Virtual University of Pakistan

Bio 201

Cell Biology

Final term Past Papers

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Course Instructor

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Created By Zareen Fatima

Group of VU Biologists

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Bio 201

What is chargaff rule ?

Differentiate between pyrimidines and purines ?

Enlist requirement for polymerases ?

DNA replication ?

Conservative replication ?

Semi-conservative replication ?

Genetic map ?

ER signal guid ER by which of two components?

Polypeptide and anupolied?

Adult stem cells and theirs benifical and theoptic uses ?

What is stem cell and its benefits and therputic uses.?
Three steps of RNA processing?
How nuclear transformation occur in the sheep process..?
Homonymic and hetrotypic types and how they formed..?
GTF-beta receptors describe mechanism..?10 mrks
note on cell cycle..?10
name the antibody of the B cells..?
Mechanism of the olfiction receptors..?

Elborate the machanism of growth promoting mechanism of oncogenes. 10 marks

The endopasmic Raticulum is gauided to ER by which 2 components. 2 marks

How G protein involved in formation of GDP? 2 marks

Eleborate the cell cycle. 10 marks.

How sheep is cloned by the nuclear material. Explain it by all steps. 5 marks

Write three steps of RNA processing. 3 marks.

Write synapse and its steps involved in the machanism. 5 marks

TGF-ß Receptor Family. 3 marks
inhibitors that binds to the active side of enzymes are.....
inhibitors that bind to the non active side of enzymes are.....
dna aur rna ma pyrimidine aur purine bases batani ha.
carbon ma bond..... a.2 b.4 c.6
phosphate and non phosphat group.....
ER single sequence is guided to the ER by which of the two compoents?.write the name of

antibody that appear on the surface of developing B cell?.what is the role of regulatory region explain its two elements.

.Describe the two signaling functions of N-terminal ER signal sequence of a soluble protein
.name five major groth promoting .....cell cycle
MHC I MHC II difference

diff.b/w stem cell and secilized cell?2
cell cycle?10
cloning of sheep?3
antibodies names ?5
functions of growth promotor oncogenes?5
ftg beta family?10

Process of translation

MH1 and MH2

B cells and T cells

Which mechanism is used in certain birds destination

Adult stem cells

Enlist the function of signaling system ?

Describe the principle and air flow chart ?

Examples of 3 RNA viruses?

How a sheep can be cloned through nuclear transfer provide deatails in steps ?

Describe the site of large subunit of ribosome

Name 5 major growth promoting oncogenes ?

Elaborate the different stpes of cell cycle?

Mechanism of TGF beta receptor family ?

tralation process : no 10
cell cycal stages:no 10
endocytosis and phagosytosis df panocytoces
cell T and cell B:no 5
Signaling in birds during migration. 2 marks
Leminr cabinet flow principle . 2 marks
Steps in rna processing. 3 marks
Parachrine signaling.5 marks

Describe process of translation briefly.10marks
Describe role of MHC in immune system. Differentiation be it's 2 types.10 marks
Stem cell benefits+thraputic uses . 5 marks
Cloning of sheep 3 marks
Stem cells 2 marks
Types of antibodies
Cell cycle
Messenger and adopter theory 3 marks
Translation 10 mark
what is Translation process?(5)
describe Cell cycle in detail?(10)
wgat are Adult stem cell? their benefits? uses? (5)
what are Stress elements?(2)
How ß-blocker effect the function of adrenaline? (3)

How stem cell different from other specialized cells? 2 marks
how UV sterilize equipment? 3 marks
what is function of Rod cells ? 3 marks
what is MHC1 or MHC11 difference ?10 marks
Stem cell uses ? 5 marks
TGF-beta mechanism ?10 marks
enlist the functioning of signaling system. 2m
describe the principle and air flow in Laminar flow chart. 2m
give example of 3 RNA viruses. 3m
how a sheep can be cloned through nuclear transfer , provide detail in the form of steps? 3m
describe the sites of larger subunitd of ribosomes? 5m
name 5 major growth promoting oncogenes. 5m
plz elaborate the different stages of cell cycle. 10m
detail mechanism of TGF-Beta receptor faimly. 10m
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Adult stemp cell, their benefits & therapeutic uses..
the ER signal sequence is guided to the ER by which of the two components.?
Mechanism of TGF-B receptor family?

