



*The Gender Gap in Science and
Technology in Malta*

***Research
Findings***

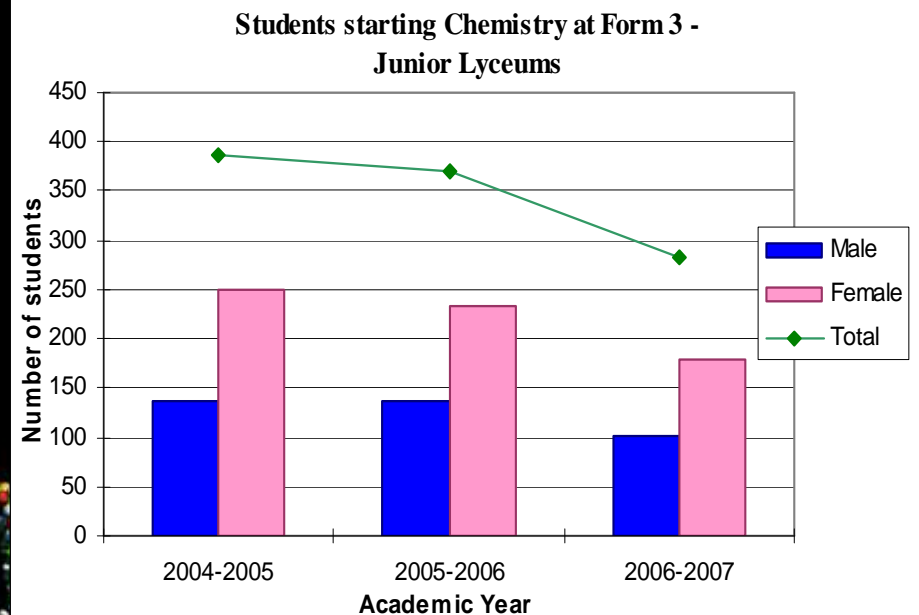
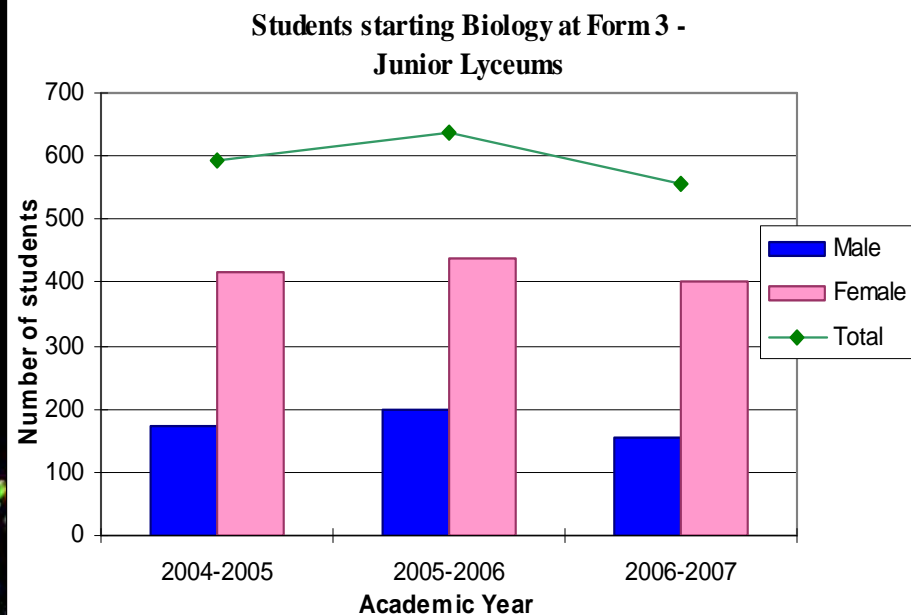
John Baptist Gauci

Choice of science subjects at Secondary School Level

The subjects considered for this study were:

Biology and Chemistry

Junior Lyceums

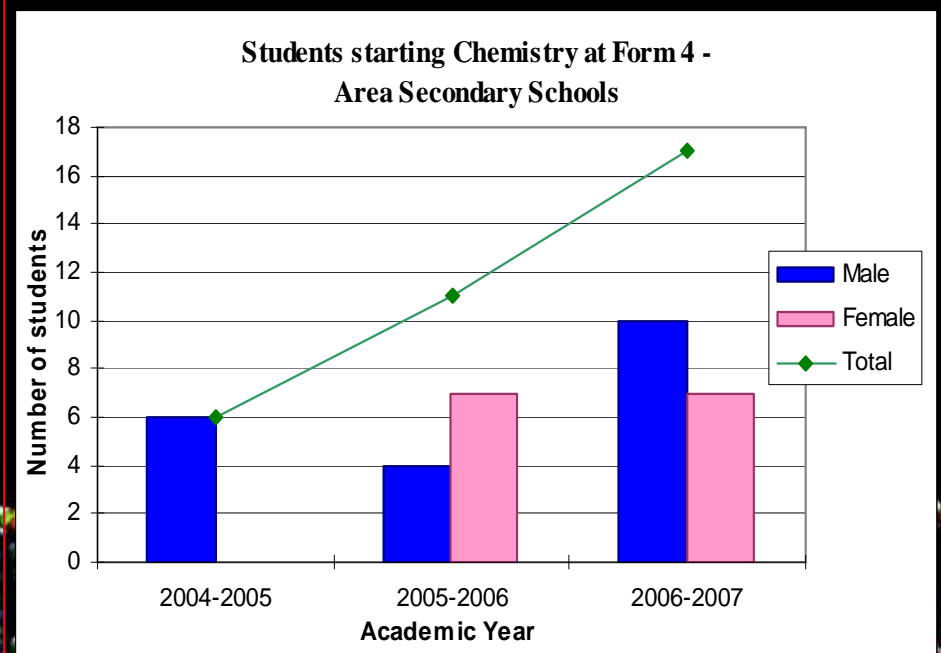
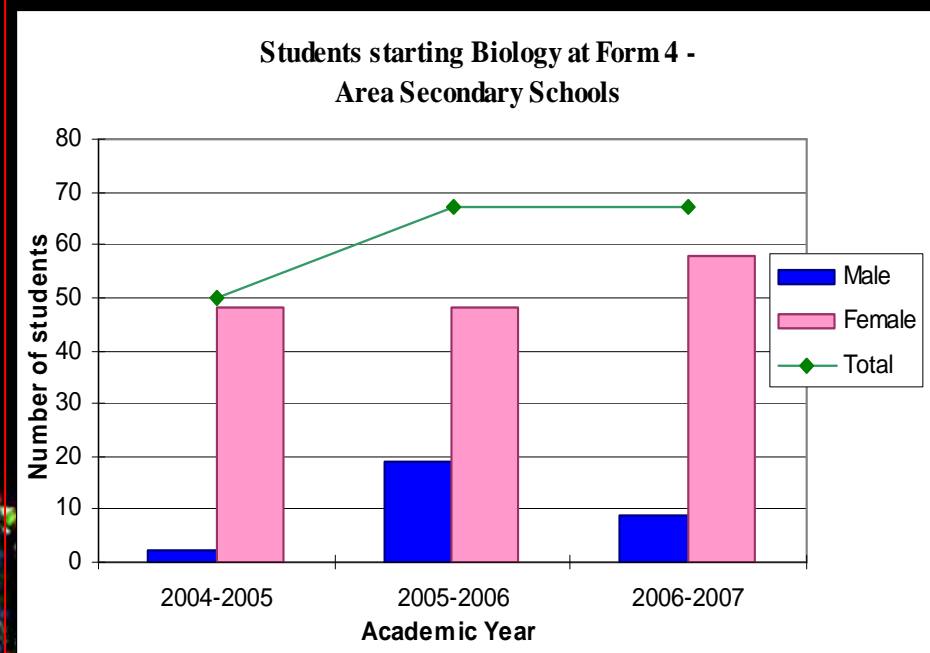


Choice of science subjects at Secondary School Level

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Area Secondary Schools

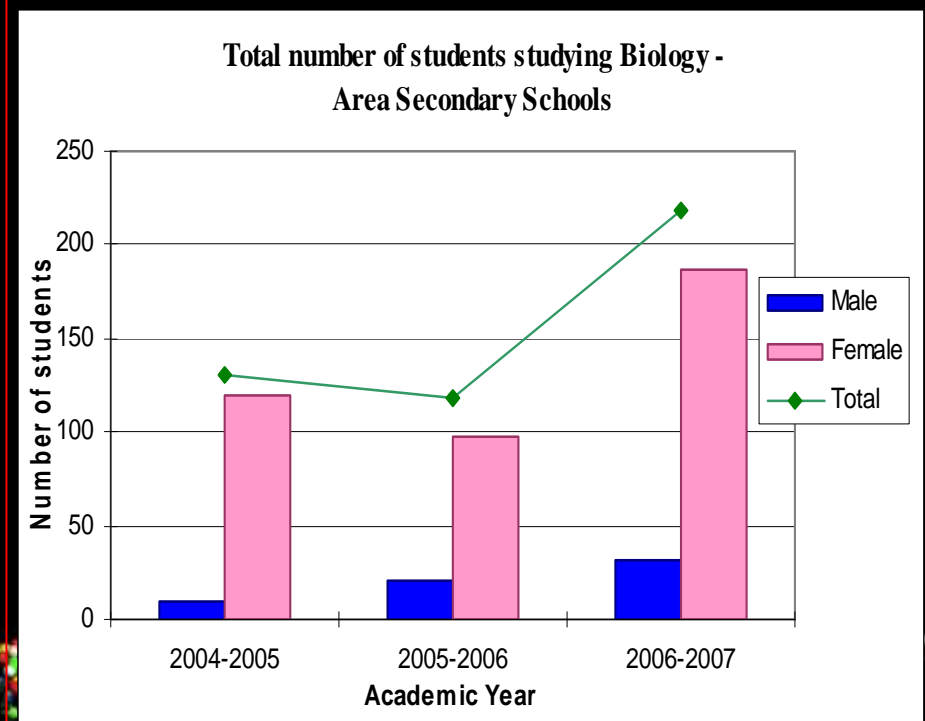
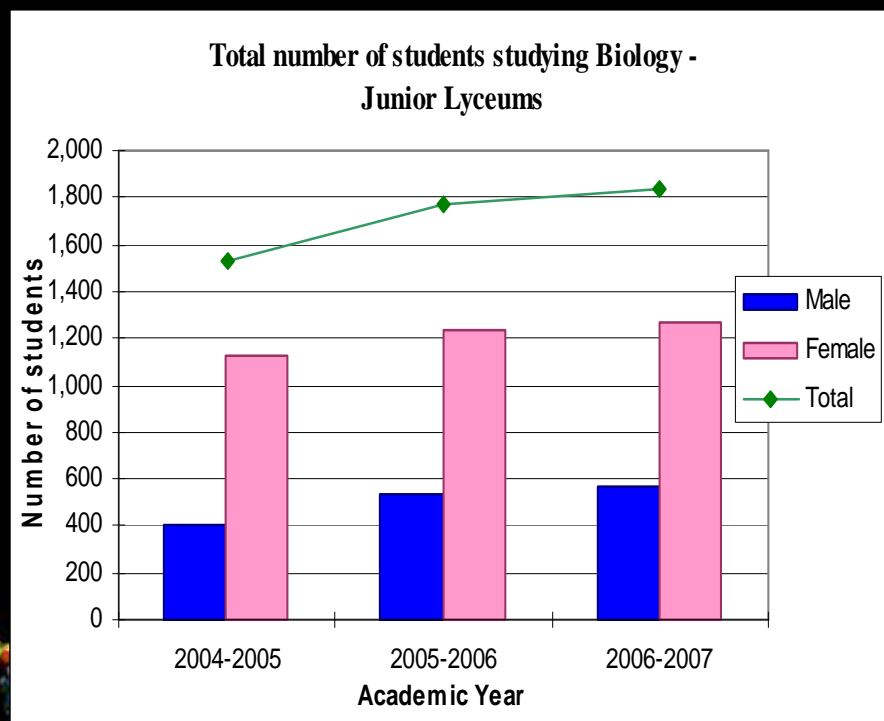


Choice of science subjects at Secondary School Level

Total number of students studying **Biology**

Junior Lyceums

Area Sec. Schools

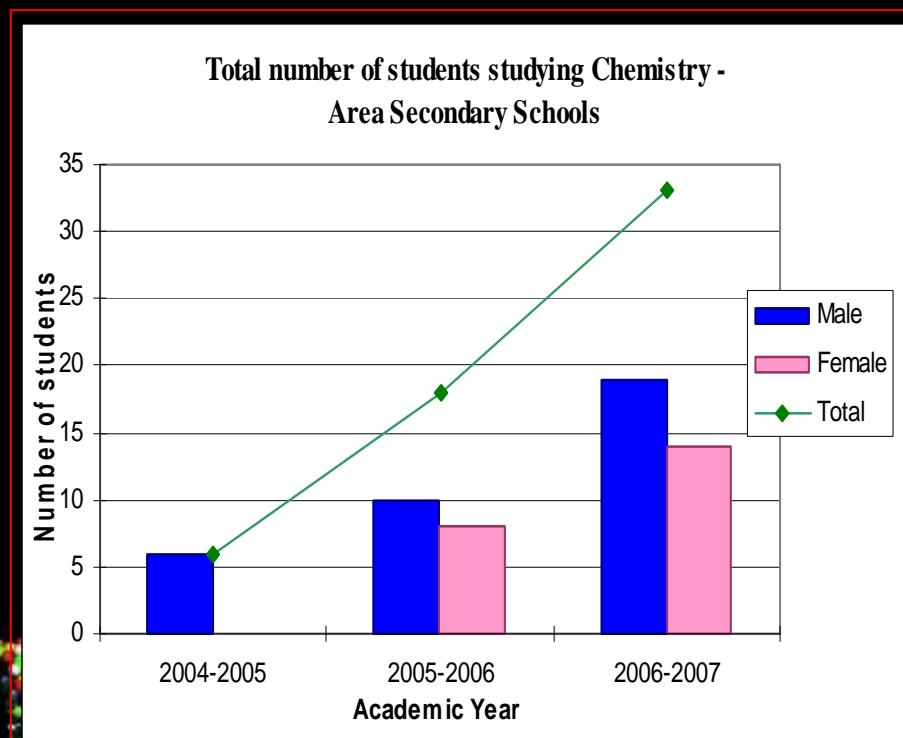
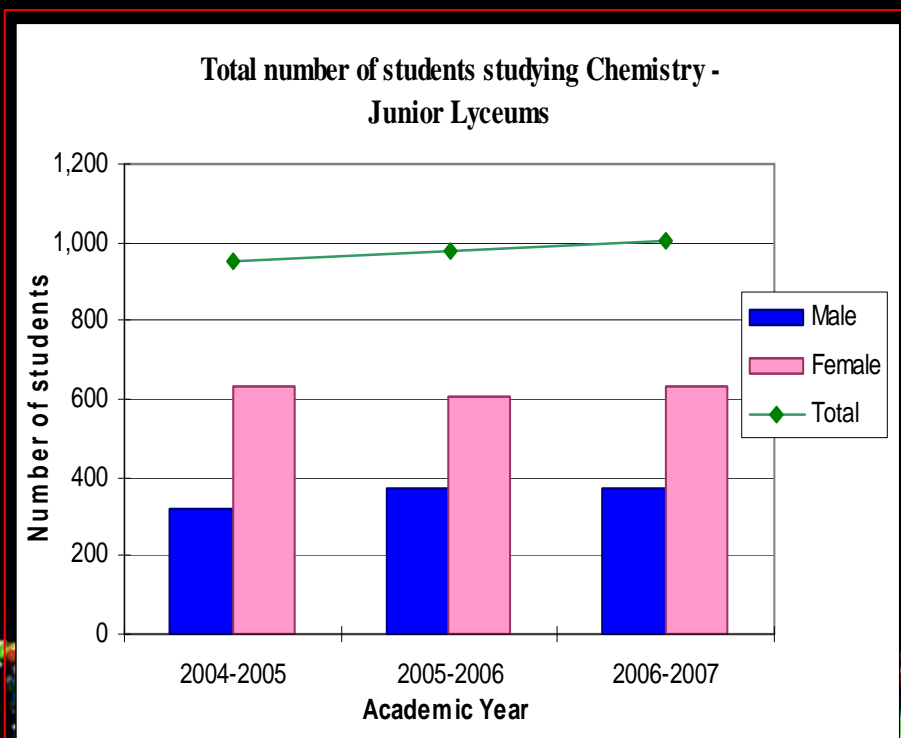


Choice of science subjects at Secondary School Level

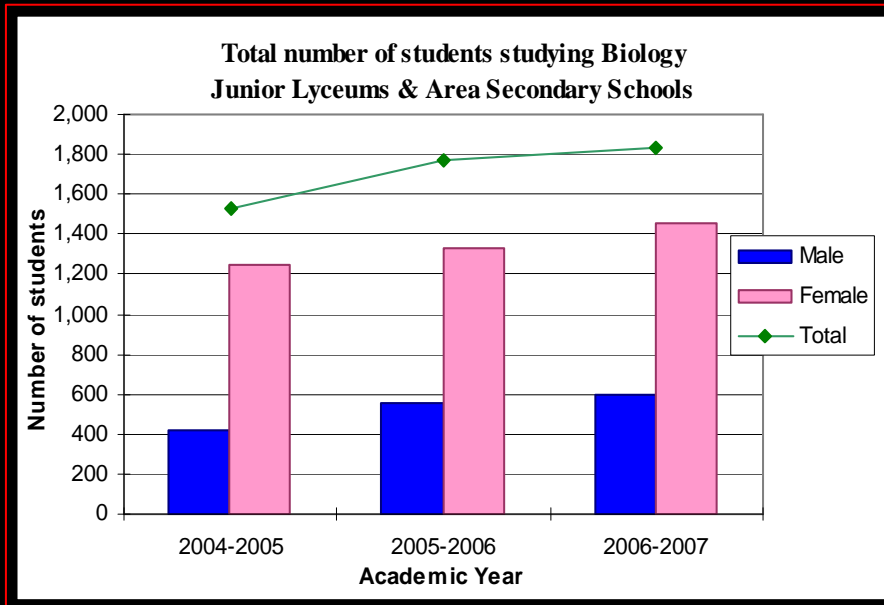
Total number of students studying Chemistry

Junior Lyceums

Area Sec. Schools

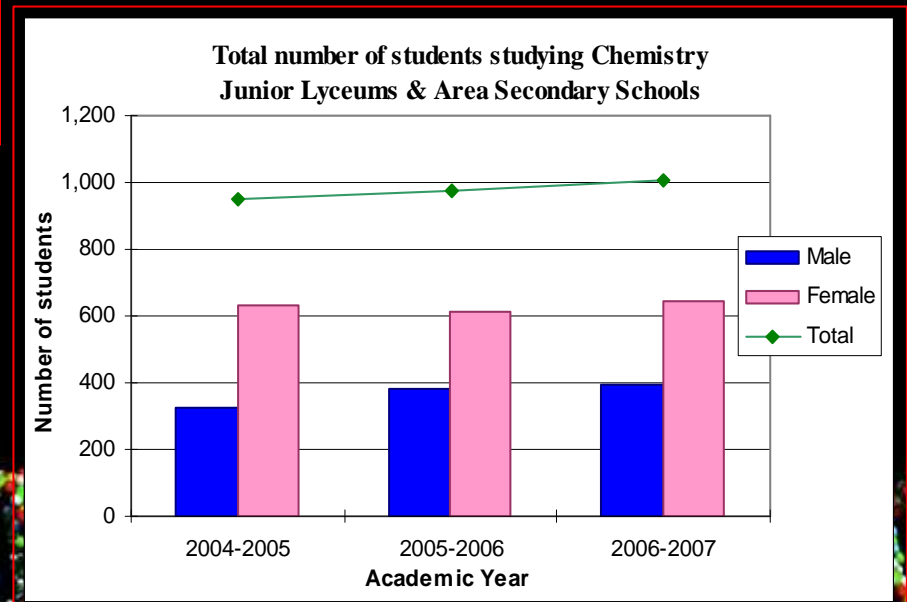


Choice of science subjects at Secondary School Level



Total number of students studying
Biology

Total number of students studying
Chemistry



SEC Level Examinations

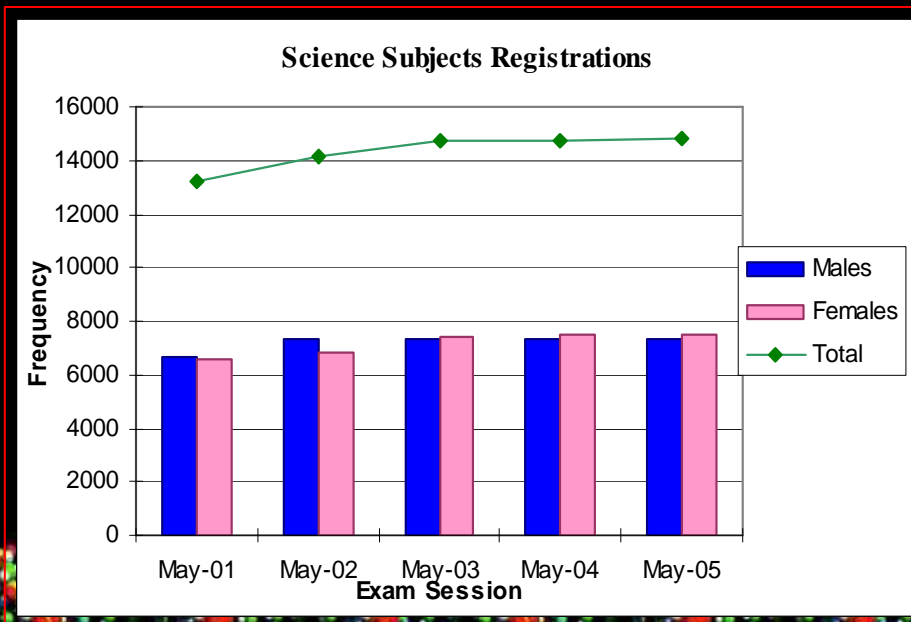
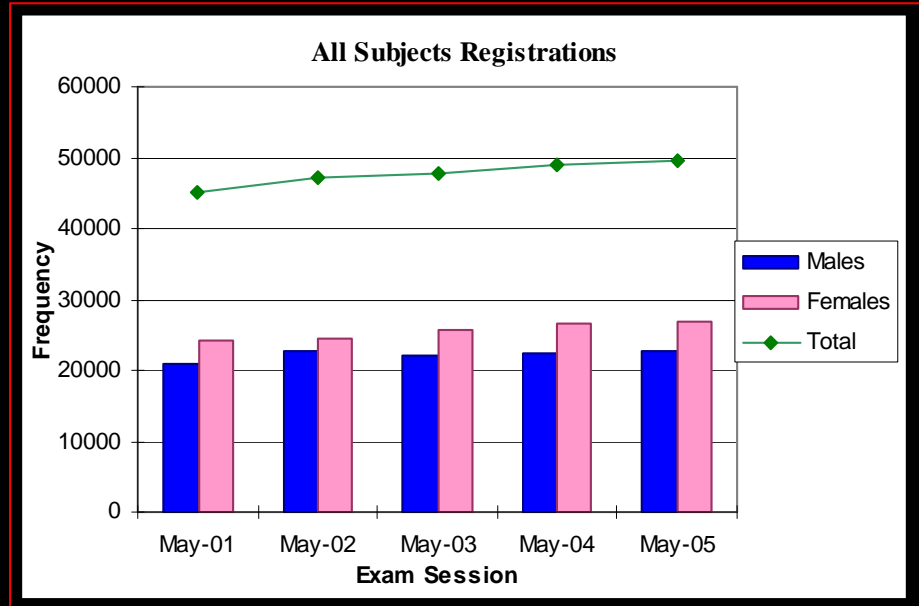
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- Biology
- Chemistry
- Computer Studies
- Technical Design / Graphical Communications
- Mathematics
- Physics
- Technology / Technical Design A

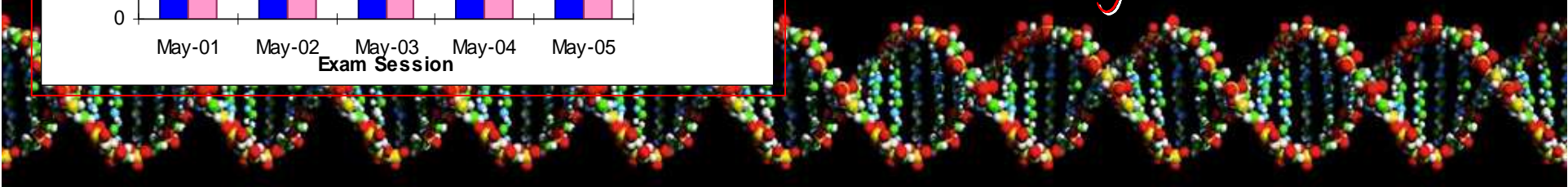


SEC Level Examinations

Total number of registrations in
all subjects

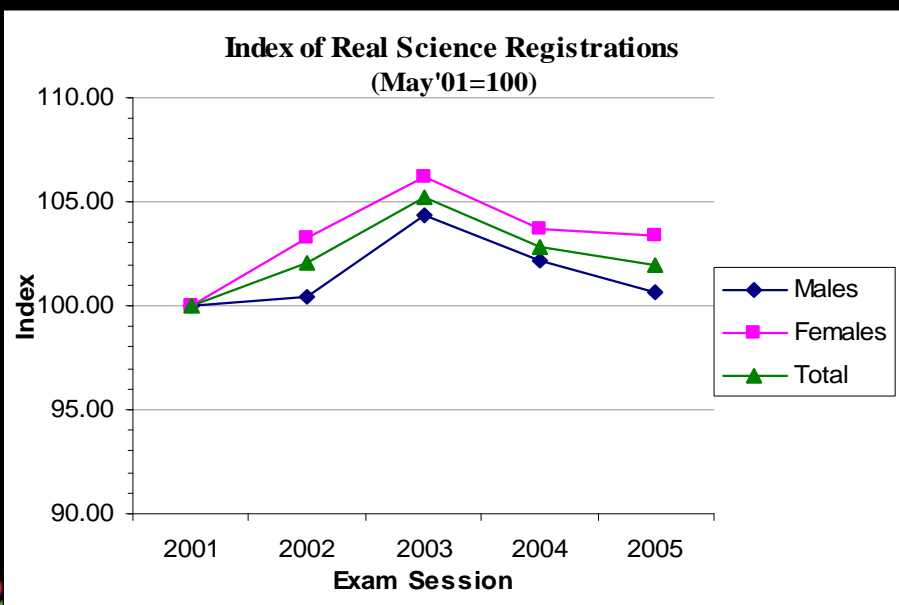
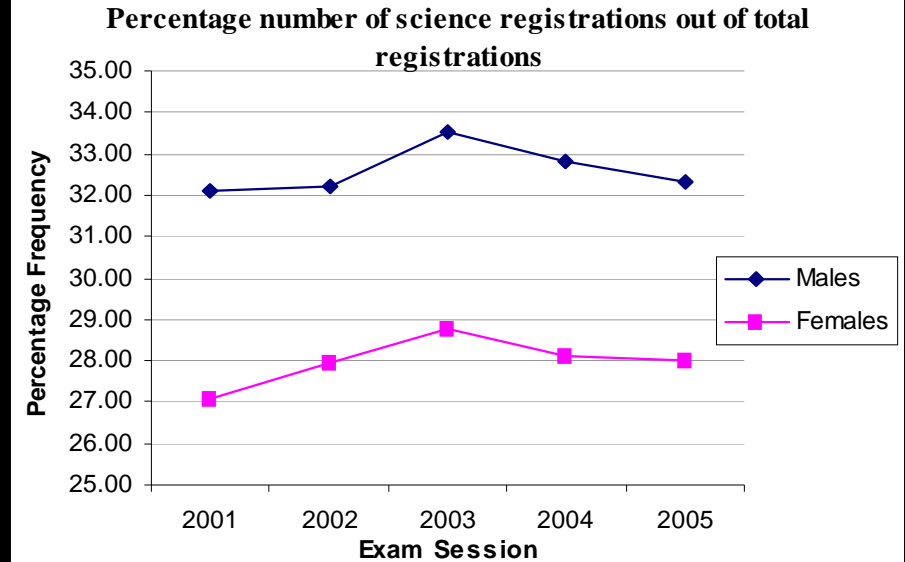


