196	299.6	0.228016996	84.5	64.25	80.25	82	1.195874171	0.382977509	1.967921639	1.752282417	5.299055736	1.812966516	118.1296652	Silver
56	THA-03	Tanakrit Tanasansakorn	121	200	321	0.710180818	82.5	84	50.75	63.5	1.083874448	1.645997035	0.326016121	0.430474568	3.486362173	1.752953026	117.5295303	Silver
57	IDN-04	Nicholas Sidik	110.4	210	320.4	0.696662206	81.5	61	65	74	1.027874587	0.175138853	1.119139973	1.180689834	3.502843246	1.74436391	117.4436391	Silver
58	HKG-01	Tse Kin Long	127.2	200	327.2	0.84987314	71.5	80	55.25	64	0.467875974	1.390195612	0.576476285	0.466199104	2.900746976	1.717487628	117.1748763	Silver
59	LVA-04	Nauris Prikšāns	116.6	192	308.6	0.430796173	79	80.13	68.75	67	0.887874934	1.398509158	1.327856776	0.680546323	4.294787191	1.715368602	117.153686	Silver
60	KOR-03	Kim, Heewon	124.2	190	314.2	0.556969883	83.5	82.25	60	62	1.13987431	1.534083913	0.840850902	0.323300959	3.838110083	1.704950022	117.0495002	Silver
61	HUN-02	Marton Szabo	122.8	191	313.8	0.547957476	80	71.5	54	79	0.943874795	0.846617588	0.506904017	1.537935198	3.835331599	1.695106568	116.9510657	Silver
62	DEU-03	Jieoh Ahn	118.4	197	315.4	0.584007107	76	72.5	61	74	0.71987535	0.910567944	0.896508716	1.180689834	3.707641844	1.692964147	116.9296415	Silver
63	POL-04	Olaf Andrzej Geyderowicz	110.4	193	303.4	0.31363487	90.5	75.5	48.5	81	1.531873339	1.102419011	0.200786039	1.680833344	4.515911733	1.664345732	116.6434573	Silver
64	CHE-03	Kilian Ayden Sintic	139.6	215	354.6	1.46722308	54	74.75	53.75	51	-0.512121598	1.054456245	0.492989564	-0.462638843	0.572685366	1.638513484	116.3851348	Silver
65	THA-01	Napat Tantipraphat	122.2	203	325.2	0.8048111	86	63.5	41.5	76	1.279873963	0.335014742	-0.18881866	1.323587979	2.749658025	1.627234828	116.2723483	Silver
66	POL-03	Krzysztof Maksymilian Gryboś	132.2	205	337.2	1.075183337	76	69	42.25	65.1	0.71987535	0.686741699	-0.147075299	0.544793085	1.804334835	1.61486055	116.1486055	Silver
67	DEU-01	Anyu Zhu	123.6	199	322.6	0.746230449	67	68.25	71.75	64	0.215876598	0.638778932	1.494830218	0.466199104	2.815684853	1.588402825	115.8840282	Silver
68	THA-02	Siravit Sriboonjareanchai	120	204	324	0.777773877	79	72.5	50	63	0.887874934	0.910567944	0.284272761	0.394750032	2.47746567	1.51878477	115.1878477	Silver
69	HUN-03	Nandor Szombat	123	192	315	0.574994699	78.5	81	56	60.5	0.859875003	1.454145968	0.618219646	0.216127349	3.148367966	1.516672716	115.1667272	Silver
70	CAN-02	Gabriel Tian	121	193	314	0.55246368	72	67	66.5	69.5	0.495875905	0.558840988	1.202626694	0.859169005	3.116512592	1.484613743	114.8461374	Silver
71	ISR-02	Nadav Qvit	131.6	195	326.6	0.836354528	74.5	54	52.75	75.5	0.635875558	-0.272513637	0.43733175	1.287863443	2.088557113	1.461042729	114.6104273	Silver
72	JPN-01	Kei Sasaki	118.4	194	312.4	0.516414048	82	73	57	64.1	1.055874518	0.942543122	0.67387746	0.473344012	3.145639111	1.457275864	114.5727586	Silver
73	TUR-01	Erdem Yamaloğlu	120.6	196	316.6	0.611044331	67	72	69	62	0.215876598	0.878592766	1.341771229	0.323300959	2.759541553	1.436424225	114.3642422	Silver
74	ROU-03	Dumitrescu Ștefan-Ionel	125.2	190	315.2	0.579500903	71.5	67	54.5	75	0.467875974	0.558840988	0.534732924	1.252138907	2.813588793	1.421046346	114.2104635	Silver
75	ROU-01	Vlad David Andrei	132.6	202	334.6	1.016602686	63.5	61	52	68.1	0.019877084	0.175138853	0.395588389	0.759140303	1.349744629	1.420311801	114.203118	Silver
76	NLD-02	Farah May	120.8	203	323.8	0.773267673	78	70	46.75	64	0.831875072	0.750692055	0.103384865	0.466199104	2.152151096	1.416976858	114.1697686	Silver
77	LTU-02	Bernadeta Savicka	135.4	193	328.4	0.876910364	75	72.38	42.5	62	0.663875489	0.902893901	-0.133160845	0.323300959	1.756909503	1.402402642	114.0240264	Silver
78	CZE-04	Šimon Vlach	123.8	195	318.8	0.660612574	63	73	55.75	67	-0.008122847	0.942543122	0.604305192	0.680546323	2.21927179	1.324397583	113.2439758	Silver
79	GBR-01	Matilda Mary Littlemore	126	195	321	0.710180818	73	65.5	59.25	59.3	0.551875766	0.462915454	0.799107541	0.130388462	1.944287223	1.291717842	112.9171784	Silver
80	GBR-04	Thomas William Postance	140.2	191	331.2	0.939997219	52	77	53	57.9	-0.624121321	1.198344545	0.451246203	0.03035976	1.055829187	1.255796117	112.5579612	Silver
81	HRV-01	Lovro Mirković	133.2	195	328.2	0.87240416	69.5	45.5	68	63	0.355876252	-0.816091661	1.286113415	0.394750032	1.220648037	1.237500437	112.3750044	Silver
82	CZE-03	Matěj Pokorný	117.6	198	315.6	0.588513311	64	72	58.25	64	0.047877015	0.878592766	0.743449727	0.466199104	2.136118613	1.227427174	112.2742717	Silver
83	LUX-04	Siena Jade Ootes	115.2	201	316.2	0.602031923	78.5	71.5	55.5	54.1	0.859875003	0.846617588	0.590390738	-0.241146717	2.055736613	1.2169035	112.169035	Silver
84	LUX-03	Rémi Waldemar Marius Peuscet	128	190	318	0.642587758	79	67	49.25	60.5	0.887874934	0.558840988	0.2425294	0.216127349	1.905372671	1.212485425	112.1248543	Silver
85	ISR-03	Shalev Wachsmann	136.2	204	340.2	1.142776396	62	63	32	67.1	-0.064122708	0.303039565	-0.717567894	0.68769123	0.209040193	1.205300395	112.0530039	Silver
86	TUR-04	Tabanlı Tolga	107.8	216	323.8	0.773267673	70.5	59.25	38	76	0.411876113	0.063225731	-0.383621009	1.323587979	1.415068814	1.196515276	111.9651528	Silver
87	HUN-04	Tamas Zsoldos	119.4	193	312.4	0.516414048	75.5	72	46.75	65.5	0.691875419	0.878592766	0.103384865	0.573372714	2.247225764	1.188560101	111.885601	Silver
88	KAZ-01	Bakdaulet Yernazarov	119.2	178	297.2	0.173942548	84.5	72.5	68.25	54.1	1.195874171	0.910567944	1.300027869	-0.241146717	3.165323266	1.120691902	111.206919	Silver
89	TUR-03	Kerem Aydın	119.8	212	331.8	0.953515831	50.5	67.25	53.75	60	-0.708121113	0.574828576	0.492989564	0.180402813	0.54009984	1.115059892	111.1505989	Bronze
90	EST-01	Ellen Marigold Roper	123.4	196	319.4	0.674131186	56.5	67.5	52	69	-0.372121945	0.590816165	0.395588389	0.823444469	1.437727078	1.104155884	111.0415588	Bronze
91	AUS-03	Jason Dunn	108.4	192	300.4	0.246041811	83.5	80	55.75	53.5	1.13987431	1.390195612	0.604305192	-0.284016161	2.850358953	1.098585223	110.9858522	Bronze
92	HUN-01	Anna Barna-Lazar	130	207	337	1.070677133	66	68	45.75	47	0.159876737	0.622791343	0.047727051	-0.748435135	0.081959996	1.095191398	110.951914	Bronze
93	NLD-04	Thomas van Loon	119.4	194	313.4	0.538945068	67.5	70.25	42.75	70	0.243876529	0.766679644	-0.119246392	0.894893542	1.786203323	1.073199139	110.7319914	Bronze
94	GBR-03	Rui-Lin Wang	119.2	189	308.2	0.421783765	90	66	51.75	53	1.503873408	0.494890632	-0.319740698	0.260697277	1.038139079	110.3813908	110.3813908	Bronze
95	VNM-03	Tran Pham Manh	130.8	189	319.8	0.683143594	75.5	66.5	25.5	72.1	0.691875419	0.52686581	-1.079343686	1.044936595	1.184334138	1.03737837	110.3737837	Bronze
96	LVA-02	Elza Strumpe	113.6	184	297.6	0.182954956	78	67.5	63.25	61.5	0.831875072	0.590816165	1.021738798	0.287576422	2.732006458	1.000099093	110.0009909	Bronze
97	SVN-03	Urban Bauk	116.8	204	320.8	0.705674614	71.5	60.5	36.5	69	0.467875974	0.143163675	-0.46710773	0.823444469	0.967376388	0.995017247	109.9501725	Bronze
98	SWE-02	Isak Lövdén Ewerhard	119.4	189	308.4	0.426289969	76.5	64	48.5	65	0.747875281	0.36698992	0.200786039	0.537648177	1.853299418	0.980612507	109.8061251	Bronze
99	SVK-03	Šimon Kirňák	116.2	198	314.2	0.556969883	79.5	70	35.75	61	0.915874864	0.750692055	-0.508851091	0.251851886	1.409567714	0.978572105	109.7857211	Bronze
100	HKG-02	Cheang Man Hin	107.8	186	293.8	0.097337081	82	62.25	67.25	62.5	1.055874518	0.255076798	1.244370055	0.359025495	2.914346865	0.969019301	109.690193	Bronze
101	LTU-01	Ainis Lukša	123.4	191	314.4	0.561476087	74.5	46	59.25	66	0.635875558	-0.784116483	0.799107541	0.60909725	1.259963867	0.938331744	109.3833174	Bronze
102	PHL-01	Andre Gerard Chan Aw	111.8	198	309.8	0.457833397	59	72	39.25	74	-0.232122292	0.878592766	-0.314048741	1.180689834	1.513111567	0.910405623	109.1040562	Bronze

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Rank	Student_Code	Student Name	T_1	T_2	T_Total	t_score_total	PMB	EE	BC	BI	t score_PMB	t score_EE	t score_BC	t score_BI	Z_E_SUM	Final_T_SCORE	Final Score	Award
103	BGR-03	Viktoria Tsvetozarova Ivanova	115.8	194	309.8	0.457833397	75.5	59	57.25	56.3	0.691875419	0.047238142	0.687791913	-0.083958757	1.342946717	0.859509254	108.5950925	Bronze
104	ISR-01	Daniel Zak	108.6	194	302.6	0.295610055	80	63.25	39.25	68	0.943874795	0.319027154	-0.314048741	0.751995396	1.700848603	0.804334498	108.043345	Bronze
105	POL-02	Aleksandra Sznal	115.4	199	314.4	0.561476087	68	53	45	67.1	0.27187646	-0.336463993	0.00598369	0.68769123	0.629087387	0.749636356	107.4963636	Bronze
106	NZL-04	Jifei Shao	104.6	196	300.6	0.250548015	79	60.38	68	48.5	0.887874934	0.135489633	1.286113415	-0.641261526	1.668216456	0.749512171	107.4951217	Bronze
107	VNM-04	Vu The Anh	131	202	333	0.980553054	55.5	71.75	36	45.5	-0.428121806	0.862605177	-0.494936637	-0.855608745	-0.916062011	0.70655857	107.0655857	Bronze
108	SAU-03	Tulbah Raed Faisal M	116.2	188	304.2	0.331659686	68.5	62.75	53	59.5	0.29987639	0.287051976	0.451246203	0.144678276	1.182852845	0.685451408	106.8545141	Bronze
109	PHL-04	Chiara Bernadette Zhang Tan-Gatue	113.4	190	303.4	0.31363487	68	73	31.25	68	0.27187646	0.942543122	-0.759311255	0.751995396	1.207103723	0.674680038	106.7468004	Bronze
110	KGZ-04	Gaipov Daniyar Iskenderovich	118.8	185	303.8	0.322647278	73	66.5	53.25	52	0.551875766	0.52686581	0.465160657	-0.391189771	1.152712462	0.667424	106.67424	Bronze
111	ESP-03	Luis Sánchez García	118	190	308	0.417277561	62.5	55.25	55.5	64	-0.036122777	-0.192575692	0.590390738	0.466199104	0.827891373	0.664900176	106.6490018	Bronze
112	ISR-04	Sivan Levin	121	193	314	0.55246368	57.5	62.5	50.25	59	-0.316122084	0.271064387	0.298187214	0.10895374	0.362083257	0.660762915	106.6076291	Bronze
113	MNG-03	Galsanchimed Misheel	112.4	185	297.4	0.178448752	77	65	40.75	65	0.775875211	0.430940276	-0.23056202	0.537648177	1.513901644	0.631257291	106.3125729	Bronze
114	UZB-01	Tursunov Bekhruz Farrukh ugli	139.8	192	331.8	0.953515831	76	51	17.75	58.5	0.71987535	-0.464364704	-1.510691746	0.073229203	-1.181951897	0.599993583	105.9999358	Bronze
115	NLD-01	Demian Brantjes	101	196	297	0.169436344	67	69	56.5	54.1	0.215876598	0.686741699	0.646048553	-0.241146717	1.307520133	0.560516097	105.605161	Bronze
116	IDN-03	Nakeisha Jovita Purnomo	113.4	185	298.4	0.200979772	67	75.25	51.25	51.1	0.215876598	1.086431422	0.353845028	-0.455493936	1.200659113	0.560097354	105.6009735	Bronze
117	ITA-02	Enrico Peter Grande	100.4	193	293.4	0.088324673	80	59.5	50.5	60.8	0.943874795	0.079213319	0.312101668	0.237562071	1.572751853	0.558735331	105.5873533	Bronze
118	BRA-04	Nailton Gama de Castro	114.6	187	301.6	0.273079035	69	72.25	38.5	58.5	0.327876321	0.894580355	-0.355792102	0.073229203	0.939893778	0.55420161	105.5420161	Bronze
119	NZL-02	Ashleigh Paige Bernacchi	108.2	185	293.2	0.083818469	70.5	66.5	55.5	58	0.411876113	0.52686581	0.590390738	0.037504667	1.566637328	0.552400271	105.5240027	Bronze
120	CZE-02	Martin Kubeš	107.4	184	291.4	0.043262634	80	50.5	55.75	64	0.943874795	-0.496339882	0.604305192	0.466199104	1.518039209	0.49730872	104.9730872	Bronze
121	MDA-04	Chiosa Nikita	116	190	306	0.372215522	64	56	53.75	57	0.047877015	-0.144612926	0.492989564	-0.033944406	0.362309247	0.480582351	104.8058235	Bronze
122	BRA-03	João Tomás de Camargo Silva	106.4	191	297.4	0.178448752	73	47.5	62.5	58.3	0.551875766	-0.688190949	0.979995437	0.058939389	0.902619643	0.448422619	104.4842262	Bronze
123	BGD-04	Fayyad Ahmmed	107.6	191	298.6	0.205485976	57	65.5	37.75	72	-0.344122014	0.462915454	-0.397535463	1.037791688	0.759049665	0.43251801	104.3251801	Bronze
124	LVA-03	Kristians Lelis	108.8	185	293.8	0.097337081	70.5	66	44.75	60	0.411876113	0.494890632	-0.007930764	0.180402813	1.079238794	0.420137801	104.201378	Bronze
125	PHL-02	Ayisha Madeleine Ang Ong	116.4	193	309.4	0.448820989	43	55	59.25	63	-1.128120072	-0.208563281	0.799107541	0.394750032	-0.142825781	0.406101745	104.0610175	Bronze
126	DNK-03	Simon Stenhøj Larsen	99	185	284	-0.123466912	78	58	50.75	66	0.831875072	-0.016712214	0.326016121	0.60909725	1.75027623	0.400041352	104.0004135	Bronze
127	LUX-02	Nina Hélène Gaëlle Bernier	120.4	199	319.4	0.674131186	51	73.5	42	42.5	-0.680121182	0.9745183	-0.160989753	-1.069955963	-0.936548598	0.394009156	103.9400916	Bronze
128	AUS-01	Angus Lachlan Kiang	100.2	191	291.2	0.03875643	72	71	57.75	45.5	0.495875905	0.814642411	0.71562082	-0.855608745	1.170530391	0.388862501	103.888625	Bronze
129	IDN-02	Mariel Chrysanthia Tampubolon	96	172	268	-0.483963228	80.5	61	60.75	69.1	0.971874726	0.175138853	0.882594263	0.830589376	2.860197218	0.371522813	103.7152281	Bronze
130	FIN-01	Aaro Nikolai Oksanen	111.2	198	309.2	0.444314785	34.5	76	48.25	57.5	-1.604118893	1.134394189	0.186871586	0.00178013	-0.281072988	0.360245751	103.6024575	Bronze
131	ITA-03	Francesco Pieracciani	123.4	183	306.4	0.38122793	71.5	54.25	35.5	58.5	0.467875974	-0.256526048	-0.522765544	0.073229203	-0.238186415	0.309986285	103.0998629	Bronze
132	EST-02	Emma Goos	103.4	197	300.4	0.246041811	79	57	32	59	0.887874934	-0.08066257	-0.717567894	0.10895374	0.19859821	0.305442609	103.0544261	Bronze
133	SWE-03	Philipp León Rudolph	115	197	312	0.50740164	51	59	37	63	-0.680121182	0.047238142	-0.439278823	0.394750032	-0.677411832	0.304787512	103.0478751	Bronze
134	SYR-03	Kenan Hasan Alkanjo	120.4	210	330.4	0.921972403	63.5	62.75	15	46.5	0.019877084	0.287051976	-1.663750734	-0.784159672	-2.140981347	0.281604094	102.8160409	Bronze
135	ARE-04	Reem Rashid Alnaqbi	118.6	197	315.6	0.588513311	74	55.25	45	36.5	0.607875627	-0.192575692	0.00598369	-1.498650401	-1.077366776	0.266272512	102.6627251	Bronze
136	PAK-03	soban Safdar	108.4	192	300.4	0.246041811	67	49.75	57.75	53	0.215876598	-0.544302649	0.71562082	-0.319740698	0.067454072	0.266217349	102.6621735	Bronze
137	CHE-01	Anthony Gillioz	98	172	270	-0.438901188	75.5	69.5	60.75	57.9	0.691875419	0.718716877	0.882594263	0.03035976	2.323546319	0.256072371	102.5607237	Bronze
138	NOR-04	Karoline Ravlo-Losvik	108.8	174	282.8	-0.150504136	76	55	51.75	64	0.71987535	-0.208563281	0.381673935	0.466199104	1.359185108	0.25602863	102.5602863	Bronze
139	SAU-02	Almutair Nawaf Raed S	107.4	173	280.4	-0.204578583	74.5	72.5	48.75	53.5	0.635875558	0.910567944	0.214700493	-0.284016161	1.477127834	0.237230895	102.372309	Bronze
140	PRT-01	André Daniel Malta Aires Melo da Cruz	105	178	283	-0.145997932	72	60	72.5	45	0.495875905	0.111188497	1.536573579	-0.891333281	1.2523047	0.228566865	102.2856686	Bronze
141	GRC-01	Aikaterini Karpouzi	106.4	186	292.4	0.065793654	73	63	29	65	0.551875766	0.303039565	-0.884541336	0.537648177	0.508022172	0.217743272	102.1774327	Bronze
142	LTU-04	Urtė Pangonytė	96.6	185	281.6	-0.17754136	72.5	71.25	42.75	58.5	0.523875835	0.830629999	-0.119246392	0.073229203	1.308488646	0.213828076	102.1382808	Bronze
143	KAZ-04	Islam Amangeldi	97	181	278	-0.258653031	76.5	70.88	62.25	42.5	0.747875281	0.806968368	0.966080984	-1.069955963	1.450968669	0.175332232	101.7533223	Bronze
144	SYR-04	Lawand Mohamad Bayram	122	191	313	0.52993266	52	61	49.75	43.1	-0.624121321	0.175138853	0.270358307	-1.02708652	-1.20571068	0.169304152	101.6930415	Bronze
145	SVN-01	Eliza Felc	103	193	296	0.146905325	76.5	52.75	47	51.3	0.747875281	-0.352451582	0.117299318	-0.441204122	0.071518895	0.168296652	101.6829665	Bronze