Role of MHC In immunity major difference between MHC-1 & MHC-2 molecules?
short note on transcription,.
sheep can cloned through nuclear transformation. Details in the forms of the steps.
elaborate the point increased CAMP activity?

adaptation of birds for migration 2
5 types of antibodies 3
diff b/w homotypic and heterotypic fusion 2
transcription 5
translation 10
how MCH system help in immunity 10

what is RFLPS? Write its function? 2
Diff. B/w Homotypic and heteotypic fusion 2
Step involve in RNA processing? 3
How uv light used in sterilization?3
CaM kinase 2 involve in muscles movement explain? 5
What is stem cell? Write its benefit and therapeutic uses? 5
What us MHC? Explain diff. B/w mhc 1 nad mhc 2? 10
Explain the TGF beta family of receptors? 10

Please elaborate the points in increased cAMP activity 2
what are the stem cells how they are different from the specialized cells 2
what is the role of regulatory region explain its tow elements? 3
How UV light helps to sterilization the equipment?3
Short note on transcription 5
differentiate the confluent monolayer and past confluent stages? 5
Explain process of translation?10
Please elaborate the different stages of cell stages? 10

Mcq
Q1)Beta pleated sheats found in (secondary proteins)
Q2)how many covalent bond atom can form(4)
Q3) inhibitor that bind to a site other than the active site enzyme(irreversible inhibitor)
Q4)ABO blood group is best example of (co - dominance)
Q5)strach and glycogen is stored form of glucose in _ while cellulose a stored glucose form in(Animals and plants)
Q6)DIfferent form of same gene are called (RFLP)
Q7)how many types of bacteria colony were used by freddrikh used in grafith experiment(2)
Q8)Listen hydrogen bond is
1-week
2-/strong

3- covalent
4.All
Q9)Which lipid having double bond (aqueous (oil))
Q10)microtubules which are not attached to chromosome called mitotic center)
Q11)which organized by translating mechainary (tRN
Q12)DNA is the main hereditary molecules that is transfers from one generation to another (Frederick Griffith)
Q13)missing of enzyme homogenetic acid oxidase caused (plenylketonuria)
Q14)All observable feature polar microtubels in the subject
1)trait
2)character
3)phenotype
4)All ans
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Q16)okszaki fragment grafithare joined by (helcase)
Q17)mutation result in no change amino acid(silent mutation)
Q18)calmodulin is about(10%)
Q19)which one following proteins help in stimulating brest cell to produce milk (prolectin)
Q20)Which one is initiation codon(AUG)
Q21)TH2 cells mainly help to activate :(T cell)
Q22)Mendel donated dominant and recessive traits as(SS as)
Q23for optimal activity of hydrolytic enzymes, lysosome maintains a pH about(5.0)
Q24(
Proteins which are fully translocated across Endoplasmic reticulum and are embedded in(water soluble protein)
Q25)Ran GTPase is a molecular switch that exist in(2 sates)
Q26)An oncogene after mutation produces one of abnormal (cancer)
Q27)
Dendritic cells use on of following signal to guide helper T cells to(IL_2)
Q28)how many times an average cell divide before it gets unheal(50%)
Q29)Cholera toxin prevents.....
(Hydrolysis of GTP to GDPGDP)
Q30)he _____immune system, like the ____system, can remember prior experiences(Adaptive, nervous)
Q31)There are ..... lymphocytes in the human body, making the immune system comparable in cell mass to the liver or brain

Briefly discribe the signal involved in alfaction?
Translation process?
Homotypic and heterotypic?
Explain translation process?

What is the rate of MHC in immunuty?enlist some major d/f MH1 MHII molecules?
what do u know about endocytosis? D/f phogocytosis and phinocytosis.?
Difference b/t confluent monolayers and past confluently stage?
CaM kinase || in muscular mobement

bio 201 final term 8 AM
1.... enlist the functioning of signaling system. 2m
2....describe the principle and air flow in Laminar flow chart. 2m
3.... give example of 3 RNA viruses. 3m
4.... how a sheep can be cloned through nuclear transfer , provide detail in the form of steps? 3m
5....describe the sites of larger subunitd of ribosomes? 5m
6....name 5 major growth promoting oncogenes. 5m
7..... plz elaborate the different stages of cell cycle. 10m
8....detail mechanism of TGF-Beta receptor faimly. 10m

12 august 2017
Bio201 2.30pm
Process of translation.10 marks
MH1 and MH2 .10 marks.
B cells and T cells.3 marks
Which mechanism is used in certain birds destination.2 marks.
Adult stem cells..
5 Marks