Number of registrations in
Science Subjects



SEC Level Examinations

*Percentage number of
science registrations
out of total registrations*

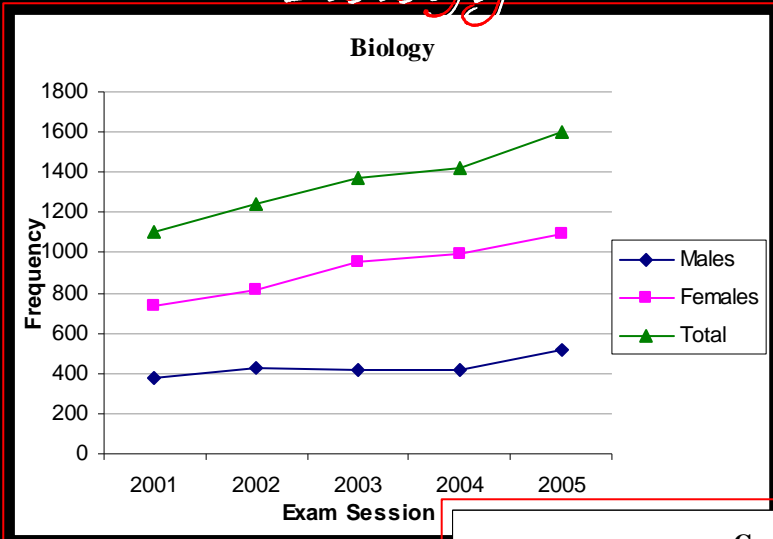


*Percentage change in
science registrations
by removing the effect of the
change in total registrations when
compared to May 2001*

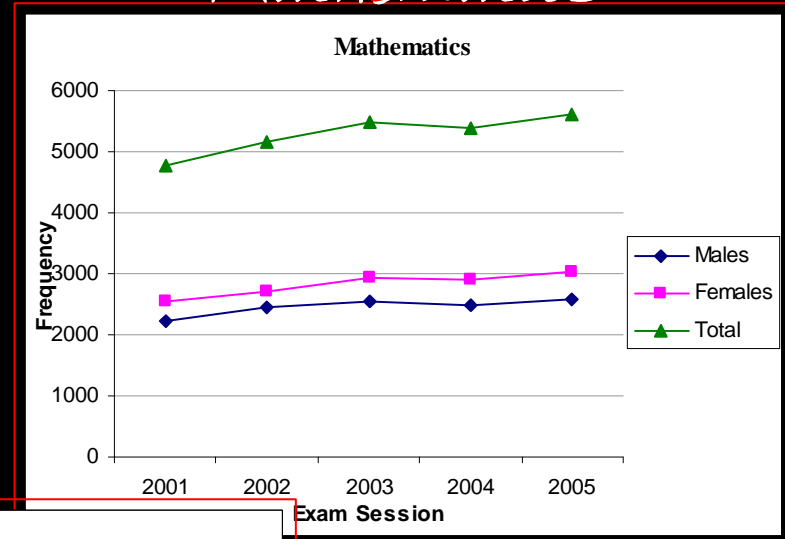
SEC Level Examinations

Number of registrations in:

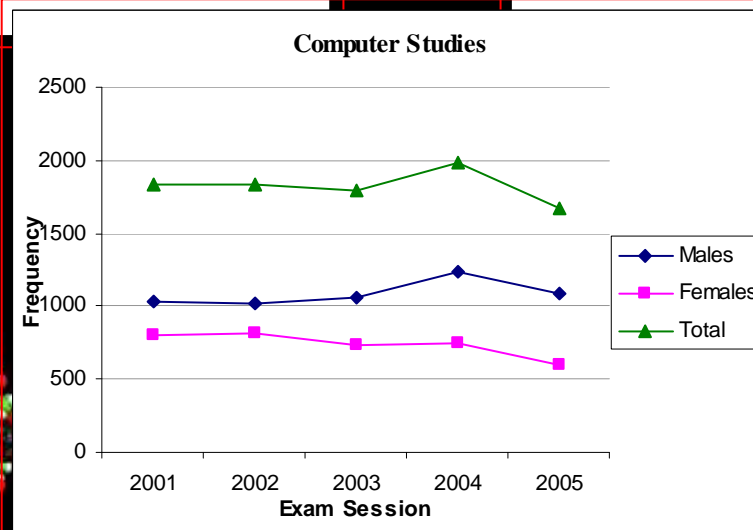
Biology



Mathematics



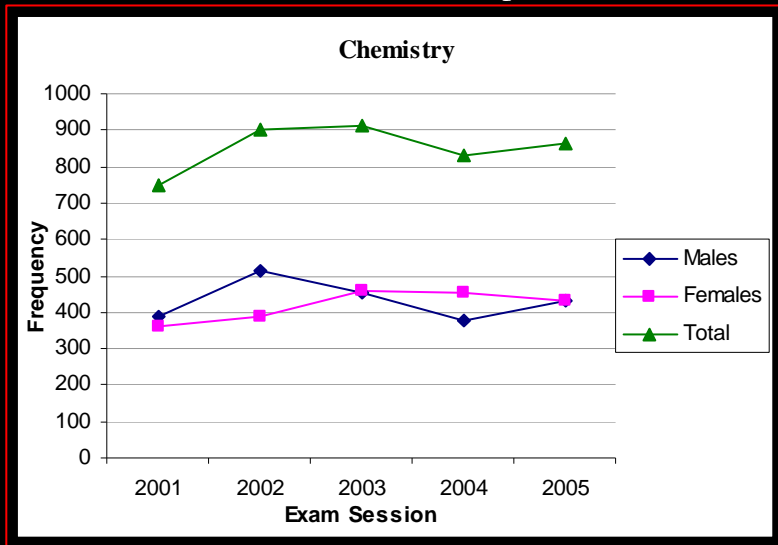
Computer Studies



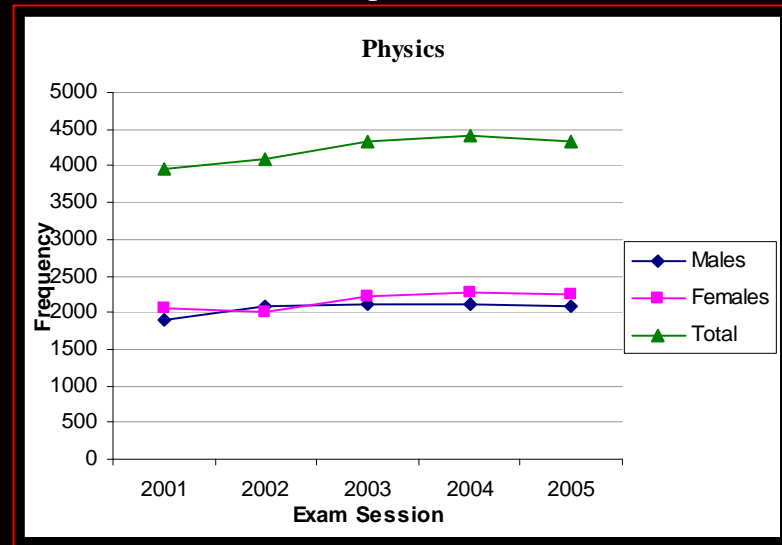
SEC Level Examinations

Number of registrations in:

Chemistry



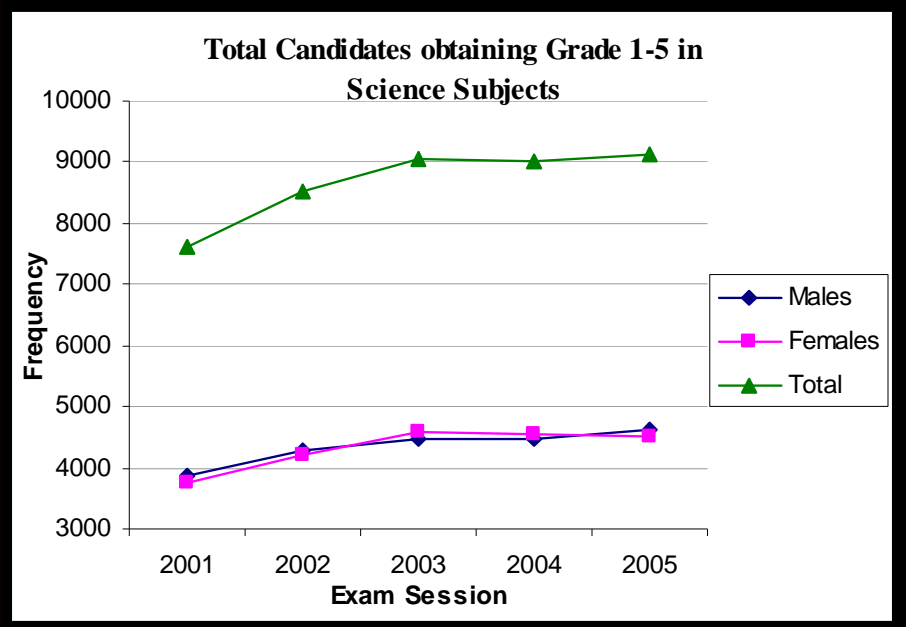
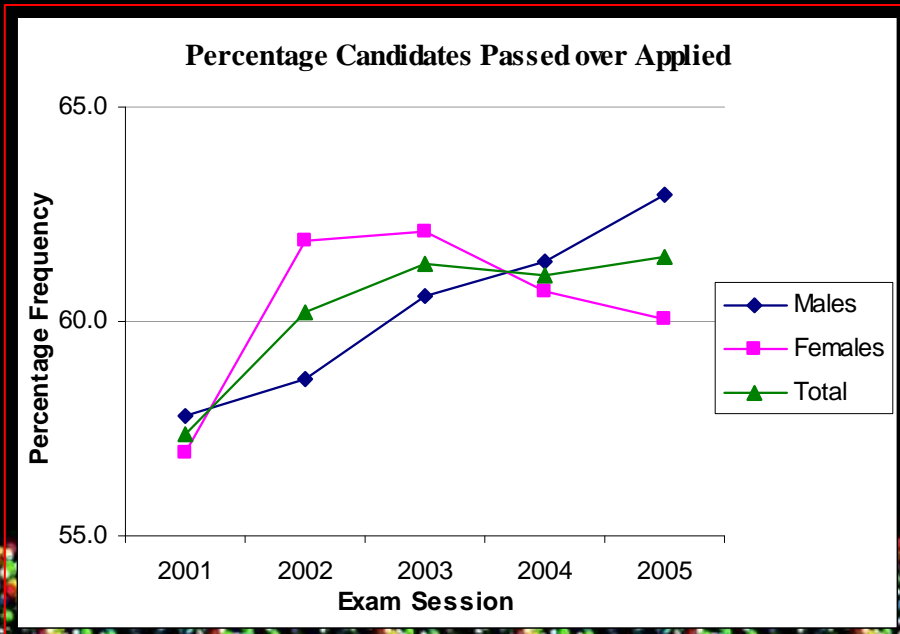
Physics



SEC Level Examinations

Results obtained

*Number of passes obtained
in science subjects*



*Percentage number of
candidates passing out of
total number of registrations
in science subjects*

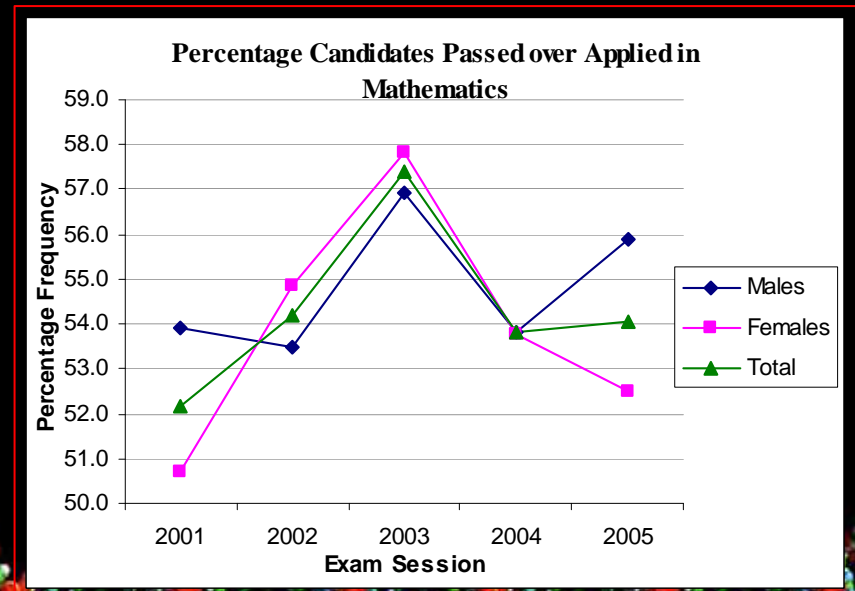
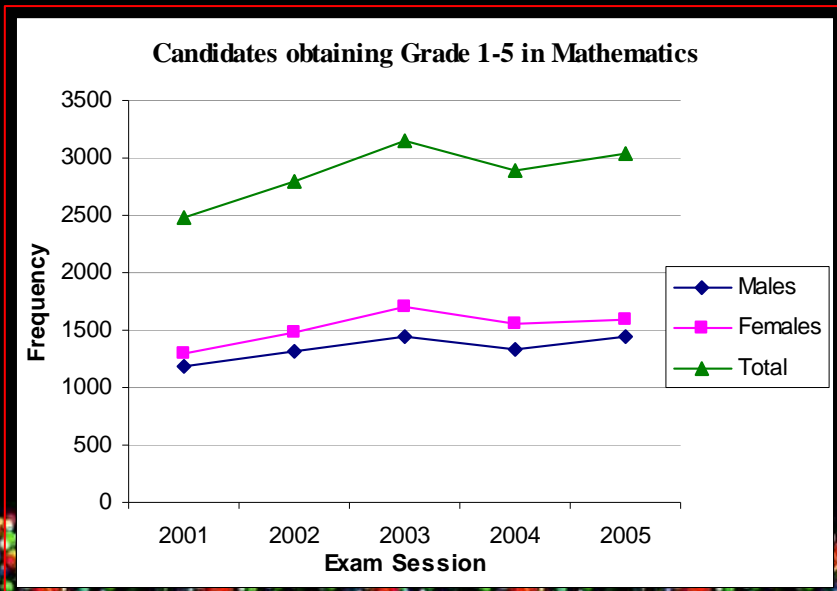
SEC Level Examinations

Results obtained

Mathematics

Number of passes

Percentage number of candidates passing out of number of registrations



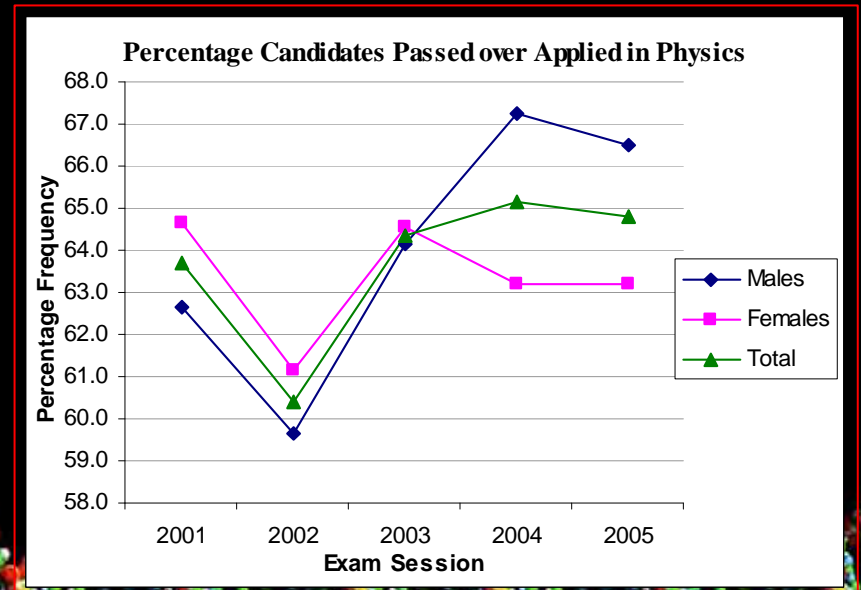
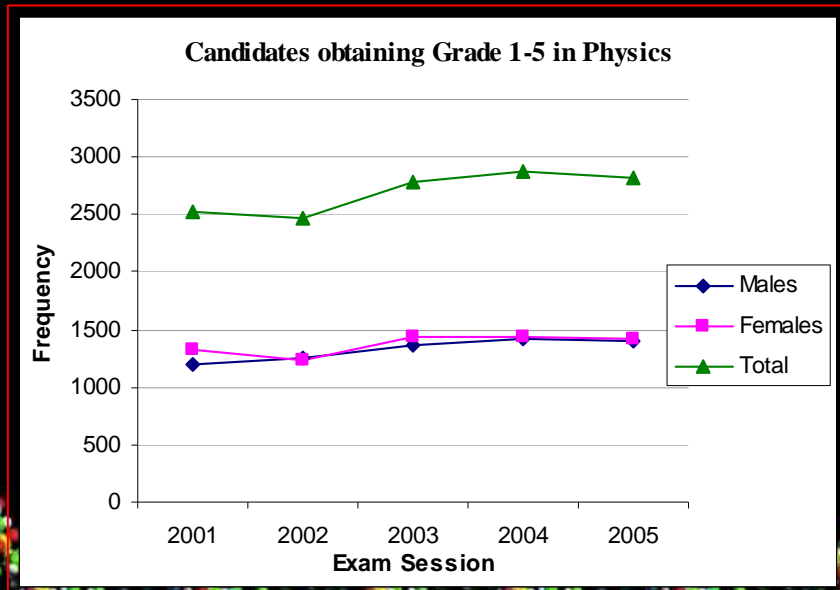
SEC Level Examinations

Results obtained

Physics

Number of passes

Percentage number of candidates passing out of number of registrations



SEC Level Examinations

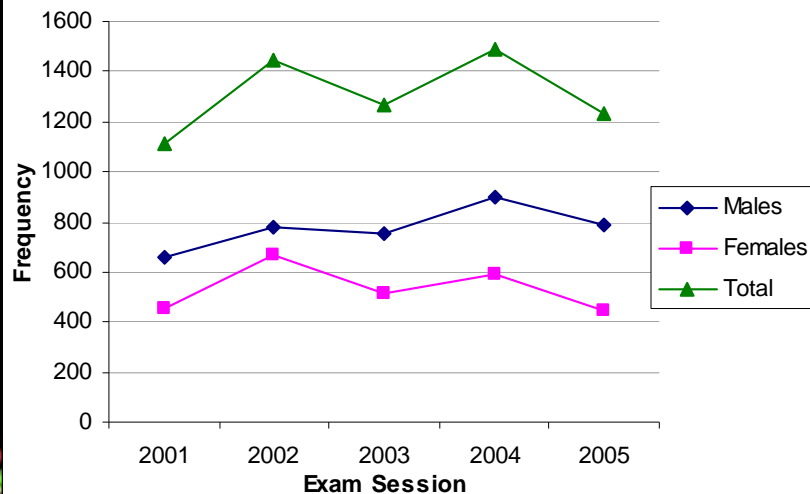
Results obtained

Computer Studies

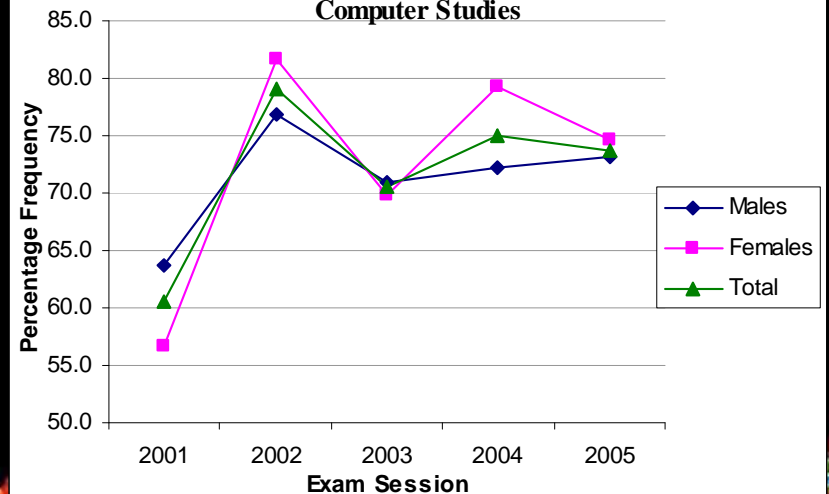
Number of passes

Percentage number of candidates passing out of number of registrations

Candidates obtaining Grade 1-5 in Computer Studies



Percentage Candidates Passed over Applied in Computer Studies



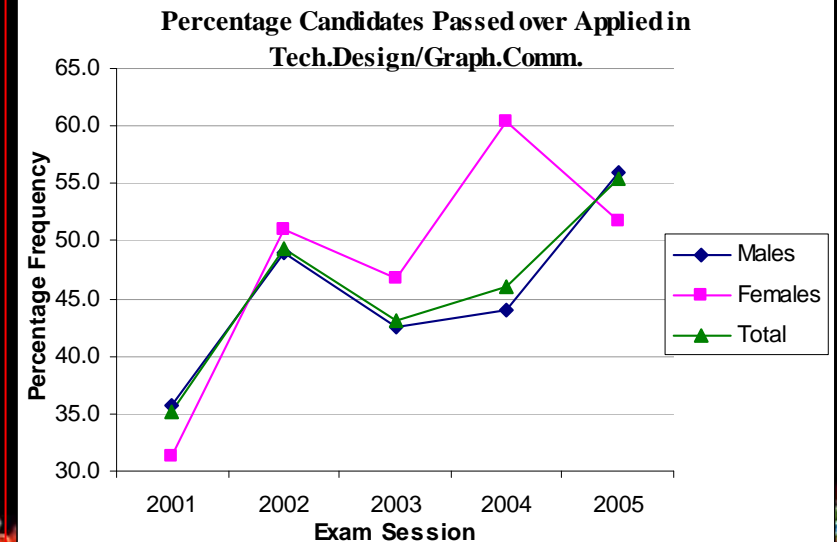
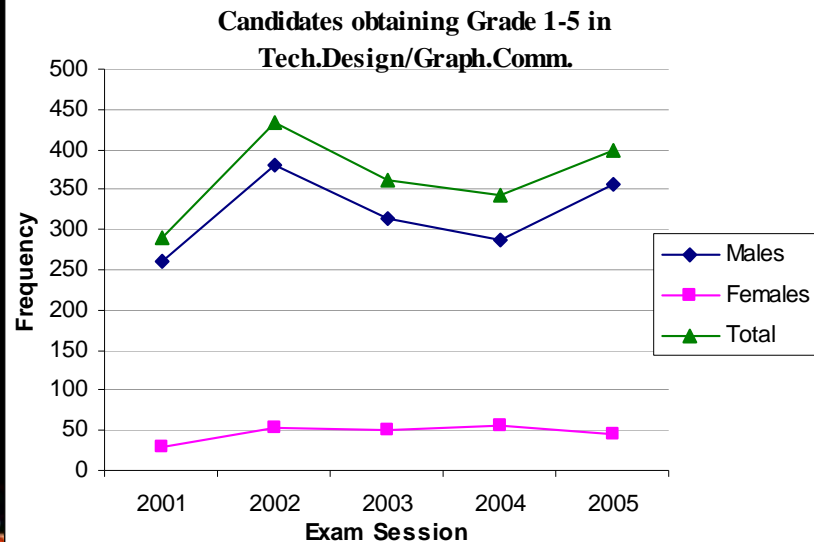
SEC Level Examinations

Results obtained

Technical Design / Graphical Communications

Number of passes

Percentage number of candidates passing out of number of registrations



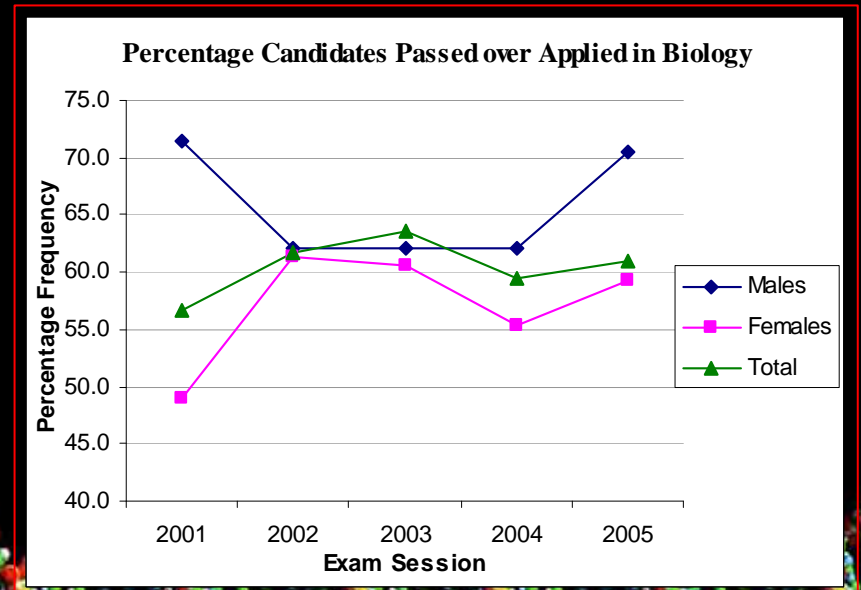
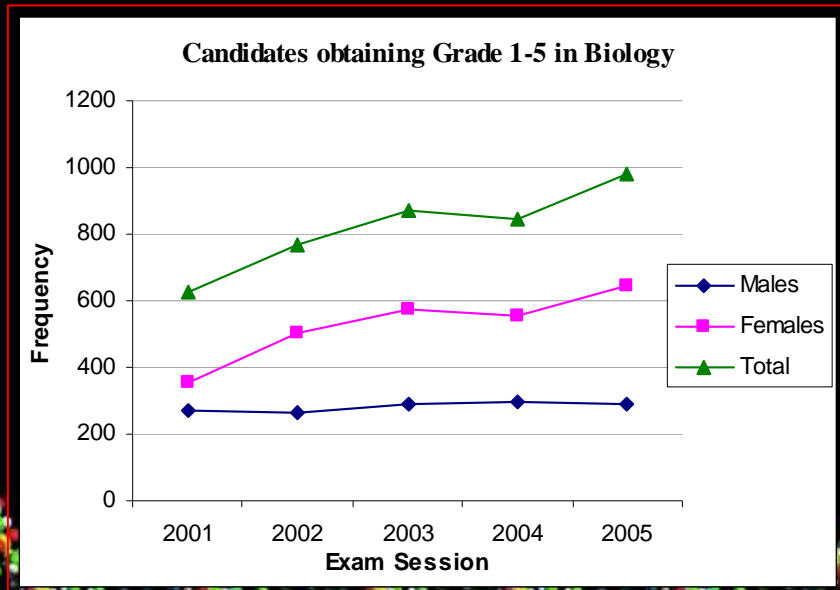
SEC Level Examinations

