**VARDHAMAN MAHAVEER OPEN UNIVERSITY, KOTA**

**Rawatbhata Road, Kota (Rajasthan) - 324021**

**Post Graduate Degree Programme**

**M.Sc. Zoology (Final)**



**Internal Assignments**

**MSc ZO-06 to MSc ZO-09**

**Session: 2014 - 2015**

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**Vardhaman Mahaveer Open University, Kota**

**Post Graduate Degree Programme**

**M.Sc. Zoology (Final)**

**Internal Assignments for MSc ZO-06 to MSc ZO-09**

Dear Students,

 The following internal assignments of various papers of M.Sc. Zoology (Final) are being sent to you:

**Programme Code** **Name of the Course/paper**

**MSc ZO-06** **Immunology**

**MSc ZO-07** **Animal Biotechnology**

**MSc ZO-08** **Toxicology of Insecticides**

**MSc ZO-09** **Applied Entomology**

It is must to complete the internal assignments and after completion submit the assignments to the Director of your concerned Regional Centre either through your own presence or through registered speed post. Each internal assignment is of 20 marks, the marks obtains in internal assignment will be added with the marks obtained in term end examination. It is mandatory to complete the assignments in your own hand writing. There is no revaluation system for the internal assignment except technical mistakes. After submission of the assignment you will not be given the chance to improve the same or resubmit the same so try to give the best answer in your 1st attempt. Enclose the internal assignments of each paper/course in separate files and provide the below information on the first page of each file:

**Vardhaman Mahaveer Open University, Kota**

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Scholar No.

Name of Student ---------------------------------------------------------------- Internal Assignment No. ----------------------------------------------

Father’s Name ---------------------------------------------------------------- Programme Code ---------------------------------------------------------------

Address ---------------------------------------------------------------- Name of the Course/Paper ------------------------------------------

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Name of Study Centre --------------------------------------------------------------- Assignment Submission Date---------------------------------------

Name of Regional Centre----------------------------------------------------------

**Note:**

1. Use only A4 Size Paper for your response sheets.

2. Last date of Submission: Before one month from the date of commencement of Term-End Examinations.

**Internal Assignment (Maximum Marks 20)**

**M.Sc. (ZOOLOGY) Final**

**Immunology**

**M.Sc. ZO-06**

**Max Marks : 20**

**Note : The internal Assignment has been divided into three section A, B, and C, write Answer as per the given instruction.**

**vkrafjd ewY;kadu gsrq iz'u i= 'A', 'B' vkSj 'C' rhu [k.Mksa esa foHkkftr gSA izR;sd [k.M ds funsZ'kkuqlkj iz'uksa dk mÙkj nhft,A**

**Section – A**

**(Very Short Answer Type Questions)**

**Note : Answer all questions. As per the nature of the question you delimit your answer in one word, one sentence or maximum up to 30 words. Each question carries 1 mark. 4x1=04**

**uksV % lHkh iz'ukas dk mÙkj nhft,A vki vius mÙkj dks iz'ukuqlkj ,d 'kCn] ,d okD; ;k vf/kdre 30 'kCnksa esa ifjlhfer dhft;sA izR;sd iz'u 1 vad dk gSA**

1. Who Discovered Vaccine ?

**Vhds dk vfo"dkj fdlus fd;k \**

1. Write the name of different types of Immunity?

**izfrj{k.k ds fofHkUu izdkjksa ds uke fy[kks \**

1. What is Haptane ?

**gsIVsu D;k gS \**

1. What are superantigens ?

**lqij ,UVhtu D;k gS \**

**Section – B**

**Note : Answer any 2 question. Each answer should not exceed 200 words. Each question carries 4 marks. 2x4=08**

**uksV % fdUgh 02 iz'uksa ds mÙkj nhft,A vki vius mÙkj dks vf/kdre 200 'kCnksa esa ifjlhfer dhft;sa izR;sd iz'u 4 vadksa dk gSA**

1. What is role of B-lymphocytes ?

**ch&fyEQkslkbVl dk D;k dk;Z gS \**

1. What is role of T-lymphocytes ?

**Vh&fyEQkslkbVl D;k gS \**

1. What are cytokines ?

**lkbVksdkbul D;k gS \**

1. What is RIA ?

**vkj-vkbZ-,- D;k gS \**

**Section – C**

**Note : answer any one question. You have to delimit your each answer maximum up to 800 words. Each question carries 08 Marks. 1x8=08**

**uksV % fdUgh 01 iz'uksa ds mÙkj nhft,A vki vius mÙkj dks vf/kdre 800 'kCnksa esa ifjlhfer dhft;sa izR;sd iz'u 8 vadksa dk gSA**