Bio 201 ppr 5:00 pm
How g protein involved in formation of GDP ultimately
Endocytosis... Difference pinocytic and phagocytic
Homotypic and hetrotypic difference
B and t cells difference
Adapter hypothesis and messenger hypothesis
5 names growth promoting oncogenesis
Translation process
MHC in immunity .. Difference mhc1 and mhc2

Bio 201today paper.
TGF-beta receptor family , 2(MHC I and MHC II differences ,

3)name of viruses infection?The name of anti body appear the developing surface of the beta cell,?names five anti body, ?
UV light help the sterilization in equipment?Sara paper past se aye tha..

Bio 201 paper

what is the role of regulatory regions explain its two elements?House keeping gene
Differential genes
Conditional genes?Translation
MHC
cell cycle 10mrks wly Qnd short.
adult stem cell
missense mutation
Synapse..cloning in sheep?

Bio 201 at 5pm ..12Aug
MHC or TGF beta family ye long 10 waly
or CAM kinase II in muscle movement
or Antibodies names
3 marks
missense mutation 3 marks
stem cells and specialized cellor Soluble protein N terminus in ER

Bio 201 at 5pm ..12Aug
MHC or TGF beta family ye long 10 waly
or CAM kinase II in muscle movement
or Antibodies names
3 marks
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stem cells and specialized cellor Soluble protein N terminus in ER

Subject: bio201
#Mcqs of current #final papers
1) Cells synthesixing DNA need to import ____ histone molecules from cytosol every 3 mijts 10*6
2) An animal cell contains about ___ protein

3) total amount of lymphocytes in human body?
A) 2 × 102
B) 2 × 1012
C) 2 × 1022
D) 2 × 1032
Ans is B
4) cluster of gene with 1 promoter is called.
... Ans is operon
5) binding of ribosomal subunit to start codon is called..
....shine dalgarno sequence
6) Undifferentiated cells of higher organisms capible of division
...Ans is stem cells
7) In almost 30% cancer tumors in humans which gene is mutated.
....ans is RAS gene
8) Optimal activity of hydrolytic enzymed lysosome mantain Ph at??
3
5
7
9
.....ans is 5
9) Agent used as cryoproteat
EDTA,KMnO,DMSO,acetic acid
.....Ans is D
10) chulmoduline is about --------% of Cell protein mass
.....ans is 1%
11) Cholera toxin prevent boun
.....Ans is GDP to DTP hydrolysis
12) Autocrine signal bind to receptor ___Cells that secret them
.....Adjacent cell

13) X chromosom have gene which inactivate it
Xist
Antixist
.....Ans is xist
14) Adopter protein are involved in Carry signal from 1 part to other
.....Move signal from cytosol to nucleus.

Bio_201 ..... 12-8-2017 .....2:30 pm
Signaling in birds during migration. 2 marks

Leminr cabinet flow principle . 2 marks
Steps in rna processing. 3 marks
Parachrine signaling.5 marks
Describe process of translation briefly.10marks
Describe role of MHC in immune system. Differentiation be it's 2 types.10 marks
Stem cell benefits+thraputic uses . 5 marks

Bio 201
Cloning of sheep 3 marks
Stem cells 2 marks
Types of antibodies
Cell cycle
Messenger and adopter theory 3 marks
Translation 10 marks

Subject: Bio 201
12/08/2017
final term paper
Question 1) what is Translation process?(5)
Question 2) describe Cell cycle in detail?(10)
Question 3) wgat are Adult stem cell? their benefits? uses? (5)
Question 4) what are Stress elements?(2)
Question 5) How ß-blocker effect the function of adrenaline? (3)

Subject: bio201

Final term paper

Q.1 How stem cell different from other specialized cells? 2 marks
Q.2 how UV sterilize equipment? 3 marks
Q. 3 what is function of Rod cells ? 3 marks
Q. 4 what is MHC1 or MHC11 difference ?10 marks
Q.5 Stem cell uses ? 5 marks
Q.6 TGF-beta mechanism ?10 marks

