مستوى ثالث - علوم بيئية - ع ب ٣٢٣ بيئة نباتية

Mansoura University
Faculty of Science
Botany Department
El-Mansoura

جامعة المنصورة
كلية العلوم
قسم النبات
المنصورة

Final Examination in Botany
2nd Term: Jun. 2011

Educational Year: 3rd Level		Program: Environmental Sciences	
Subject: (323 ع ب)		Course: Plant Population & desert habitats	
Time: 2 hrs	Date: 11/06 /2011	Total Marks: 60	Question Mark: 20
Please answer all questions & support with illustrations when needed			

Q1. Please, give short notes on the following (20 Marks)

A. How to determine the minimal area of a quadrate for vegetation sampling? (5 Marks)

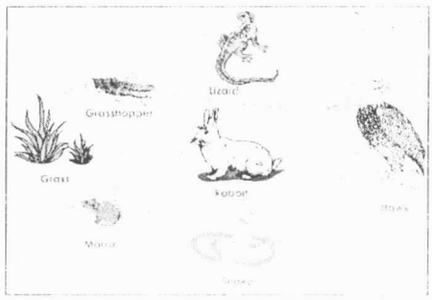
B. Outline the different quantitative vegetational parameters and how to calculate the index of importance value (IV) for specific species. (10 marks

C. How to design a field data sheet for recording your field data (5 Marks)

Q2. Please, select the correct answer(s) (20 Marks)

1. Climate changes would impact desert habitat through:
   a . Creation of more arid/or humid conditions
   b . Affecting the desert biodiversity
   c . changing the rainfall pattern
   d . All the above
2. Ecosystem with the greatest number of species would also have the greatest variation in
   a. habitats
   b. animal life
   c. consumers
   d. plant life
3. In desert ecosystem, the trophic level that would contain the largest phytomass would be the:
   a . Producers
   b . Primary consumers
   c . Secondary consumers
   d . Highest order consumers
   e . Decomposers
4. The sequence of energy flow through a food chain is:
   f . Primary consumers- producers- higher order consumers.
   g . Producers- higher order consumers- primary consumers.
   h . Higher order consumers- primary consumers- producers.
   i . Primary consumers- higher order consumers- producers.
   j . Producers- primary consumers- higher order consumers.

5. Which of the following factors control the population size
   a. Food competition.
   b. Soil type.
   c. Mortality rate.
   d. Birth rate.
   e. Species migration in and out the species area.
   f. All the above



6. In your opinion, if D.D.T. best side is applied in the above virtual ecosystem: what will be most sensitive organism and will be detrimental for the whole ecosystem?:
   a. Grass.
   b. Rodents & reptiles.
   c. Birds.
   d. All the above mentioned.
7. Which of the following organisms <u>does NOT</u> require sunlight to live?
   a. chemosynthetic bacteria
   b. algae
   c. trees
   d. photosynthetic bacteria
8. What animals eat both producers and consumers?
   a. herbivores
   b. omnivores
   c. chemotrophs
   d. autotrophs
9. Which of the following is <u>NOT</u> recycled in the biosphere?
   a. water
   b. nitrogen
   c. carbon
   d. energy
10. The greenhouse effect is:
   a. The excess of carbon dioxide in the atmosphere.
   b. A natural phenomenon that maintains Earth's temperature range.
   c. The result of the differences in the angle of the sun's rays.
   d. Man-made phenomenon that causes heat energy to be kept in the atmosphere.

Q3. Please, chose the correct answer(s) (20 Marks)

1. Which services are Not provided by xerophytes:
   a. Soil protection & fertility
   b. Shelter for other hers and small animals
   c. Sea shores protection
2. Spines and hairs cover the surface of xerophytes for:
   a. Camouflage tool.
   b. Protection from predators.
   c. Reduction of the transpiring area.
3. Lignified cells help xerophytes provide ability for
   a. Conduct more water
   b. Plant skeleton support
   c. Defense mechanism
4. Sunken stomata in xerophytes is:
   a. Common phenomenon
   b. Controlled by light and dark
   c. Tool to control water loss
   d. Present more on the lower surface
5. In xerophytes, the ratio between root and shoot size are:
   a. Roots≥ Shoots
   b. Balanced
   c. Shoots ≤Roots
6. In desert, which plant life-forms are more very common
   a. Annuals
   b. Bi-annuals
   c. Perennials
7. Xerophytes can be utilized as source for:
   a. food,
   b. fuel
   c. medicine
   d. genetic improvements
8. In xerophytes, conducting system is:
   a. Well developed
   b. Of regular types
   c. Less developed
9. Xerophytes' surface is covered with:
   a. Very thick cuticle
   b. Dense hairs
   c. Spines
   d. All the above
10. Leaves of xerophytes are:
    a. Succulents
    b. Deciduous
    c. Carry stomata on lower sides
    d. All the above