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Rank	Student_Code	Student Name	T_1	T_2	T_Total	t_score_total	PMB	EE	BC	BI	t score_PMB	t score_EE	t score_BC	t score_BI	Z_E_SUM	Final_T_SCORE	Final Score	Award
146	DNK-01	Alexander Lukinych Schødt	111.4	184	295.4	0.133386713	63.5	66.38	49.25	47.8	0.019877084	0.519191767	0.2425294	-0.691275877	0.090322374	0.160402168	101.6040217	Bronze
147	CAN-01	Antian Jiang	113.4	176	289.4	-0.001799406	58	76.5	48.25	46.5	-0.288122153	1.166369367	0.186871586	-0.784159672	0.280959128	0.082235573	100.8223557	Bronze
148	FIN-04	Taavetti Juhani Ihantola	113.4	193	306.4	0.38122793	55.5	61	22.25	64.5	-0.428121806	0.175138853	-1.260231582	0.501923641	-1.011290894	0.078750451	100.7875045	Bronze
149	HRV-02	Mario Vrdoljak	101.8	188	289.8	0.007213002	47.5	63.75	41.25	71	-0.876120697	0.351002331	-0.202733113	0.966342615	0.238491136	0.078545789	100.7854579	Bronze
150	NLD-03	Jochem Kistemaker	95.8	175	270.8	-0.420876373	73.5	62	35.5	76	0.579875697	0.239089209	-0.522765544	1.323587979	1.619787341	0.063602617	100.6360262	Bronze
151	AZE-04	Zahrabayim Abdullayeva	110.4	214	324.4	0.786786285	53	47	17.5	63	-0.56812146	-0.720166127	-1.524606199	0.394750032	-2.418143754	0.063518598	100.635186	Bronze
152	GRC-02	Aikaterini Danai Kariofylli	105	184	289	-0.010811814	51	45.5	55	73	-0.680121182	-0.816091661	0.562561831	1.109240761	0.175589749	0.041707145	100.4170714	Bronze
153	SWE-01	Fredrik Olle Christensson	106.8	195	301.8	0.277585239	62	40.5	46.75	61	-0.064122708	-1.13584344	0.103384865	0.251851886	-0.844729397	0.024926365	100.2492637	Bronze
154	EST-04	Liisa Pata	104.4	179	283.4	-0.136985524	71	65.5	23	69	0.439876043	0.462915454	-1.218488221	0.823444469	0.507747745	0.014882013	100.1488201	Bronze
155	BGD-02	Ahammad Naim	101	185	286	-0.078404873	46.5	62.25	47.5	69	-0.932120558	0.255076798	0.145128225	0.823444469	0.291528934	0.008791539	100.0879154	Bronze
156	FIN-03	Mikko Olli Ilmari Väisänen	112.4	193	305.4	0.35869691	52	53	30	65	-0.624121321	-0.336463993	-0.828883522	0.537648177	-1.251820659	-0.01572311	99.8427689	Bronze
157	UZB-02	Sharifov Golibjon Gulomjonovich	109.2	194	303.2	0.309128667	56.5	34	60	55	-0.372121945	-1.551520752	0.840850902	-0.176842552	-1.259634347	-0.06762843	99.3237157	Bronze
158	SAU-01	Alkhalifa Ali Mahmud A	91	171	262	-0.619149346	66.5	75	51.5	60.5	0.187876668	1.070443833	0.367759482	0.216127349	1.842207332	-0.068144455	99.31855545	Bronze
159	DNK-04	Yuejun Yu	94.4	183	277.4	-0.272171642	77.5	57	46.5	55	0.803875142	-0.08066257	0.089470411	-0.176842552	0.635840431	-0.081991535	99.18008465	Bronze
160	UZB-04	Egamberdiyev Muhammadibrohim Bakojon ugli	113.4	193	306.4	0.38122793	61.5	51.5	30	54.5	-0.092122639	-0.432389526	-0.828883522	-0.212567088	-1.565962776	-0.087152113	99.12847887	Bronze
161	BGD-03	Payez Ahmad	116.2	193	309.2	0.444314785	44.5	64	20	60	-1.044120281	0.36698992	-1.385461664	0.180402813	-1.882189211	-0.118648701	98.81351299	Bronze
162	SVK-04	Zuzana Rybárová	89.4	183	272.4	-0.384826741	82	64.38	42	51.3	1.055874518	0.391291056	-0.160989753	-0.441204122	0.844971699	-0.132095395	98.67904605	Bronze
163	QAT-03	Moomena Ahmed Gulzar	86	174	260	-0.664211386	73	59.5	53	67	0.551875766	0.079213319	0.451246203	0.680546323	1.762881612	-0.136932847	98.63067153	Bronze
164	COL-03	Laura Sophia Barrera Pareja	94	186	280	-0.213590991	73	51	36	66	0.551875766	-0.464364704	-0.494936637	0.60909725	0.201671675	-0.153270919	98.46729081	Bronze
165	LVA-01	Arnolds Pirāgs	88.4	179	267.4	-0.49748184	58.5	65.5	57	61.3	-0.260122223	0.462915454	0.67387746	0.273286608	1.149957299	-0.153529188	98.46470812	Bronze
166	CZE-01	Anežka Zamořilová	107.2	197	304.2	0.331659686	48	53.25	42.75	52.5	-0.320476404	-0.355465234	-0.355465234	-0.159854579	-1.643308796	-0.159854579	98.40145421	Bronze
167	MNG-04	Turbat Namuun	94.4	180	274.4	-0.339764702	77	65	32.25	57	0.775875211	0.430940276	-0.70365344	-0.033944406	0.469217641	-0.199421532	98.00578468	Bronze
168	NOR-03	Jaesung Shin	100.2	185	285.2	-0.096429689	63.5	60	54.5	43	0.019877084	0.111188497	0.534732924	-1.034231427	-0.368432921	-0.206628111	97.93371889	Bronze
169	IRQ-01	Bakr Amjed Ramadhan	89.8	193	282.8	-0.150504136	76.5	45	31.75	66	0.747875281	-0.848066839	-0.731482348	0.60909725	-0.222576655	-0.217076895	97.82923105	Bronze
170	CHE-04	Nathan Tobias Böhler	106	179	285	-0.100935892	70.5	47	15.25	78	0.411876113	-0.720166127	-1.649836281	1.466486125	-0.49164017	-0.247985648	97.52014352	Bronze
171	ESP-01	Carlos Albuixech Bonet	106.8	187	293.8	0.097337081	56	46.63	48.5	54.5	-0.400121876	-0.743827759	0.200786039	-0.212567088	-1.155730684	-0.248342392	97.51657608	Bronze
172	FRA-03	Esteban Liegois	98	177	275	-0.32624609	75.5	49.75	41	60.5	0.691875419	-0.544302649	-0.216647567	0.216127349	0.147052553	-0.282262617	97.17737383	Bronze
173	AZE-03	Nurlan Mammadov	110.4	223	333.4	0.989565462	35	47	14.5	53.7	-1.576118963	-0.720166127	-1.691579642	-0.269726347	-4.257591078	-0.283881596	97.16118404	Bronze
174	GRC-04	Kalliopi Margoni	90.4	183	273.4	-0.362295721	64	60.38	44.5	58	0.047877015	0.135489633	-0.021845217	0.037504667	0.199026097	-0.302766942	96.97233058	Bronze
175	TKM-02	Mamanova Guljahan	103.8	183	286.8	-0.060380057	71.5	46.5	40.5	53.1	0.467875974	-0.752141305	-0.244476474	-0.31259579	-0.841337595	-0.312024441	96.87975559	Bronze
176	KAZ-03	Galymzhan Baktybay	89.2	184	273.2	-0.366801925	70	64.63	50.5	44.3	0.383876182	0.407278644	0.312101668	-0.941347632	0.161908862	-0.318374925	96.81625075	Bronze
177	PRT-04	Rodrigo Tavares Maia Marques	103.8	181	284.8	-0.105442096	67	54	53.25	41.3	0.215876598	-0.272513637	0.465160657	-1.155694851	-0.747171233	-0.328921287	96.71078713	Merit
178	MKD-02	Sarah Abdullahu	108.4	197	305.4	0.35869691	61	41	44.5	42	-0.120122569	-1.103868262	-0.021845217	-1.1056805	-2.351516548	-0.344642555	96.55357445	Merit
179	ROU-02	Roşu Iustina	105.8	175	280.8	-0.195566175	84.5	48	43.5	43.5	1.195874171	-0.656215772	-0.077503031	-0.99850689	-0.536351522	-0.355989113	96.44010887	Merit
180	BGD-01	Aariz Anas	113	185	298	0.191967364	33	61.5	19	70	-1.688118685	0.207114031	-1.441119478	0.894893542	-2.02723059	-0.414378052	95.85621948	Merit
181	SVK-01	Anna Dukesová	99.8	177	276.8	-0.285690254	81	49	34	54	0.999874656	-0.592265416	-0.606252266	-0.248291625	-0.44693465	-0.419368572	95.80631428	Merit
182	ESP-04	Sergio García Canes	81.6	180	261.6	-0.628161754	72.5	56.5	47.5	58	0.523875835	-0.112637748	0.145128225	0.037504667	0.59387098	-0.450534725	95.49465275	Merit
183	MDA-03	Leahu Bianca-Sofia	108.2	181	289.2	-0.00630561	78	63.75	0	55	0.831875072	0.351002331	-2.498617947	-0.176842552	-1.492583095	-0.452737762	95.47262238	Merit
184	SVN-02	Katarina Vidovič	97.2	188	285.2	-0.096429689	54.5	46	43	58	-0.484121668	-0.784116483	-0.105331938	0.037504667	-1.336065422	-0.496047348	95.03952652	Merit
185	KGZ-03	Baizak Karypzhannov	98.4	168	266.4	-0.520012859	66	49	50.75	60	0.159876737	-0.592265416	0.326016121	0.180402813	0.074030255	-0.497870383	95.02129617	Merit
186	HRV-03	Robert Markulin	125.8	191	316.8	0.615550535	43.5	47	33.75	38.5	-1.100120142	-0.720166127	-0.620166719	-1.355752255	-3.796205243	-0.51989585	94.8010415	Merit
187	BGR-04	Yana Aleksandrova Atanasova	102.8	189	291.8	0.052275042	47	61	52	34.3	-0.904120627	0.175138853	0.395588389	-1.655838361	-1.989231746	-0.542704906	94.57295094	Merit
188	UKR-03	Pochynok Oleksandr	92.4	185	277.4	-0.272171642	68.5	57	34.5	49.3	0.29987639	-0.08066257	-0.578423359	-0.584102267	-0.943311806	-0.554316551	94.45683449	Merit

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Rank	Student_Code	Student Name	T_1	T_2	T_Total	t_score_total	PMB	EE	BC	BI	t score_PMB	t score_EE	t score_BC	t score_BI	Z_E_SUM	Final_T_SCORE	Final Score	Award
189	KGZ-01	Almazov Alai Almazovich	85.4	167	252.4	-0.835447135	72	53.38	49.75	62	0.495875905	-0.312162858	0.270358307	0.323300959	0.777372313	-0.602934791	93.97065209	Merit
190	MNG-02	Geser Ireedui	113.2	166	279.2	-0.231615807	64	48.5	38.25	51.1	0.047877015	-0.624240594	-0.369706556	-0.455493936	-1.401564071	-0.650824136	93.49175864	Merit
191	CAN-03	Monica Zhang	95.2	176	271.2	-0.411863965	62.5	55.5	47	45	-0.036122777	-0.176588103	0.117299318	-0.891333281	-0.986744844	-0.70699971	92.9300029	Merit
192	ZAF-04	Monet Buchner	101.4	181	282.4	-0.159516544	59	63.5	31.75	40.5	-0.232122292	0.335014742	-0.731482348	-1.212854109	-1.841444006	-0.710293124	92.89706876	Merit
193	QAT-04	Yousef Rani Mohammad Altoum	84.8	160	244.8	-1.006682885	74	53	48	64	0.607875627	-0.336463993	0.172957132	0.466199104	0.910567871	-0.7343317	92.656683	Merit
194	EST-03	Kristjan Suuder	89	176	265	-0.551556287	55.5	57	47.25	54	-0.428121806	-0.08066257	0.131213772	-0.248291625	-0.625862229	-0.73875191	92.6124809	Merit
195	ARM-03	Syuzi Sahakyan	90.4	171	261.4	-0.632667958	53	50.75	62	53	-0.56812146	-0.480352293	0.95216653	-0.319740698	-0.41604792	-0.757108044	92.42891956	Merit
196	HRV-04	Vanda Vrček	92.8	171	263.8	-0.578593511	69.5	55	43.5	48	0.355876252	-0.208563281	-0.077503031	-0.676986062	-0.607176123	-0.760200113	92.39799887	Merit
197	MEX-04	Luis Angel Aceves Hernández	95.6	179	274.6	-0.335258498	62.5	59	3	70	-0.036122777	0.047238142	-2.331644504	0.894893542	-1.425635598	-0.76166663	92.3833337	Merit
198	LUX-01	Massimo Comparetto	99.4	179	278.4	-0.249640623	48	70	18.25	53.1	-0.848120766	0.750692055	-1.482862838	-0.31259579	-1.89288734	-0.815803923	91.84196077	Merit
199	FIN-02	Elena Annamaria Heikkilä	98.8	190	288.8	-0.015318018	59.5	44.75	24	50	-0.204122361	-0.864054428	-1.162830407	-0.534087916	-2.765095113	-0.842358983	91.57641017	Merit
200	AZE-01	Kanan Orujaliyev	89.6	191	280.6	-0.200072379	34.5	49.5	47.5	55.5	-1.604118893	-0.560290238	0.145128225	-0.141118015	-2.160398921	-0.846248492	91.53751508	Merit
201	ISL-02	Simon Orri Sindrason	130.8	174	304.8	0.345178298	33	24.5	46	54.3	-1.688118685	-2.159049132	0.061641504	-0.226856903	-4.012383216	-0.854926998	91.45073002	Merit
202	PRT-02	João Pedro Lopes Martins	91.8	178	269.8	-0.443407392	65	32	55.75	51.1	0.103876876	-1.679421463	0.604305192	-0.455493936	-1.426733332	-0.870143857	91.29856143	Merit
203	MDA-01	Iftodi Ana	93	174	267	-0.506494247	57	56	19.5	67	-0.344122014	-0.144612926	-1.413290571	0.680546323	-1.221479188	-0.871839122	91.28160878	Merit
204	DNK-02	Liv Rømer Bugge	82.2	177	259.2	-0.682236201	37.5	64.5	56	53.5	-1.436119309	0.398965098	0.618219646	-0.284016161	-0.702950727	-0.892489022	91.07510978	Merit
205	SYR-02	Ibrahim Mohamad Rafik Auf	83.8	179	262.8	-0.60112453	71	49	46.5	44	0.439876043	-0.592265416	0.089470411	-0.962782354	-1.025701315	-0.907912171	90.92087829	Merit
206	GRC-03	Elisavet Karpouzi	95.8	193	288.8	-0.015318018	61	49	13	50.5	-0.120122569	-0.592265416	-1.775066363	-0.49836338	-2.985817728	-0.908377199	90.91622801	Merit
207	CYP-01	Dimitra Eleni Nakou	97.4	189	286.4	-0.069392465	28.5	52.75	46	47.5	-1.940118061	-0.352451582	0.061641504	-0.712710599	-2.943638737	-0.949835894	90.50164106	
208	ARG-03	Marina Milagros Scaravaglione	100.8	171	271.8	-0.398345353	52	54.25	30.75	51.5	-0.624121321	-0.256526048	-0.787140162	-0.426914307	-2.094701838	-1.024871443	89.75128557	
209	MNE-01	Anel Memić	87.4	164	251.4	-0.857978155	64.5	51.5	38.5	59.1	0.075876945	-0.432389526	-0.355792102	0.116098647	-0.596206036	-1.0363036	89.636964	
210	BRA-02	Igor Bersanetti Gabilondo	95	182	277	-0.28118405	51.5	34	44	53.5	-0.652121252	-1.551520752	-0.049674124	-0.284016161	-2.537332289	-1.040101072	89.59898928	
211	SVN-04	Urh Šarlah	91.6	169	260.6	-0.650692774	64.5	62	41.75	36	0.075876945	0.239089209	-0.174904206	-1.534374937	-1.394312989	-1.067732302	89.32267698	
212	ITA-01	Alessia Liberatore	95	176	271	-0.416370169	57	46.5	44.75	41.5	-0.344122014	-0.752141305	-0.007930764	-1.141405036	-2.245599119	-1.088029692	89.11970308	
213	BEL-01	Demur Ariane	85	168	253	-0.821928524	72	55.75	49.75	36.5	0.495875905	-0.160600515	0.270358307	-1.498650401	-0.893016703	-1.089030148	89.10969852	
214	BEL-02	Vanhellemont Daan	86.2	176	262.2	-0.614643142	50.5	46.5	27	69	-0.708121113	-0.752141305	-0.995856965	0.823444469	-1.632674914	-1.10297681	88.9702319	
215	ZAF-02	Chaewon Lee	82.8	170	252.8	-0.826434728	56.5	54.5	39	57	-0.372121945	-0.240538459	-0.327963195	-0.033944406	-0.974568005	-1.117928377	88.82071623	
216	LKA-01	Janithya Sanathmi Rajasekara	102	168	270	-0.438901188	47	55.5	28.5	53.1	-0.904120627	-0.176588103	-0.912370243	-0.31259579	-2.305674765	-1.128529359	88.71470641	
217	ESP-02	Hugo Pérez Salas	92.2	165	257.2	-0.727298241	56	40	51.5	54.5	-0.400121876	-1.167818617	0.367759482	-0.212567088	-1.4127481	-1.149851717	88.50148283	
218	IOD-1-03	Stsiapan Zviashynski	95.8	178	273.8	-0.353283313	47.5	51.5	41.75	40.9	-0.876120697	-0.432389526	-0.174904206	-1.18427448	-2.667688909	-1.151190048	88.48809952	
219	ROU-04	Cârloanță Teodor	110.4	170	280.4	-0.204578583	55.5	41.5	35	41	-0.428121806	-1.071893084	-0.550594452	-1.177129573	-3.227738914	-1.16999648	88.3000352	
220	SVK-02	Ján Marušinec	79.4	173	252.4	-0.835447135	67	55	33.5	49.9	0.215876598	-0.208563281	-0.634081173	-0.541232824	-1.168000679	-1.184796568	88.15203432	
221	BRA-01	Felipe da Silva Lopes	93.2	179	272.2	-0.389332945	50.5	42.5	33.25	51	-0.708121113	-1.007942728	-0.647995626	-0.462638843	-2.826698311	-1.23479945	87.6520055	
222	IRQ-02	Kewan Essa Ismael	90.4	167	257.4	-0.722792037	48.5	58.5	40	47.7	-0.820120835	0.015262964	-0.272305381	-0.698420784	-1.775584037	-1.253869876	87.46130124	
223	UZB-03	Akhtamova Mekhrangiz Anvar kizi	91.4	155	246.4	-0.970633254	55	60.5	45.5	47.9	-0.456121737	0.143163675	0.033812597	-0.68413097	-0.963276434	-1.25874959	87.4125041	
224	QAT-01	Abdulaziz Khalid M. A. Al-Hardan	80	159	239	-1.1373628	66.5	54	51.25	47.5	0.187876668	-0.272513637	0.353845028	-0.712710599	-0.44350254	-1.270014573	87.29985427	
225	BEL-03	Keutgen Mathis	97.2	172	269.2	-0.456926004	61	66	0	48.5	-0.120122569	0.494890632	-2.498617947	-0.641261526	-2.76511141	-1.283971844	87.16028156	
226	UKR-04	Kosheliuk Yana	70.4	177	247.4	-0.948102234	47	63.5	42.25	51.3	-0.904120627	0.335014742	-0.147075299	-0.441204122	-1.157385305	-1.294276605	87.05723395	
227	ARG-04	Victoria Mia Chaves Alvarez	84	164	248	-0.934583622	41.5	54	57.75	51	-1.212119864	-0.272513637	0.71562082	-0.462638843	-1.231651525	-1.302971046	86.97028954	
228	MEX-03	Ingrid Vanessa Infante Lee	87	181	268	-0.483963228	39.5	63	23.75	49.5	-1.324119587	0.303039565	-1.176744861	-0.569812453	-2.767637336	-1.311764573	86.88235427	
229	PRT-03	Rita Antunes Pedrosa	91.8	172	263.8	-0.578593511	47	57.5	30.5	44.9	-0.904120627	-0.048687392	-0.801054615	-0.898478188	-2.652340823	-1.371909627	86.28090373	
230	AZE-02	Nuray Aliyeva	97.4	189	286.4	-0.069392465	46.5	37.25	18.25	47	-0.932120558	-1.343682096	-1.482862838	-0.748435135	-4.507100627	-1.417467921	85.82532079	
231	PAK-04	Tabinda Javeed	86	153	239	-1.1373628	67	51	37.75	52.9	0.215876598	-0.464364704	-0.397535463	-0.326885605	-0.972909174	-1.428360292	85.71639708	