Results obtained

Biology

Number of passes

Percentage number of candidates passing out of number of registrations



Intermediate Level Examinations

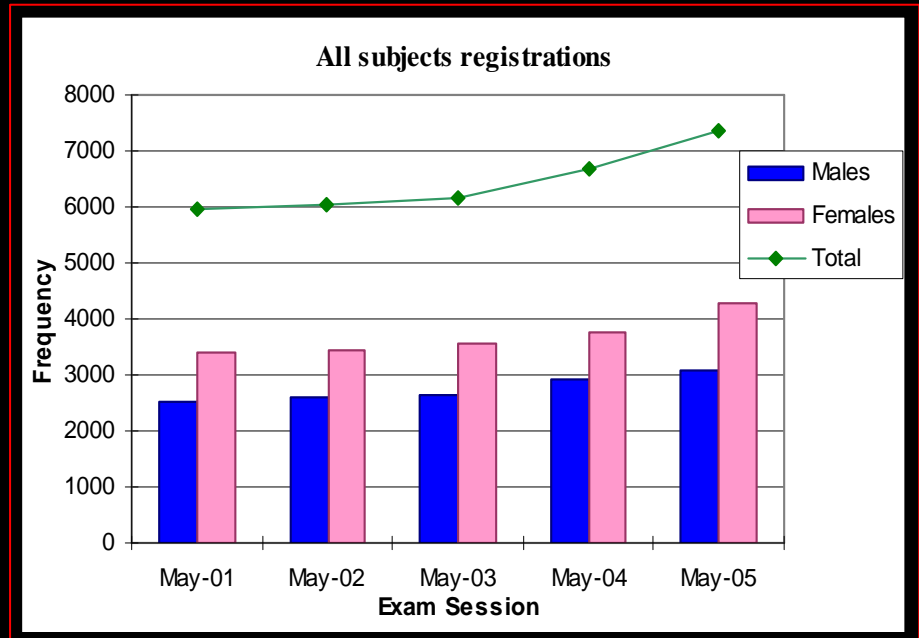
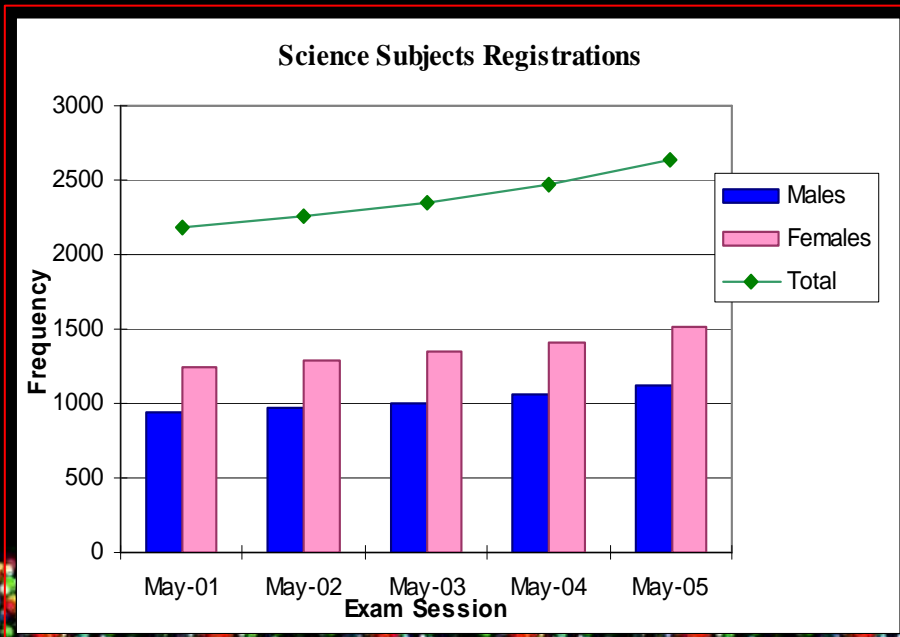
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- Applied Mathematics
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- Computing
- Engineering/Graphical Drawing
- Environmental Science
- Information Technology
- Physics
- Pure Mathematics

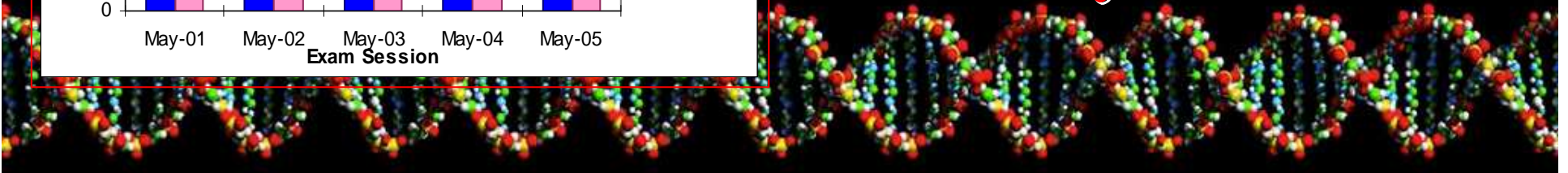


Intermediate Level Examinations

Total number of registrations in
all subjects

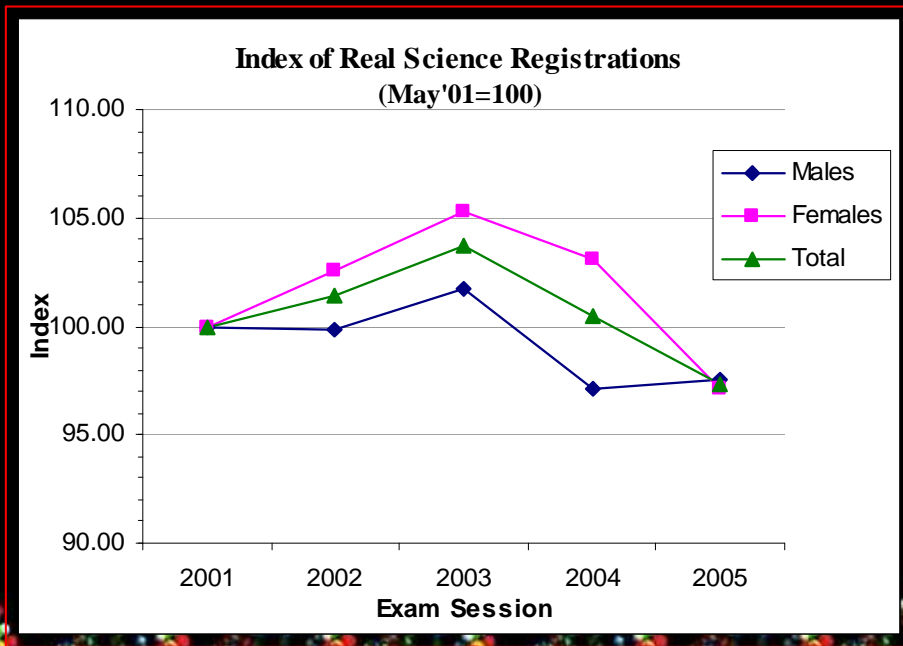
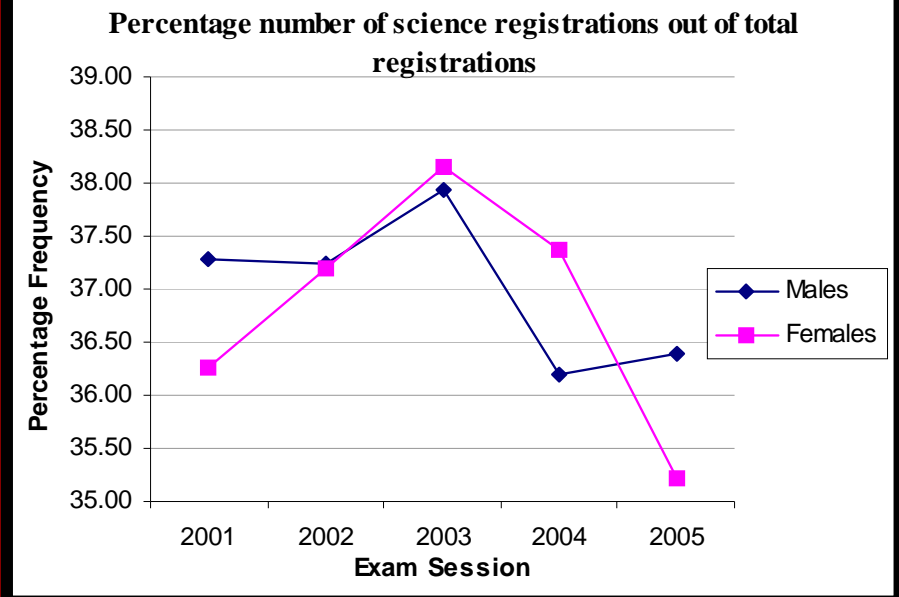


Number of registrations in
Science Subjects



Intermediate Level Examinations

Percentage number of science registrations out of total registrations



Percentage change in science registrations by removing the effect of the change in total registrations when compared to May 2001

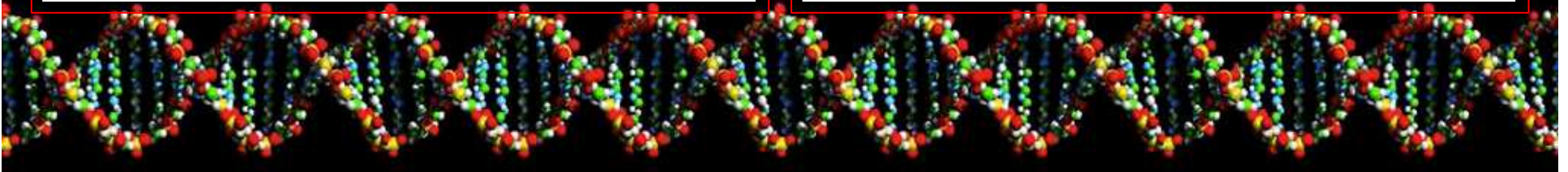
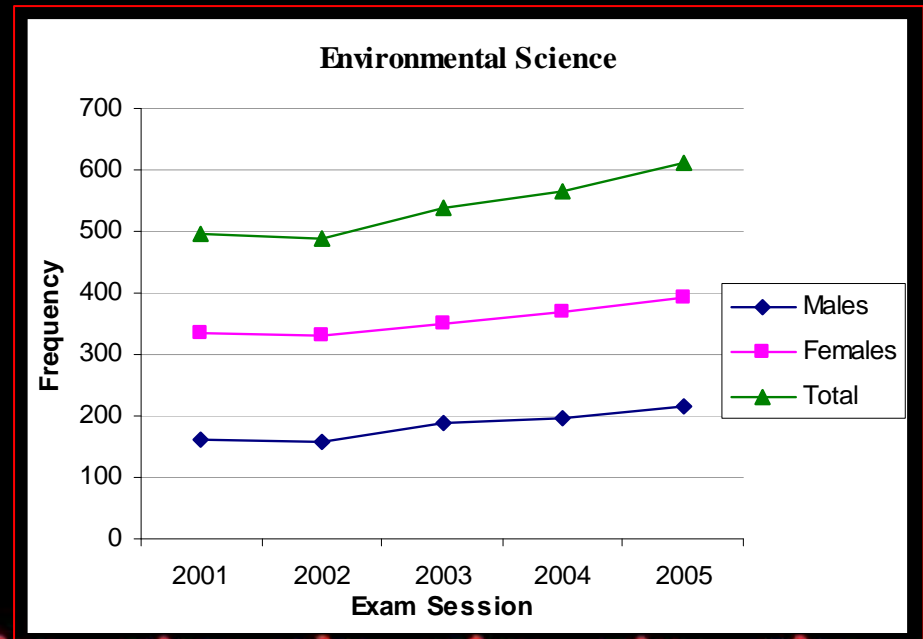
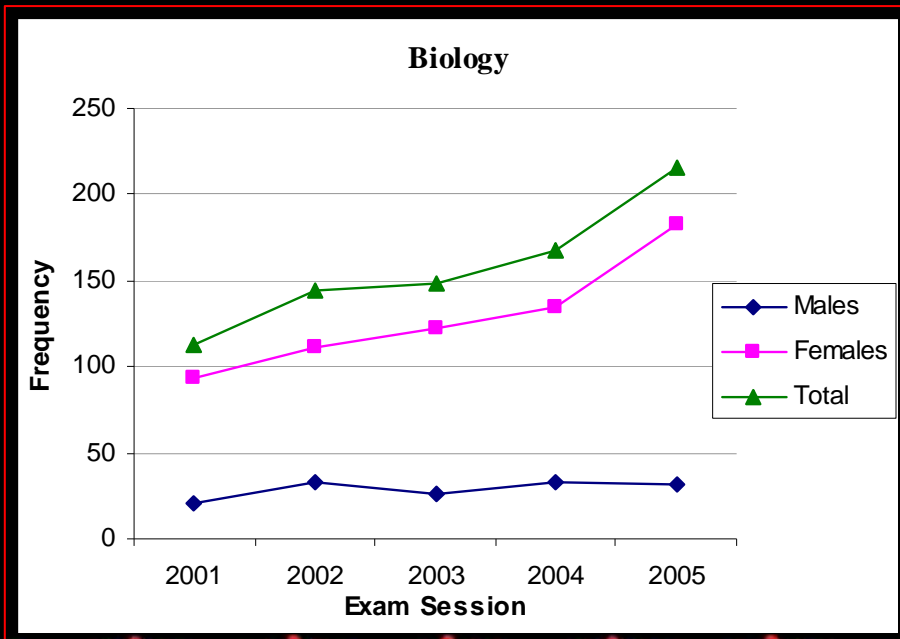


Intermediate Level Examinations

Number of registrations in:

Biology

Environmental Science

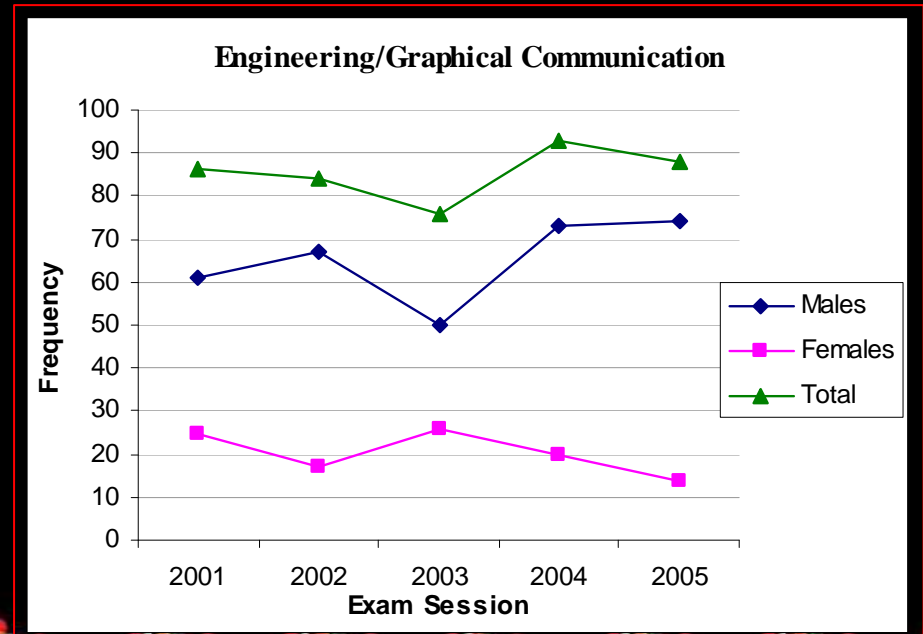
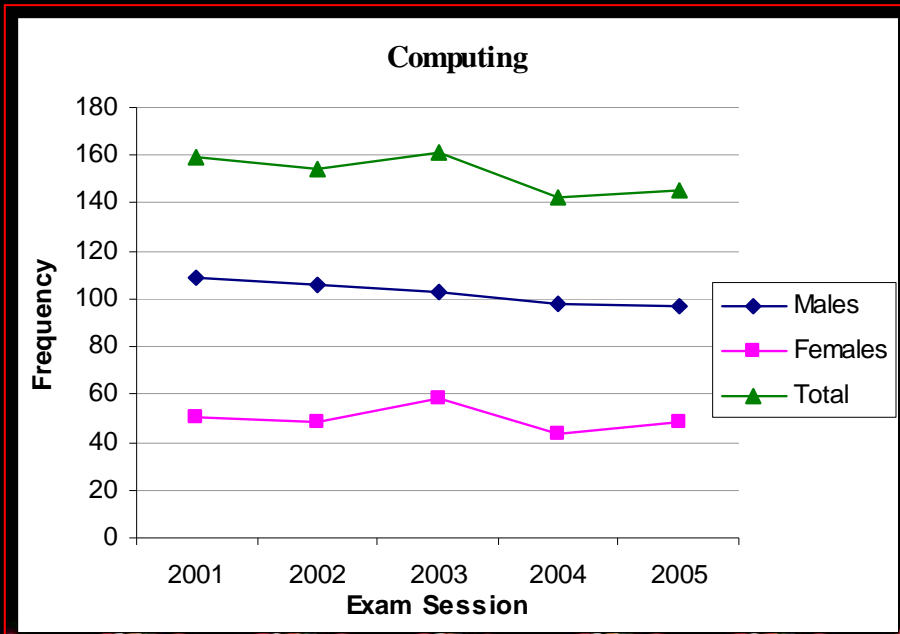


Intermediate Level Examinations

Number of registrations in:

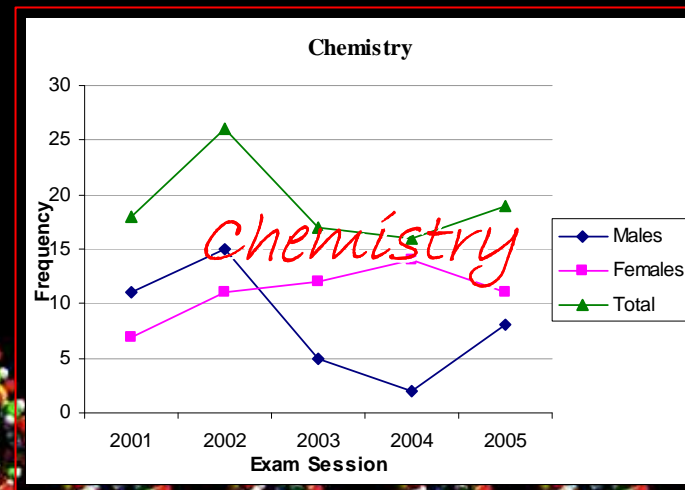
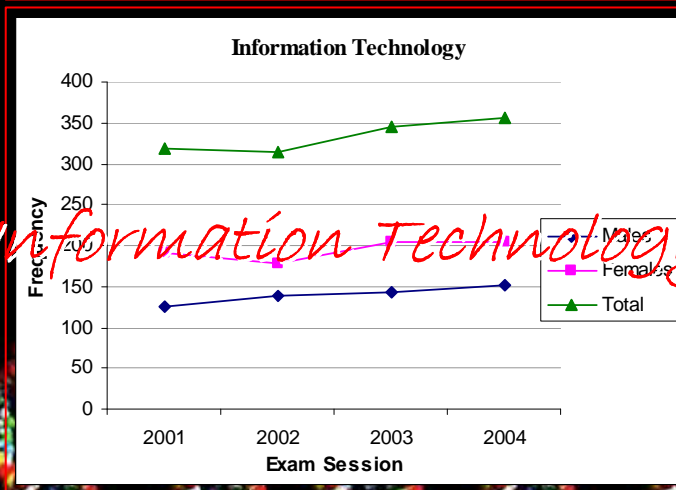
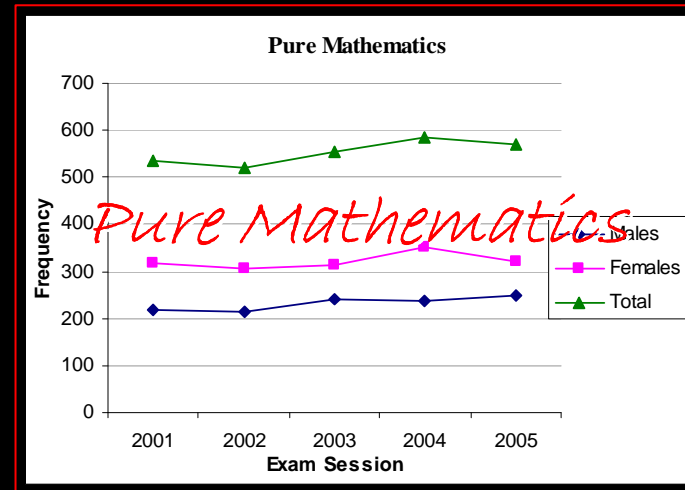
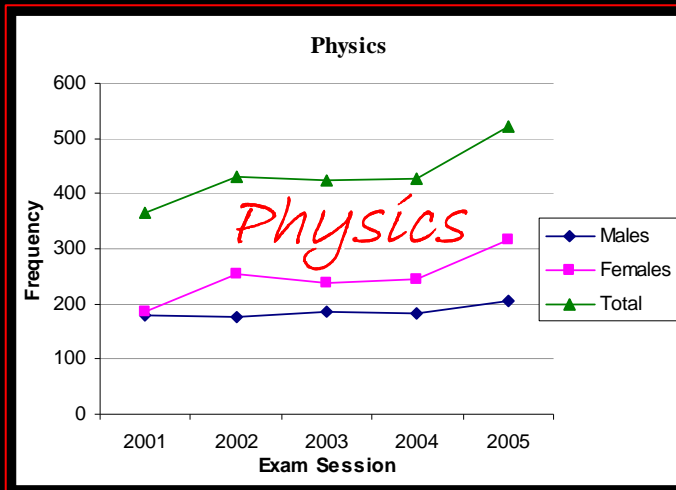
Computing

Eng./Graph. Commun.