1. Write a note on Hybridoma Technology and Monoclonal Antibodies?

**gkbczhMksek rdfud ,oa eksuksDyksuy ,UVhckWMh ij ,d ys[k fy[kks \**

1. Write a note on Vaccines ?

**oSDlhu ij ,d ys[k fy[kks \**

**Internal Assignment (Maximum Marks 20)**

**M.Sc. (ZOOLOGY) Final**

**ANIMAL BIOTECHNOLOGY**

**M.Sc. ZO-07**

**Max Marks : 20**

**Note : The internal Assignment has been divided into three section A, B, and C, write Answer as per the given instruction.**

**vkrafjd ewY;kadu gsrq iz'u i= 'A', 'B' vkSj 'C' rhu [k.Mksa esa foHkkftr gSA izR;sd [k.M ds funsZ'kkuqlkj iz'uksa dk mÙkj nhft,A**

**Section – A**

**(Very Short Answer Type Questions)**

**Note : Answer all questions. As per the nature of the question you delimit your answer in one word, one sentence or maximum up to 30 words. Each question carries 1 mark. 4x1=04**

**uksV % lHkh iz'ukas dk mÙkj nhft,A vki vius mÙkj dks iz'ukuqlkj ,d 'kCn] ,d okD; ;k vf/kdre 30 'kCnksa esa ifjlhfer dhft;sA izR;sd iz'u 1 vad dk gSA**

1. Name two Instruments used in Animal Biotechnology laboratory ?

**izk.kh tSo izkS|ksfxdh iz;ksx'kkyk esa dke vkus okys fdUgh nks midj.kksa ds uke fy[kks \**

1. Laminar Air Flow is used for ................ ?

**ysfeukj ok;q izokg dk iz;ksx--------------------------------- gsrq gksrk gS \**

1. Write the names of two types of cell lines ?

**dksf'kdk J`[kyk,a ds nks izdkjksa ds uke fy[kks \**

1. What is stem cell ?

**vkfn iwoZxkeh dksf'kdk D;k gS \**

**Section – B**

**Note : Answer any 2 question. Each answer should not exceed 200 words. Each question carries 4 marks. 2x4=08**

**uksV % fdUgh 02 iz'uksa ds mÙkj nhft,A vki vius mÙkj dks vf/kdre 200 'kCnksa esa ifjlhfer dhft;sa izR;sd iz'u 4 vadksa dk gSA**

1. What are transgenic animals ?

**Vªkltsfud tUrq D;k gS \**

1. What is pluripotency ?

**IyqjhiksVsUlh D;k gS \**

1. Write the characters of Malignant tumors cells ?

**eSyhxusUV V~;wej dksf'kdkvksa ds y{k.k fy[kks \**

1. What is Heavy Metal Pollution ?

**Hkkjh /krq iznq"k.k D;k gS \**

**Section – C**

**Note : answer any one question. You have to delimit your each answer maximum up to 800 words. Each question carries 08 Marks. 1x8=08**

**uksV % fdUgh 01 iz'uksa ds mÙkj nhft,A vki vius mÙkj dks vf/kdre 800 'kCnksa esa ifjlhfer dhft;sa izR;sd iz'u 8 vadksa dk gSA**

1. Write a note on sterlizetion aspects of Animal Tissue culturing?

**izk.kh mÙkd loZ/ku esa iz;qDr futZehdj.k rdfud ij ys[k fy[kks \**

1. Give an account of Microbial detoxification ?

**lq{e tSfod MhVªkDlhQhds'ku dks le>kb;s \**

**Internal Assignment (Maximum Marks 20)**

**M.Sc. (ZOOLOGY) Final**

**TOXICOLOGY OF INSECTICIDES**

**M.Sc. ZO-08**

**Max Marks : 20**

**Note : The internal Assignment has been divided into three section A, B, and C, write Answer as per the given instruction.**

**vkrafjd ewY;kadu gsrq iz'u i= 'A', 'B' vkSj 'C' rhu [k.Mksa esa foHkkftr gSA izR;sd [k.M ds funsZ'kkuqlkj iz'uksa dk mÙkj nhft,A**

**Section – A**

**(Very Short Answer Type Questions)**

**Note : Answer all questions. As per the nature of the question you delimit your answer in one word, one sentence or maximum up to 30 words. Each question carries 1 mark. 4x1=04**

**uksV % lHkh iz'ukas dk mÙkj nhft,A vki vius mÙkj dks iz'ukuqlkj ,d 'kCn] ,d okD; ;k vf/kdre 30 'kCnksa esa ifjlhfer dhft;sA izR;sd iz'u 1 vad dk gSA**