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Rank	Student_Code	Student Name	T_1	T_2	T_Total	t_score_total	PMB	EE	BC	BI	t_score_PMB	t_score_EE	t_score_BC	t_score_BI	Z_E_SUM	Final_T_SCORE	Final Score	Award
232	FRA-01	Aude Wantz	86.4	172	258.4	-0.700261017	48	53	28.5	52.7	-0.848120766	-0.336463993	-0.912370243	-0.34117542	-2.438130422	-1.429506723	85.70493277	
233	UKR-01	Bevz Daria	73.4	161	234.4	-1.24100549	62.5	47	48.5	53.5	-0.036122777	-0.720166127	0.200786039	-0.284016161	-0.839519026	-1.49210594	85.0789406	
234	SYR-01	Abdullah Bassam Jaddaa	83	163	246	-0.979645662	50	50.75	52.75	43.5	-0.736121043	-0.480352293	0.43733175	-0.99850689	-1.777648478	-1.511340975	84.88659025	
235	MNG-01	Lut-Ochir Indra	84.6	170	254.6	-0.785878892	55.5	40.5	51.25	40	-0.428121806	-1.13584344	0.353845028	-1.248578646	-2.458698863	-1.521276627	84.78723373	
236	IOD-1-01	Dzmitry Volkau	87.2	174	261.2	-0.637174162	51	46	18	55.5	-0.680121182	-0.784116483	-1.496777292	-0.141118015	-3.102132973	-1.565023275	84.34976725	
237	LKA-04	Kalahe Kankanamge Senithi Vidusini De Alwis	83.8	174	257.8	-0.713779629	63.5	33	28	53	0.019877084	-1.615471108	-0.940199151	-0.319740698	-2.855533872	-1.567870861	84.32129139	
238	MDA-02	Zadic Andrian	86.4	169	255.4	-0.767854076	52	44	34.75	48.1	-0.624121321	-0.912017195	-0.564508905	-0.669841155	-2.770488575	-1.596508229	84.03491771	
239	GEO-04	Tatunashvili Tamazi	88	170	258	-0.709273425	45	46.5	34	46.5	-1.01612035	-0.752141305	-0.606252266	-0.784159672	-3.158673592	-1.654033859	83.45966141	
240	PAK-02	Sarah Idrees	78	161	239	-1.1373628	46.5	40	54.75	54.5	-0.932120558	-1.167818617	0.548647378	-0.212567088	-1.763858886	-1.664933642	83.35066358	
241	ARM-04	Yana Mkrtchyan	66.8	155	221.8	-1.524896339	57	51.25	57.75	50.5	-0.344122014	-0.448377115	0.71562082	-0.49836338	-0.57524169	-1.69695134	83.0304866	
242	ITA-04	Matteo Carolla	86.8	172	258.8	-0.691248609	39.5	65.25	27.75	32.5	-1.324119587	0.446927865	-0.954113604	-1.784446692	-3.615752018	-1.772721368	82.27278632	
243	NOR-02	Albertine Ellefsen Tveit	79.6	163	242.6	-1.056251129	61	57	21	44.5	-0.120122569	-0.08066257	-1.32980385	-0.927057817	-2.457646806	-1.791334193	82.08665807	
244	MEX-02	Maria Fernada Orozco Montes de Oca	78.6	162	240.6	-1.101313168	64	44	37	43.4	0.047877015	-0.912017195	-0.439278823	-1.005651798	-2.309070801	-1.791957094	82.08042906	
245	ARG-02	Maria Eugenia Nuñez De Morales Ferronato	87.4	164	251.4	-0.857978155	31	43	41.75	54.1	-1.800118408	-0.97596755	-0.174904206	-0.241146717	-3.192136882	-1.812747471	81.87252529	
246	ISL-03	Sunneva Eldbjörg Sigtryggssdóttir	85.6	156	241.6	-1.078782148	42.5	47	34.75	56	-1.156120003	-0.720166127	-0.564508905	-0.105393479	-2.546188514	-1.84034807	81.5965193	
247	GEO-03	Siradze Rati	72.2	172	244.2	-1.020201497	46	47	29.25	53.5	-0.960120489	-0.720166127	-0.870626883	-0.284016161	-2.83492966	-1.868130002	81.31869998	
248	ARM-01	Karayan Hamlet	90.8	153	243.8	-1.029213905	37	44.5	28.5	63.5	-1.46411924	-0.880042017	-0.912370243	0.430474568	-2.826056932	-1.874488573	81.25511427	
249	GEO-01	Kupreishvili Ketevan	91.8	152	243.8	-1.029213905	44	35	64.5	38	-1.072120211	-1.487570396	1.091311066	-1.391476791	-2.859856333	-1.884597987	81.15402013	
250	LKA-03	Walisundara Mudiyanselage Rahal Nalina Bandara Walisundara	93	179	272	-0.393839149	48.5	37.88	2.5	49.3	-0.820120835	-1.303393372	-2.359473411	-0.584102267	-5.067089886	-1.909407598	80.90592402	
251	ARG-01	Agustina Visotto	84.8	156	240.8	-1.096806964	39	47.25	36.5	51.5	-1.352119518	-0.704178538	-0.46710773	-0.426914307	-2.950320093	-1.97924879	80.2075121	
252	FRA-04	Pauline Masson	71.4	171	242.4	-1.060757333	51.5	36.5	23	59.5	-0.652121252	-1.391644863	-1.218488221	0.144678276	-3.117576059	-1.993225479	80.06774521	
253	TKM-01	Ahmet Haidov	86	155	241	-1.09230076	34	48	33.5	56	-1.632118824	-0.656215772	-0.634081173	-0.105393479	-3.027809247	-1.99791962	80.0208038	
254	IOD-1-02	Maryia Valadzko	93.4	179	272.4	-0.384826741	37.5	8	50	42.4	-1.436119309	-3.214230001	0.284272761	-1.077100871	-5.443177421	-2.01288311	79.8711689	
255	MKD-01	Andrej Todorov	74.6	157	231.6	-1.304092346	43.5	51.5	47.25	43	-1.100120142	-0.432389526	0.131213772	-1.034231427	-2.435527323	-2.032559464	79.67440536	
256	ISL-04	Tristan Tómasson Manoury	83.4	163	246.4	-0.970633254	48	42.75	20.5	47.5	-0.848120766	-0.991955139	-1.357632757	-0.712710599	-3.910419261	-2.140241094	78.59758906	
257	CYP-04	Vasiliki Bekou	84.8	169	253.8	-0.803903708	48	50.25	29.25	26	-0.848120766	-0.512327471	-0.870626883	-2.248865666	-4.479940786	-2.143855646	78.56144354	
258	BEL-04	Van Ostade Matteo	77.8	144	221.8	-1.524896339	55	57	24.25	51.5	-0.456121737	-0.08066257	-1.148915954	-0.426914307	-2.112614568	-2.156780134	78.43219866	
259	MKD-03	Stefanija Jovcheska	69	176	245	-1.002176681	51.5	56.13	27.25	26.8	-0.652121252	-0.136299379	-0.981942511	-2.191706408	-3.96206955	-2.187233142	78.12766858	
260	COL-02	Jeronimo Aguilar Marroquin	73.8	155	228.8	-1.367179201	58	34.75	33.5	51	-0.288122153	-1.503557985	-0.634081173	-0.462638843	-2.888400155	-2.23110075	77.6889925	
261	MEX-01	Alonso López Hurtado	77.2	178	255.2	-0.77236028	38	49	10	39	-1.408119379	-0.592265416	-1.942039805	-1.320027718	-5.262452318	-2.346361705	76.53638295	
262	FRA-02	Camélia Belatreche	79.4	173	252.4	-0.835447135	20.5	39	38.5	41.5	-2.388116951	-1.231768973	-0.355792102	-1.141405036	-5.117083063	-2.365968562	76.34031438	
263	COL-04	Nicolas Perez Sanabria	72	147	219	-1.587983194	49.5	47	43	43	-0.764120974	-0.720166127	-0.105331938	-1.034231427	-2.623850467	-2.372777834	76.27222166	
264	LKA-02	Kisara Hirun Manimelwadu	62	173	235	-1.227486879	35.5	37	42	46.5	-1.548119032	-1.359669685	-0.160989753	-0.784159672	-3.852938141	-2.379902094	76.20097906	
265	KGZ-02	Aziret Anvarbekov	78.2	152	230.2	-1.335635773	67.5	4	36.25	56.1	0.243876529	-3.470031424	-0.481022184	-0.098248572	-3.805425651	-2.473839986	75.26160014	
266	IOD-1-04	Valeryia Katovich	68.4	155	223.4	-1.488846707	57	47	23	42.1	-0.344122014	-0.720166127	-1.218488221	-1.098535592	-3.381311955	-2.500198358	74.99801642	
267	ARM-02	Maria Sargsyan	82	144	226	-1.430266056	52	39	16.75	54	-0.624121321	-1.231768973	-1.56634956	-0.248291625	-3.670531479	-2.528123372	74.71876628	
268	BOL-02	SUSANA CAROLINA GUARACHI CAYOJA	71.2	136	207.2	-1.853849227	46	44.25	45.25	49	-0.960120489	-0.896029606	0.019898143	-0.605536989	-2.44178894	-2.584189197	74.15810803	
269	ZAF-03	Gideon Louwrens Strydom	72.6	160	232.6	-1.281561326	32	56	25	31.5	-1.744118547	-0.144612926	-1.107172593	-1.855895765	-4.85179983	-2.732736441	72.67263559	
270	IRQ-03	Rasan Kamal Ismael	80.8	150	230.8	-1.322117161	42.5	40.5	12.25	47.5	-1.156120003	-1.13584344	-1.816809723	-0.712710599	-4.821483765	-2.76422473	72.3577527	
271	UKR-02	Balzamov Mykola	83.8	161	244.8	-1.006682885	20.5	47.5	5	46.5	-2.388116951	-0.688190949	-2.220328876	-0.784159672	-6.080796448	-2.825451341	71.74548659	
272	CYP-03	Sophia Petropoulou	76	143	219	-1.587983194	38.5	49	14	50	-1.380119448	-0.592265416	-1.719408549	-0.534087916	-4.225881329	-2.851945855	71.48054145	
273	CYP-02	Antoniou Efstathios	83.2	153	236.2	-1.200449655	40	33	35.75	26.9	-1.296119656	-1.615471108	-0.508851091	-2.184561501	-5.605003356	-2.876908221	71.23091779	
274	ARE-01	Alanood Osama Abdalla	52.8	142	194.8	-2.133233872	30	57	41.75	48.5	-1.856118269	-0.08066257	-0.174904206	-0.641261526	-2.752946571	-2.956641204	70.43358796	

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Rank	Student_Code	Student Name	T_1	T_2	T_Total	t_score_total	PMB	EE	BC	BI	t score_PMB	t score_EE	t score_BC	t score_BI	Z_E_SUM	Final_T_SCORE	Final Score	Award
275	ZAF-01	Aabidah Khan	60.4	144	204.4	-1.916936082	43.5	49.13	24.75	44.3	-1.100120142	-0.58395187	-1.121087047	-0.941347632	-3.74650669	-3.037517612	69.62482388	
276	PAK-01	Ayehsa Jawad Khan	79.6	144	223.6	-1.484340503	38.5	27	17.5	48.5	-1.380119448	-1.999173242	-1.524606199	-0.641261526	-5.545160415	-3.142900024	68.57099976	
277	ISL-01	Jakob Ragnar Jóhannsson Sigurdsson	73.4	157	230.4	-1.331129569	48	39	0	36.5	-0.848120766	-1.231768973	-2.498617947	-1.498650401	-6.077158087	-3.148809789	68.51190211	
278	SWE-04	Sameer Farhan Arif	69.4	159	228.4	-1.376191609	40.5	28	0	48	-1.268119726	-1.935222886	-2.498617947	-0.676986062	-6.378946621	-3.28413689	67.1586311	
279	TKM-03	Jelaleddin Aydogdyev	81.4	153	234.4	-1.24100549	18.5	45.25	1.25	41.5	-2.500116674	-0.83207925	-2.429045679	-1.141405036	-6.902646639	-3.30558964	66.9441036	
280	ARE-02	Aya Khalid Al Suwaidi	52.8	147	199.8	-2.020578773	33	39	40.75	38.5	-1.688118685	-1.231768973	-0.23056202	-1.355752255	-4.506201934	-3.368385429	66.31614571	
281	QAT-02	Daniyah Abdulfatah Said Mohamed	45.2	155	200.2	-2.011566365	39	25.5	42.75	43.3	-1.352119518	-2.095098776	-0.119246392	-1.012796705	-4.57926139	-3.381225132	66.18774868	
282	TKM-04	Seyitnyyazova Nazli	72.6	156	228.6	-1.371685405	22.5	40.25	7.5	37.5	-2.276117229	-1.151831029	-2.081184341	-1.427201328	-6.936333926	-3.446345434	65.53654566	
283	COL-01	Carolina Ceballos Gomez	63.6	156	219.6	-1.574464582	2	41	27.5	44.5	-3.424114385	-1.103868262	-0.968028058	-0.927057817	-6.423068522	-3.495606741	65.04393259	
284	IRQ-04	Shad Bootan Maarooof	70.4	152	222.4	-1.511377727	31	36	11	32.5	-1.800118408	-1.42362004	-1.886381991	-1.784446692	-6.894567132	-3.573545293	64.26454707	
285	MNE-02	Asija Ećo	59.8	148	207.8	-1.840330615	37.5	35.5	29.25	26.5	-1.436119309	-1.455595218	-0.870626883	-2.21314113	-5.975482541	-3.627599642	63.72400358	
286	GEO-02	Khachidze Nini	67.2	155	222.2	-1.515883931	24	24	13	44	-2.192117437	-2.191024309	-1.775066363	-0.962782354	-7.120990463	-3.645774799	63.54225201	
287	MKD-04	Tamara Lazarovska	60.4	137	197.4	-2.07465322	49.5	28	24.75	13	-0.764120974	-1.935222886	-1.121087047	-3.177703614	-6.998134521	-4.167797831	58.32202169	
288	ARE-03	Hessa Ahmed Aldhmnai	60.8	125	185.8	-2.336013049	34.5	38	0	22	-1.604118893	-1.295719329	-2.498617947	-2.534661958	-7.933118127	-4.7088116	52.911884	
289	BOL-01	SOFIA ZAMURIANO LAFUENTE	62.2	132	194.2	-2.146752483	38	21	3	20.5	-1.408119379	-2.382875377	-2.331644504	-2.641835567	-8.764474827	-4.768210129	52.31789871	
290	TJK-01	Ahmadjon Akhmadov	62.8	127	189.8	-2.24588897	13	3	30.25	31.5	-2.808115911	-3.53398178	-0.814969069	-1.855895765	-9.012962525	-4.941669378	50.58330622	
291	TJK-04	Musoeva Pariso	57	98	155	-3.029968457	28.5	0	13.25	26	-1.940118061	-3.725832847	-1.761151909	-2.248865666	-9.675968484	-5.924054191	40.75945809	
292	TJK-02	Saidov Emomali	48	104	152	-3.097561516	10	17.25	26.75	12	-2.976115495	-2.622689211	-1.009771418	-3.249152687	-9.857728811	-6.04601183	39.5398817	
293	TJK-03	Mavzuna Iskandarova	22	70	92	-4.449422699	7	11.75	0	22	-3.144115079	-2.974416167	-2.498617947	-2.534661958	-11.15181115	-7.784933518	22.15066482	



