جامعة بغداد / كلية العلوم / قسم علوم الحياة

الامتحان التنافسي للطلبة المتقدمين للدراسات العليا للعام الدراسي 2015-2016 / الماجستير - المحاولة الثانية

الرقم السري:

الاسم الرباعي:

القناة:

الشهادة المتقدم اليها:

التخصص:

	MCQ			
رقم الصفحة	الدرجة كتابة	الدرجة رقمأ	المادة	ت
1			علم الخلية العام	1
3-2			علم فسيولوجيا الحيوان	2
5			علم فسيولوجيا النبات	3
7			علم الاحياء المجهرية العام	6
8			علم البيئة والتلوث	5
11			علم البايولوجي الجزيئي ووراثة البكتريا	6
14			مجاميع نباتية	7
			المجموع من 60% =	

	S.A			
رقم الصفحة	الدرجة كتابة	الدرجة رقمأ	المادة	ت
1			علم الخلية العام	1
4			علم فسيولوجيا الحيوان	2
6			علم فسيولوجيا النبات	3
7			علم الاحياء المجهرية العام	4
10-9			علم البيئة والتلوث	5
13-12			علم البايولوجي الجزيئي ووراثة البكتريا	6
14			مجاميع نباتية	7

المجموع من 40% =

الدرجة النهائية 100% =

اسم المادة: علم الخلية

الرقم السري:

مجموع درجات الاسئلة:-

Choose the correct answer (MCQ)

Q1/ The main function a- Secretion b-c	n of centromere is:- osmoregulation c-pr	rotein synthesis d-Formation of	of spindle fiber
Q2/ Smooth endoplass a- protein synthe	mic reticulum is the sis b- carbohydrate s		is d- lipid synthesis
Q3/ Polymers can be	broken down to their	monomers by a process called	d
a. hydrolysis	b. photosynthesis	c. dehydration	d. condensation
Q4/ Chemical analysi	s of the cell membra	ne showed that it contained	
a. Phospholipids	b. Proteins	c. Phospholipids & proteins	d. glycolipids -b
			مجموع درجات الاسئلة:-
Q1/ What is the struc		following questions briefles the cell membrane?	Y.
Q2/ The precursor in	n the biosynthesis of	all steroid hormones is	••••••

اسم المادة: علم فسيولوجيا الحيوان

ارتم اسری:	:ی	السر	لرقم
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Choose the correct answer (MCQ)

Q1/	The volume of air i	n the lungs	after maximal	expiration is called
-----	---------------------	-------------	---------------	----------------------

- a. Tidal volume
- b. Inspiratory reserve volume c. Expiratory reserve volume

d. Residual volume

O2/ The following are digestive enzymes which are produced by the pancreas, except:

- a. Pepsin
- b. Trypsin
- c. Lipase
- d. Amylase

Q3/Blood from the heart flows through the blood vessels in which order?

- a. Veins, arterioles, capillaries, venules, arteries b. Capillaries, arterioles, arteries, venules, veins
- c. Arteries, arterioles, capillaries, venules, veins d. Arteries, capillaries, arterioles, venules, veins

Q4/ The four layers of the digestive tract, from innermost to outermost, are the:

- a. Mucosa, submucosa, muscularis, serosa b. Serosa, muscularis, submucosa, mucosa
- c. Submucosa, mucosa, muscularis, serosa d. Muscularis, submucosa, serosa, mucosa

Q5/ The following are examples of lymphatic vessels and tissues, except:

- a. Thoracic duct
- b. Thyroid
- c. Spleen
- d. Thymus

Q6/ The process of moving energy from one chemical form (glucose) into another (ATP) is called

- a. Breathing
- b. External respiration
- c. Internal respiration
- d. Cellular respiration

Q7/ The velocity of conduction in nerve fibers increase with ------

- A- Decrease in temperature.
- B- Increase in temperature and diameter of the axon
- C- Decrease in diameter of the axon.
- D- Decrease in temperature and diameter of the axon

Q8/ During muscle contraction cycle the ATP is needed for:

- A- Attach.
- B- Pivot. C- Detach.
- D- Return.

Q9/----- transmits nerve impulse from the CNS to muscle and glands.

- B- Interneuron. C- Sensory neuron. A- Motor neuron.
- D- Association neuron.

اسم المادة: علم فسيولوجيا الحيوان

الرقم السري:

Choose the correct answer (MCQ)

Q10/ Aldosteroneis secreted by the adrenal cortex in response to-----

A- A high blood potassium level. B- A low blood sodium level. C- A decrease in blood pressure.D- All of the above.

Q11/The glomerular filtration, takes place in -----.