Intermediate Level Examinations

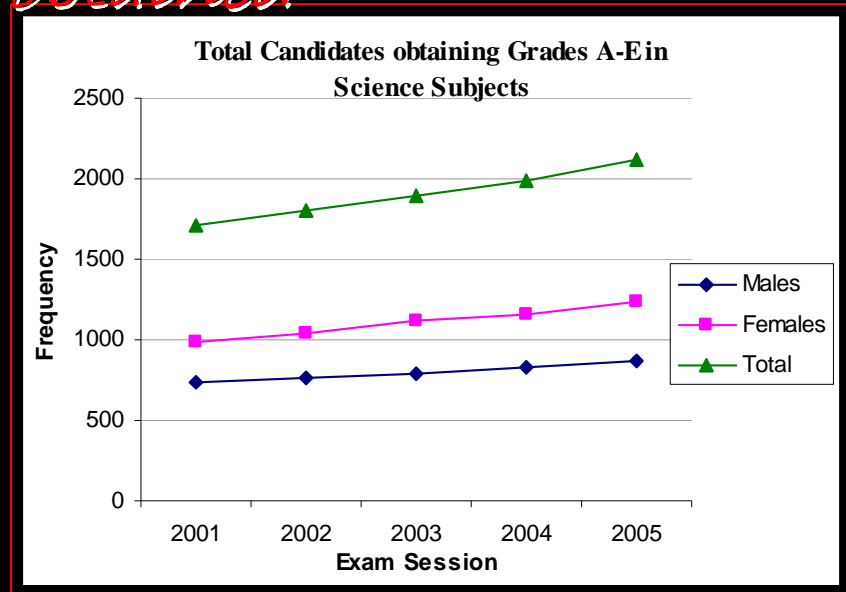
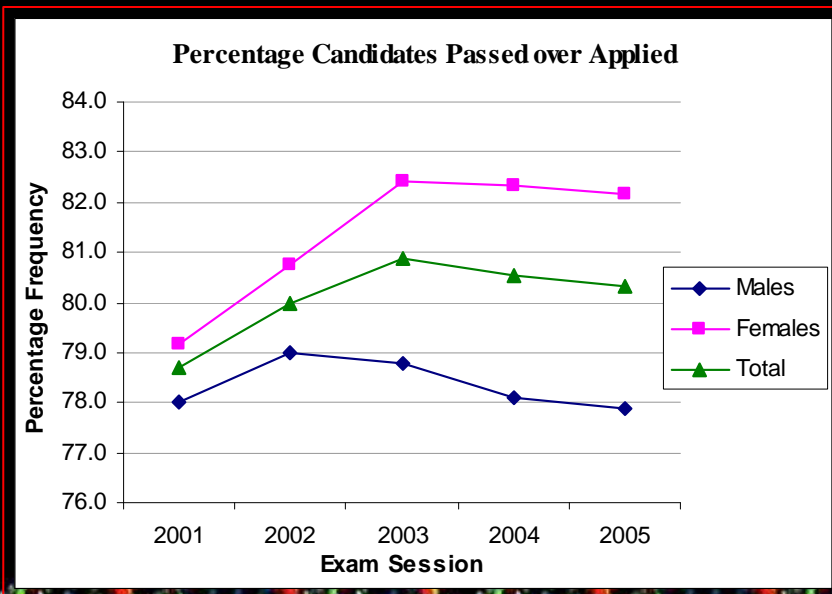
Number of registrations in:



Intermediate Level Examinations

Results obtained

Number of passes obtained in science subjects



Percentage number of candidates passing out of total number of registrations in science subjects



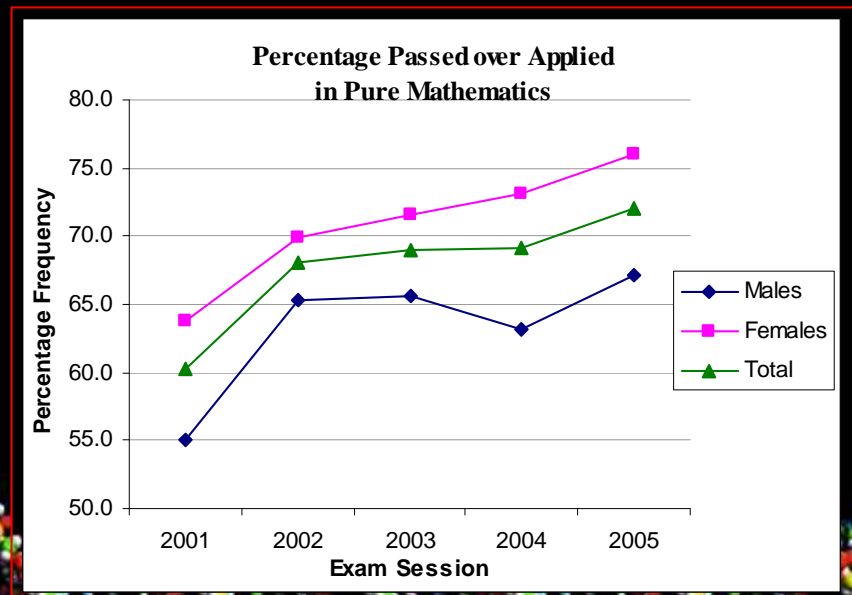
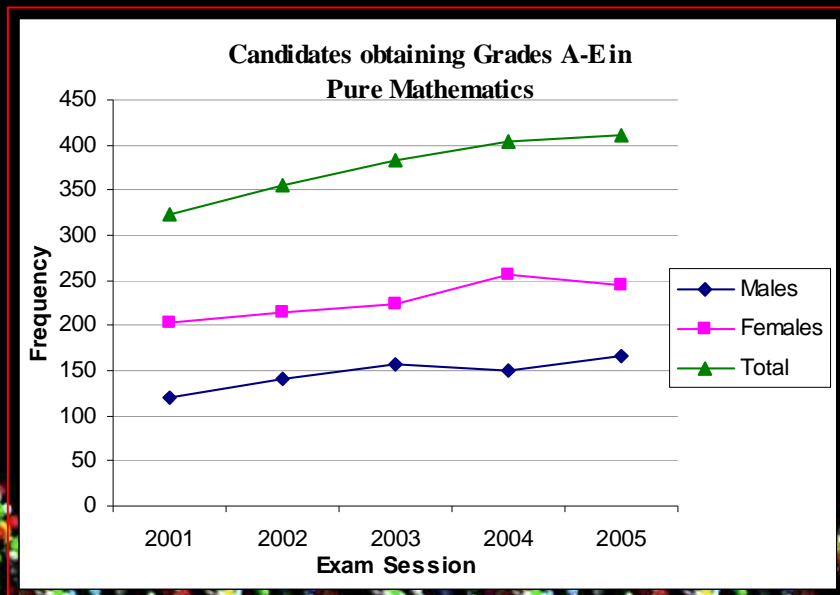
Intermediate Level Examinations

Results obtained

Pure Mathematics

Number of passes

Percentage number of candidates passing out of number of registrations



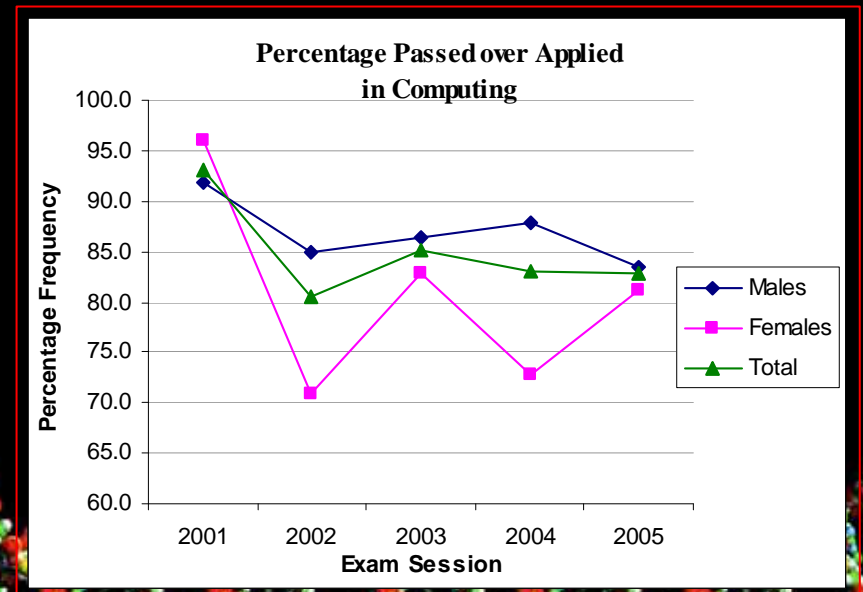
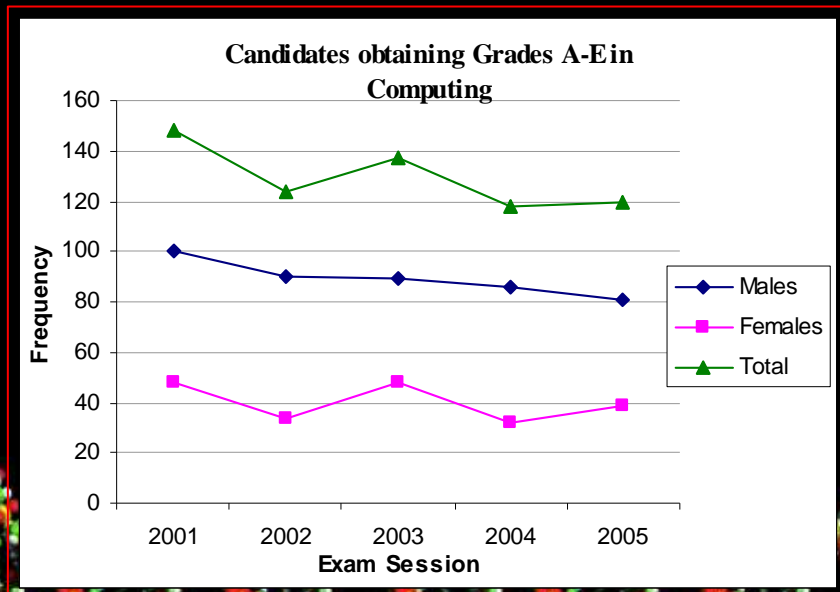
Intermediate Level Examinations

Results obtained

Computing

Number of passes

Percentage number of candidates passing out of number of registrations



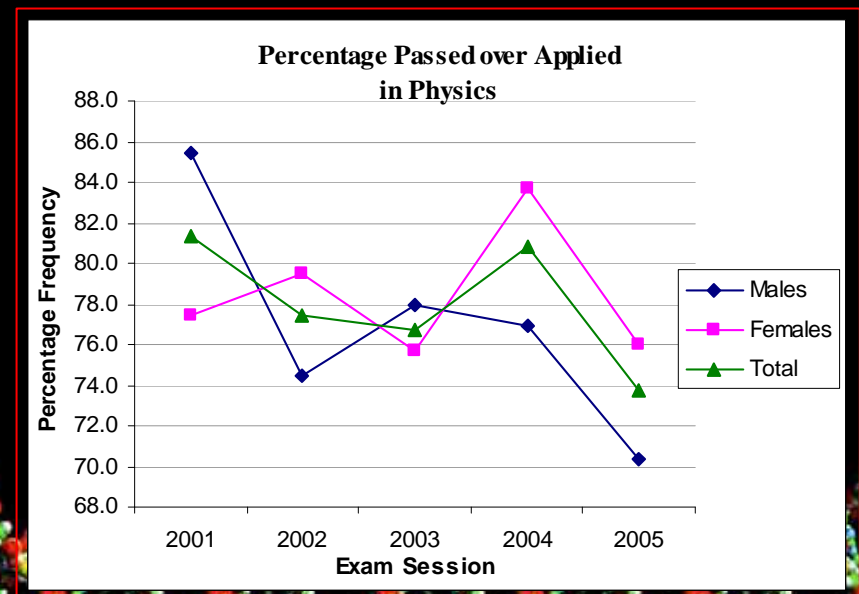
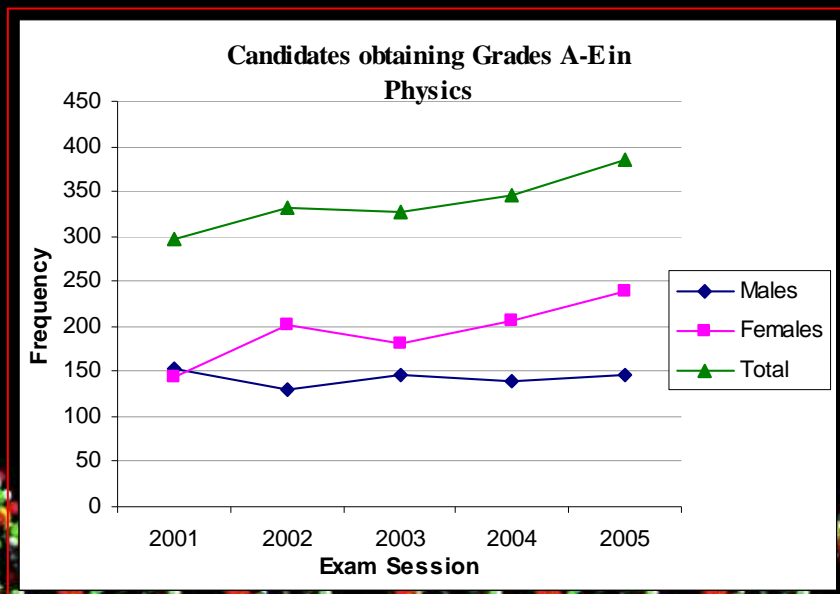
Intermediate Level Examinations

Results obtained

Physics

Number of passes

Percentage number of candidates passing out of number of registrations



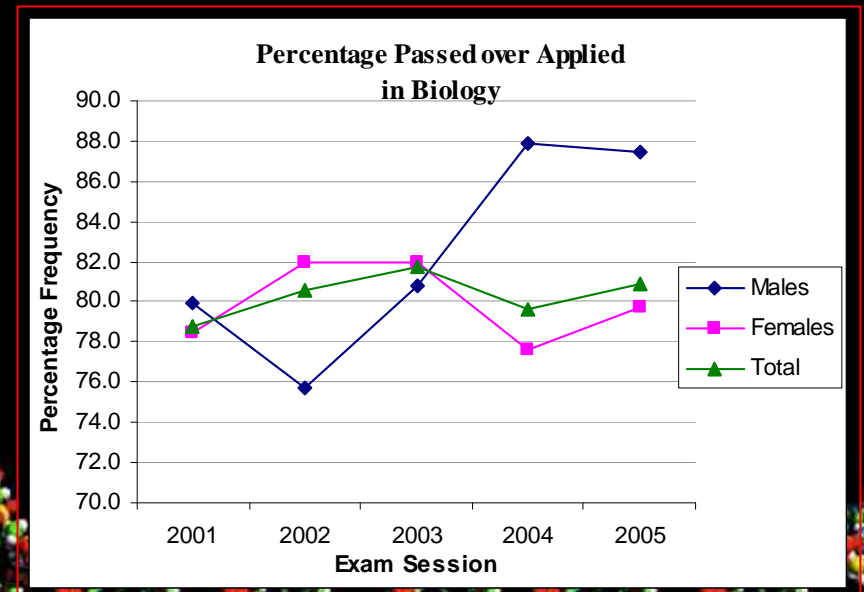
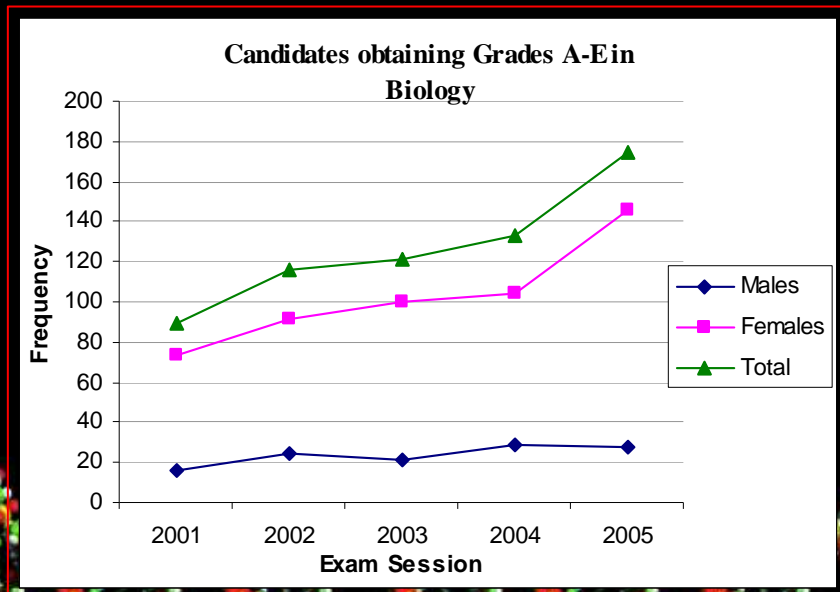
Intermediate Level Examinations

Results obtained

Biology

Number of passes

Percentage number of candidates passing out of number of registrations



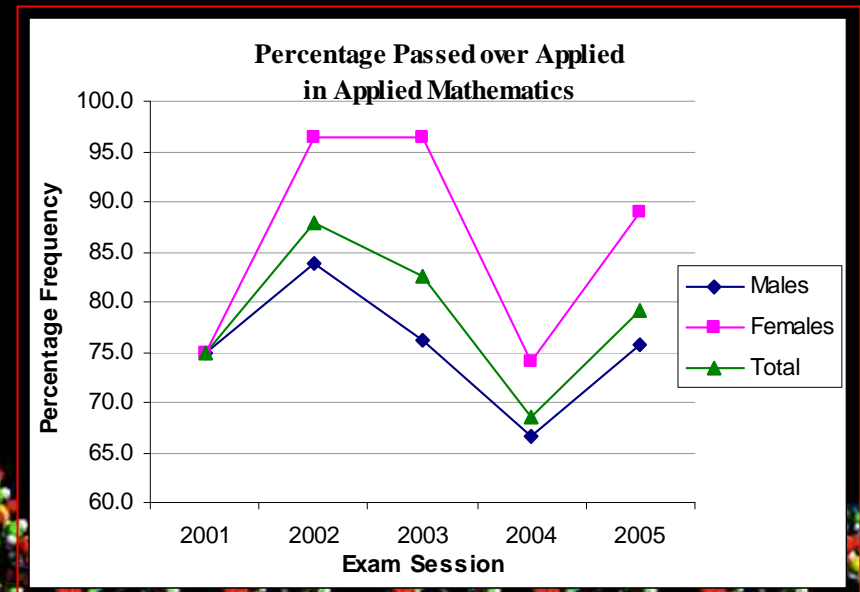
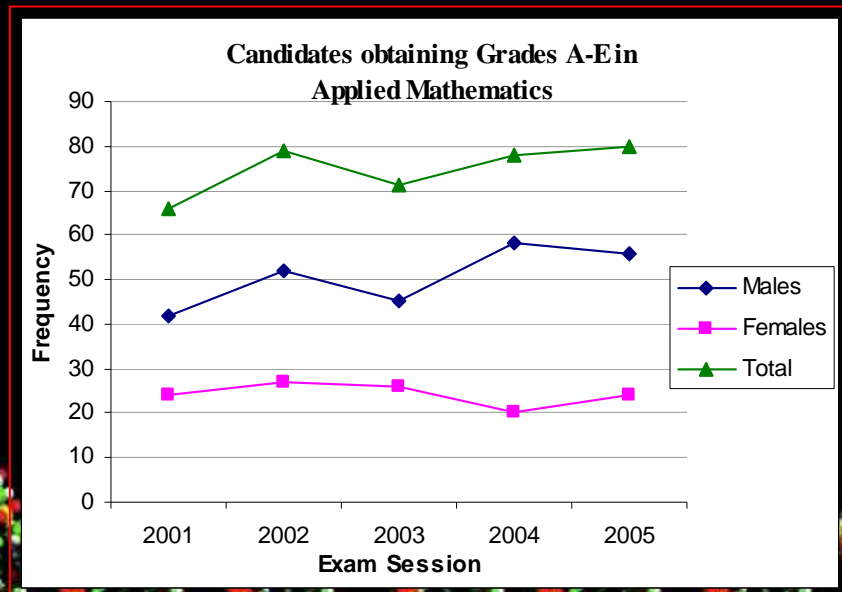
Intermediate Level Examinations

Results obtained

Applied Mathematics

Number of passes

Percentage number of candidates passing out of number of registrations



Advanced Level Examinations

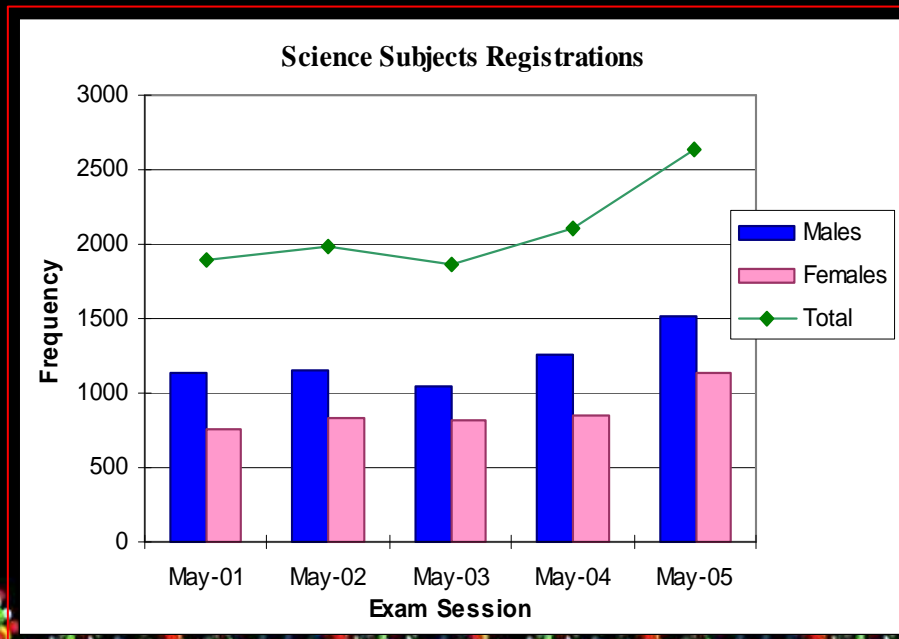
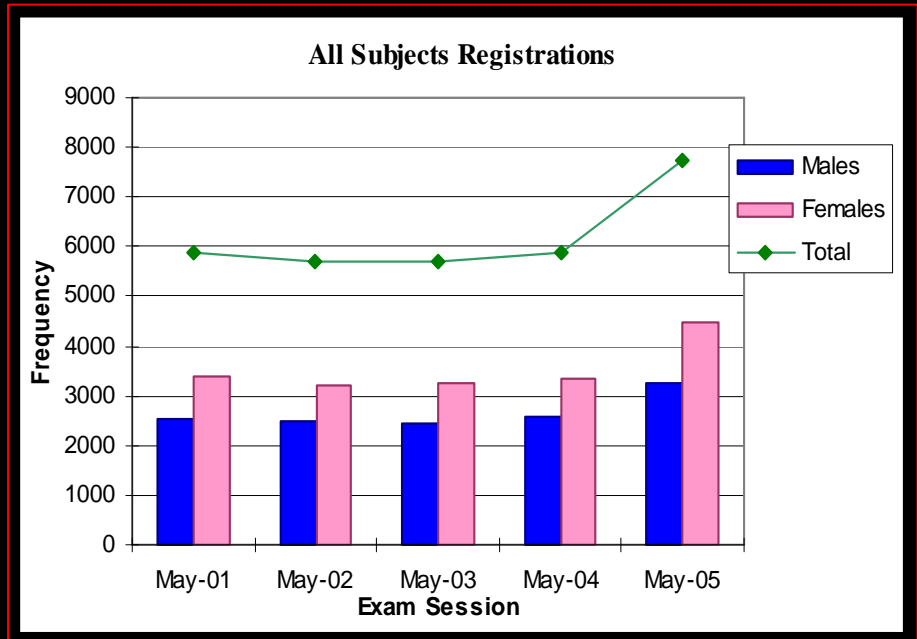
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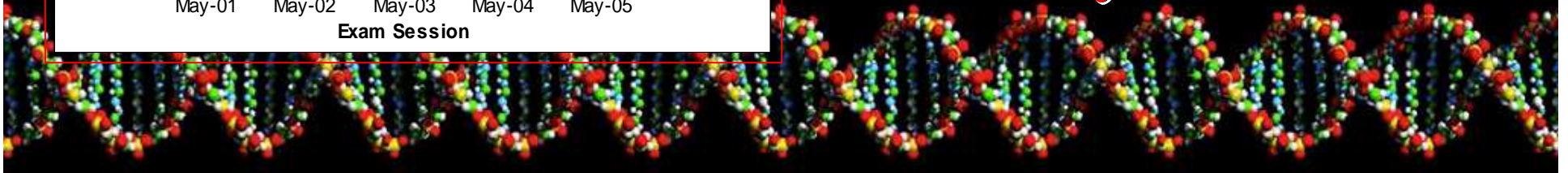


Advanced Level Examinations

Total number of registrations in
all subjects

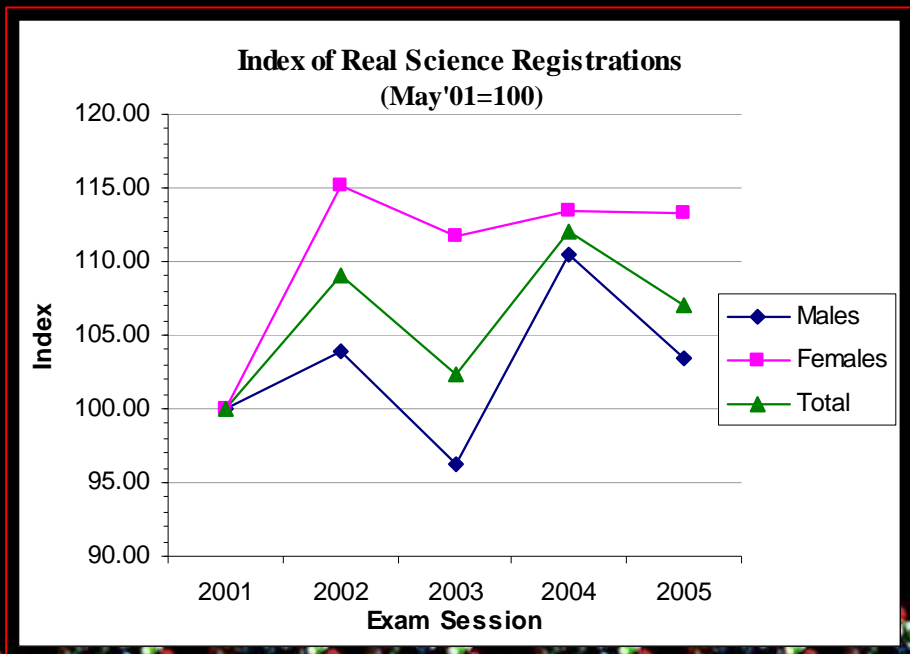
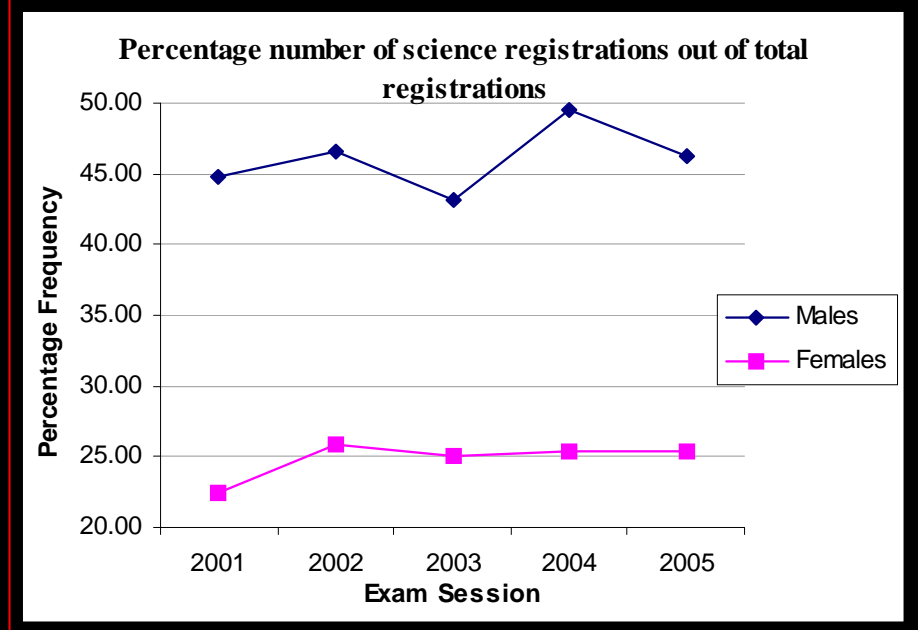


Number of registrations in
Science Subjects



Advanced Level Examinations

*Percentage number of
science registrations
out of total registrations*



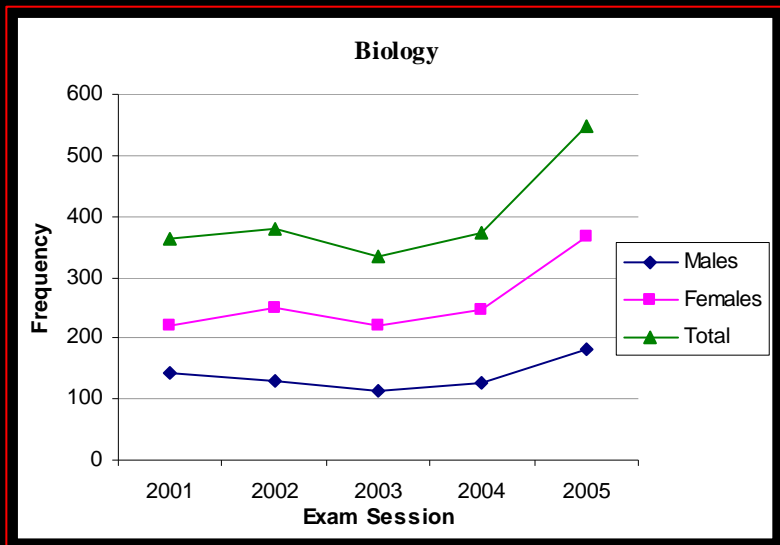
*Percentage change in
science registrations
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change in total registrations when
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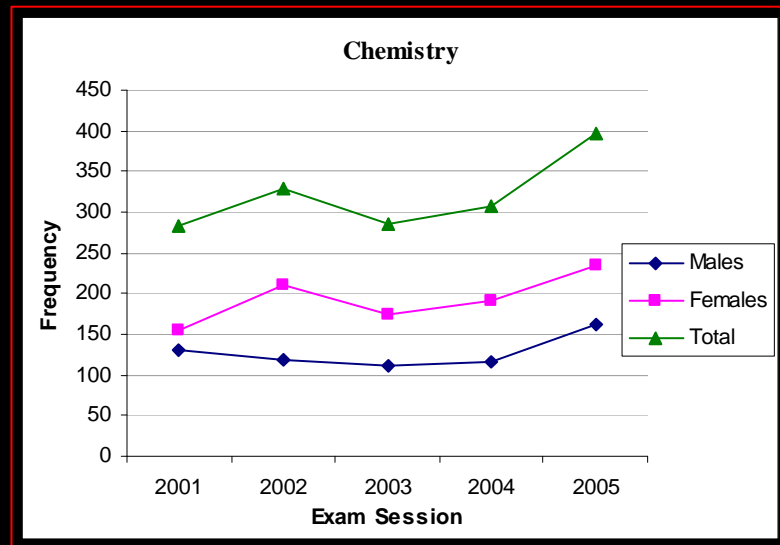
Advanced Level Examinations