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Innovations at 34th IBO



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5.1 Digital Innovation for Bioinformatics

We have designed a custom software for assessing the students in Theory-1, Theory-2 and Bioinformatics Experiment which eliminates printing of over 65,000 pages. **We hosted the Olympiad in a more sustainable way.**

IBO 2023 - Examination

Q 1.3
Answer

CLUSTAL X (1.81) multiple sequence alignment

H.sapiens_16S	TACCT-----GGTTGATCCTGCCAGTAG-CATATGCT-
TGCTCAAAGA	TATCT-----GGTTGATCCTGCCAGTAGTCATATGCT-
S.cerevisiae_16S	-ACCT-----GGTTGATCCTGCCAGTGGTTATATGCT-
TGCTCAAAGA	-TTGTTGAGAGTTTGATCCTGGCTCAGGCGAAGC--
C.paramecium_16S	
T.thermophilus_16S	
TGGCGGCGTGC	

Q 1.4
Statement

	True	False
The alignment provides evidence for insertions or deletions happening during the evolution of 16S/18S rRNA genes	<input type="radio"/>	<input type="radio"/>
The alignment provides evidence for eukaryotic rRNAs being longer than rRNA of Archaea and Bacteria	<input type="radio"/>	<input type="radio"/>
C. paramecium rRNA is the shortest sequence because it contains the smallest number of gaps in the alignment.	<input type="radio"/>	<input type="radio"/>

Q 1.5
Answer

{{(T.peptonophilus_16S:0.07755,M.formicum_16S:0.07755):0.01945,P.syntrophic un_16S:0.09700):0.05077,(T.thermophilus_16S:0.10122,(Z.mays_16S:0.10122,(S.pneumoniae_16S:0.09442,E.coli_16S:0.09442):0.00978):0.00299):0.04655):0.16641,(C.paramecium_16S:0.17866,(S.cerevisiae_16S:0.11973,H.sapiens_16S:0.11973):0.05893):0.08898):0.00000;





Response capturing system:

Task 1

Instructions:

Input Sequence

Copy

Output

Bioinformatics - Experiment Task-1 International Biology Olympiad

Button Button Button Button Button Button Button

Tab Tab Tab

Upload

Choose File no file selected

Or paste it here (load example of sequences)

Clear

More Options

Submit

Centre





IBO 2023

Input SequencesTools

Sequence Alignment

Format: fasta
Length: 175

```
>Seq1  
AGCTGCATGCTCGACTACGATCAGCATCGACTAGCATCAGCTACGACT  
>Seq2  
AGCTGCATGCTTGACTACGATCAGCATCGGACTACGACTAGCATCAGCTACGACT  
>Seq3  
AGCTGCATGCTCGACCACGATCAGCGACTACGACTAGCGTCAGCTACGACT
```

Submit

IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6
1.7

Section 2

2.1 2.2

Student Information

Student

Question:

Open the "Input Sequences" menu.
Click on the "ABC fasta" option.
Copy all the three sequences in the fasta file.
Paste them into the Notepad.
Change the names of the sequences from "SeqA", "SeqB" and "SeqC" to "Seq1", "Seq2" and "Seq3" correspondingly.
Open the "Tools" menu.
Click on the "Sequence Alignment" tool.
Paste your modified fasta (all three sequences) into the input field of the tool.
Press "Submit".
Copy the output of the tool.
Paste it into the input field of this question.

Back Flag Unflag Reset Save

IBO 2023 UAE

Sign in to your account

Username

Password

Sign in

IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6
1.7

Section 2

2.1 2.2

Student Information

Student

Question:

Express your opinion about the following areas of biology

	I love it	It's OK	Not my thing
Molecular Biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Animal Biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant Biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Genetics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evolution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ecology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Back Flag Unflag Reset Save





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IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6

1.7

Section 2

2.1 2.2

Student Information

Student

Student ID: 1

Notepad

>SeqA
AGCTGCATGCTCGACTACGATCAGCATCGACTACGACTAGCATCAGCTACGACT
>SeqB
AGCTGCATGCTTACTACGATCAGCATCGGACTACGACTAGCATCAGCTACGACT
>SeqC
AGCTGCATGCTCGACCAAGATCAGCGACTACGACTAGCGTACGCTACGACT

IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6

1.7

Section 2

2.1 2.2

Student Information

Student

Student ID: 1

Question:

Open the "Input Sequences" menu.
Click on the "ABC.fasta" option.
Copy all the three sequences in the fasta file.
Paste them into the Notepad.
Change the names of the sequences from "SeqA", "SeqB" and "SeqC" to "Seq1", "Seq2" and "Seq3" correspondingly.
Open the "Tools" menu.
Click on the "Sequence Alignment" tool.
Paste your modified fasta (all three sequences) into the input field of the tool.
Press "Submit".
Copy the output of the tool.
Paste it into the input field of this question.

Back

Flag

Unflag

Reset

Save

IBO 2023

Input SequencesTools

NOTEPAD

Questions

Section 1

1.1 1.2 1.3 1.4 1.5 1.6

1.7

Section 2

2.1 2.2

Student Information

Student

Student ID: 1

Question:

For each of the following countries enter the year in which they hosted IBO

Country	Year
UAE	
Armenia	
Portugal	
Japan	

Back

Flag

Unflag

Reset

Save



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5.2 ArIBO - Custom software for Theory exams



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Answer to IBO/ ArabicIBO



Custom built for IBO



Same PC for all students



Safe Exam Browser based



Demo for students – 3rd July



One question of each type of questions (MTF, Fill in the Blanks, Numerical answer)



Auto Graded and excel/pdf results for each student



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5.3 Mental Well being (Schedule & Printing)



We have created an innovative schedule which will allow the Jury members and the students to participate in the IBO keeping their MENTAL WELLBEING in mind. We hope this will be a new international standard which will be followed in future as well.



Break after Experiment Discussion Day for Jury members



Schedule based discussion clearly indicating when you need to participate for what subject area?



Student appear for Theory on different days to make it easier



Lesser printing for the Jury members for both theory exam(No Answer sheet and only one question paper) and one experiment(Bioinformatics) – No Answer Sheet





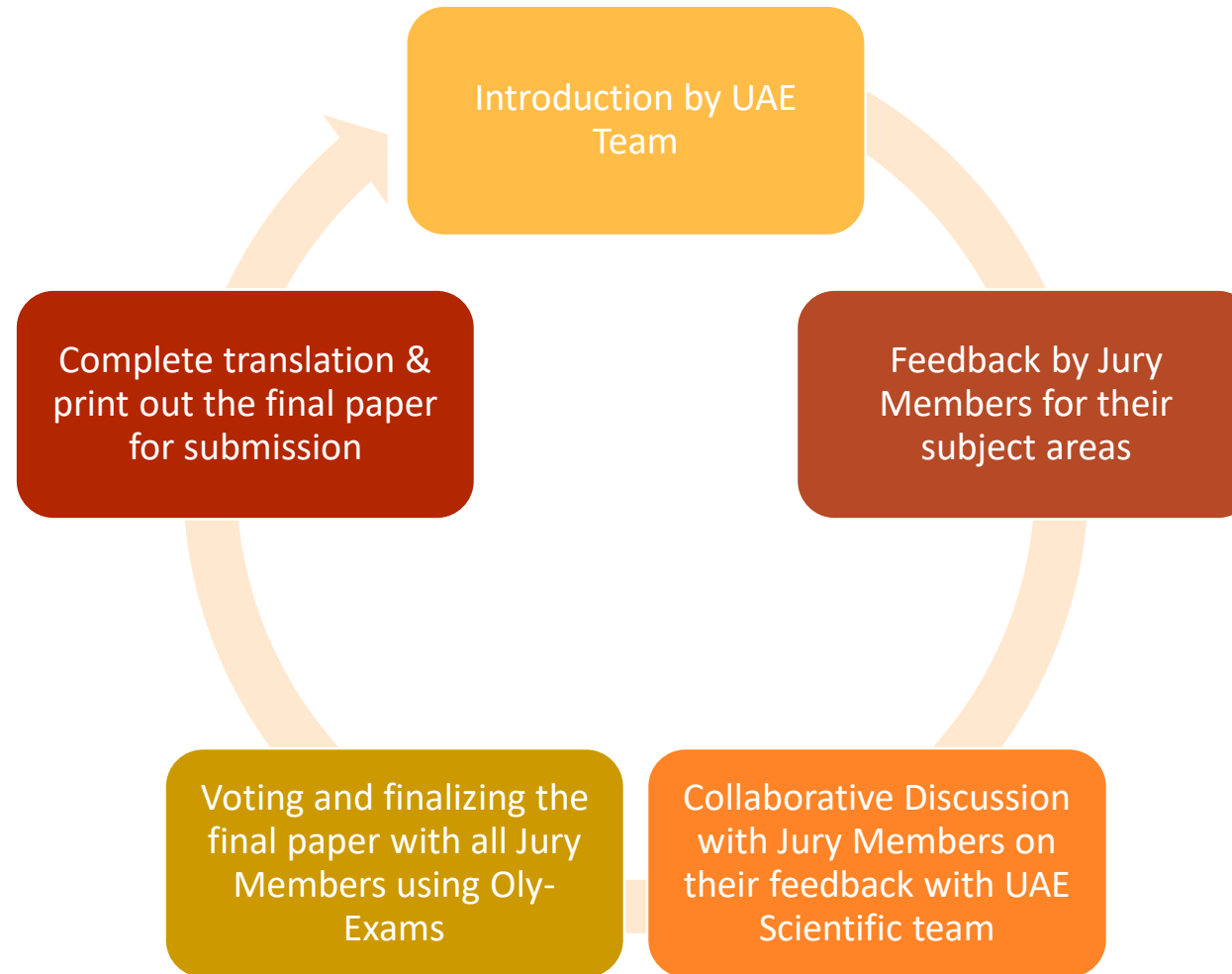
Recommended best practices

- **Comments:**

- Objective of commenting will be improve the BIOLOGY, reduce ambiguity, improve clarity and reduce the length.
- Before posting your comment on oly-exam please check if your concern has already been raised. If yes, please upvote/downvote it to minimize the total comments.
- If you don't like what you see, please provide an alternative proposal to consider so that we can understand what you have to offer. We will discuss with you and present alternatives to all the Jury members for voting/approval. **Any comments without a firm proposal will be ignored and closed without review.**
- Before the start of the discussion, please check if your comment has already been resolved by our scientific committee. It will minimize the discussion time.
- Please ensure that you will complete commenting before the cut-off to avoid getting into a cyclic loop of discussions. Any comment received after the cut off time will be considered only in the next block of discussion of that area.



Core Philosophy



5.4 Arbitration - A TQM approach



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Unmarked
Scan Copy

- 6th July (Day after experiment) before 14:00

Marked
Photocopy

- 8th July afternoon before 14:00

Update
Oly Exam

- 8th July before 20:00, Enter your version of score online

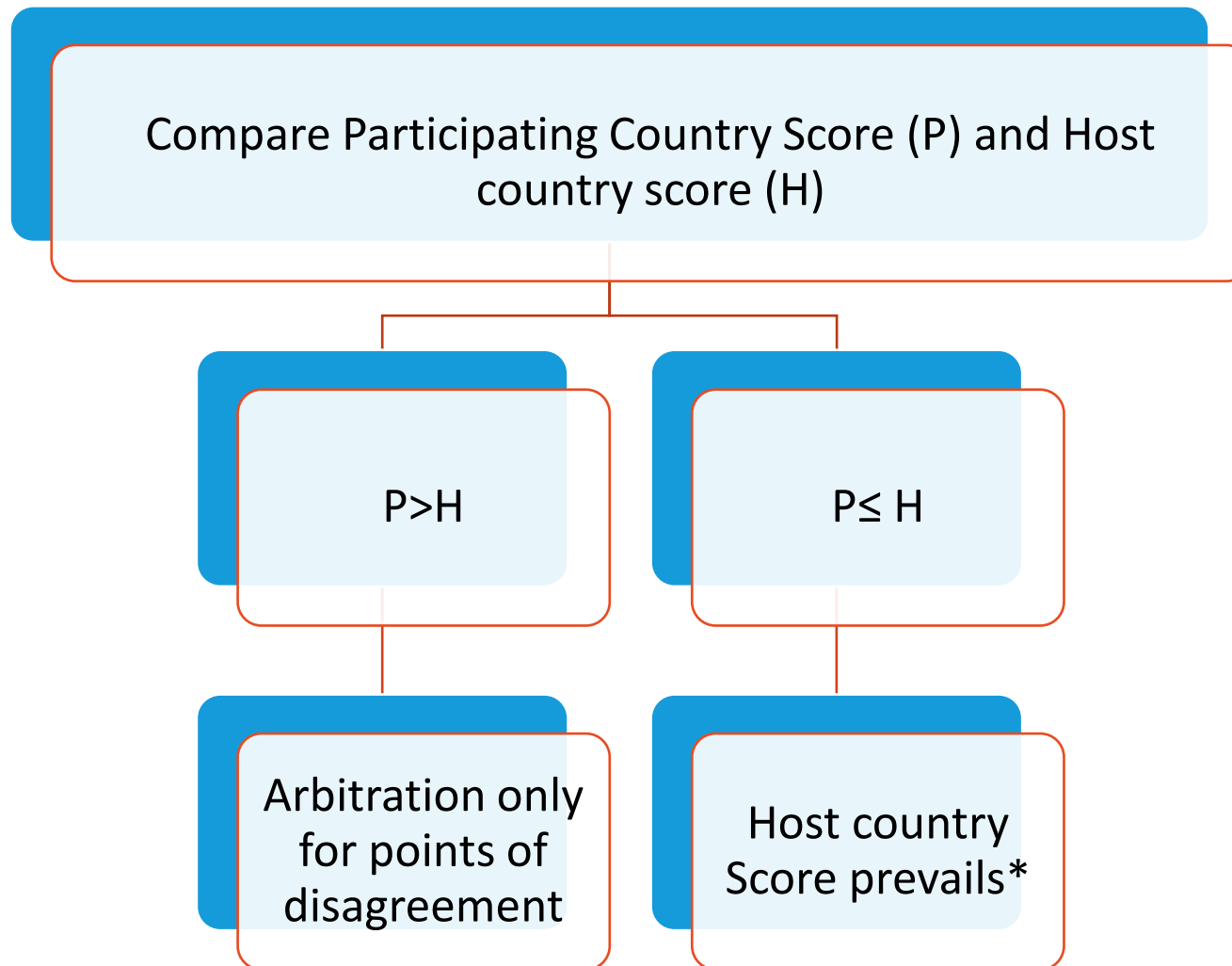


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Arbitration Principle



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* - Unless the participating country volunteers on trust basis



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Arbitration Schedule – (9th July)

Each Country got three Arbitrations (Only For Experiment)

Schedule was available on 8th July along with timings

Each Arbitration was for 15 minutes to discuss all 4 students' paper

The Arbitration window was closed as per the scheduled time





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1



2



3



4



5



6



← Ecology & Ethology



← Biochemistry



← Plant Molecular Biology



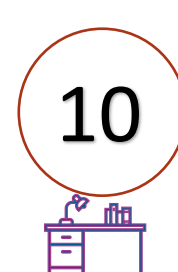
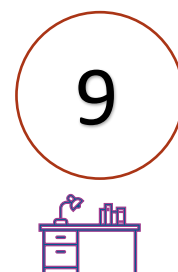
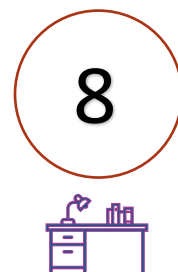
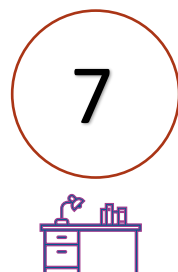
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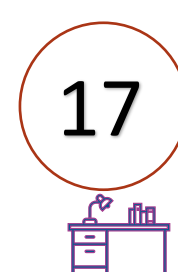
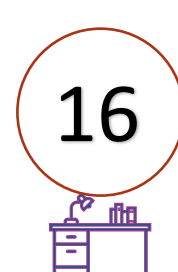
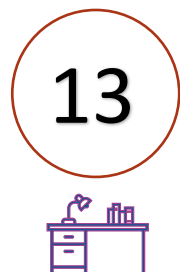


← Experiment-1



After 15 Minutes

← Experiment-2



After 15 Minutes

← Experiment-3



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Every Hour – 18 Countries



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Country Name
Argentina
Armenia
Australia
Azerbaijan
Bangladesh
Belgium
Bolivia
Brazil
Bulgaria
Canada
China
Chinese Taipei
Colombia
Croatia
Cyprus
Czech Republic
Denmark
Estonia

Country Name
Finland
France
Georgia
Germany
Greece
Hong Kong, China
Hungary
Iceland
Independent Olympiad Delegation-1
Independent Olympiad Delegation-2
India
Indonesia
Iran
Iraq
Israel
Italy
Japan
Kazakhstan

Country Name
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Mexico
Moldova
Mongolia
Montenegro
Netherlands
New Zealand
Nigeria
North Macedonia
Norway
Pakistan
Philippines
Poland
Portugal
Qatar

Country Name
Romania
Saudi Arabia
Singapore
Slovakia
Slovenia
South Africa
South Korea
Spain
Sri Lanka
Sweden
Switzerland
Syria
Tajikistan
Thailand
Turkey
Turkmenistan
UAE
Ukraine

Country Name
United Kingdom
United States
Uzbekistan
Vietnam



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What do you do?