1. Write full form of DDT ?

**MhMhVh dk iw.kZ uke fy[kks \**

1. Draw the structural formula of nicotine ?

**uhdksVhu dk ljapuk lq= fy[kks \**

1. Name any two Pyrethroids ?

**fdUgh nks ikbjhFkzksbMl ds uke fy[kks \**

1. Name any two insect repellents?

**fdUgh nks dhV jsiykUVl dk uke fy[kks \**

**Section – B**

**Note : Answer any 2 question. Each answer should not exceed 200 words. Each question carries 4 marks. 2x4=08**

**uksV % fdUgh 02 iz'uksa ds mÙkj nhft,A vki vius mÙkj dks vf/kdre 200 'kCnksa esa ifjlhfer dhft;sa izR;sd iz'u 4 vadksa dk gSA**

1. Describe how is acetylcholine synthesized ?

**,lhVkby dksfyu ds fuekZ.k dks le>kb;s \**

1. Write the effect of azadirachtin found in Neem ?

**uhe esa ik;s tkus okys ,tkMsjsDVhu ds izHkko fyf[k, \**

1. Write the characters of Pyrethorids ?

**ikbjsFkzksbMl ds y{.k fyf[k, \**

1. What are insect attractants ?

**dhV vkd"kZd D;k gS \**

**Section – C**

**Note : answer any one question. You have to delimit your each answer maximum up to 800 words. Each question carries 08 Marks. 1x8=08**

**uksV % fdUgh 01 iz'uksa ds mÙkj nhft,A vki vius mÙkj dks vf/kdre 800 'kCnksa esa ifjlhfer dhft;sa izR;sd iz'u 8 vadksa dk gSA**

1. Write a note on **Resistance** in Insects for Insecticides?

**dhVks esa dhVuk'kdks ds izfr ik;h tkus okyh izfrjks/kd {kerk ij ,d ys[k fy[kks \**

1. Describe the mode of action of Organophosphorus Insecticides?

**vkxzsuksQkWlQksjl dhVuk'kdks dh dk;Z fof/k dks le>kb;s \**

**Internal Assignment (Maximum Marks 20)**

**M.Sc. (ZOOLOGY) Final**

**Applied Entomology**

**M.Sc. ZO-09**

**Max Marks : 20**

**Note : The internal Assignment has been divided into three section A, B, and C, write Answer as per the given instruction.**

**vkrafjd ewY;kadu gsrq iz'u i= 'A', 'B' vkSj 'C' rhu [k.Mksa esa foHkkftr gSA izR;sd [k.M ds funsZ'kkuqlkj iz'uksa dk mÙkj nhft,A**

**Section – A**

**(Very Short Answer Type Questions)**

**Note : Answer all questions. As per the nature of the question you delimit your answer in one word, one sentence or maximum up to 30 words. Each question carries 1 mark. 4x1=04**

**uksV % lHkh iz'ukas dk mÙkj nhft,A vki vius mÙkj dks iz'ukuqlkj ,d 'kCn] ,d okD; ;k vf/kdre 30 'kCnksa esa ifjlhfer dhft;sA izR;sd iz'u 1 vad dk gSA**

1. What is order of lapisma ?

**ysfiTek fdl x.k dk tUrq gS \**

1. Name the two insect which posses chewing and lapping type mouth parts ?

**psfoax ,oa ySfiax izdkj ds eqa[kkx okys fdUgh nks dhVks ds uke fy[kks \**

1. The Khapra Beetle is major pest of ...................in India ?

**[kijk chgy Hkkjr esa eq[; :i ls ---------------------------- dh jksx dkjd gS \**

1. Name the pest of Tomato?

**VekVj ij ik;s tkus okys dhV dk uke fy[kks \**

**Section – B**

**Note : Answer any 2 question. Each answer should not exceed 200 words. Each question carries 4 marks. 2x4=08**

**uksV % fdUgh 02 iz'uksa ds mÙkj nhft,A vki vius mÙkj dks vf/kdre 200 'kCnksa esa ifjlhfer dhft;sa izR;sd iz'u 4 vadksa dk gSA**

1. Explain Diapauses ?

**Mk;ikst dks le>kb;s \**

1. What are pests of rice ?

**pkoy ij ik;s tkus okys dhV isLV D;k&D;k gS \**

1. What are the symptonps of damage by Cigarette Beetle ?

**lhxjsV chVy }kjk uqdlku ds y{.k crkb;s \**

1. What are problems of lac growers ?

**yk[k mRikndks dh eq[; el>;k, D;k gS \**

**Section – C**

**Note : answer any one question. You have to delimit your each answer maximum up to 800 words. Each question carries 08 Marks. 1x8=08**

**uksV % fdUgh 01 iz'uksa ds mÙkj nhft,A vki vius mÙkj dks vf/kdre 800 'kCnksa esa ifjlhfer dhft;sa izR;sd iz'u 8 vadksa dk gSA**

1. What is Storage Pest Management ?

**laxzg.k isLV eSustesUV dks le>kb;s \**

1. Write a note on Beekeeping ?

**e/kqeD[kh ikyu ij ys[k fy[kks \**