٣ علوم البنات - ع ب ٣٠٧ فسيولوجيا الدم

Mansoura University
Faculty of Science
Zoology Department
Subject: Physiology 307ع ب
Courses'Metabolism-
Endocrinology

Second Term
Third Level: Ecology
Date: 21-6-2011
Time Allowed: 2hr
Full Mark: (**60**)

Answer all Questions

Q1] Answer three only from the following items: **Question Mark:**

a-Mention by equations the four fates for pyruvic acid [7]

b-Mention three fates for acetyl CoA [7]

C-Compare between glycolysis and monophosphate shunt (intable) [7]

d- Discuss by the diagram (only) Kreb's cycle for urea formation [7]

Q2] Answer the following items: **Question Mark:**

a-Calculate the energy liberated from a fatty acid containing 6 C atoms [4.5]

b-Explain the meeting point of carbohydrates and proteins [4.5]

C- Complete the following sentences: [9]

1- Parathyroid hormone is regulated by----------, tetany state result from ----------and treated by----------

2- Prolactin hormone is very important for ----------, glucocorticoid hormones secreted from ----------of ----------gland

3----------is secreted from ----------cells of the thyroid gland and it is opposite to that of ----------by ----------.

4- ACTH secreted from----------, meanwhile, FSH secreted from----------

5- ADH secreted from----------and----------stimulates the bile juice

Q3] Answer three only from the following items: **Question Mark:**

a-Mention the role of catecheloamines referring to their disorders [7]

b- Compare between Cretinism and Graves disease [7]

C- Discuss the mechanism of steroid hormones [7]

d- Role of organic and inorganic substances in controlling hormone secretion [7]

تمنياتنا بالتوفيق

اد وفاء الخولى --- اد هناء على حسن

Mansourra University

Faculty of Science
Zoology Department
Program: 3rd level ecological 309
Subject: Malformation

Educational: second term.
Date: 14-6-2011
Time: 2 hours
Full mark: 60

1) Answer two only from the following: 20 mark

a) Explain briefly about on the chromosomal abnormalities: 10 mark
b) Write about on the basic principles for successful culture. 10 mark
c) Made a labelled diagram from one derivative from one only of the germinal layers. 10 mark

2) Answer two only from the following 20 mark

a) Shortly explain the structural chromosomal abnormalities 10 mark
b) Identify the anomalies and explain a various explanation a rise from malformation. 10 mark
c) Identify the chromosome.
And from this identification explain the genetic causes of congenital abnormalities. 10 mark

3) Answer the following: 20 mark

a) Write the final product of each phase by one word only. 5 mark
* The first phase is the .....
* The second phase is the .....
* The third phase is the .....
* The fourth phase is the .....
* The fifth phase is the .....

b) Complete the following: 10 mark
* The sex chromosome in the female is .....while in the male is .....
* Atypical spermatozoon consists of the following .....and.....
* The anomalies due to ..... Or .....
* Golgi bodies in the sperm to form the .....while the middle piece is occupied by .....
  And the tail is occupied by .....

c) Give an account from the derivative of the ectoderm and endoderm,
And then discuss the placenta and its different shapes 5 mark

Good luck
Prof. Dr. M.H.ABOU EGLA
Prof. Dr. E. ELSHERRSHABY
Prof. Dr. H.ELSSAYAD
Dr. M. RAMADAN

Mansoura University
Faculty of Science
Zoology Department

جامعة المنصورة
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Educational year: 3rd level
Time: 2 hr
Date: 25 /6/ 2011

Program: Ecology Science
Subject: Es 308
Full Mark:60 Marks

Answer all questions:

Question (1): With labelled diagram answer only **Three** from the follwing items: [15 Marks]

a. life cycle of *Leishmania spp* [5 Marks]
b. life cycle of *Trypanosoma spp* [5 Marks]
c. life cycle of *Fasciola gigantica* [5 Marks]
d. life cycle of *Schistosoma spp* [5 Marks]

Question (2): With labelled diagram answer only **Three** from the follwing items: [15 Marks]

a. life cycle of *Plasmodium spp* [5 Marks]
b. life cycle of *Ascaris lumbricoides* [5 Marks]
c. life cycle of *Taenia saginata* [5 Marks]
d. Reproduction of *Entamoeba histolytica* [5 Marks]

Question (3): Complete the following sentences: [15 Marks]

a. The parasite causes pathogenicity to the host in many ways by……..,
by……., by……
b. According to their habitats, the parasites are divided into …… and…….
c. Sexual reproduction in protozoa by …… and …… while asexual reproduction by……. , …….. or …… and ……..
d. *Trypanosoma gambiense* is polymorphic and occurs in at least four forms during the life cycle ……. , …… , …….. and ……..

Question (4): With labeled diagram answer only **Three** from the follwing items: [15 Marks]

a. life cycle of *Heterophyes heterophyes* [5 Marks]
b. Infective stage of *Echinococcus granulosus* and *Giardia lambelia* [5 Marks]
c. life cycle of *Ancylostoma duodenale* [5 Marks]
d. life cycle of *Enterobius vermicularis* [5 Marks]

With best wishes

Prof Dr. Sayed El-Tantawy **Dr. Enayat Salem**

Dr. Sadia Hamada **Dr. Mohamed F. Abd El-All**

علوم بيئية مقاومة بيولوجية ج ٣ ٢٠١١

Mansoura University
Faculty of Science
Department of Zoology

Date: 18/6/2011
Time: 2 Hours
Full Mark: (60)

Second term Exam. June 2011

Educational year: Third year
Subject: Entomology

Program: Environmental Science
Course(s): Biological &Chemical Control of insects

Answer the following questions:

1. Give an account on the following: **(20 Marks)**

A. The attributes of a successful entomoparasite, and then writes on two effective entomoparasitic species from Order Hymenoptera & one from Order Diptera, illustrating their hosts in each case.

B. Enumerate the different insect pathogens, and mention an adequate evaluation of microbial control agents.

2. Write on the following: **(20 Marks)**

A. Mention the attributes of a successful predator, then write on four aphidophagous insects: two from Exopterygota and two from Endopterygota.

B. Complete: 1-Inorganic insecticides include....1...., ...2.... and....3.... and their....4.... Their usage has been replaced by....5.... because of....6...., ...7.... and insect....8....

2-Carbaryl is effective in controlling....1.... and....2.... It is slightly soluble in ....3.... but is soluble in most....4.... .It is very toxic to....5.... it kills insects by the way of ....6...., having....7.... and....8.... action.

3. A- Write briefly on: **(20 Marks)**

- Chemosterilants.
- Resistance to insecticides.
- Joint action of insecticides.
- **B- Compare between:**
- Nicotine & BHC.
- Repellants & Atractants.

Best of luck.. *Dr.Abdelraouf M.Sallam* *Dr.Hoda A.Salem*

Mansoura University
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Botany Department
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جامعة المنصورة
كلية العلوم
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المنصورة – مصر

Final Examination in Botany (June 2011)

Educational Year: 3rd Level
Course(s): Stress Physiology and Biotic control
Time: 2 hrs.
Full mark: 60

Subject : Botany (B325)
Program: Environmental Sciences
Date: 26 / 6 / 2011
Question mark: 20

Answer the following questions:

Q1: Account on the response of plant growth and metabolism to the abiotic stress induced by nitrogen, potassium, sulfur and iron deficiency. (20 mark)

Q2: Discuss the theories govering the stomatal movement in watering and stressed plants. (20 mark)

Q3: Briefly write on the following:

a- Active absorption of water by plant root. (10 mark)

b- Effect of water stress on:

I- Carbohydrate and nitrogen metabolism. (5 mark)

II- Cell division and cell enlargement. (5 mark)

Examiners:

Prof. Dr. Omar El Shahaby

Prof. Dr. Afaf Gaber