Discuss all the points of disagreement and Sign-off the physical sheet

	ARE-S-01		ARE-S-02		ARE-S-03		ARE-S-04	
A 1.1 (33)	12		4		13		--	
A 1.2 (13)	11		6		7		--	
A 2.1 (10)	8	10	7		5		--	
A 2.2 (20)	7		8		15		--	
A 3.1 (07)	0		5		5		--	
A 4.1 (17)	16		6		10		--	
A 5.1 (19)	1		3		10		--	
Total(119)	55		39		60		--	

Host Arbitrator

Delegate Arbitrator





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Click Submit Score

Oly - Exam



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5.5 Reduce printing - COP 28 approach

"Reducing Printing and Embracing Sustainability: COP 28 Approach
Implemented in IBO-2023 Through Online Examinations"





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**We saved Printing of
65,000 Pages**



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Introduction

- In a world increasingly focused on sustainability, education is taking center stage in promoting eco-friendly practices. The International Biology Olympiad (IBO), a prestigious gathering of young biologists, is leading the way in this endeavor. In IBO-2023, a groundbreaking shift to online examinations, aligning with the COP 28 approach, is revolutionizing the event while significantly reducing its environmental impact.

The COP 28 Approach

- COP 28 signifies the 28th annual meeting of the United Nations Framework Convention on Climate Change (UNFCCC). It's a platform where nations unite to combat climate change. IBO-2023's adoption of this approach underscores its commitment to sustainability in education.





Online Examinations: Transforming Education

Paperless Testing: IBO-2023 has replaced traditional paper-based exams with digital ones. This move significantly reduces paper and ink consumption, contributing to conservation efforts.

Reduced Carbon Footprint: The shift eliminates the need for extensive printing and transportation of materials, reducing the event's carbon footprint.

Efficient Resource Management: Digital exams allow for streamlined resource control, ensuring test security and efficient distribution.

Cost Savings: The transition saves resources long-term, which can be redirected toward educational initiatives.





Educational Benefits of Online Examinations

Equal Access: Online exams ensure all participants have equal access to assessments, promoting inclusivity.

Enhanced Security: Rigorous security measures prevent cheating, ensuring fair assessments.

Immediate Assessment: Assessment is quicker, facilitating faster evaluation.

Adaptability: Online exams accommodate various formats, offering a comprehensive evaluation of participants' skills.





Conclusion

- **Sustainable Education Commitment:** IBO-2023's adoption of online examinations under the COP 28 approach signifies a dedication to sustainable education.
- **Environmental Impact Reduction:** This shift significantly reduces the event's environmental impact by eliminating the need for paper-based testing.
- **Enhanced Accessibility:** Online exams ensure equal access for all participants.
- **Improved Security:** Rigorous digital security measures prevent cheating and maintain the fairness of assessments.
- **Efficiency in Evaluation:** Online examinations offer efficiency through real-time results and adaptability to various assessment formats.
- **Global Progress:** IBO-2023's move toward online exams sets an example for the global education community as it strives for sustainability.



5.6 Upskilling University Students in Scientific Committee

- We have engaged 100 Graduates, PhD and Research Assistants from UAEU as part of the Scientific team as Scientific Leaders, Scientific Assistants and Laboratory/Exam Assistants.
- 34th IBO was a great platform that gave the UAE students exposure to many skills like composing theory questions, designing and testing new experiment, evaluation and moderation.
- Apart from building capacity and skills in students, it has instilled in them a sense of curiosity to go beyond the boundaries of University and conquer the opportunities of the world.



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5.7 Capacity building in Volunteers

- We have engaged 200 Volunteers that will play the role of Student-Guide, Jury-Room Guide, Exam-Management experts and IT/Media assistants.
- 34th IBO is an amazing opportunity to showcase the culture of Volunteering that is part of the fabric of UAE.
- These volunteers acted as brand ambassadors of UAE and let the 600+ visitors experience the true values of Emirati culture and tradition.
- The volunteers in turn got to know more about the visiting countries as they form a close bond with them while spending 10 days with them.





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International Collaboration for IBO 2023



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Theory questions contribution by Japan:

Question Area	No of questions contributed	No of questions used in IBO 2023
Animal Anatomy & Physiology	2	0
Cell Biology, Molecular Biology & Microbiology	4	4
Ecology	1	1
Genetics, Population Genetics & Evolution	3	1
Plant Anatomy & Physiology	1	1

- 11 theory questions from Japan
- 7 questions used in the final IBO 2023 Theory exam





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5.9 Inspectors for exams



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Inspectors at the 34th IBO in UAE



RNDr. Lenka Libusová, Ph.D., Czech Republic

Paulius Lukas Sauniunas, Lithuania

Charlotte Falkenberg, Germany

Gulsara Mukash, Kazakhstan

Angela Denise Sharples, New Zealand

Askar Mazmikenov, Kazajhstan

Gajdembek Tursunov, Kazakhstan

Birthe Zimmerman , Denmark

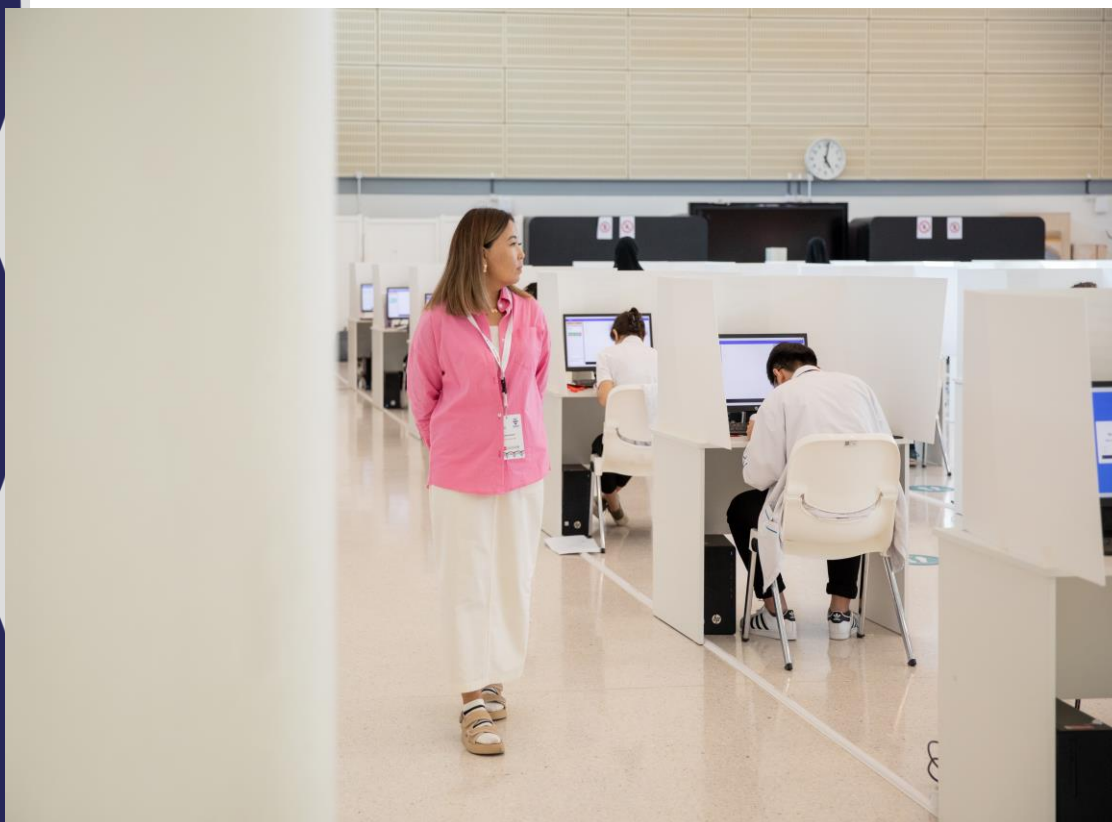


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Inspectors at the 34th IBO in UAE



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Inspectors at the 34th IBO in UAE



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Objective and Responsibilities

- **Objective:** Ensuring fairness and seamless execution of all IBO examinations and providing an equitable testing environment for every student.
- **Inspector Selection:** A dedicated team of inspectors meticulously chosen from the esteemed jury panel.
- **Responsibilities:** Inspectors were responsible for maintaining a constant presence in laboratories during practical exams and exam halls during theoretical exams.
- **Surveillance:** Inspectors ensured surveillance during the exams to maintain exam integrity.





Documentation and reporting

- **Incident Documentation:** The inspectors' vital role involved documenting incidents and challenges that occurred during the examinations.
- **Strategy Documentation:** Detailed accounts of the strategies employed to address these issues were recorded by the inspectors.
- **Comprehensive Reports:** Subsequently, comprehensive reports were provided by the inspectors to the jury members.
- **Proficient Handling:** The reports attested to the proficient handling of all challenges by the scientific team.
- **Additional Exam Time:** The reports also confirmed that affected students were granted additional examination time as necessary.



5.10 Communication via whatsapp



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Introduction

Purpose: A Central Communication Hub for Jury Members

WhatsApp groups served as a central communication hub for jury members throughout the International Biology Olympiad (IBO) 2023. This innovative approach yielded several notable advantages:

QR Code Accessibility

To facilitate the easy and hassle-free inclusion of jury members, a QR code was generated, granting instant access to the WhatsApp group. This QR code-based entry mechanism eliminated the need for cumbersome contact sharing and manual invitation processes. Jury members could simply scan the QR code and seamlessly become part of the group, minimizing administrative efforts.

Daily Schedule Management

WhatsApp groups were employed for disseminating the daily schedules of events, activities, and proceedings to jury members and volunteers. The real-time sharing of schedules ensured that everyone was well-informed, contributing to the smooth execution of the Olympiad.

Efficient and Timely Communication

The primary advantage of using WhatsApp groups lay in its ability to streamline communication. Important updates, reminders, and announcements regarding changes in the schedule, venues, or any other pertinent information were efficiently conveyed. This eliminated the need for time-consuming email chains or phone calls, resulting in swift responses and enhanced efficiency.





Introduction

Real-time Collaboration

WhatsApp groups promoted real-time collaboration among jury members, enabling them to discuss and address any emerging issues or concerns promptly. This fostered a sense of unity and collective problem-solving, ultimately enhancing the overall Olympiad experience.

Immediate Clarifications and Updates

During the IBO 2023, it was observed that the WhatsApp group played a pivotal role in resolving queries and providing immediate clarifications. Jury members and volunteers could seek information and clarification on various aspects of the event, and prompt responses from organizers ensured a smooth flow of activities.

In conclusion, the incorporation of WhatsApp groups as a communication tool during the International Biology Olympiad 2023 proved highly advantageous. It facilitated the efficient dissemination of information, improved real-time collaboration, and simplified the onboarding process for jury members, ultimately contributing to the successful and well-organized execution of the event.





Effective Usage of WhatsApp

Instant Notifications:

WhatsApp groups were instrumental in sending instant notifications to jury members as soon as question papers were printed. This real-time alert system ensured that the jury members were promptly informed about the readiness of the question papers, enabling them to prepare for their roles without delay.

Schedule Updates:

WhatsApp groups were crucial for promptly notifying all jury members about any changes in the event schedule. This ensured that everyone was well-informed and could adjust their plans accordingly, contributing to the smooth flow of activities.

Hostel Updates:

Jury members were kept informed about the students' stay at the hostel through WhatsApp updates. This provided a channel for immediate communication regarding accommodation matters and helped address any issues efficiently.

Exam News:

WhatsApp served as a crucial platform for providing real-time updates from the exam site. Jury members received timely information about exam progress, any unforeseen challenges, and resolutions, enabling them to make informed decisions as necessary.

Jury Insights:

WhatsApp groups facilitated the sharing of news and information relevant to the jury's responsibilities. This included updates on judging criteria, evaluation processes, and other important details, ensuring that the jury members were well-prepared for their roles.





Effective Usage of WhatsApp

Excursion Details:

Excursions are an integral part of the IBO experience, and WhatsApp was used to share excursion-related information and details. This included itineraries, safety guidelines, and any last-minute changes, allowing jury members to enjoy these cultural experiences without complications.

Time Savings:

WhatsApp significantly contributed to time savings by eliminating the waiting time for jury members to collect question papers manually. With instant notifications, jury members could efficiently retrieve the papers, optimizing the overall efficiency of the examination process.

In essence, WhatsApp groups acted as a dynamic communication hub, providing an efficient and convenient means of relaying vital information to jury members. Whether it was about instant notifications for question paper readiness, schedule updates, hostel arrangements, exam news, jury insights, or excursion details, WhatsApp played a pivotal role in ensuring that all aspects of IBO 2023 ran smoothly and that everyone involved was well-informed and prepared for their respective roles.



Benefits

1. **Real-time Updates:** WhatsApp enabled instant communication and timely notifications, ensuring everyone received crucial updates promptly.
2. **Efficient Information Sharing:** It efficiently disseminated important information, such as schedules, hostel details, and excursion itineraries, reducing the risk of miscommunication.
3. **Time Savings:** Instant notifications on WhatsApp minimized waiting times, optimizing the efficiency of the printing process.
4. **Preparedness:** Continuous information flow on WhatsApp ensured that all participants, including jury members and volunteers, were well-prepared for their roles.
5. **Accessibility:** The use of a QR code simplified access for jury members, eliminating administrative complexities.
6. **Enhanced Participant Experience:** It enriched the overall experience by sharing excursion details and cultural insights.
7. **Transparency:** WhatsApp promoted transparency by providing simultaneous access to information for all stakeholders.
8. **Efficient Event Management:** Streamlined communication contributed to efficient event management, reducing disruptions.
9. **Adaptability:** WhatsApp's versatility allowed for tailored communication strategies to meet evolving event needs.



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5.11 Education Conference

Biology Education: a Key Factor for a Sustainable World



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Agenda



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Date : July 10, 2023 — 10:00 AM to 1:00 PM



Venue : Auditorium, Crescent Building, UAE University, Al Ain



The conference is being organized by the [UAE Ministry of Education](#) in collaboration with the association [International Biology Olympiad e.V.](#).



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Kathy Frame, USA



Abdulsamie Hanano, Syria



Mohammad Al Qassem, UAE



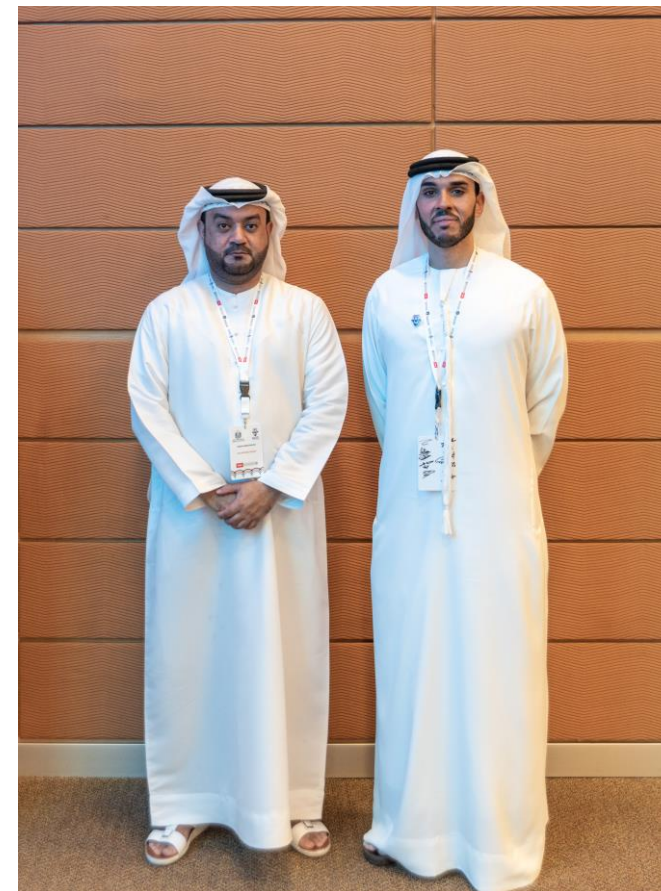
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Saumitra Chakravarty,
Bangladesh



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Presentations

Duration of each presentation: 20 min each

- **Quantitative simulator-based learning of ecology and evolution** , Saumitra Chakravarty, Bangladesh

Presentation

Simulator URL : <http://saumitra-chakravarty.com/hardy-weinberg-simulator>

- **Antarctica First Look Expedition Highlights** Kathy Frame, USA
- **Open biology towards sustainable thinking** , Abdulsamie Hanano, Syria

Presentation

- **The Arabian Oryx in the UAE:** Mohammad Al Qassem, UAE, Central Veterinary Research Laboratory
Dubai: Novel Insights Into Life-Threatening Diseases



Panel Discussion



Moderated by
H.E. Dr. Amna Al Dahak Al Shamsi
Assistant Undersecretary for Care and
Capacities Building Sector

Panelists :

- Ryoichi Matsuda, Japan, former IBO Chair
- Dennis Kappei, Germany
- Eljakim Schrijvers, The Netherlands



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Dennis Kappei, Germany

Eljakim Schrijvers, The Netherlands



Ryoichi Matsuda, Japan, former IBO Chair



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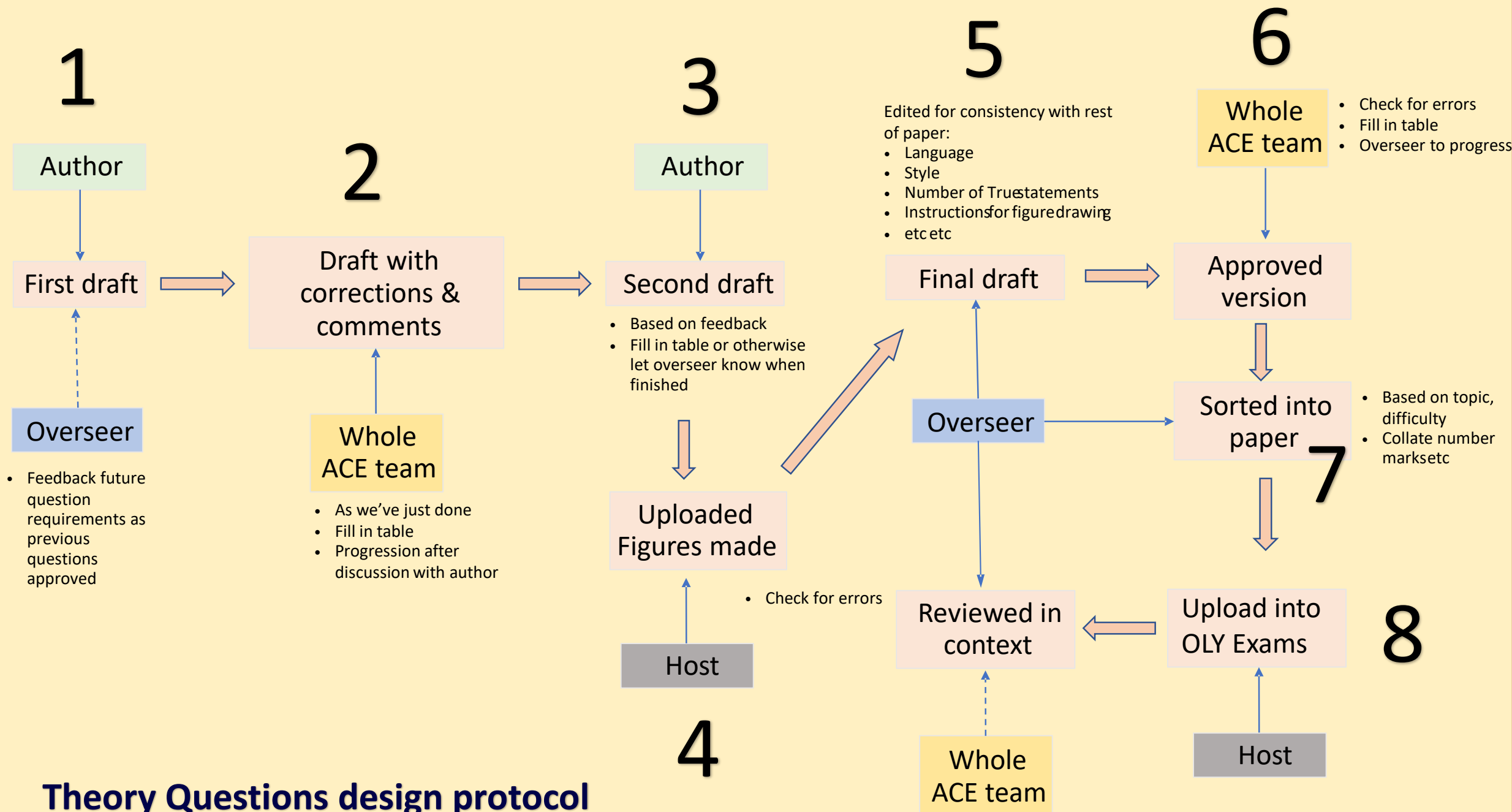
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5.12 Guidelines for all stakeholders

- We have a detailed guideline for all the processes (both academic and non-academic)
- Some of the guidelines can be added to IBO as a gift from UAE to the community of IBO as a partner for the growth of community of Olympiads.
- **Example for academic process:** Theory question design protocol
- **Example of non-academic process:** Designing a new response capturing system that can be used in future IBOs.