Number of registrations in:

Biology

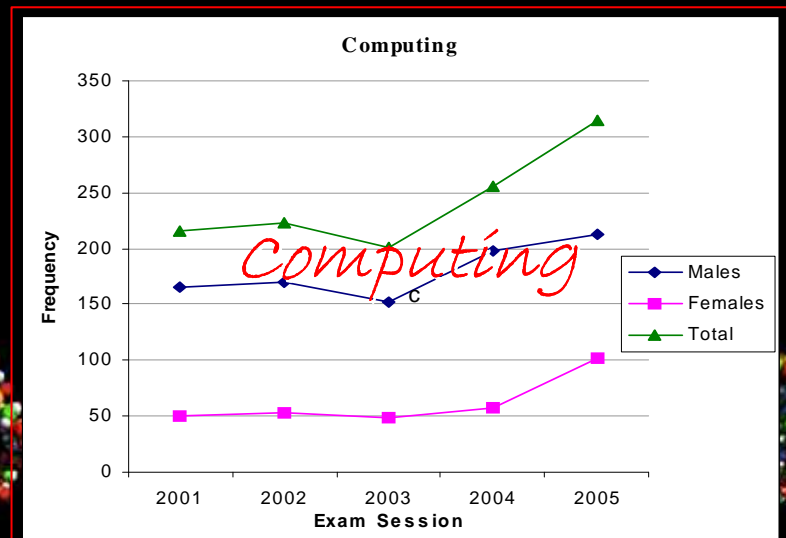
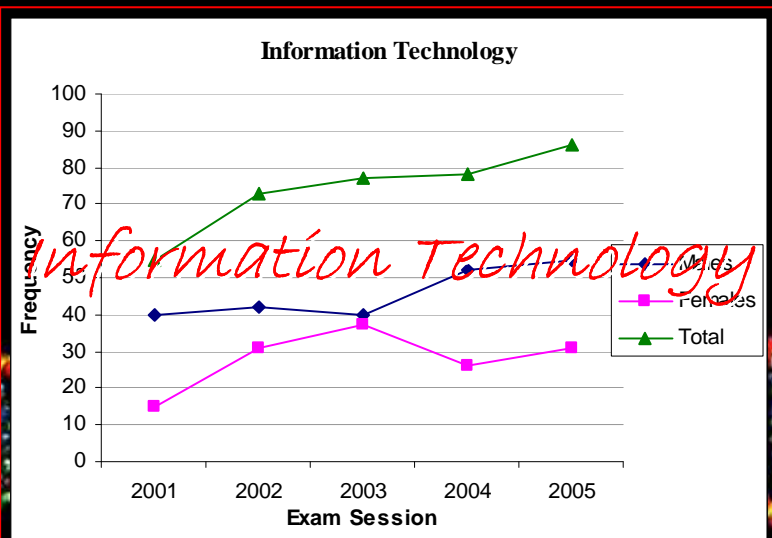
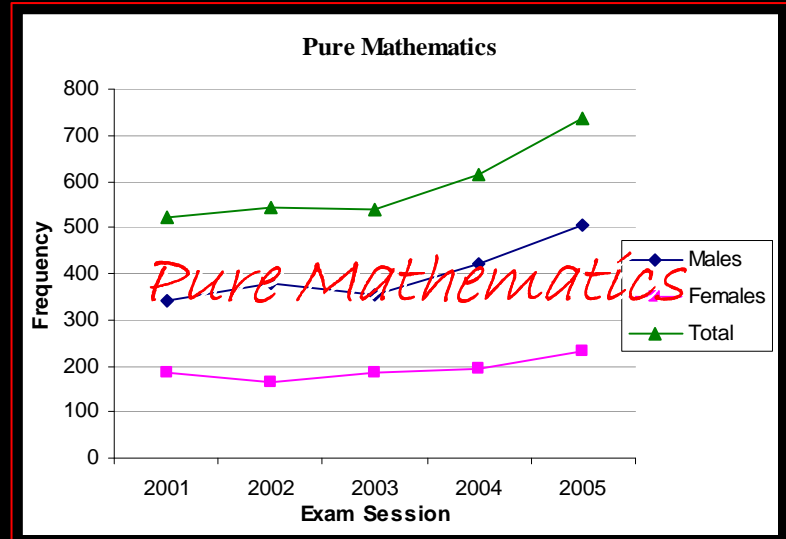
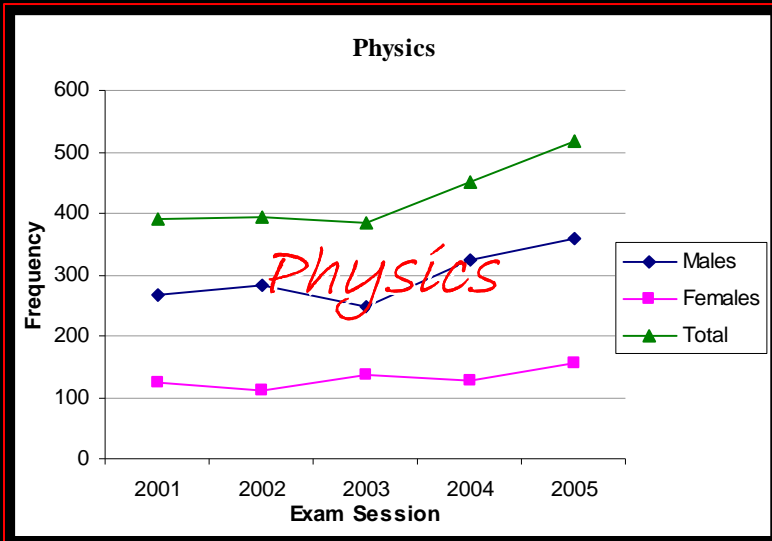


Chemistry



Advanced Level Examinations

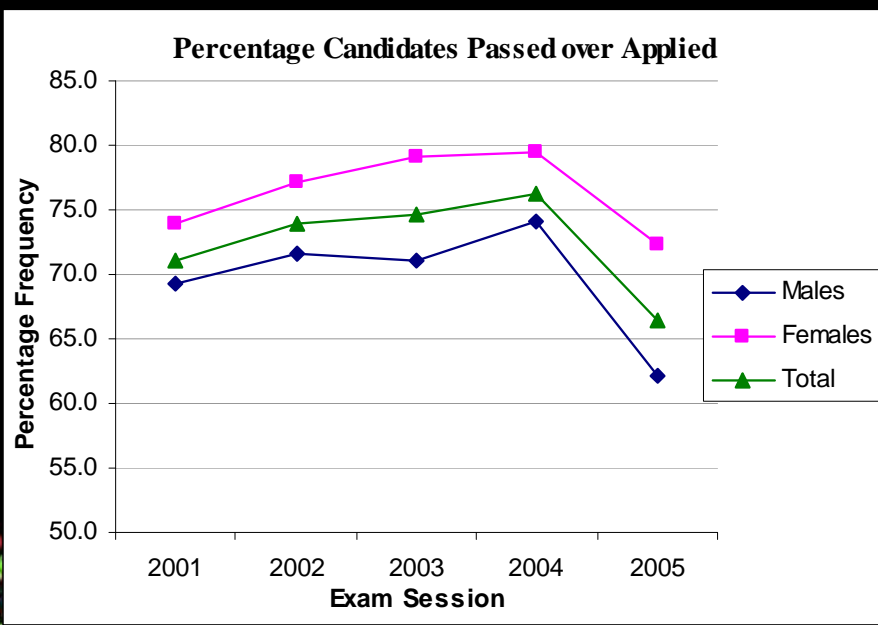
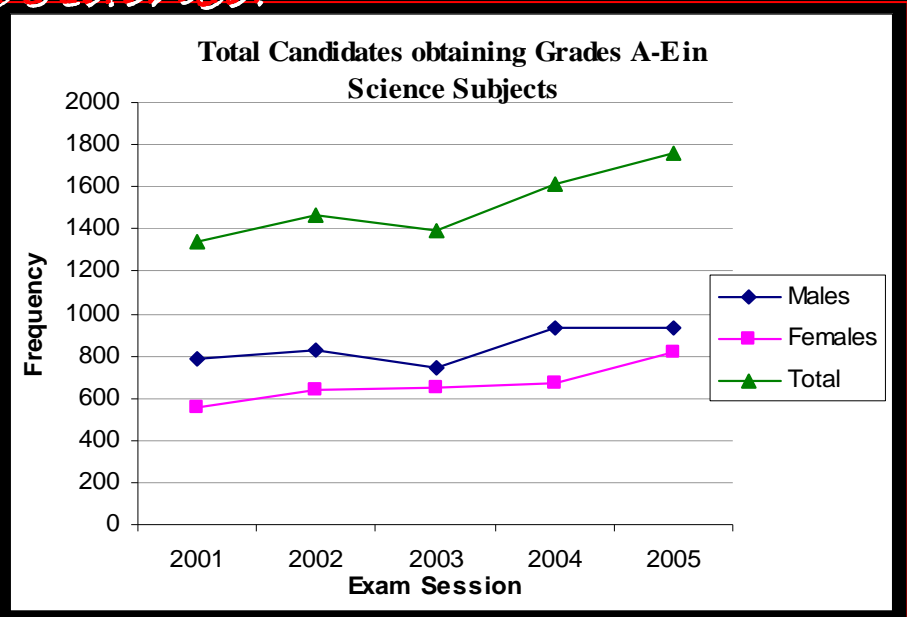
Number of registrations in:



Advanced Level Examinations

Results obtained

*Number of passes obtained
in science subjects*



*Percentage number of
candidates passing out of
total number of registrations
in science subjects*



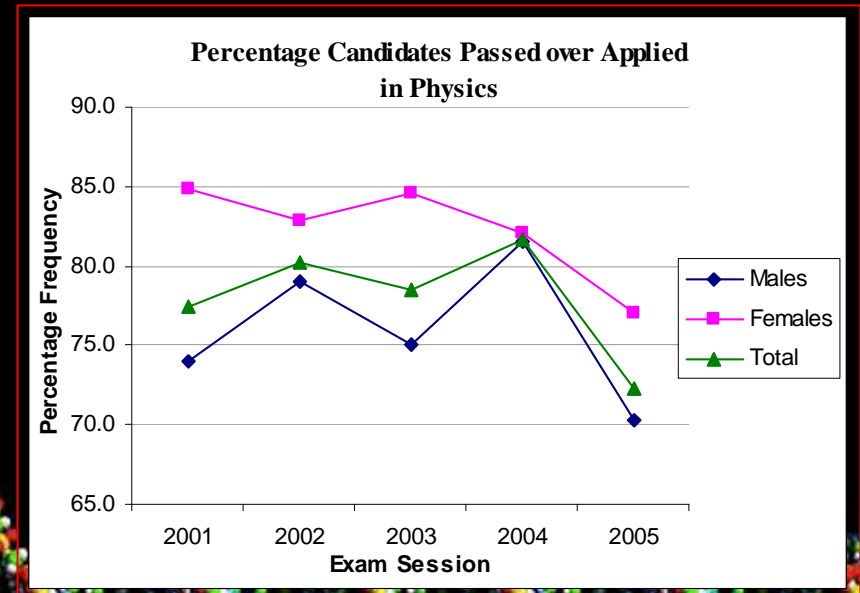
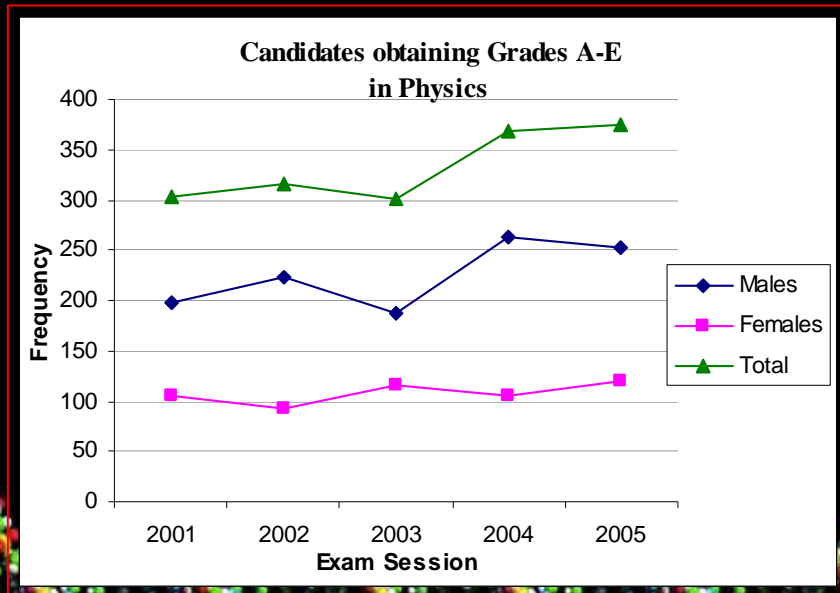
Advanced Level Examinations

Results obtained

Physics

Number of passes

Percentage number of candidates passing out of number of registrations



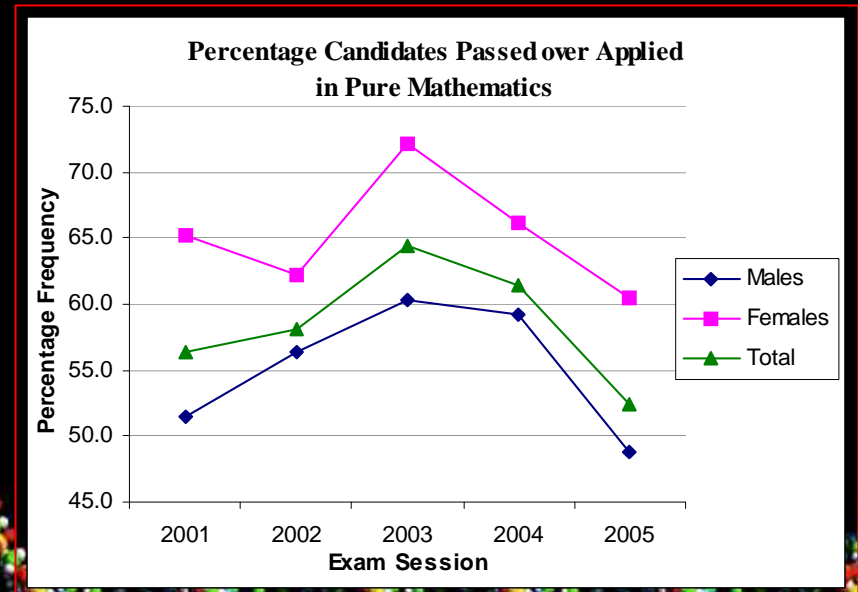
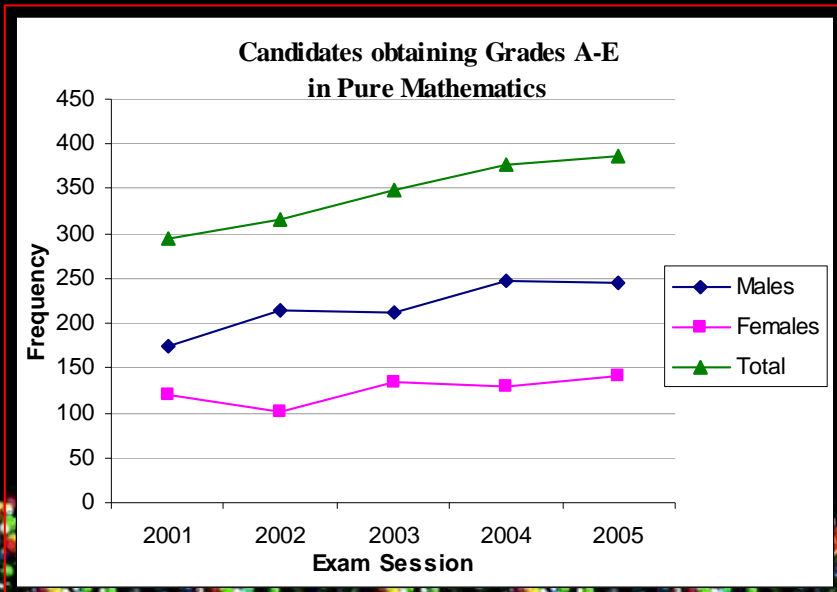
Advanced Level Examinations

Results obtained

Pure Mathematics

Number of passes

Percentage number of candidates passing out of number of registrations



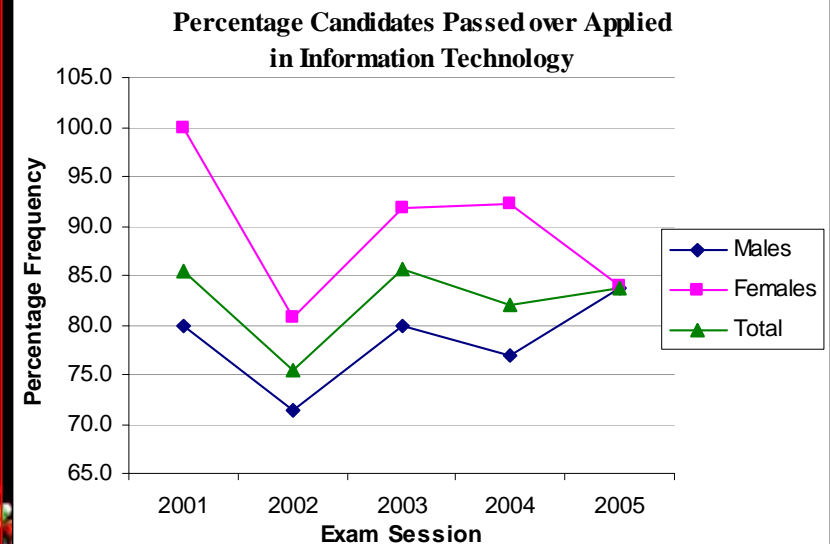
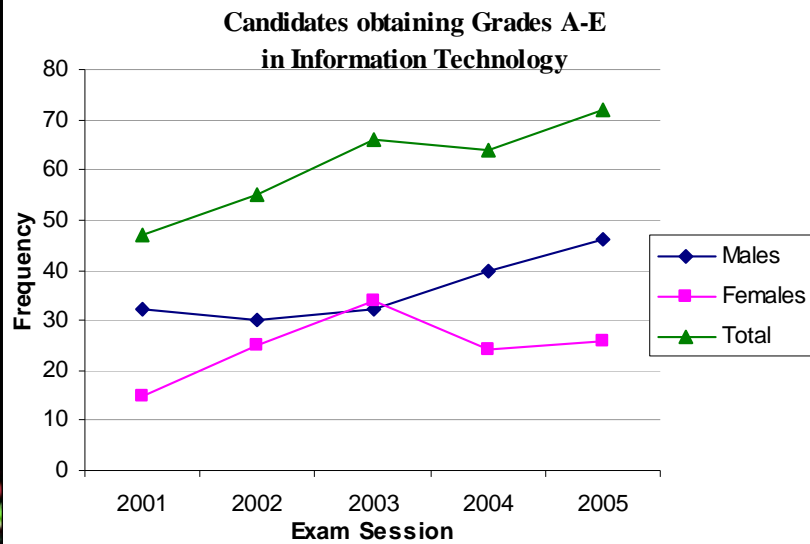
Advanced Level Examinations

Results obtained

Information Technology

Number of passes

Percentage number of candidates passing out of number of registrations



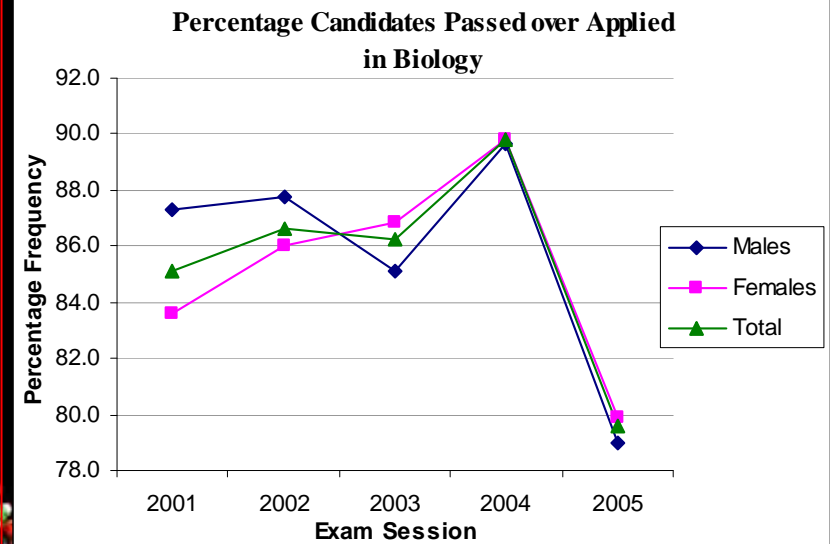
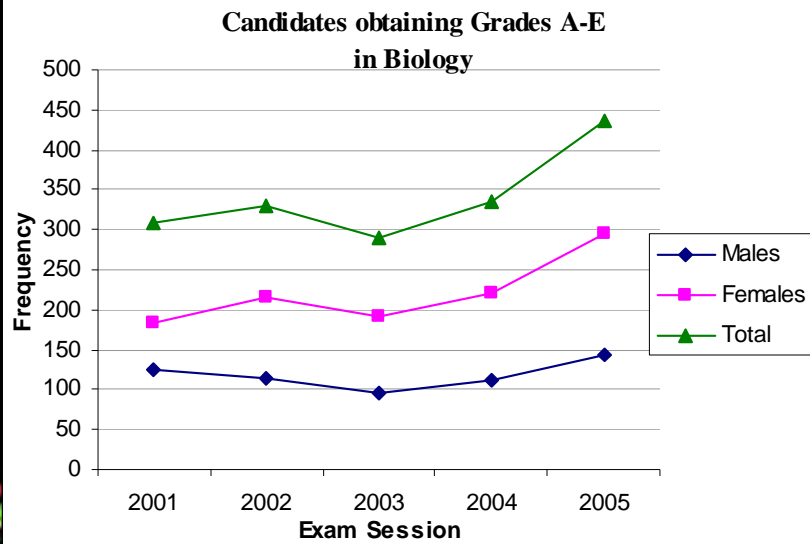
Advanced Level Examinations

Results obtained

Biology

Number of passes

Percentage number of candidates passing out of number of registrations



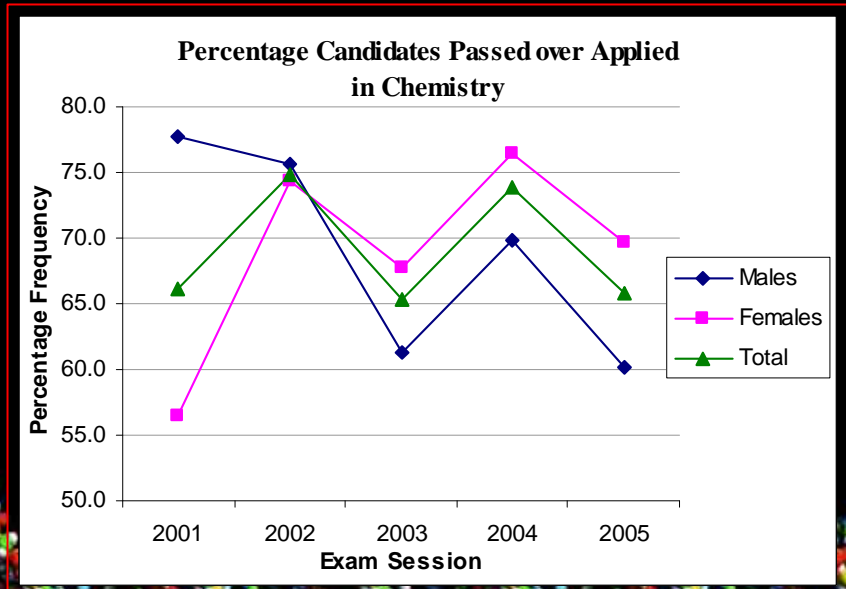
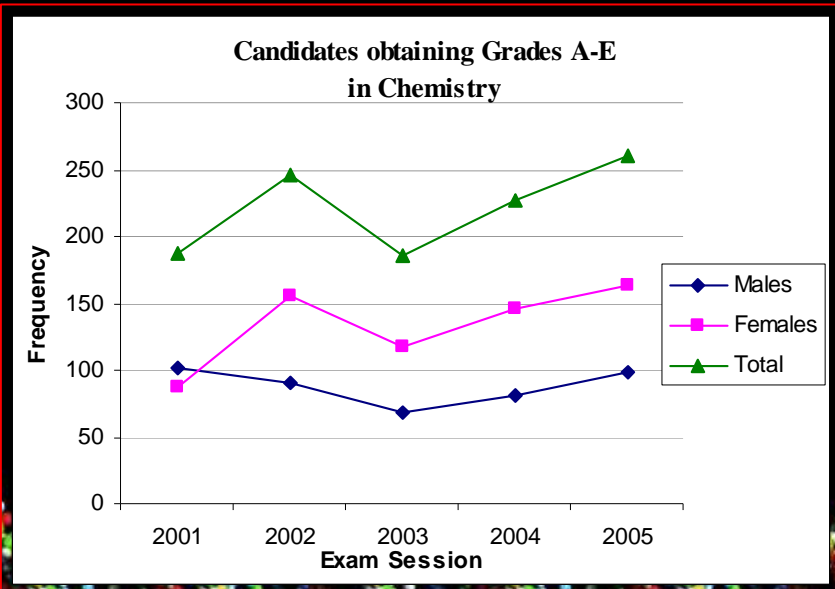
Advanced Level Examinations

Results obtained

Chemistry

Number of passes

Percentage number of candidates passing out of number of registrations



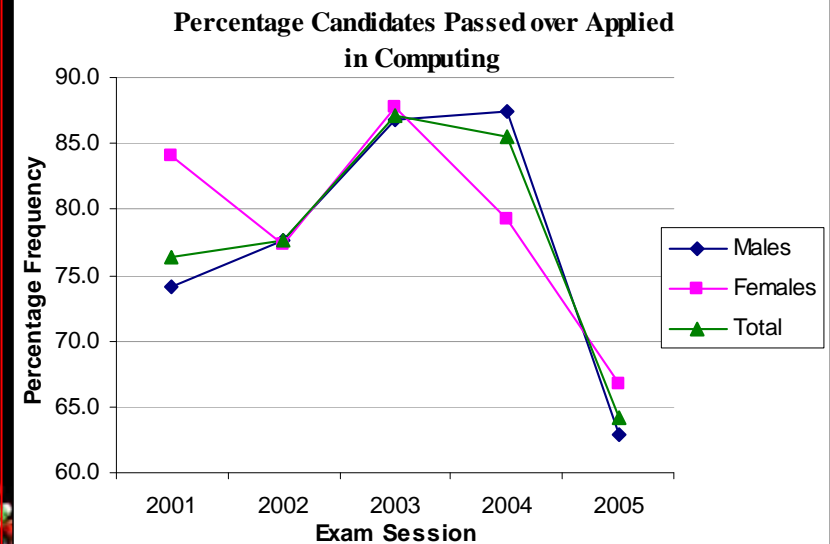
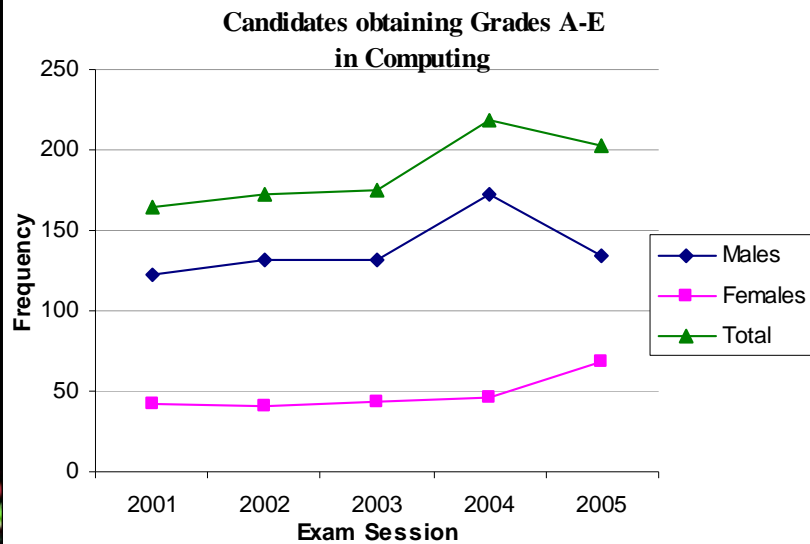
Advanced Level Examinations

Results obtained

Computing

Number of passes

Percentage number of candidates passing out of number of registrations



The three exam levels...