A- Renal corpuscles. B- Distal convoluted tubules. C- Proximal convoluted tubules. D- All of the above.

Q12/When threshold stimulus is applied to the cell membrane, the permeability for -----ions increases, and leads to depolarization.

A- Na+ B- K+ C- Cl- D- A and B

اسم المادة: علم فسيولوجيا الحيوان

الرقم السري:

Answer the following questions briefly

Q1/ The ileum is the longest section of the
Q2/ The rhythmic wavelike contractions that move food through the GI tract referred to as the
Q3/ The function of the is to close off the trachea to direct food into the esophagus
Q4/ If any of the heart valves do not close properly, an extra sound called a may be heard.
Q5/ During muscle contraction, calcium ions bind tomolecules.
Q6/ Animals living in environment have an acute problem of temperature
Q7/ The cycle of muscle contraction include the following series events, and
Q8/ The action potential basically occurs in two phases,

اسم المادة: علم الاحياء المجهرية العام

الرقم السري:

Choose the correct answer (MCQ)

Q1/Which of the following is used to grow bacterial cultures continuously?
a- Chemostat b- Coulter Counter c- Hemostat d- Petroff-Hausser chamber
Q2/ Traveller diarrhea may be caused by
a- E.coli b- Enterobacter c- Hafnia d- Serratia Q3/ Teichoic acids found in:
a- Gram positive bacteria b-Gram negative bacteria c- Mycoplasma d- Fungi
Q4/ Energy for rotation of the flagellum is derived from:
a- Glucose. b- Electrons c-Proton motive force. d- NADP جموع درجات الاسئلة :-
Answer the following questions briefly Q1/ What is the importance of chromatophores?

Q2/What are the differences between sterilization and disinfection?

اسم المادة: علم البيئة والتلوث

الرقم السرى:

Choose the correct answer (MCQ)

Q1/ which of the following are responsible for most of the nitrogen fixation in the biosphere
A. Atmospheric fixation B. Biological fixation C. Industrial fixation D. All the above
Q2/ Lotic environment is ecological term to express about :
A.lakes B. rivers C. swaps and marshes.
Q3/ The top of each ecological pyramid is
A.Producer B. human C. consumer
Q4/ What do we mean by density? A. the number that live in an area different organisms B. the births in a population D. the deaths in population
Q5/ The largest population an environment can support is its A) carrying capacity. B) population C) limiting factor. D) symbiosis
Q6/ Which of the following is an air pollutant, A. Bad ozone B. CO C. SO2 D. NO2 E. all
Q7/ In the formula for biotic potential ($dN/dt = riN$), what does N stand for?
A. the carrying capacity of the environment C. the number of individuals in the population B. the change in time D. the age distribution of the population
Q8/ a lake polluted with DDT, which one of the following will contain the minimum amount of DDT?.
A) small fish B)microscopic organisms C) crustacean D) water birds
Q9/ The loss of individuals under given environmental conditions refers to
A. Ecological natality B. realized mortality C. Minimum mortality D. Maximum natality
Q10/ Which of the following characterizes relatively r-selected populations A. Later maturity B. many and small offspring C. high parental reproduction D. High trophic level
Q11/Which of the following pollutants considered very important in Iraq. A) SO2 B) NO2, C) Particulate matter D) all the above E) no one of the above
Q12/ When adding chemical 1 to chemical 2 makes the effect more toxic. This statement returned to A) synergism B) persistence C) antagonism D) bioconcentration E) linear effect

اسم المادة: علم البيئة والتلوث

الرقم السري:

Answer the following questions briefly
Q1/ Define the term Herbivores?
Q2/ Biosphere is ?
Q3/ What do we mean by Biogenic salts?
Q4/ Classify the pollutants according to its origin?

اسم المادة: علم البيئة والتلوث

لسري:	ال قد ا
.65	

Answer the following questions briefly
Q5/ Define only the term of Limiting factors?
Q6/ What do we mean by Heavy metals?
Q7/ Carnivors means ?
Q8/ pollutants are?