Theory Questions design protocol



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6.1 Feedbacks from Jury, Students, Scientific Committee



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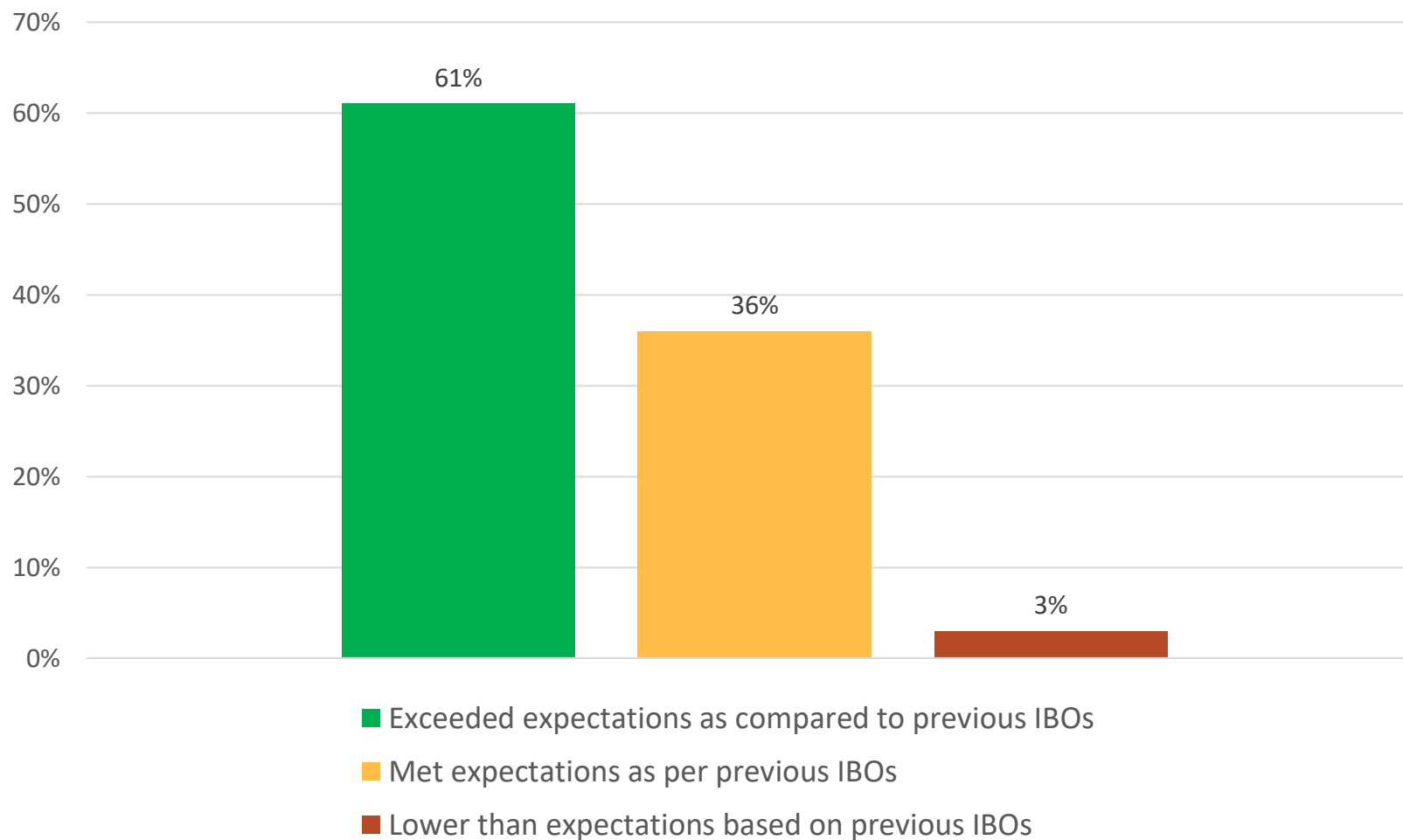
Insights from the Jury on the 34th IBO, UAE



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How would you rate the arrival, check-in and registration process?





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“I am a jury member from New Zealand & thrilled to be a part of this IBO hosted by UAE. I am really happy with the quality of exams & the kind of questions being prepared for students. This is a international community and very pleased to be a part of it”

– Dr Angela Sharples (New Zealand)

Doctor of Philosophy (PhD)

Chairperson – NZ International Biology Olympiad

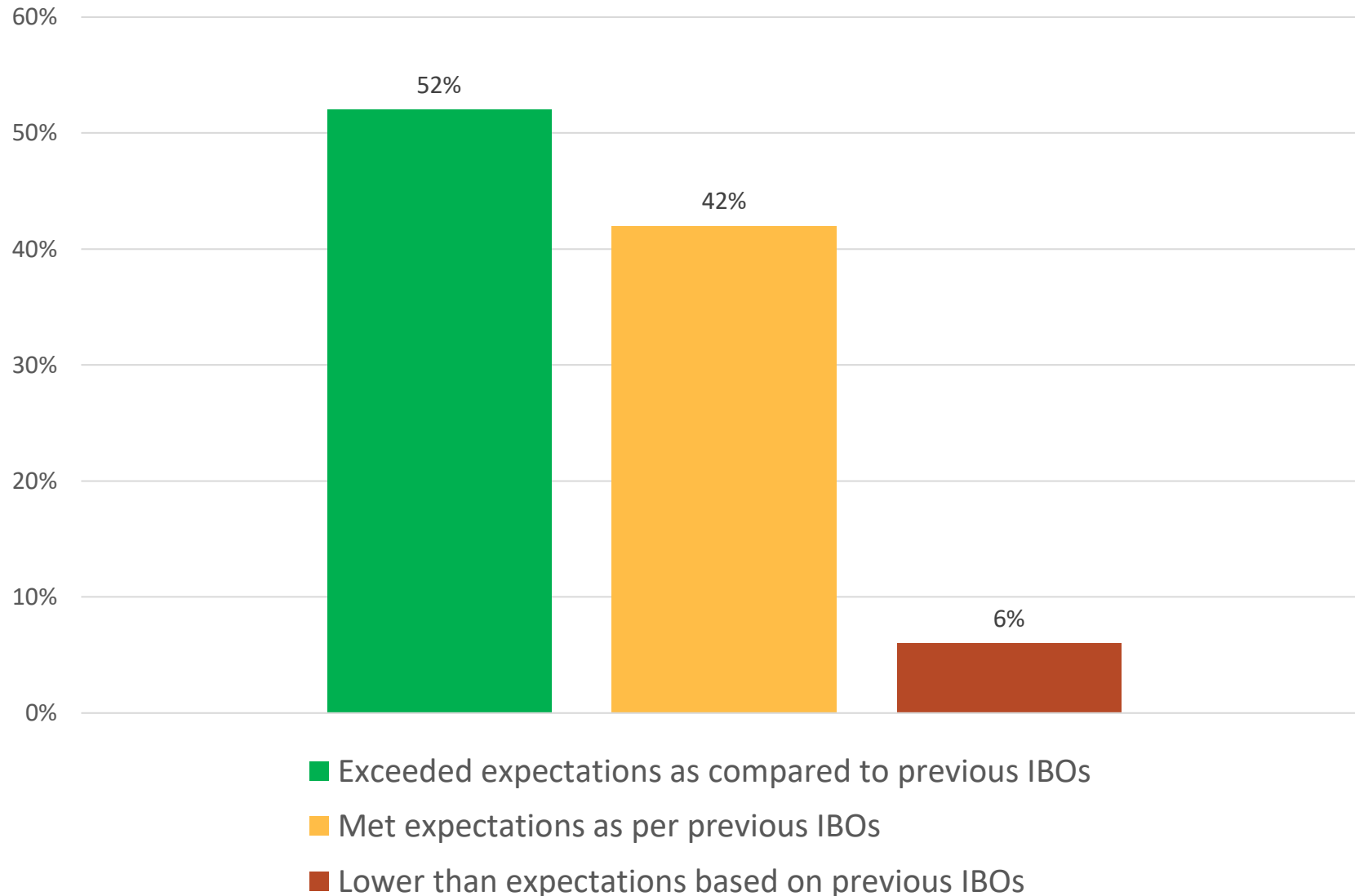


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How would you rate the Academic Tasks (4 Experiments and 2 theory exams)?



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“This is my 18th International Biology Olympiad. The impression of this IBO 2023 is wonderful. The number of participating countries is increasing and this year it is over 75. *This is maximum and the biggest IBO we have ever had.*”

-Dr Ryoichi Matsuda (Japan)
The University of Tokyo

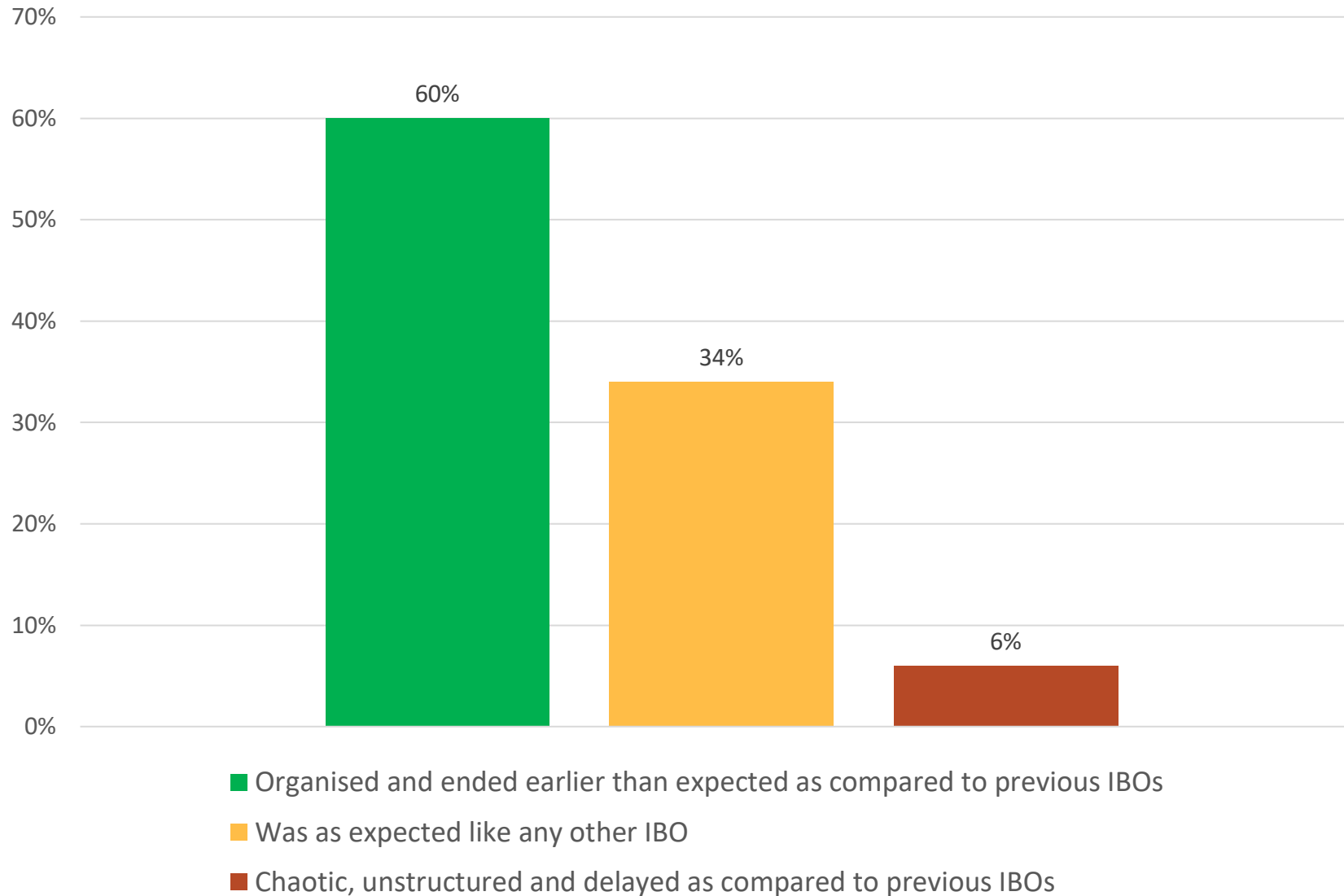


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How was the Jury discussion for all the academic Tasks (4 Experiments and 2 Theory Exams)?



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“I am part of the IBO German delegation and I am also the member of the IBO steering committee. I have come to IBOs as a jury member for last 15 years. I am extremely pleased to see what high quality exams for this year and how innovatively the organisers incorporate the technology to make sure the exam planning & the execution is going smoothly. In this context I am super excited that students are getting exposed to more and more novel topics”

-Dr Dennis Kappei (Germany)

**Department of Biochemistry, Yong Loo Lin School of Medicine,
NUS
Principal Investigator, Cancer Science Institute of Singapore,
NUS**

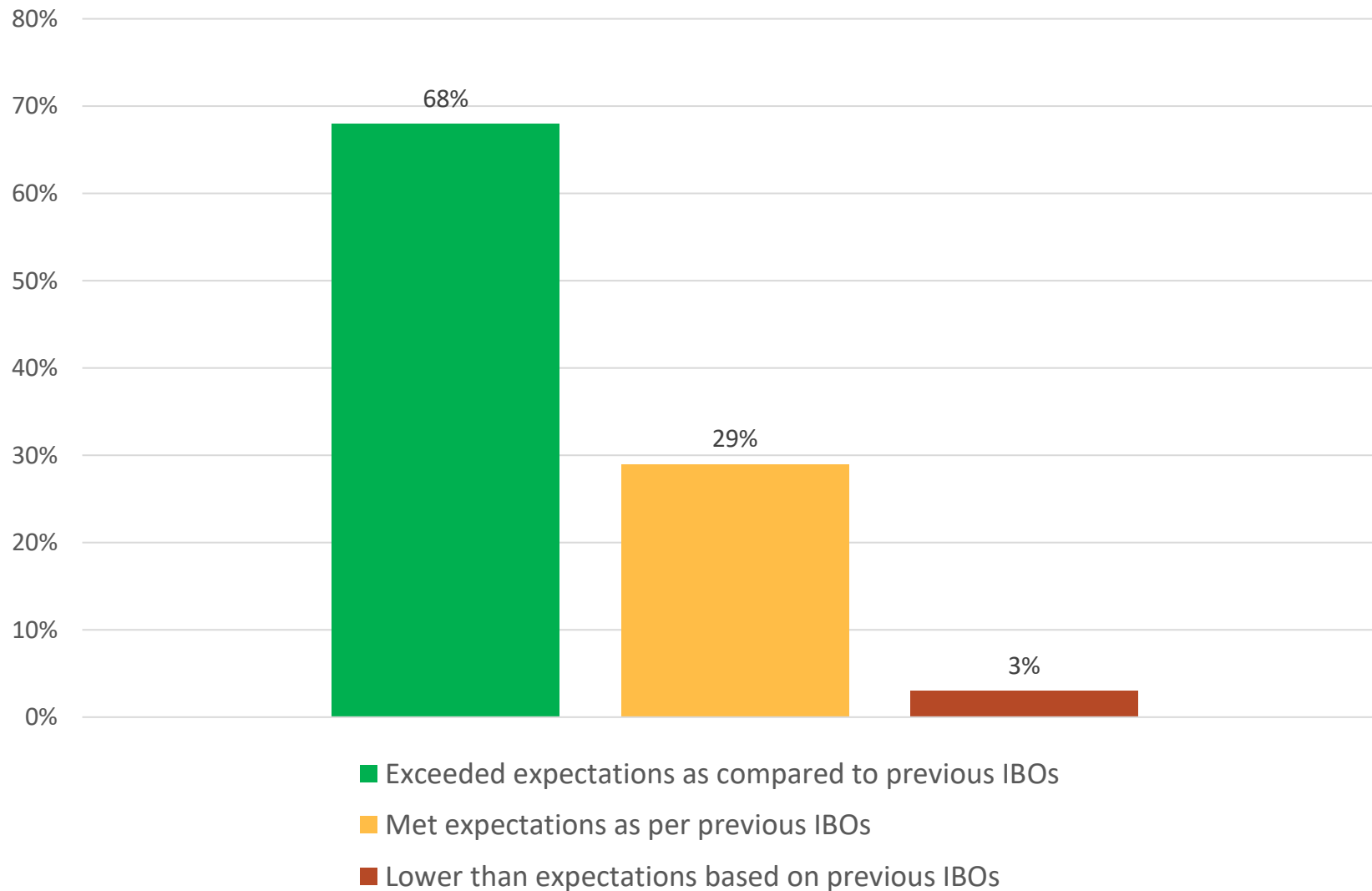


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How would you rate the arbitration process between host country and delegates?