...a comparison

*Percentage number of science registrations
out of total number of registrations*

	SEC Level		Intermediate Level		Advanced Level	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
<i>May 2001</i>	32.11%	27.10%	37.29%	36.26%	44.76%	22.45%
<i>May 2002</i>	32.24%	27.97%	37.25%	37.19%	46.50%	25.87%
<i>May 2003</i>	33.50%	28.77%	37.93%	38.16%	43.09%	25.08%
<i>May 2004</i>	32.81%	28.10%	36.20%	37.36%	49.45%	25.45%
<i>May 2005</i>	32.32%	28.01%	36.38%	35.23%	46.30%	25.43%

The three exam levels...

...a comparison

*Percentage number of passes out of total registrations
in science subjects*

	SEC Level		Intermediate Level		Advanced Level	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
<i>May 2001</i>	57.8%	56.9%	78.0%	79.2%	69.2%	73.8%
<i>May 2002</i>	58.7%	61.9%	79.0%	80.7%	71.7%	77.2%
<i>May 2003</i>	60.6%	62.1%	78.8%	82.4%	71.2%	79.2%
<i>May 2004</i>	61.4%	60.7%	78.1%	82.3%	74.1%	79.5%
<i>May 2005</i>	63.0%	60.1%	77.9%	82.2%	62.1%	72.3%

MCAST Statistics

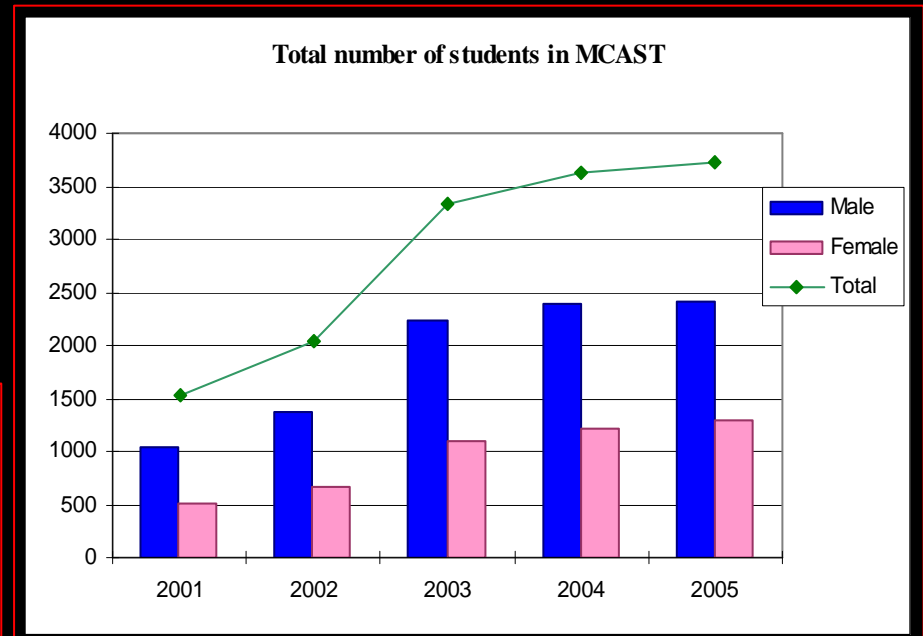
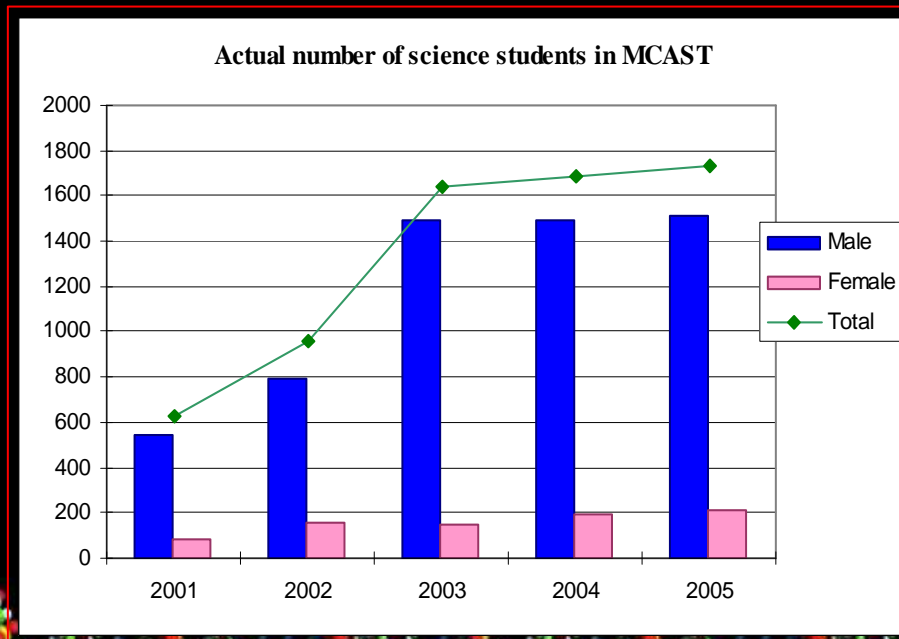
The courses considered as science-related for this study were chosen from the following institutes:

- Institute of Art and Design
- Institute of Business and Commerce
- Institute of Building and Construction Engineering
- Institute of Information Communication and Technology
- Institute of Electrical and Electronics Engineering
- Institute of Mechanical Engineering



MCAST Applicants

Total number of applicants in
all institutes within MCAST

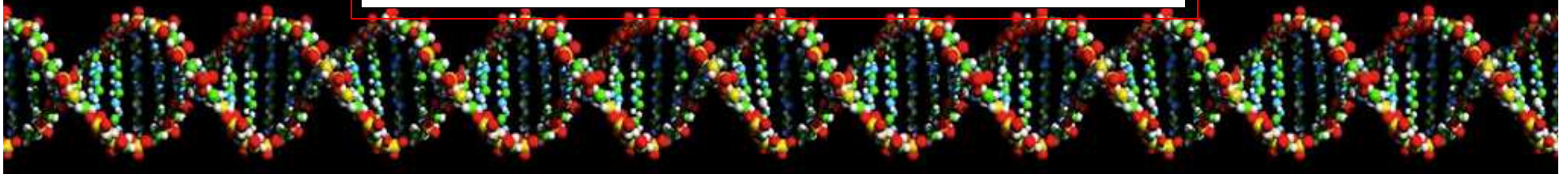
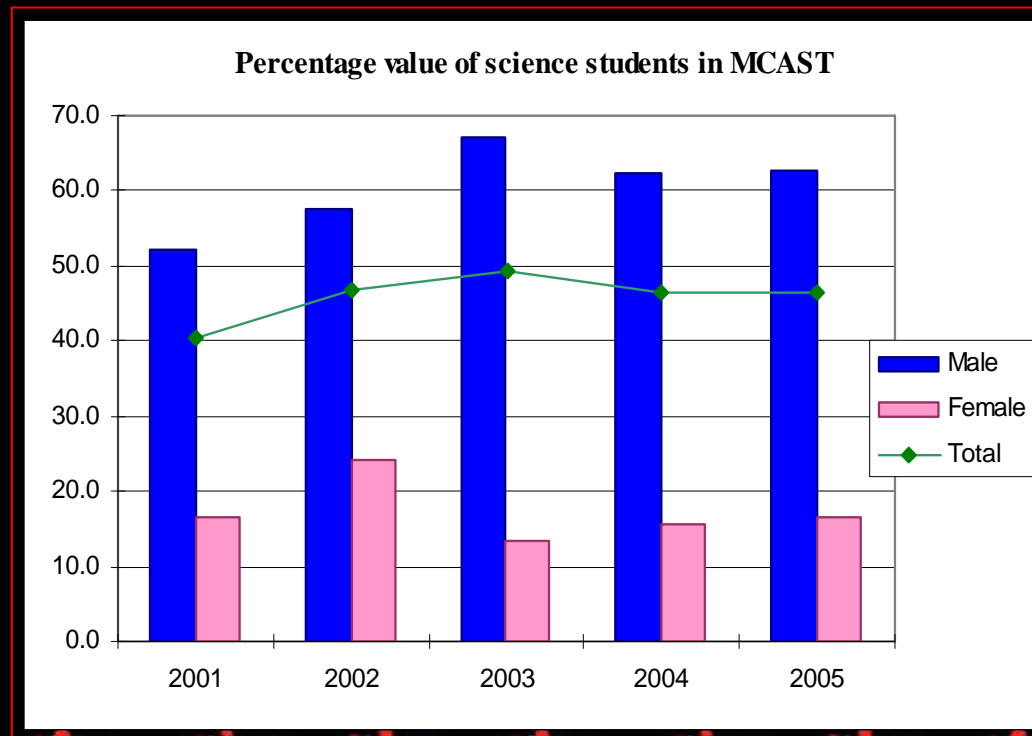


Number of applicants for
science-related courses
within MCAST



MCAST Applicants

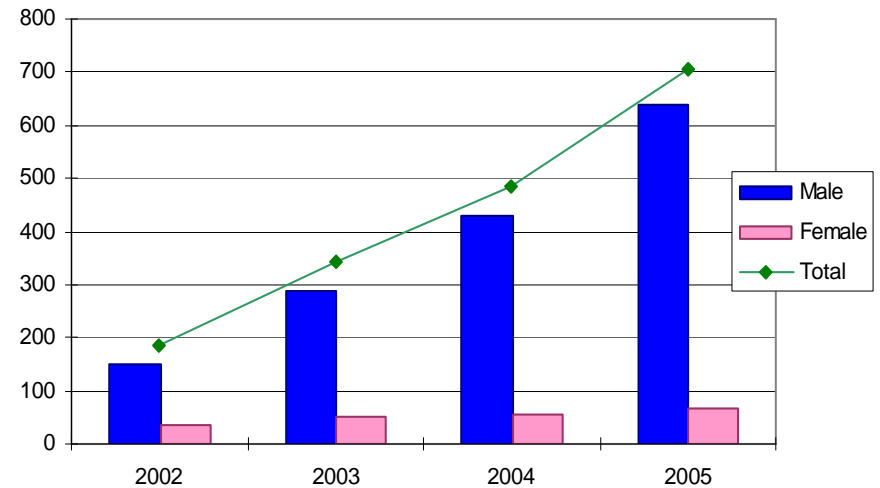
Percentage number of science students out of total number of students within MCAST



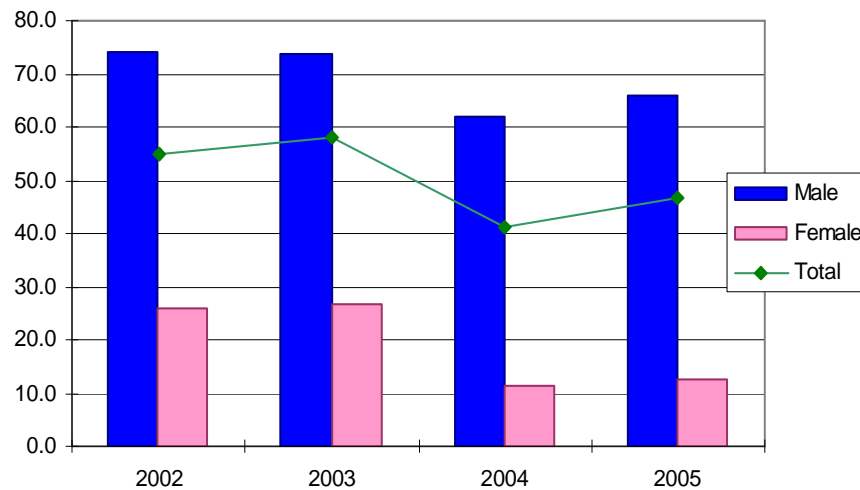
MCAST Graduates

Total number of science graduates within MCAST

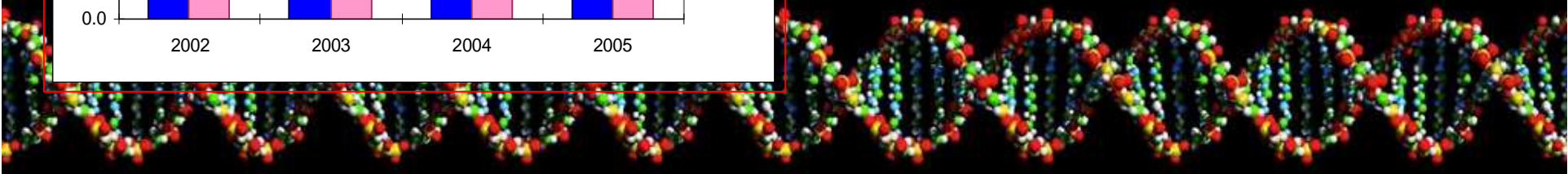
Actual number of science graduates in MCAST



Percentage values of science graduates in MCAST



Percentage number of science graduates within MCAST





University of Malta Statistics

The courses considered as science-related for this study were chosen from the following:

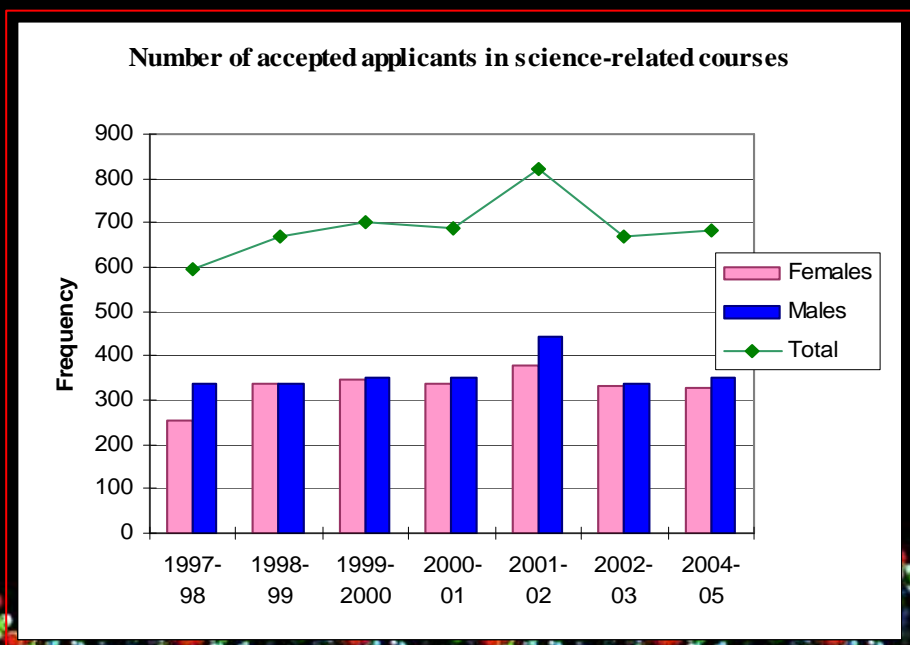
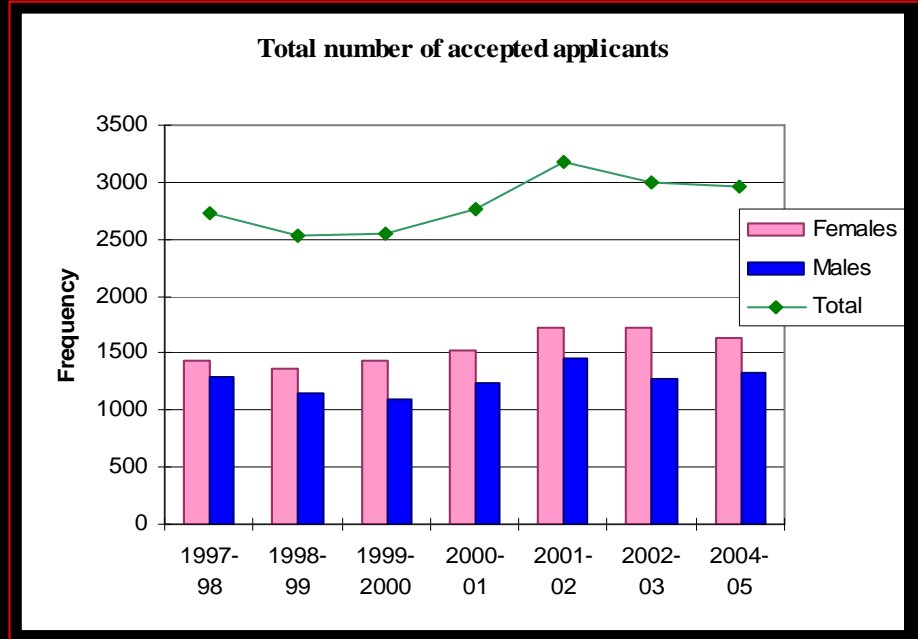
- Faculty of Architecture and Civil Engineering
- Faculty of Dental Surgery
- Faculty of Engineering
- Faculty of Medicine and Surgery
- Faculty of Science
- Institute of Health Care
- Board of Studies for I.T.
- European Centre of Gerontology



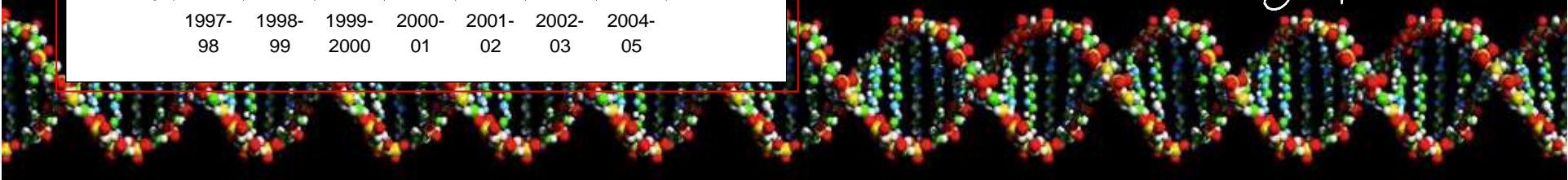
University of Malta Applicants



Total number of applicants at the University of Malta



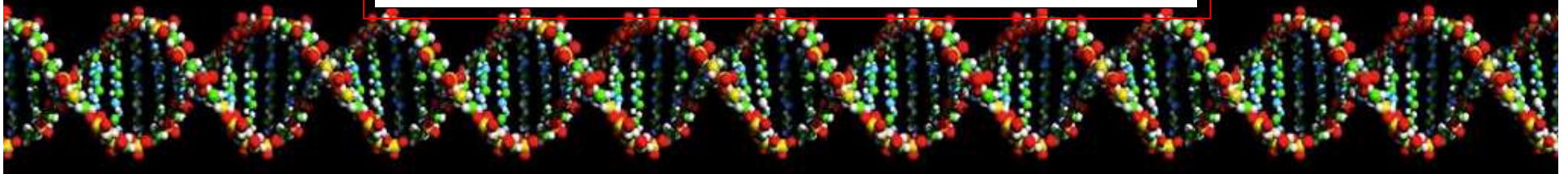
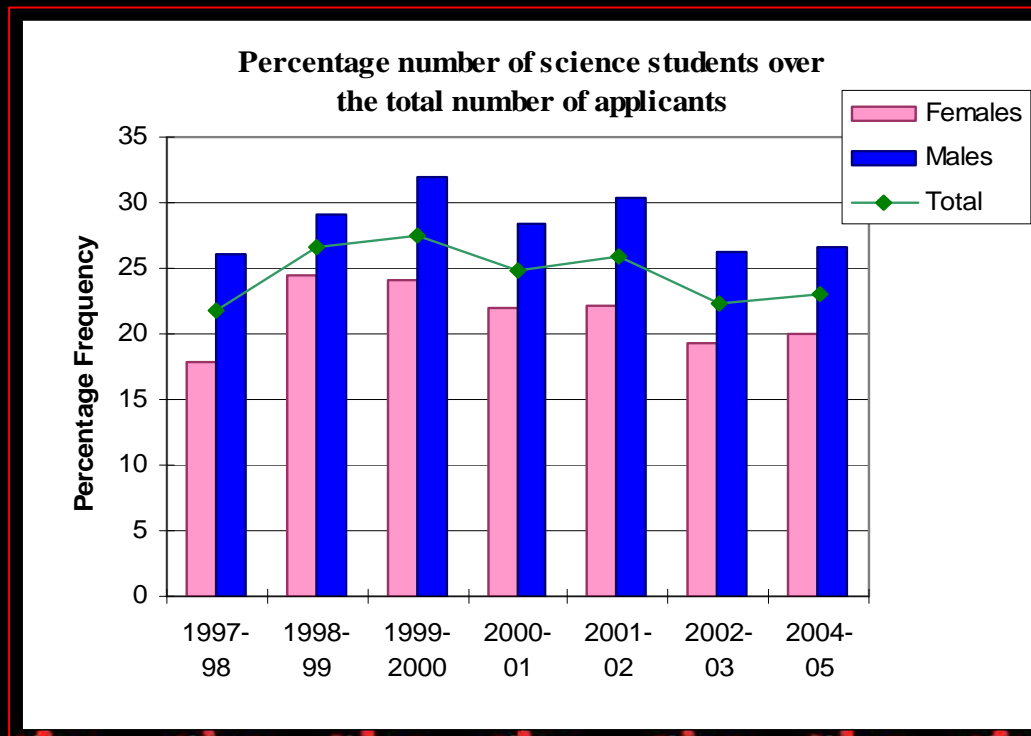
Number of applicants for science-related courses within the University of Malta