اسم المادة: علم فسيولوجيا النبات

الرقم السرى:

Choose the correct answer (MCQ)

Q1/FADPH2 yields ----- during oxidation Phosphorylation process a- 2 ATP b-3ATP c-1 ATP Q2/The reduced compound formed by glycolysis a-FADH₂ b- NADPH₂ c-NADH+H+ Q3/The following type of water is recognized in plant a-Capillary water b-Drainage water c-Gravitational water Q4/Glycine is synthesized in a-perexisome b-mitochondria c-chloroplast Q5/Translocation of ABA in plant occurs --a-polarly b-Non polarly c-Polarly and non polarly Q6/ The hormone which is synthesized in apical portion of stems and roots is ----a-Ethylene b-Abiscisic asid c-Gibberellin Q7/The element whose absence prevent plant from completing its life cycle is called ---a- Macronutrient element b-Micronutrient element c-Essential element Q8/ The elements that are involved in redox potential are a- K, N and P b-Zn, Ni and Mo c-Mg, Ca and S Q9/----increase the plasticity of plant cell walls a- Cytokinis b- auxin and cytokinins c- gibberllin and auxin Q10/The plant needs more nutrient elements in -----a- Deficiency zone b-Adequate zone c-Toxic zone Q11/Water has b-High Surface tension c-Non polar characteristic a- High heat fusion

Q12/lyophilic

a- Decreased plant growth b-liquid loving water c- have almost some viscosity as than media

اسم المادة: علم فسيولوجيا النبات

الرقم السري:

Answer the following questions briefly

Q1/is the first compound produced after CO ₂ fixation in CAM plants
Q2/ One of the differences between plant and animal hormones is
Q3/ The factors that affect the rate of enzyme - catalyzed reaction are, and,
Q4/ The most acceptable theory of opening and closing of stomata is
Q5/ Because of the presence of, the plant can maintain a higher ionic Concentration in the xylem than in
Q6/ The enzyme responsible for CO ₂ fixation in C ₄ plants is
Q7/ is a series of metabolic reactions started with glucose and ended with the Lactate compounds.
O8/ Colloidal system is made up of

اسم المادة : علم البايولوجي الجزيئي ووراثة البكتري

الرقم السرى:

Choose the correct answer (MCQ)

Q1/Avery and Macleod has done their experiments in

a- 1928

b-1944

c-1946

Q2/ Enzyme remove primers in the direct 5----3 in Eukaryotic cells.

a- DNA Poly.I

b- flap endonuclease

c-DNA poly.x

Q3/ Marcomolecules in the cell

a- Lipides

b-Proteins

c- Plasmamembrane

Q4/ Release factor in eukaryotic cell:

a- RF1

b-eRF

c- RFe

Q5/The partial hydrolysis of DNA give:

a-deoxyribose

b-Purins & Pyrimidines c-nucleotides.

Q6/ The nitrogen base joined with sugar in carbon number:

a- 1

b-3

c-2

Q7/ All type of tRNA has accepted stem is:

a- CAC

b- CAA

c- CCA

Q8/The initiator that attachés to the initiation codon is:

a- fMet-tRNAfmet

b-met-tRNA fmet

c- fmet-tRNA met.

Q9/In protein synthesis the nucleotides are added one at a time to:

a- 3'-OH

b- 5'- OH

c- 3'-P

Q10/Z-form of DNA present in chromosome of :

a- Human sperm

b- Euglena chloroplast

c- Drosophila

Q11/The compound that similar to one bases of DNA called:

a- base analogues

b- base symmetrical

c- base interference

Q12/The re-write process of genetic message coded in DNA in to mRNA during:

a- anaphase

b- Interphase

c- metaphase

اسم المادة: علم البايولوجي الجزيئي ووراثة البكتريا

الرقم السري:

Answer the following questions briefly

Q1/What properties must a polymer possess for it to be capable of carrying genetic information?
Q2/What are the important of exonuclease activity in DNA replication?
Q3/Why may it be necessary to have some proteins encoded by organelle- specific genomes?
Q4/Define = open reading frame.

اسم المادة: علم البايولوجي الجزيئي ووراثة البكتريا

الرقم السري:

Answer the following questions briefly
Q5/Discus: RNA molecules are usually much shorter than DNA.
Q6/Mention the essential role of IF3.
Q7/List the enzymes that involved in DNA replication (in serial)
Q8/Mention the importance of operon.

اسم المادة: علم المجاميع نباتية

لسري:	الرقم ا

	Cho	oose the correct answer (MCQ)	
Q1/ Vaucher	ia belonging to order		
a-Pinnale	es b-Centrales	c-Chrysophyles)	
Q2/ Rhodoph	hyta group of algae are		
a-motile	b-non- motile	c-other	
Q3/ Star shap	ped plastid present in		
a- Spriogy	ra b-Zygnema	c-Enteromorpha)	
Q4/ Bacillari	ophyceae group of alga	ae cell wall structure have	
a-cellulose	b-Polysulphate	c- ester, Silica)	
			مجموع درجات الاسئلة:-
	Answe	er the following questions briefly	
Q1/ Conjugat	tion sometime called A	nisogamy?	

Q2/ Sporangium called unilocular?

Q3/ Phaeophyta are brown algae?

Q4/ Algae sometimes called Epizonic algae?