Cell bio 201

11 am (Final term). 1 what is missense mutation 2
2what is homotypic fusion and heterotypic fusion and how it formed 2 3 how sheep cloned by nuclear method 3m.
4 steps of rna processing 3 m
5 write dpwn about olification 5m
6growth promoting oncogens write major types5m
Translation10m
Cell cycle 10m

bio 201 final term 8 AM
1.... enlist the functioning of signaling system. 2m
2....describe the principle and air flow in Laminar flow chart. 2m
3.... give example of 3 RNA viruses. 3m
4.... how a sheep can be cloned through nuclear transfer , provide detail in the form of steps? 3m
5....describe the sites of larger subunitd of ribosomes? 5m
6....name 5 major growth promoting oncogenes. 5m
7..... plz elaborate the different stages of cell cycle. 10m
8....detail mechanism of TGF-Beta receptor faimly. 10m

Bio201 (12 August 8:00AM)
1. Describe special mechanism in birds for migration.(2marks)
2. Principle of laminar flow cabinet(2marks)
3. Function of regulatory region(3marks)
4. How a sheep is cloned, write in steps.(3marks)
5. Mechanism of paracrine signaling(5marks)
6. Write growth promoting oncogenes(5marks)
7. Brief note on cell cycle(10marks)
8. Brief note on translation(10marks)

Bio 201, Cell Biology
08:00 AM (12 Aug 17)

I) Adult stemp cell, their benefits & therapeutic uses..
2) the ER signal sequence is guided to the ER by which of the two components.?
3) Mechanism of TGF-B receptor family?
4) Role of MHC In immunity major difference between MHC-1 & MHC-2 molecules?
5) short note on transcription,.
6) sheep can cloned through nuclear transformation. Details in the forms of the steps.
7)elaborate the point increased CAMP activity?

final term 201.....11am

The ER Signal sequence is guided to the ER which of the two components 10m

Role of MHC in immunity major dif between MHC-1 and MHC-2.....10M

sheep can cloned through nuclear transforamtion detail in the forms of steps.....5m.....dif between Euchromatin and heterochromatin..2m.....write short note on COPI

Bio201
Short note on translation
Short note on transcription
Stages of cell cycle
Example of RNA viruses
Function of homotypic acid oxidase
Homotypic and heterotypic fusion and how they form
Exocytosis??
Diffrntiate between pinocytosis and phogaocytosis

Bio 201
16/8/017
8:00
Differenc between MHC 1nd 2
TGF-B mechanism
Names of Ig
Mechanism of homogenetic oxydase

Name of growth promoting oncogens
E.choli signaling mechainm
Cloning of sheeep
Mostly mcqs were from midterm sylbus

Bio 201
15-8-2017
Timming : 2:30 pm
Translation 10
MHC1 AND MHC2 10
Rod cells 2
Major growth factors of oncongences 5
Er singal functions 2
Lamiar flow cabinet 3
Bazer experiment 3

Mcqs statements
1: Numbers of lymphocytes
2: Enzyme binds on which site
3:lipds are the insoulable hydrophobic
4:adaptive system remember the prior message
5:Rnai is the eukaryotic chronotains
6:kinteochore protein attach to
7:Mandel demonstrate the dominate or ressessive pattern
8:genes are located and tangled chromtain
9:year of life of orign of the life
10:phosphorylate signaling Ecoli alert the
11: one of the function of the caAPK
12:b - blocker are blocks the ?
13: agent used as cryorutetant
14: alzehaier disease
15: Stem cells
16: optiaml activity of hydrolulic
17: milk form protein
18:smad complex moves to nucleus

201 final mcqs at 11:00am

1: adaptor molecule binds to_____

2:smad molecules moves into_____it associate with other genes regulatory protein binds to specific site in DNA & activates particular set of target genes.

3:ribosomes are engaged to_____

4: the _____ immune system , like _____ system, can remember prior experiment

5: function of G protein in vision involves____

6: neurospore is caused due to_____

7: according to Mendel, range of probability_____

8: condition in which cells are cemented_____

9: define operon,stem cell silence mutation in mcqs.

Bio 201 cell biology 11:00 am(1)what is component of ER?2 marks (2)d/f b/t adaptor and messenger hypothesis 5 marks(.3) cell cycle, stages 10 marks (4)transaltion 10 marks (5)what is endocytosis and d/f phagacytosis and pinocytosis 3marks (6) siganaling factors marks 2 (7) write the five name of promotin growth of ocnogenes 5 marks

Bio 201 final term exam at 110'clock Am

Q: write the detail note on translation? 10marks

Q: what is MHC? Differentiate MHC1 and MHC2 ? 10 marks

Q: what is E.coil cells?