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“I have been coming to IBOs since 2012 so usually there are ups and downs but this year there are mostly ups. There is a very pleasant atmosphere, everything is running smoothly and we have very hard-working organizers.”

-Roel Baars (Netherlands)

Inholland University of Applied Sciences, Netherlands

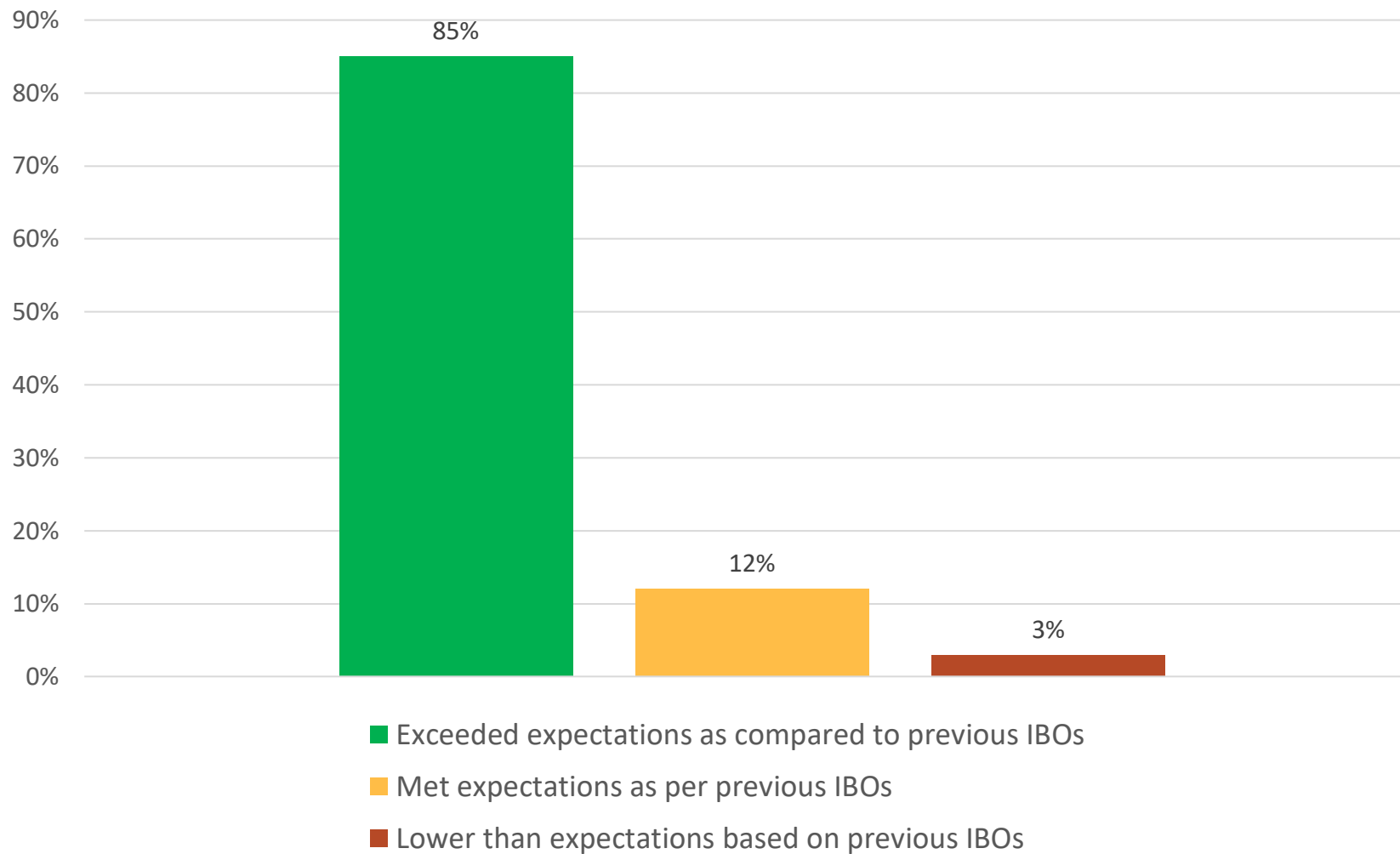


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How would you rate the food and beverage services during the Olympiad?



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This is the best IBO we have attended. The logistics were excellent, and the scientific content was impressive. You made the best platform for the jury to be highly professional, civil, and smooth in their discussions and voting, without any heated arguments or accusations.

The hospitality and welcoming attitude of the UAE team were heartwarming, and we felt like we were spending the 9-day event with our families.

Overall, the UAE team deserves kudos for their outstanding work. They made us proud, and we are grateful for the unforgettable experience.

- Dr Fatimah Alhamlan (Saudi Arabia)

Senior Scientist and Consultant | Ph. D | King Faisal Specialist Hospital and Research Centre, Riyadh



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“I am the head of the Czech Biology Olympiad. And I am attending IBO for 15th time so, I have a quite a lot of previous IBOs to compare with this one. Preparing the questions for the host was a super perfect experience because it was managed in a quite of dreamy way. I was impressed that in a time which was there for organizing the whole event was less than 1 year. They were so well prepared that the whole thing was running so smoothly. This year because of well prepared questions and the excellent management it is going super easy and that is for me just perfect event which could set standards for the future the events.”

-RNDr Jan Cerny (Czech Republic)
Charles University in Prague





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“One of the big difference between this IBO and the previous IBOs is that there is a smoother transition from one part of the test to the other. And more thorough discussion at the same time, there is a better awareness of how much time is allotted for each discussion. I like how the discussions are split into two rooms so that we can discuss two topics at the same time.”

-Ronald Cruze (Philippines)

Manila University

Director of the University Research Ethics Office



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“This is one of the most memorable IBOs ever.”

-Dr Poon Kasemsap (Thailand)

Director, Horticulture Innovation Lab Regional Center at Kasetsart University, Thailand



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“I am the head jury from the state of Israel. This is my second time in IBO and first time in the UAE and I have to say I am very impressed with the organization & this is been a tremendous experience so far and having the time of life. Great hosting, great hospitality.”

-Prof Yair Pozniak (Israel)
Tel Aviv University



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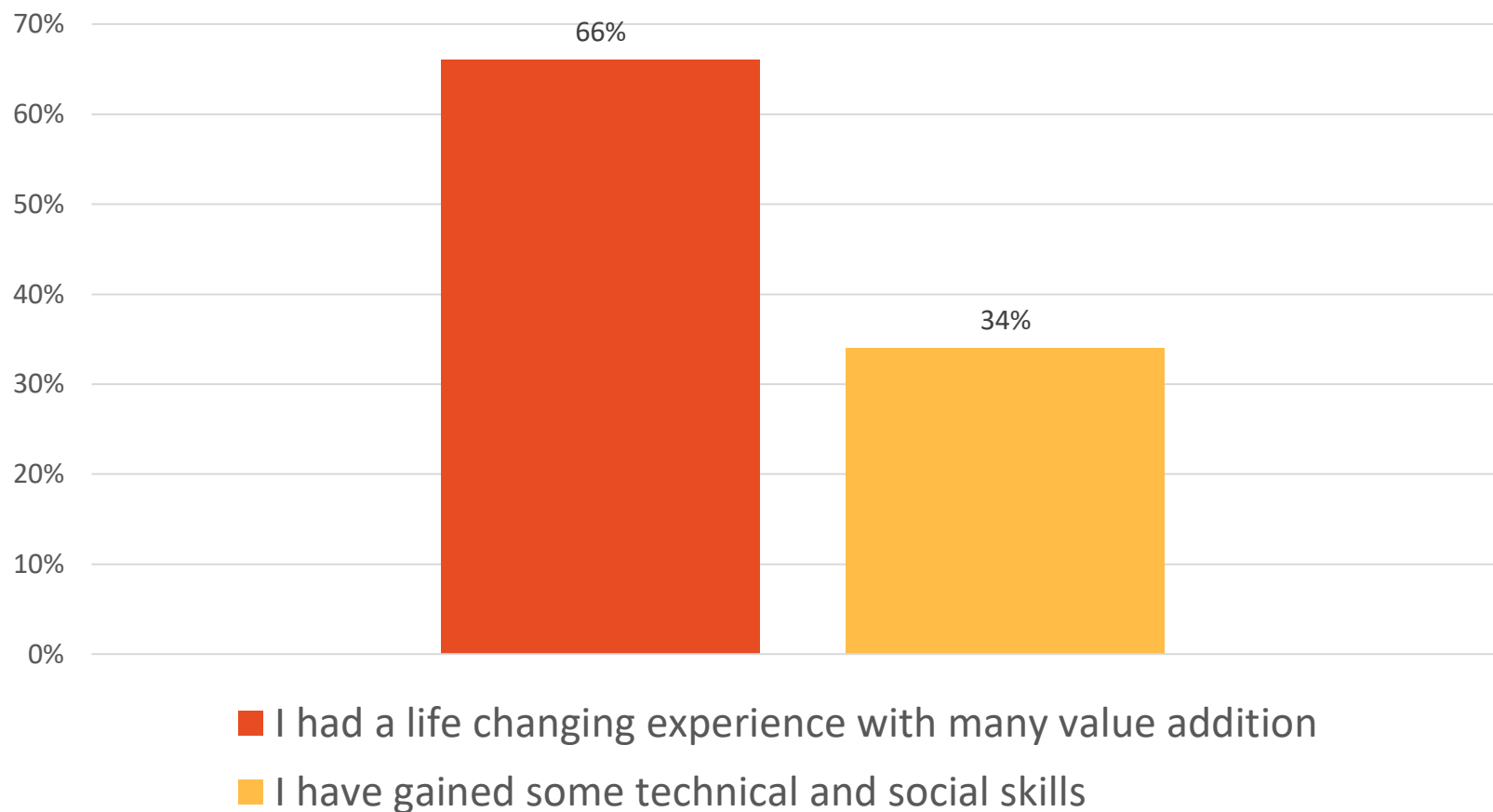
Insights from the Scientific Committee on the 34th IBO, UAE



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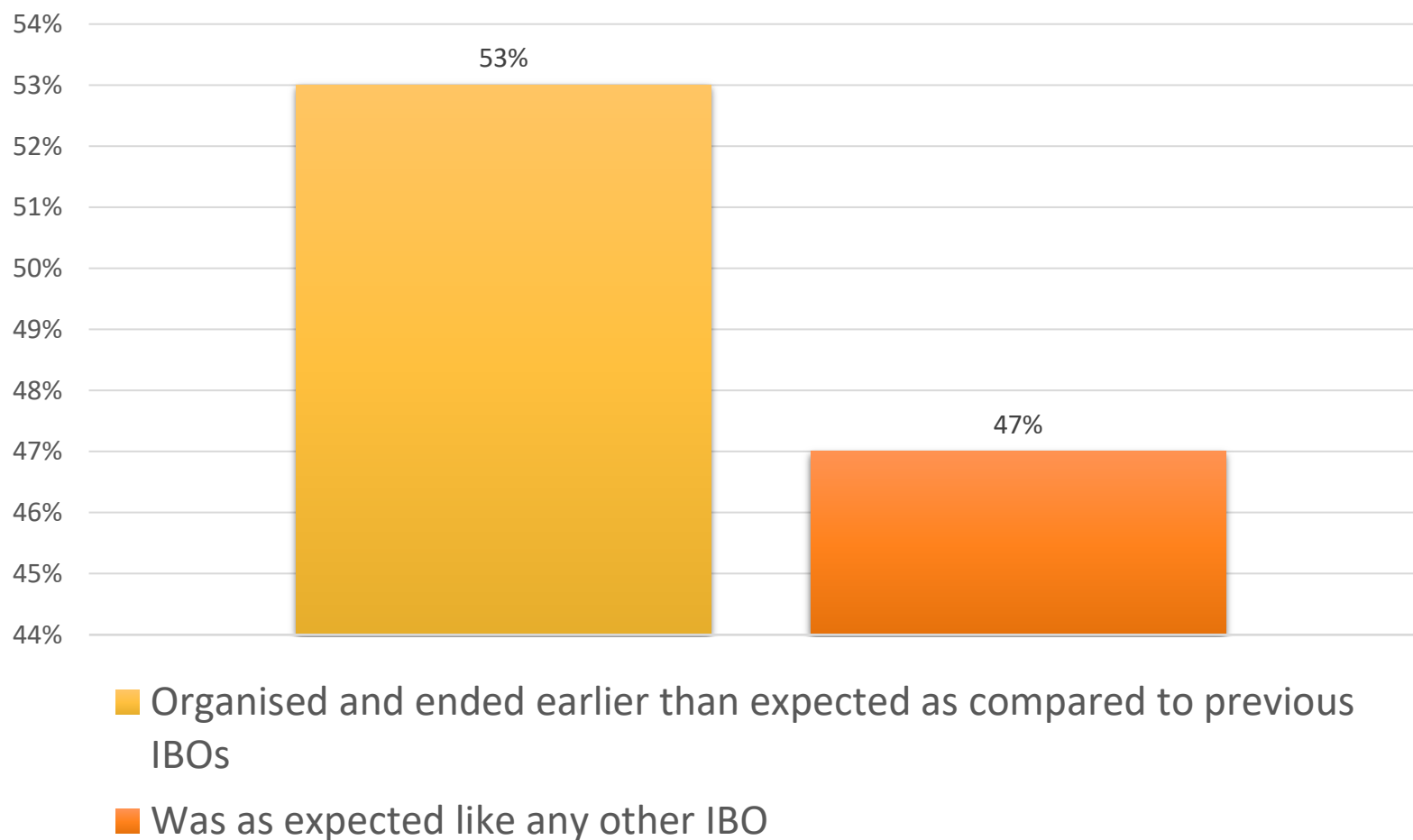


What has been the impact of the volunteering work on your self?



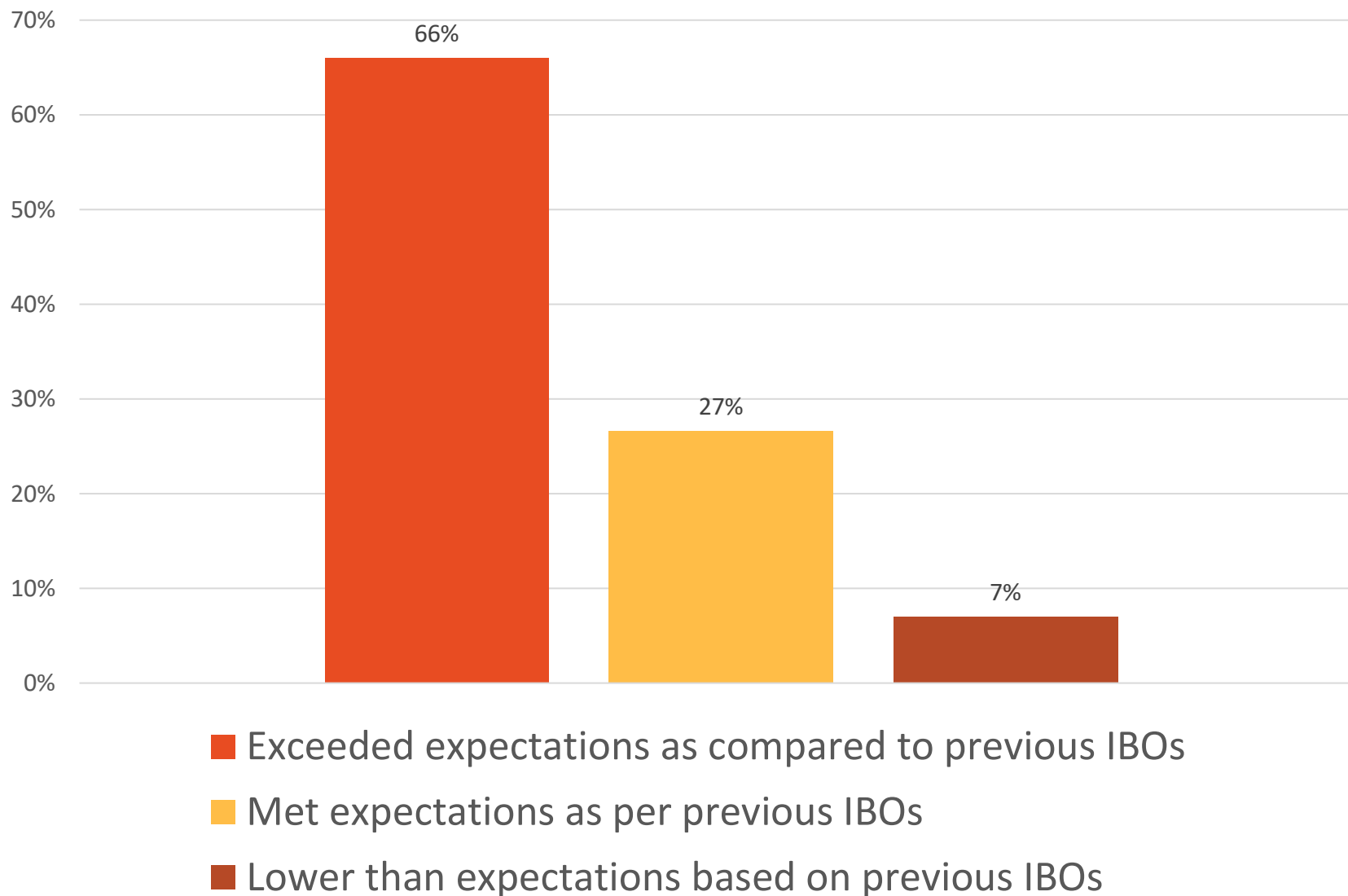


- How was the Jury discussion for all the academic Tasks (4 Experiments and 2 Theory Exams)?