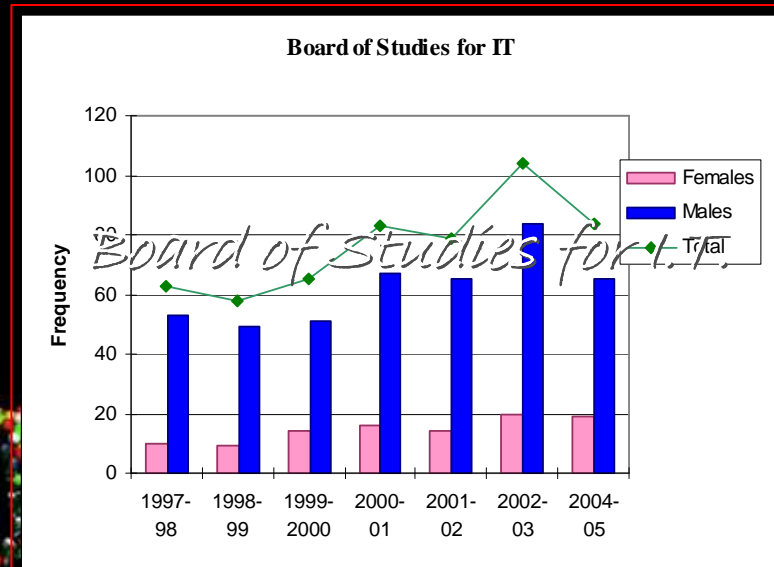
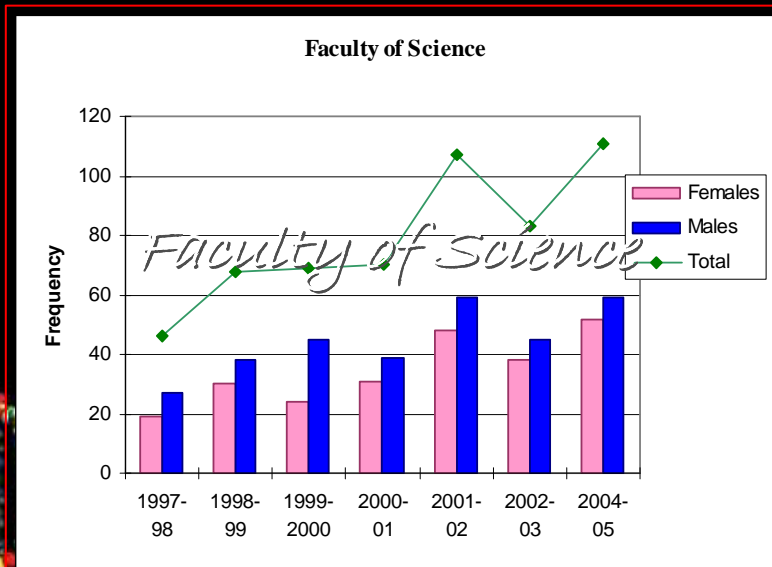
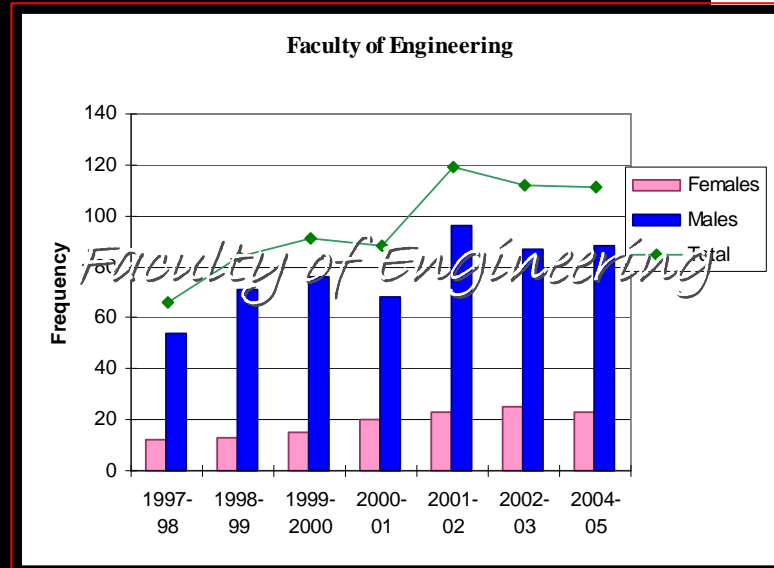
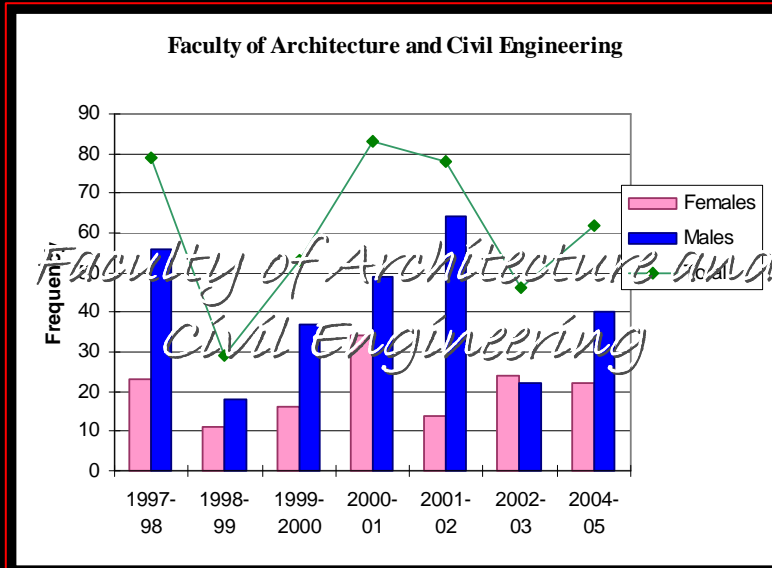
University of Malta Applicants



Percentage number of science students out of total number of students within the University of Malta



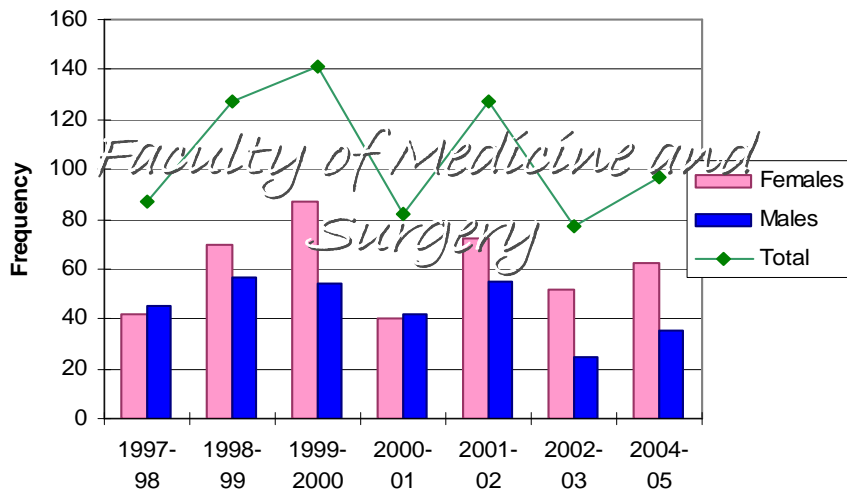
University of Malta Applicants



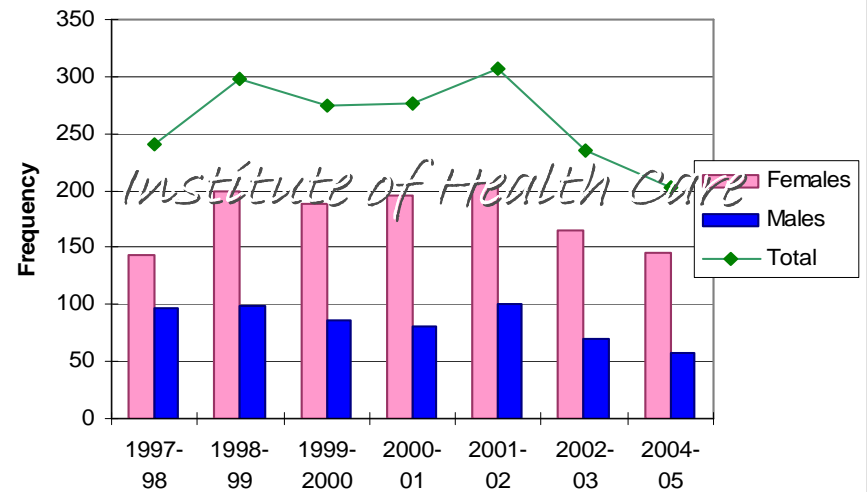
University of Malta Applicants



Faculty of Medicine and Surgery



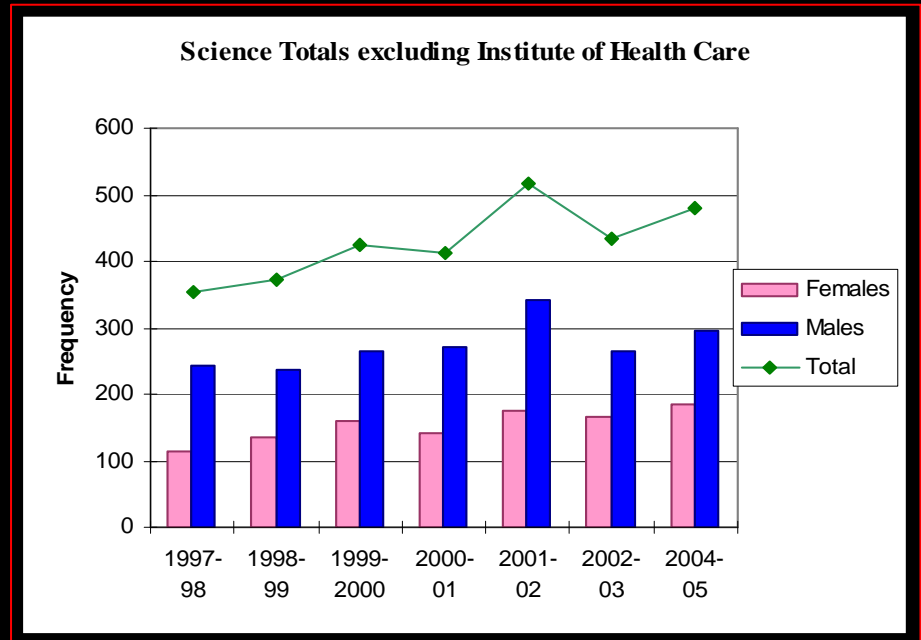
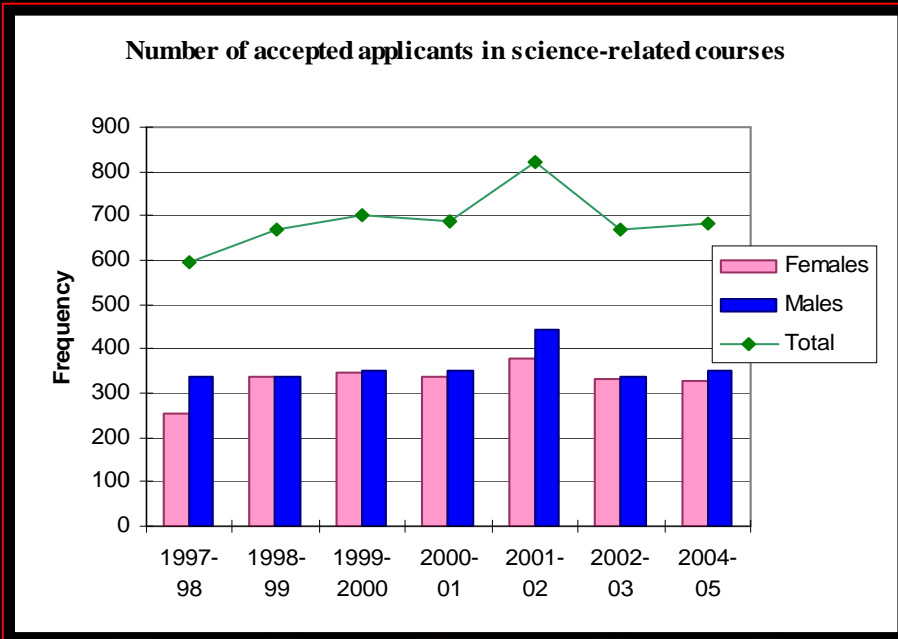
Institute of Health Care



University of Malta Applicants



Number of applicants for *science-related courses* within the University of Malta



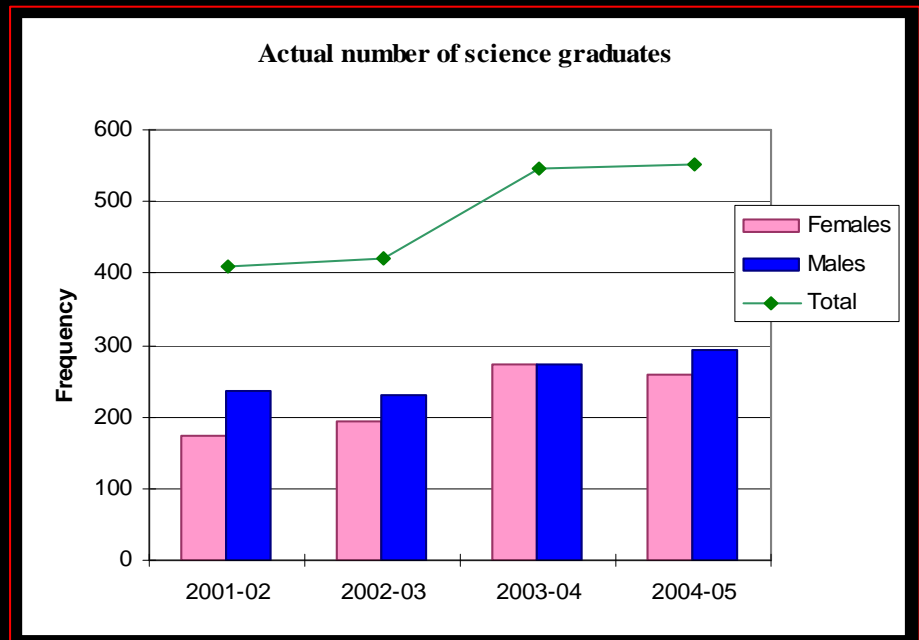
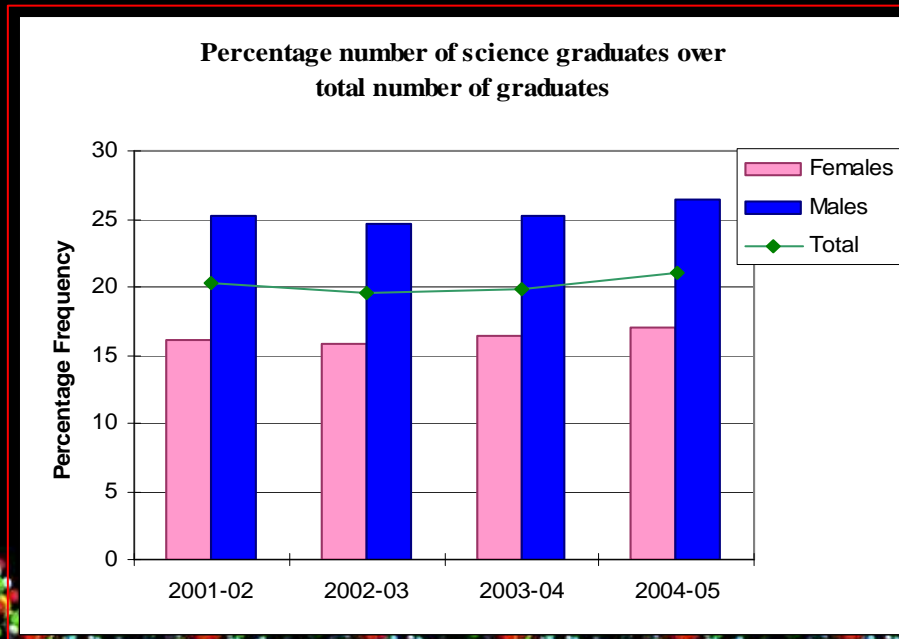
Number of applicants for *science-related courses* excluding *Institute of Health Care*



University of Malta Graduates



Total number of *science graduates* within the University of Malta



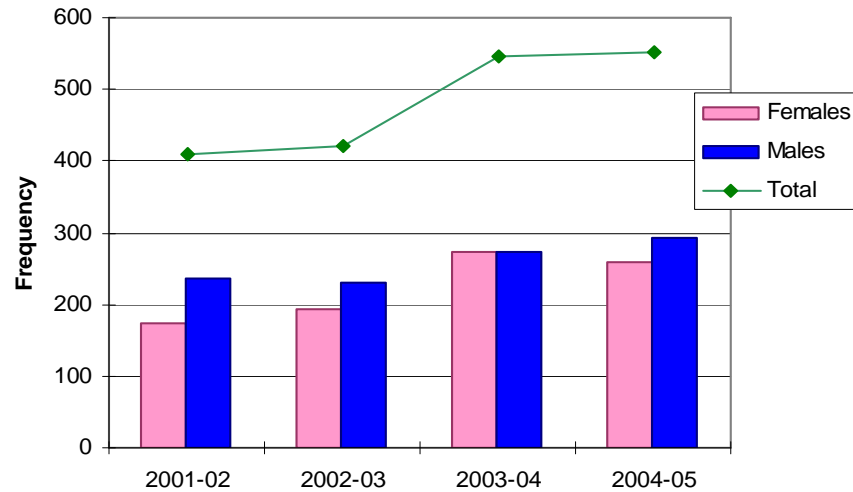
Percentage number of *science graduates* within the University of Malta



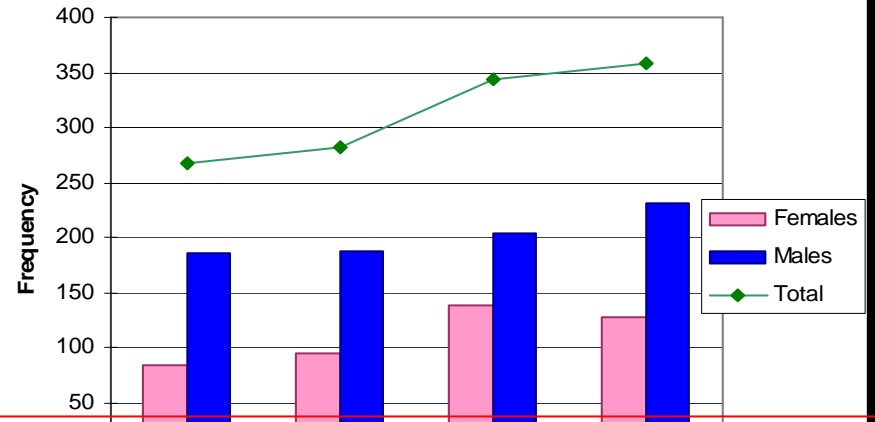
University of Malta Graduates



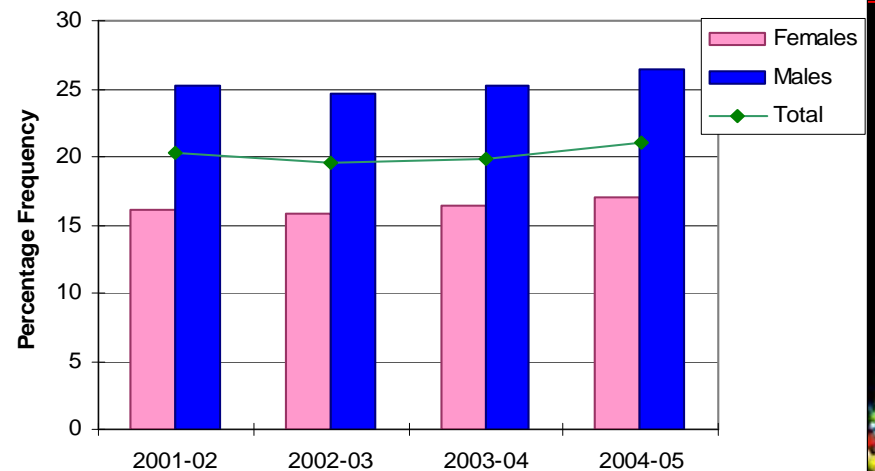
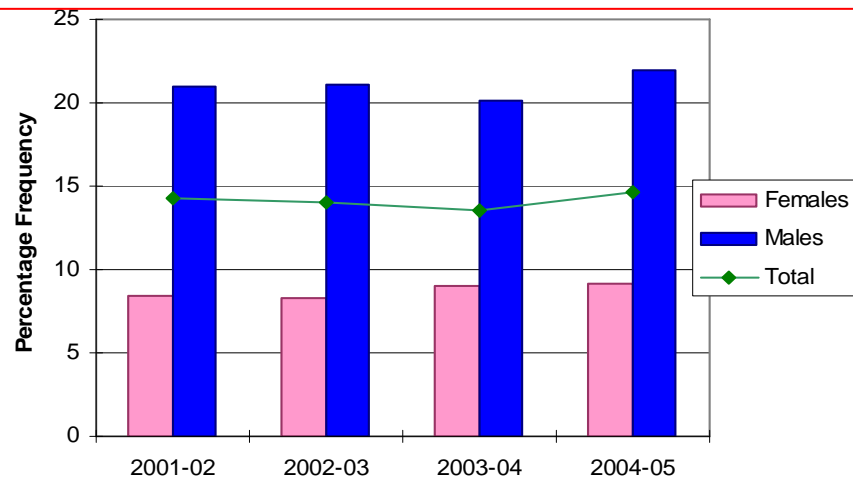
Actual number of science graduates



Number of science graduates excluding Inst. of Health Care



Percentage number of science graduates over total number of graduates



Employment Statistics

The main fields of science and technology considered were the following:

➤ Natural Sciences

- Mathematics and computer sciences
- Physical sciences
- Chemical Sciences
- Earth and related environmental sciences
- Biological sciences

➤ Agricultural sciences

- Agriculture, forestry, fisheries and allied sciences
- Veterinary medicine

➤ Engineering and technology

- Civil engineering
- Electrical engineering
- Electronics
- Other engineering sciences

➤ Medical sciences

- Basic medicine
- Clinical medicine
- Health sciences

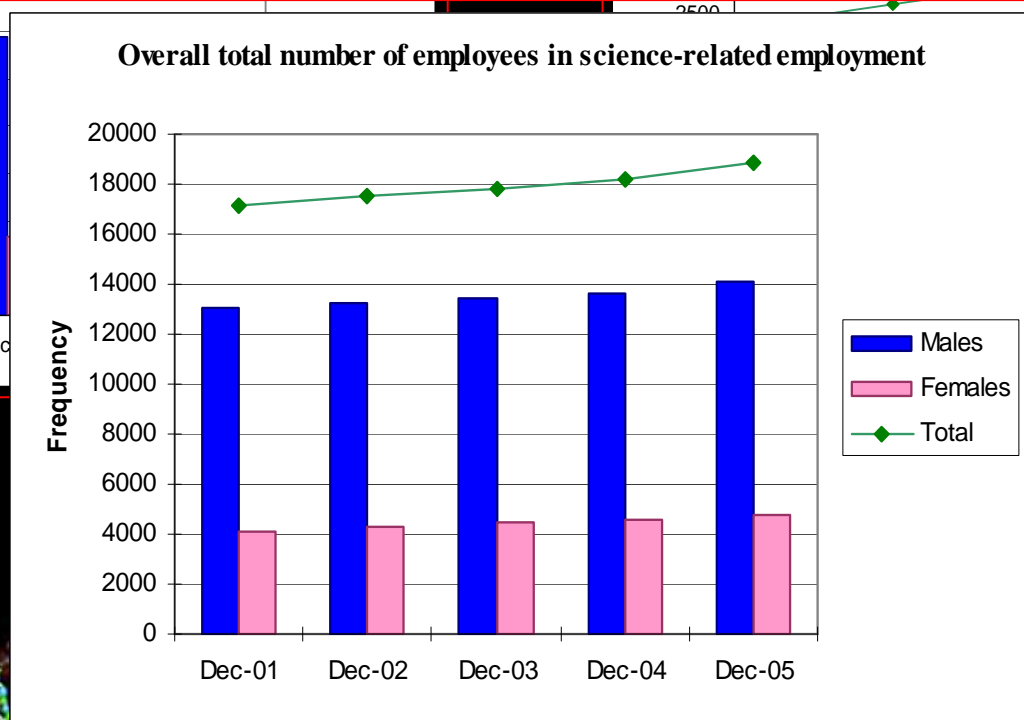
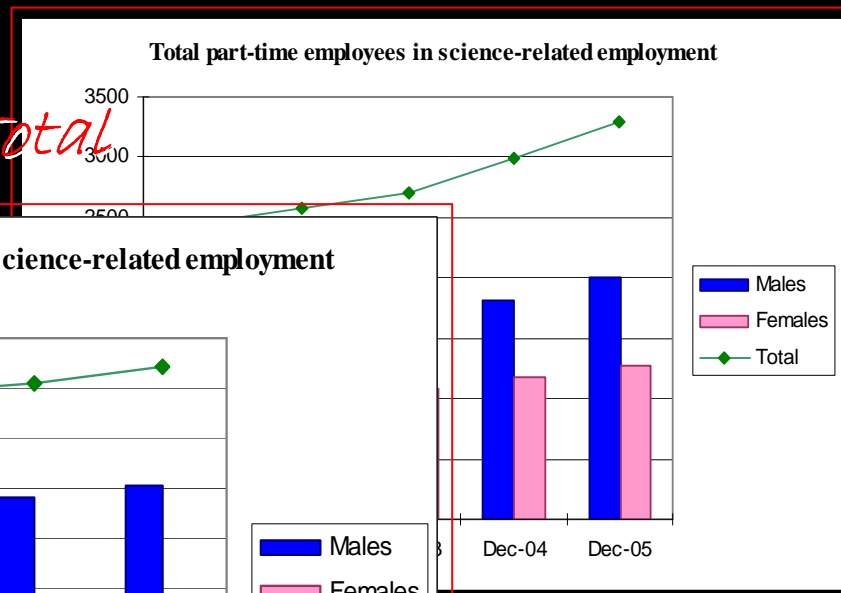
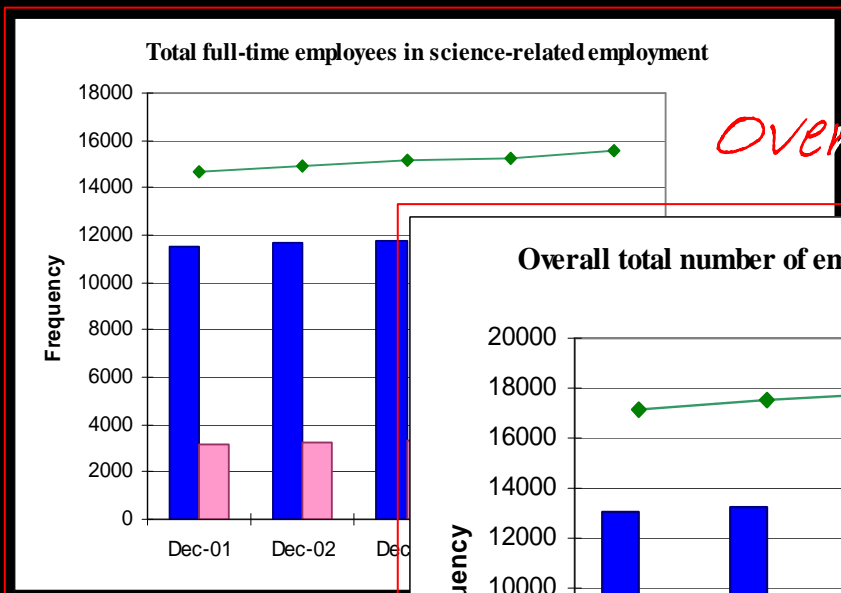


Employment Statistics

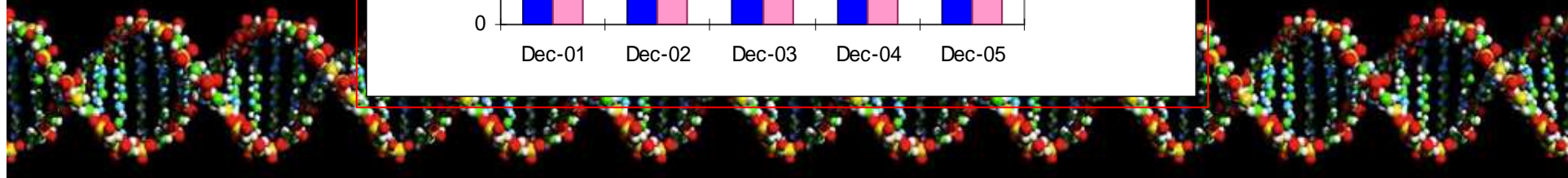
Number of employees in science-related employment

Full-time

Part-time



Overall Total



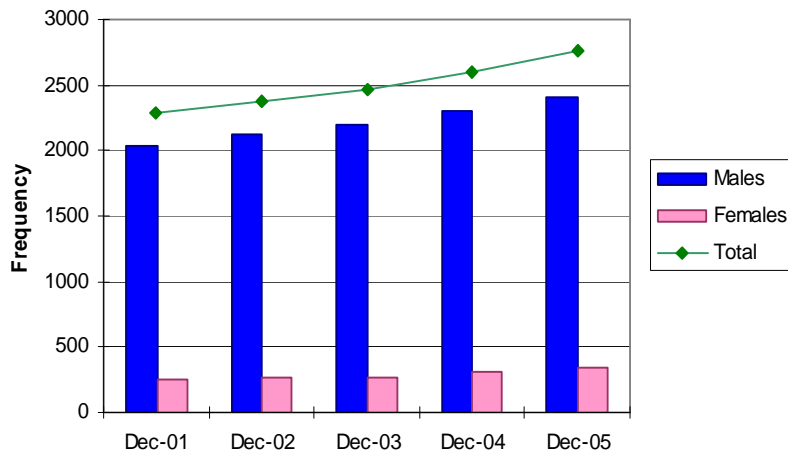
Employment Statistics

Total number of employees in:

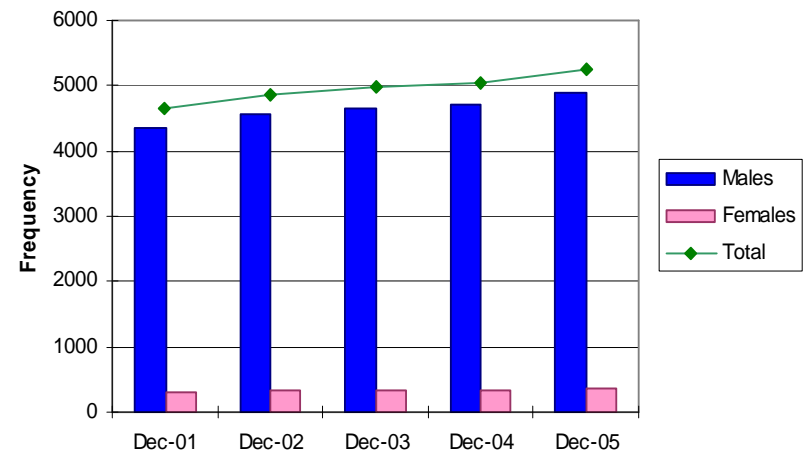
*Physical, Math. & Eng.
Science Professionals*

*Physical & Engineering
Science Assoc. Prof.*

21 Physical, Math. and Eng. Sc. Professionals - Total



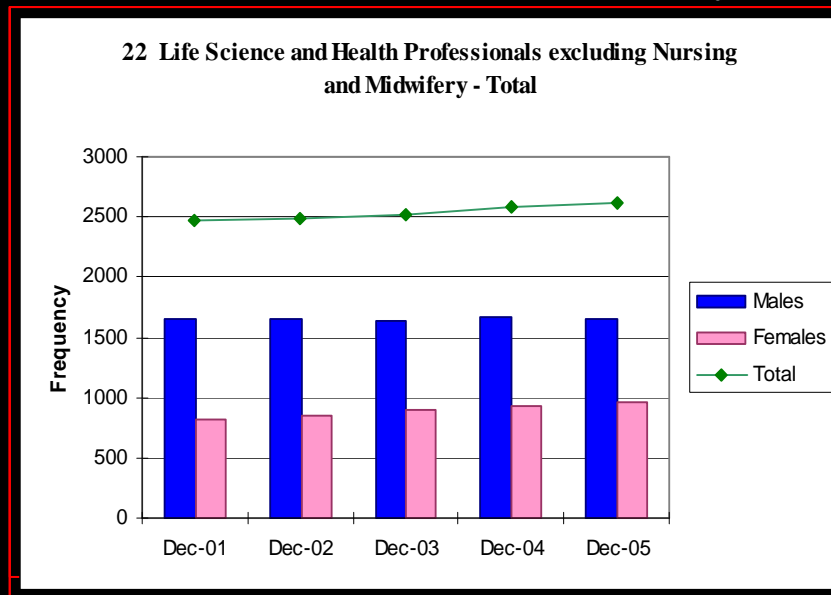
31 Phy.&Eng. Science Assoc. Professionals - Total



Employment Statistics

Number of employees in:

*Uíffesicéig atá ábalaithe i míle bliain cl.
Nursing and Midwifery*

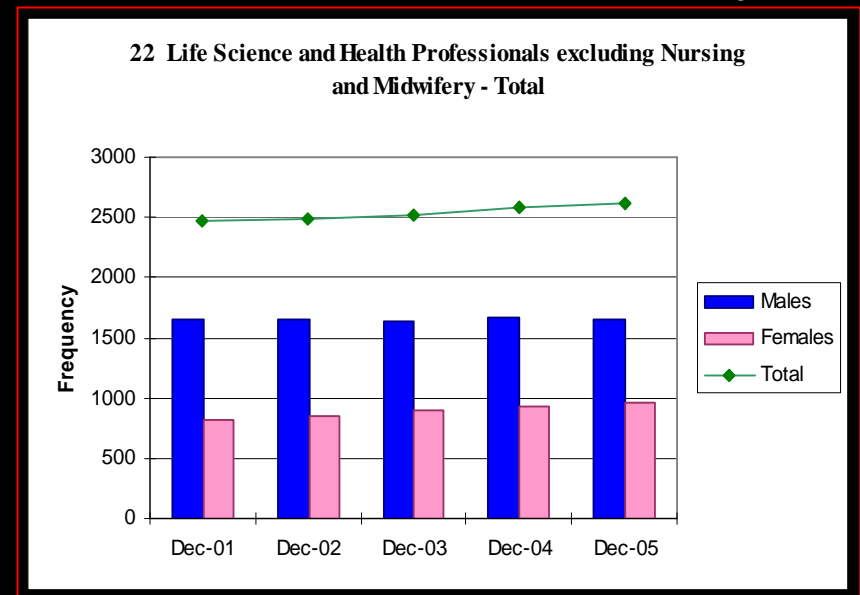
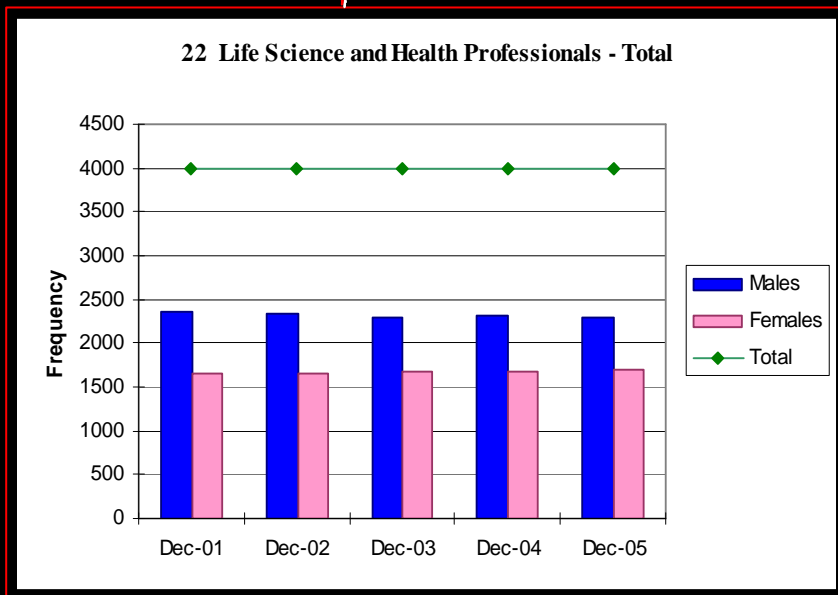


Employment Statistics

Number of employees in:

Life Science and Health Professionals

Life Sc. & Health Prof. excl. Nursing & Midwifery

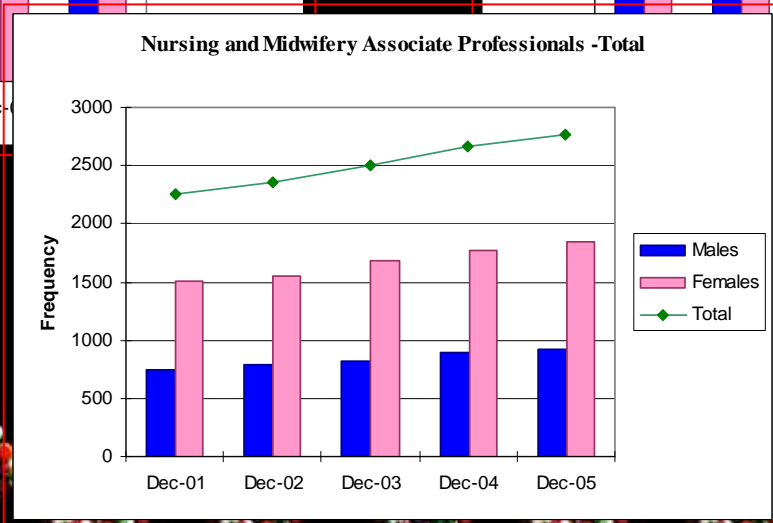
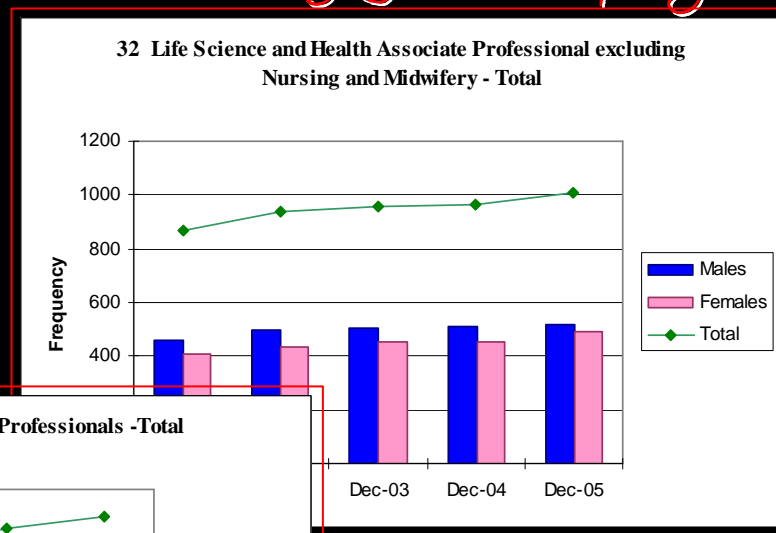
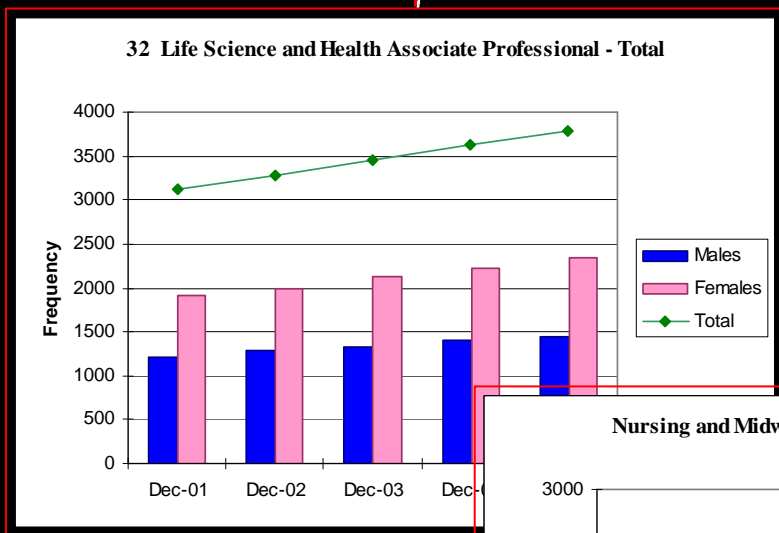


Employment Statistics

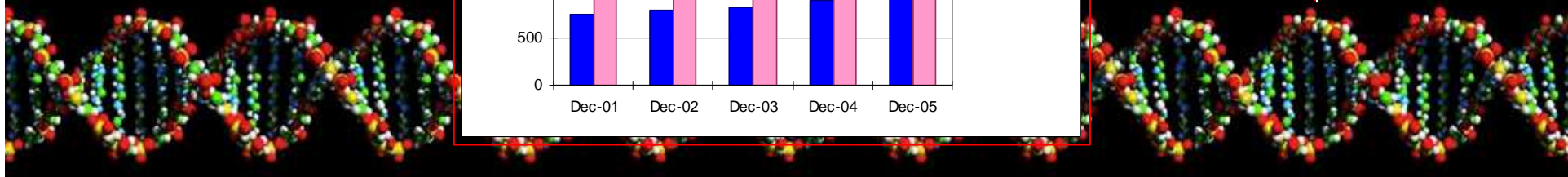
Number of employees in:

*Life Science & Health Assoc.
Prof.*

*Life Sc.&Hlth Assoc. Prof. excl.
Nursing & Midwifery*



*Nursing &
Midwifery
Assoc. Prof.*



Employment Statistics

Number of employees in:

Craft and Related Trades
Workers



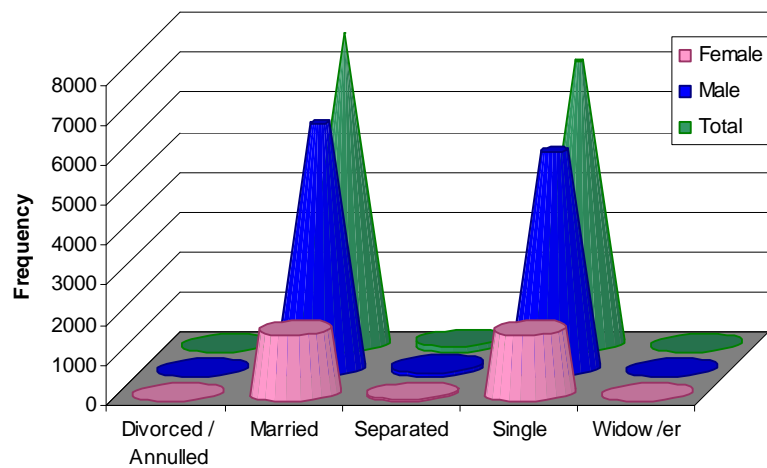
Employment Statistics

Marital status of employees in science-related careers

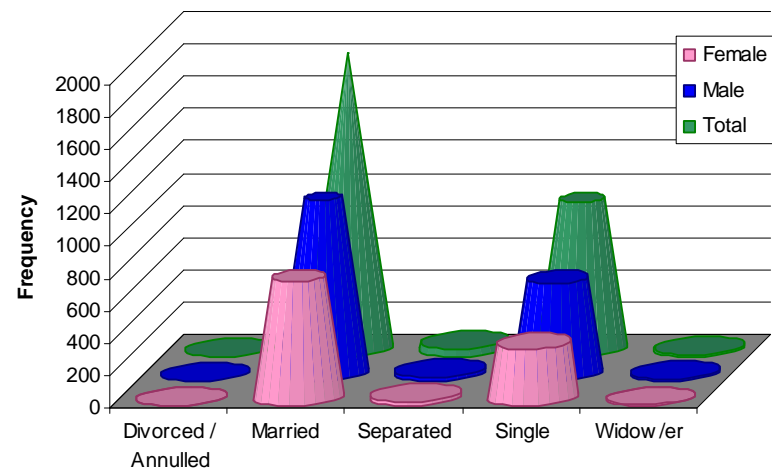
Full-time employees

Part-time employees

Marital status of full-time employees in science-related career



Marital status of part-time employees in science-related career

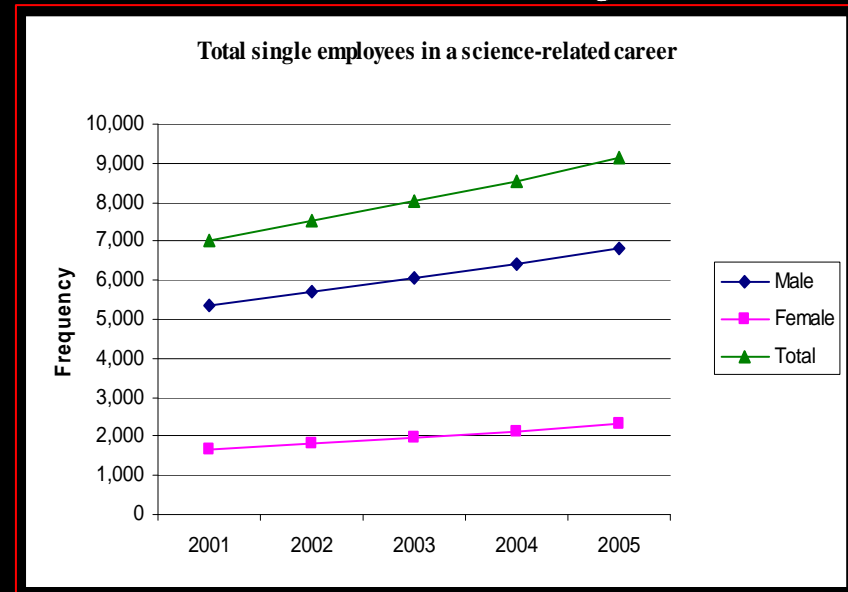
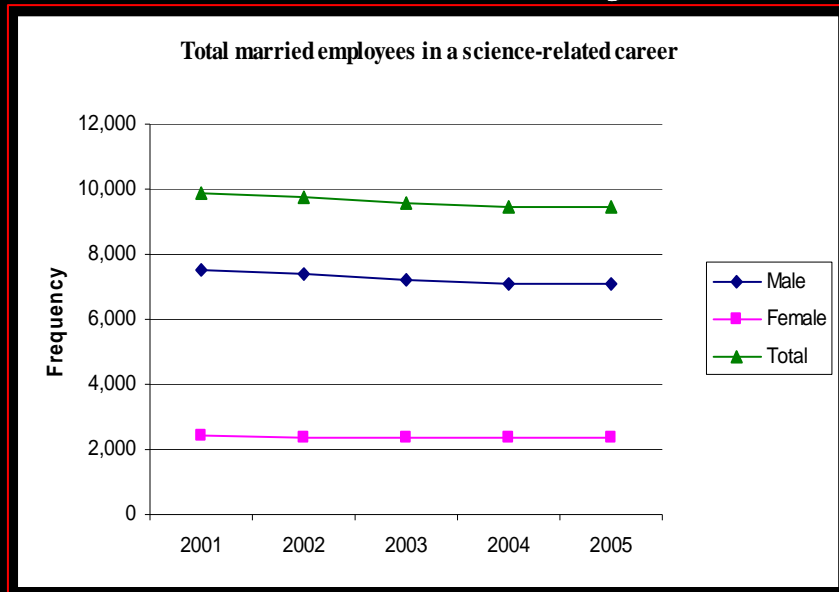


Employment Statistics

Number of employees in
science-related careers

Married employees

Single employees



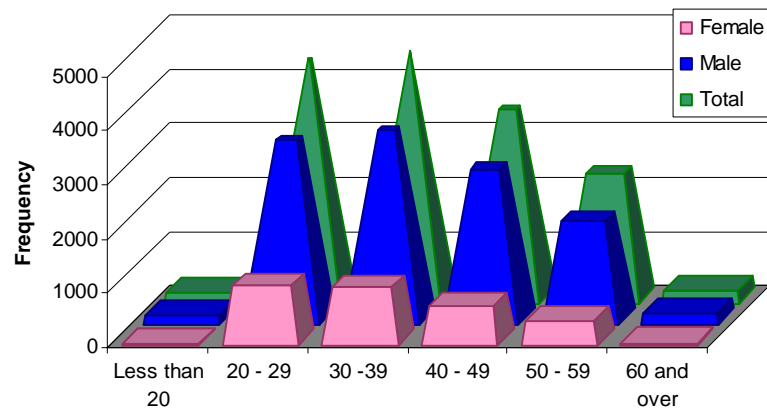
Employment Statistics

Age group of employees in science-related careers

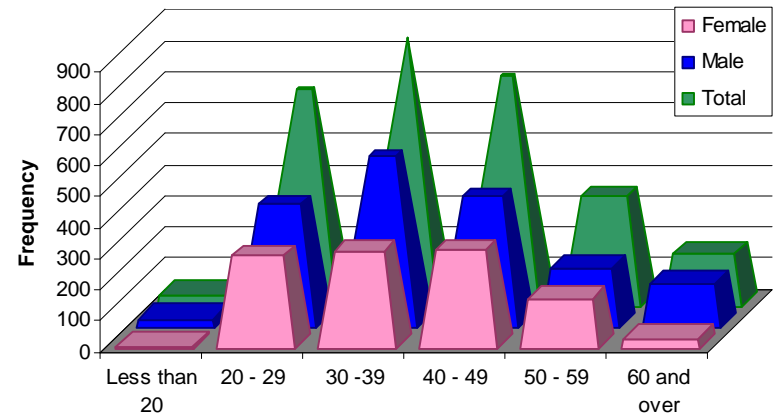
Full-time employees

Part-time employees

Age group of full-time employees in science-related career

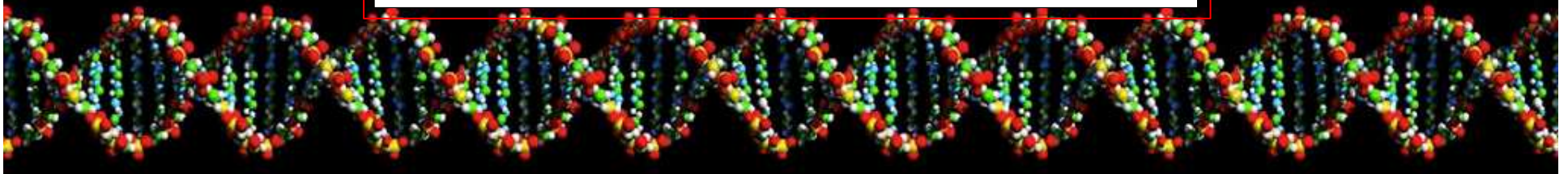
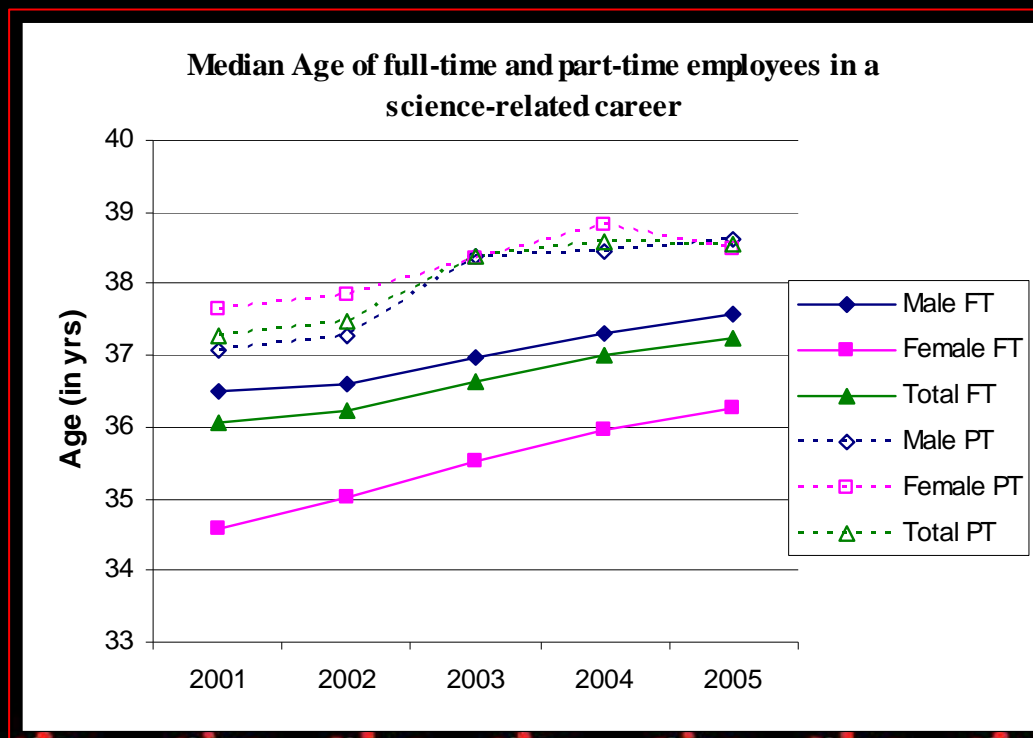


Age group of part-time employees in science-related career



Employment Statistics

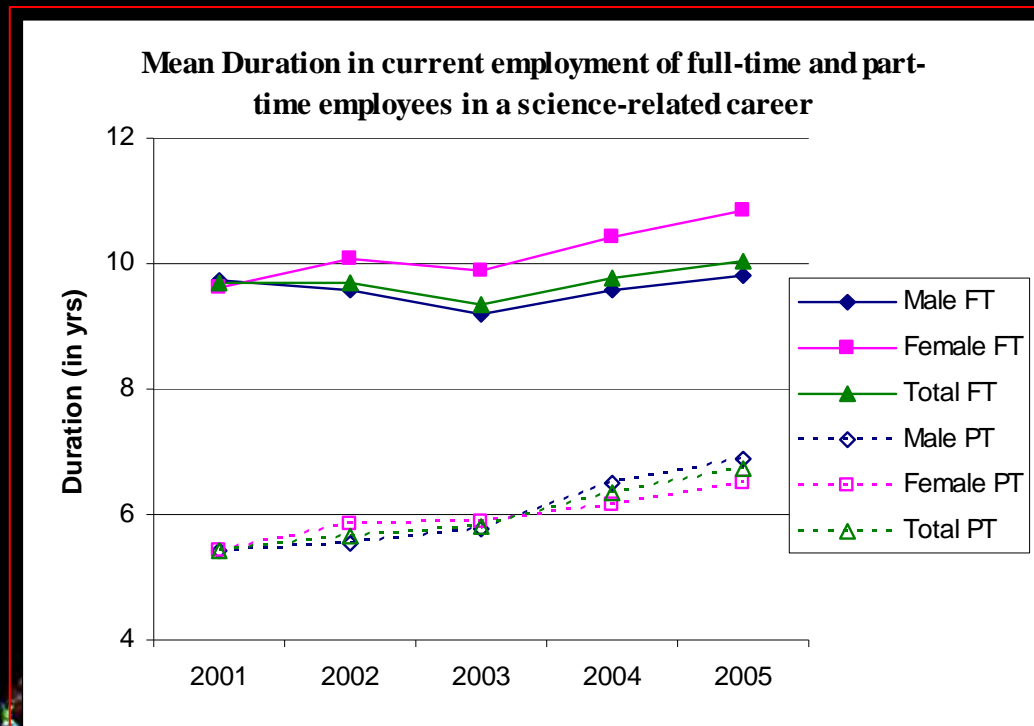
Median age of full-time and part-time in a science-related career



Employment Statistics

Duration in employment

Mean duration in current employment of full-time and part-time in a science-related career





***Dissemination
and
Promotion
of
Science***



Meeting with Students and Parents

Sir Adrian Dingli Girls' Junior Lyceum
(St. Andrews)

Santa Theresa Girls' Junior Lyceum
(Mriehel)

Margaret Mortimer Girls' Junior Lyceum
(Santa Lucia)

Sir Luigi Preziosi Girls' Area Secondary School
(St. Andrews)

Meeting with Students and Parents



Pilot Project: 'Science Club for Girls'

Carlo Diacono Girls' Junior Lyceum
(Zejtun)