Q: what is adult stem cell? Explain their benefits . what's the uses of therapeutic?

Q: define somatic mutation?

Q: write 3 names of stop codon?

Q: what is the main function of RELP?

Q: deffirence between hterotypic nd homotypic ?

MCQS last topics my sy aye zyda

Bio 201 final term

15-8-17 8:00 am

Cell cycle ,stages 10 marks

Note on translation 10 marks

Write the only names promoting oncogens 5 marks
Sigling in oulfations 5 marks
Write three stop cdons 3 marks
Two signing functions of N-terminal ER in water soluble proteins 3 marks
what is RFLP and its function 2 marks
Dif. b/w homofusions and hetrofusion 2 marks

Bio 201
16/8/017
8:00
Differenc between MHC 1nd 2
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E.choli signaling mechainm
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Mostly mcqs were from midterm sylbus

Bio 201 at 11am
18/8/2017
Define adult stem cell, its benefits and theraputic uses? 5
Antibody used in t cell 2
Mechanism of olfaction 3
Mhc and its two types 10
Tgf beta receptor family 10
Use of regulatory system . Explain 2 types 5
Mcqs was quiet easy.

today at 11:00 am paper bio 201
function of homogenistic acid oxidase 2
priciple of laminar flow cabinet 2
stop seuences 3
endocytosis and its types 3
function of rod cells in vision 5

difference b/w confluent monolayer and past confluency stages 5
translation of mRNA 10
stages of cell cycle 10

Bio 201 20th August 2017 11am

Q1. meaning and function of RFLP? 2
Q2. Principle and flow of air in "laminar flow cabnet". 2
Q3. Conclusion of Benzer experiment. 3
Q4. Role and function of intracellular receptors. 5
Q5. Adult stem cells, their benefits and therapeutic uses. 5
Q6. Steps of sheep cloning. 3
Q8. Axplain translation. 10
Q8. Steps of cell cycle. 10

BIO201

1 Please elaborate the points in increased cAMP activity 2
2 what are the stem cells how they are different from the specialized cells 2
3 what is the role of regulatory region explain its tow elements? 3
4 How UV light helps to sterilization the equipment?3
5 Short note on transcription 5
6 differentiate the confluent monolayer and past confluent stages? 5
7 Explain process of translation?10
8 Please elaborate the different stages of cell stages? 10

Bio 201 final term paper

Mcq

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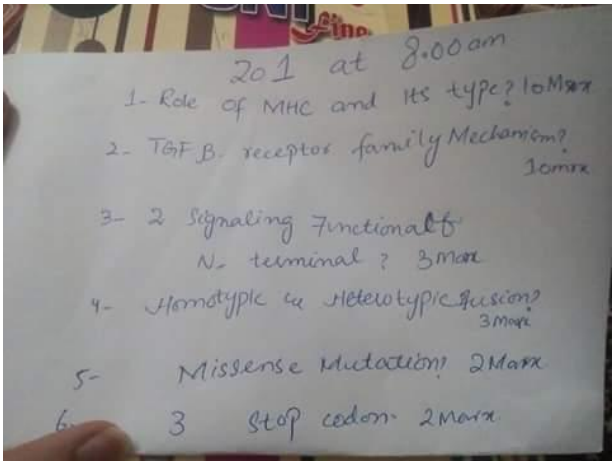
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(Questions bio 201)
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6) sheep can cloned through nuclear transformation. Details in the forms of the steps.
7)elaborate the point



Bio201
*Cell cycle (long 10)
*intracellular receptor functions (5)
*dominance and its types (5)
*confluent monolayer and past confluency (5)
*SER (3)
*endocytosis nd types (3)
*heat shock protein nd lysosomes (2)
*stem cells (2)
*name of antibody appears on the surface of developing B cells (2)
*RNA viruses (3)

Bio201
MHC and its types (5 marks)
CaM kinase ll role in movemnt of muscles.(5 marks)
Gene mapping
Missense mutation
Five classes of antibodies
Uv in sterlization of equipment
Cell cycle (long)
Confluent and post confluency stages
Homotypic and heterotypic fusion
Cholesterol and its derivatives..

bio201

what is cell recognition and cell adhesion.
name the antibody that appear on developing surface of B cell.

difference b/w cofactor, coenzyme and prosthetic group.
give examples of 3 RNA viruses.
how sheep is clonned by nuclear transfer.
describe signalling in E.coli.
what is MHC. and write difference b/w its types