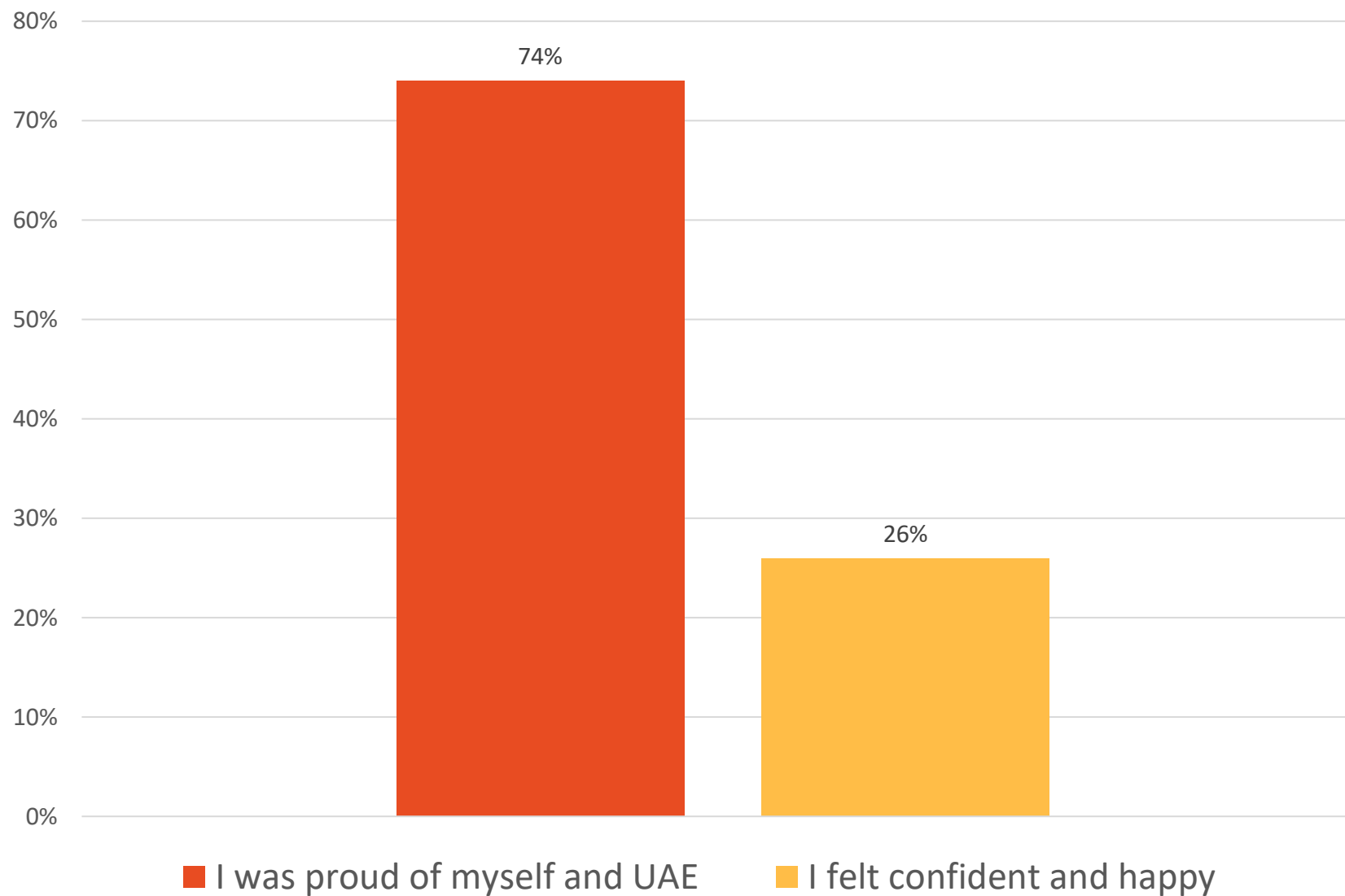


How would you rate the Printing and Packing off process for all three Exam days (Experiment, Theory-1 and Theory-2)?



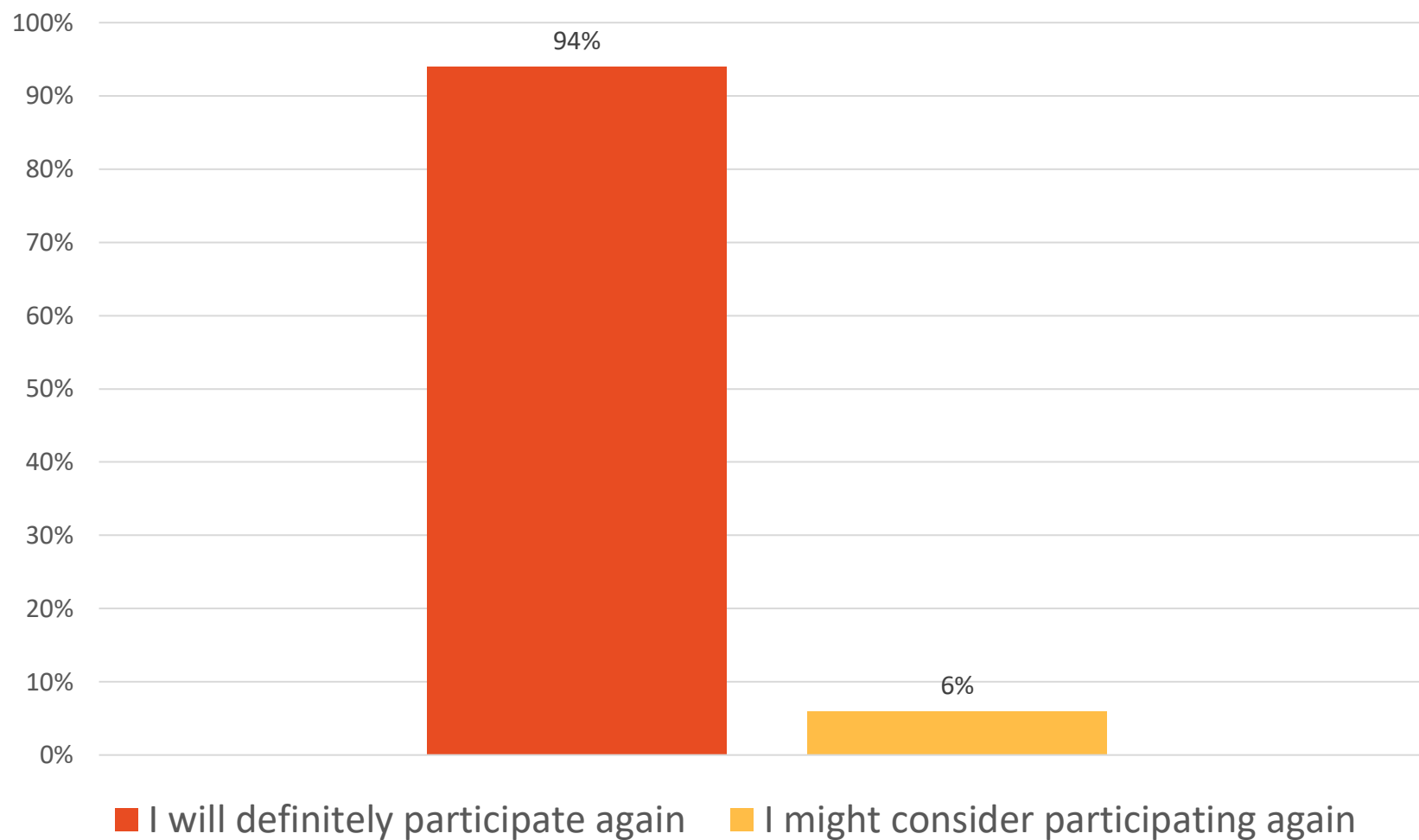


How did you feel after successfully conducting the arbitration?





- How willing will you be to work in any other Olympiad assignment in the future?





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What is your biggest learning from working in 34th IBO @ UAE

"It sounds like your biggest learning from working at the 34th IBO in UAE was about the importance of teamwork. Working collaboratively with others can lead to more effective and successful outcomes."

-Saeed Alyassi
Scientific Committee

"I gained experience, made some new friends and learned new things about some countries and cultures. It was a great experience."

-Abdalla Arbabi
Scientific Committee

"I have gained a lot of experiences during IBO, such as working in teams, involved together, help each other, dealing with different types of tasks, monitoring students, correcting exams, the moderation day and dealing with the Jury. It was such a huge olympiad that allowed me to gain such a huge experience. My team was perfect we all worked together as one hand, and we dealt with difficulties in a perfect way that we all agreed about."

-Zaina Kadoura
Scientific Committee



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Insights from Students on the 34th IBO, UAE



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"I had a really good time and made a lot of friends."

"It was an amazing experience and I felt everything went smoothly as regards organization and the activities we did were incredible experiences. Also, food was really good and the dates the IBO Organization gave us at the beginning was such a warm welcome. Meeting people from different countries changed my view and opened it a lot.

I wish exams were longer though, since it would be nice exams covered all the topics there are,
I feel like twelve and a half hours of exam maybe were not enough.

I am so happy to have participated in an IBO although I did not do very good in my final score due to a number of reasons. What I will remember from this, and even now, is that I got to spend some time with people I admire from other countries because of how smart they are and how much biology they know,
I believe it is truly exciting to talk to students who are so good in biology, and received prizes for it."

"It was really fun. I would have liked more time to mix with other countries and other genders though..
Maybe some early activities so people can get acquainted with each other before
the last few days when it's too late."





“It was very interesting. I would love to go back.”

“IBO 2023 was fantastic. I was able to gain a lot of experience.
I have always had a wish to achieve something difficult,
such as participating in this program and it is not because I wanted fame or prize,
but simple feeling of achievement you get when you've done something challenging.
It actually boosted self-esteem and made me more confident.”

“Thank you for organizing such an event!
It was really pleasure to participate and meet new people!”





“It was a great experience!”

“It was an amazing experience, and I'm grateful I had the chance to participate in it.
I thank everyone involved for the work they did to make it possible.”

“I would like to thank the hosts from the UAE for the efforts put for us. I would like to take this opportunity and personally thank the host country for entertaining the special requirement due to my medical condition and allotting me a separate room without air conditioning.

We really enjoyed the recreation days, some of which e.g. the Louvre museum in Abu Dhabi and the museum of the future in Dubai, were very fascinating and enriching.”





"I loved it."

"The volunteers were great and I want to appreciation for them.
It is an unforgettable memory for me to visit UAE and achieve my goal."

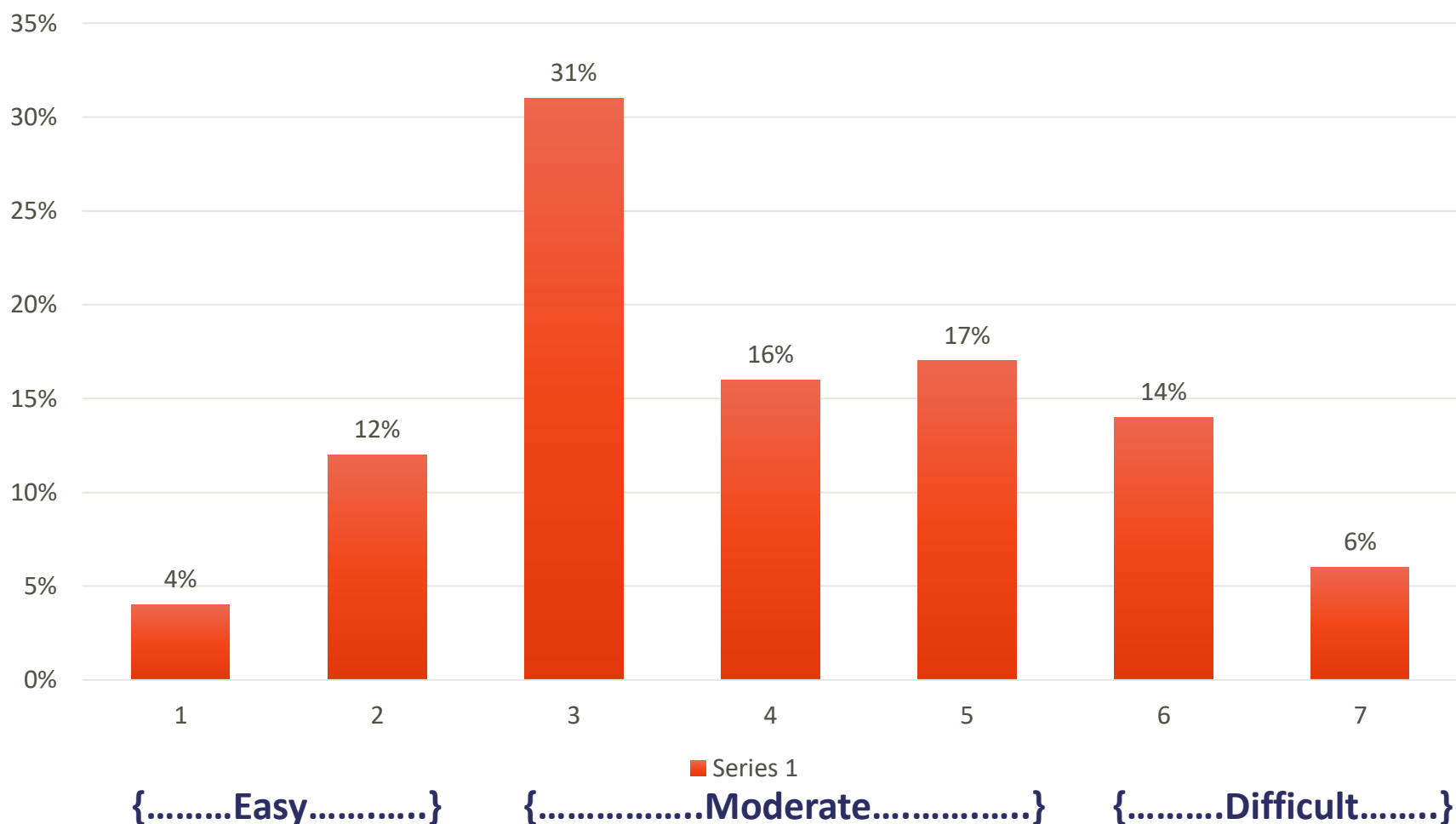
"The experience was great, but we could have used more time to sleep."

"Many things were great, however the organization in some instances lacked."



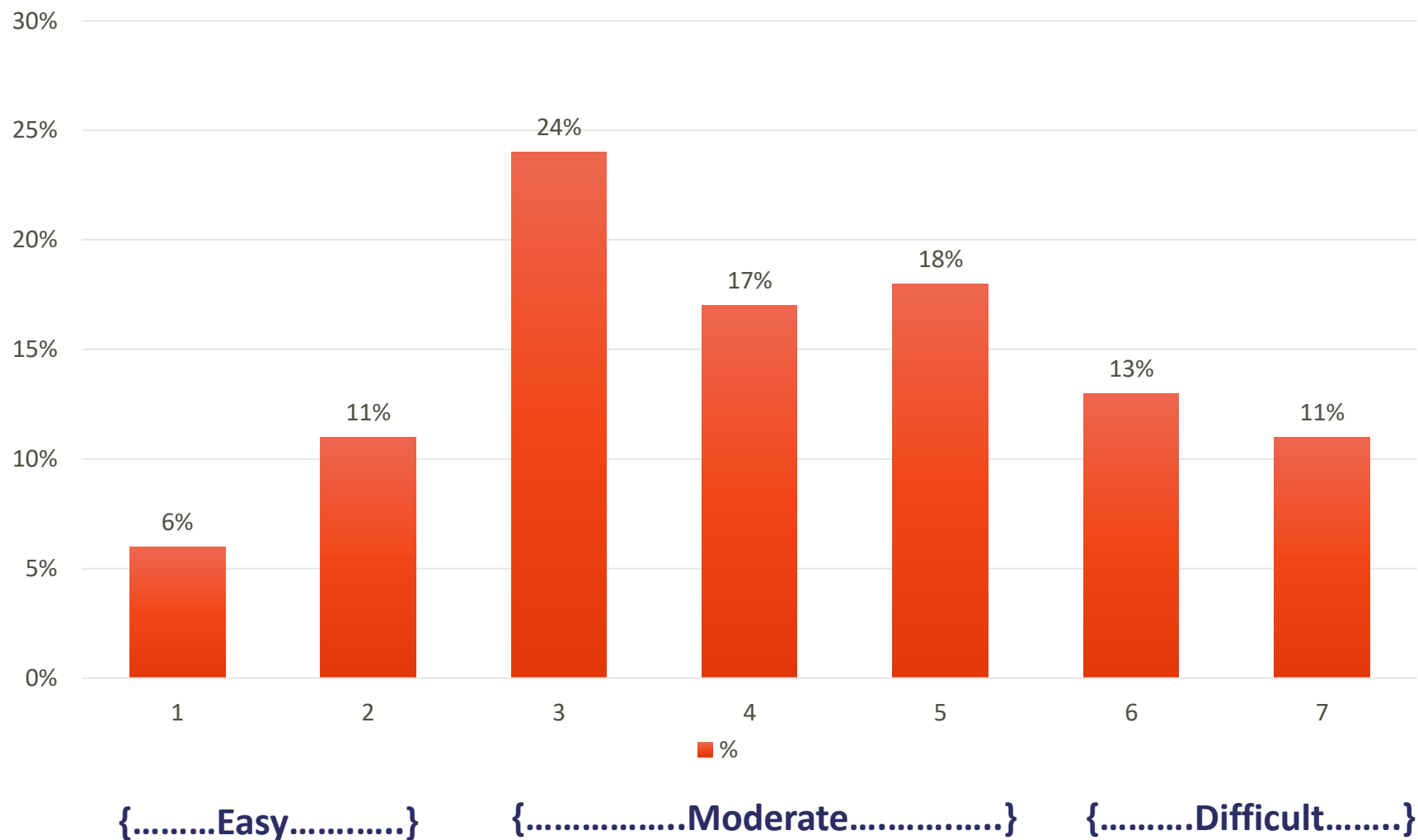


How was the task difficulty for the theory question papers? (1=very easy..... 7=very difficult).





How was the task difficulty for the Experiment question papers? (1=very easy..... 7=very difficult).





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Areas of Improvement



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“The food wasn't nearly as nutritious as it should have been. Waiting times were ridiculous. Overall, very crudely organized IBO. The gender segregation was ridiculous - regardless of "culture", this is an international competition - and really watered down the experience.”

“The towel arrived two and a half days later and they also informed us that there is not a lot of shampoo so the whole floor must share. Outrageous.”

“The first few days either we didn't eat or we ate deep fried chicken and the rest days we ate for lunch and dinner the same thing for a week. The groups which arrived there last, didn't have something to eat because there wasn't enough food for everybody.”

“Get better food please. The food was not good.”





“The food since the first day, we landed they were feeding us every single meal deep-fried everything from KFC to Mc Donalds. The food made us nauseous .”

“Regrettably, the quality of our accommodations was substandard, and it greatly affected our ability to obtain adequate rest.”

“There was not enough food for every body and we stayed hungry and we ended up ordering delivery which we paid.”

I understand that keeping us safe is a major priority but we didn't get to experience any real culture of the UAE. You would expect that as a biology Olympiad you would get to see any nature at all but that wasn't the case, which was kind of disappointing.





“Bus wait time was unnecessarily long and painful.”

“The organization with students was very lacking, with many delays nearly every day, causing the students to be more tired and have less sleep. Most of us were forced to sleep whenever we could due to the delays taking so much of our sleep time.”

“The excursions could also have been better, as we didn't see any of the nature of the country. I expect a group of keen young biologists would have been very interested in seeing something like the Al Ain oasis, e.g. rather than spending a lot of time in a big shopping mall.”

“A lot of time was lost on waiting for buses.”





“They gave us towels and bath soap the 3rd day (but they never gave us hand soap).”

IBO 2023 failed miserably to show the actual UAE culture. We did not have any UAE cultural food. The visiting places were for tourists, not the actual culture.

“The fact that girls and boys were forced to stay separate most of the time was ridiculous, and at the very least we should have been warned that this was going to occur. Finally, we didn't get enough sleep.”

