ANDHRAUNIVERSITY
B.Vocational courseDairying & Animal husbandry
II Year – Semester III2020-21Admittedbatch
ENGLISH-3
(Credits3+0=3)

ACourseinConversationalSkillsL

earningOutcomes

Bytheendofthecoursethelearnerwillbeableto:

- SpeakfluentlyinEnglish
- Participateconfidentlyinanysocialinteraction
- Faceanyprofessionaldiscourse
- Demonstratecriticalthinking
- Enhanceconversationalskillsbyobservingtheprofessionalinterviews

I. UNIT

Speech Skills	: 1.TrystwithDestiny :2.Greetings :3.Introductions	JawaharlalNehru

II. UNIT

Speech	:1. Yes, WeCan :2.ALeaderShouldKnowHowtoManageFailure	Barack ObamaInterview Dr.A.P.J.AbdulKalam/IndiaKnowledgeatWharton
Skills	:3. Requests	

III. UNIT

Interview **Skills**	:1.Nelson Mandela'sInterview :2.AskingandGivingInformation :3.AgreeingandDisagreeing	WithLarryKing

IV. UNIT

Interview **Skills**	:1.JRDTata'sInterview :2.DialogueBuilding :3.GivingInstructions/Directions	WithT.N.Ninan

V. UNIT

1.	**Speech Skills**	: 1.You'veGottoFindWhatYouLove :2. Debates : 3.Descriptions : 4.RolePlay	SteveJobs

ANDHRAUNIVERSITY
B.Vocational courseDairying & Animal husbandry
II Year – Semester III2020-21Admittedbatch
ENGLISH - 3

ENGLISH - 3MODEL QUESTION PAPER

Max. Marks: 75 Time: 3 hrs

SECTION-A

Answer any four questions. Each answer carries 5 marks(At least 1 question should be given from each Unit)

1.
2.
3.
4.
5.
6.
7.
8.

SECTIONB

Answeranythreequestions.Eachanswercarries10marks(Atleast 1 question should be given from eachUnit)

1.
2.
3.
4.
5.

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ANDHRAUNIVERSITY
B.Vocational courseDairying & Animal husbandry
II Year – Semester III2020-21AdmittedbatchORGANICCHEMISTRY
(Credits3+0=3)

UNIT-I

StructuraltheoryinOrganicChemistry.Typesofbondfissionandorganic reagents (Electrophilic, Nucleophilic, and free radical reagentsincluding neutral molecules like H2O,NH3& AlCl3). Bond polarization:Factorsinfluencingthepolarizationofcovalentbonds,electronegativity
- inductive effect. Application of inductive effect (a) Basicity of amines (b)Acidity of carboxylic acids (c) Stability of carbonium ions. Resonance orMesomeric effect, application to (a) acidity of phenol, and (b) acidity ofcarboxylic acids. Hyperconjugation andits application to stability ofcarbonium ions, Free radicalsand alkenes,carbanions,carbenesandnitrenes.TypesofOrganicreactions:Addition-electrophilic,nucleophilic and free radical.Substitution - electrophilic, nucleophilic andfreeradical.Elimination-Examples.

UNIT-II

AcyclicHydrocarbons

Alkenes - Preparation of alkenes. Properties: Addition of hydrogen - heat of hydrogenation and stability of alkenes. Addition of halogen andits mechanism. Addition of HX, Markonikov'srule, addition of H2O,HOX, H2SO4 with mechanism and addition of HBr in the presence ofperoxide(anti-Markonikov'saddition).Dienes-Typesofdienes,reactions of conjugated dienes - 1,2 and 1,4 addition of HBr to 1,3 –butadieneandDiel's- Alderreaction.

Alkynes-
Preparationbydehydrohalogenationofdihalides,dehalogenationoftetrahalides,Properties;

Alicyclichydrocarbons(Cycloalkanes)Nomenclature,PreparationbyFreundsmethod,Wislicenusmethod.Properties-reactivityofcyclopropane and cyclobutane by comparing with alkanes, Stability ofcycloalkanes-Baeyer'sstraintheory.

UNIT-III

Benzene and its reactivity. Concept of resonance, resonance energy.Heat of hydrogenation,heat of combustion of Benzene, mention of C-Cbond lengths and orbital picture of Benzene. Concept of aromaticity -aromaticity(definition),Huckel'srule-

applicationtoBenzenoid(Benzene,Naphthalene)andNon-Benzenoidcompounds(cyclopropenylcation,cyclopentadienylanionandtropyliumcation)Reactions-Generalmechanismofelectrophilicsubstitution,mechanism

ofnitration,FriedelCraft'salkylationandacylation.Orientationofaromaticsubstitution–
Definitionofortho,paraandmetadirectinggroups.Ringactivatinganddeactivatinggroupswithexamples(ElectronicinterpretationofvariousgroupslikeNO_2andPhenolic).Orientation of (i) Amino, methoxy and methyl groups (ii) Carboxy, nitro,nitrile, carbonyl and sulphonic acid groups (iii) Halogens (Explanation bytaking minimumofoneexamplefromeachtype)

UNIT–IV

Halogencompounds

Nomenclature and classification of alkyl (into primary, secondary,tertiary), aryl, aryl alkyl, allyl, vinyl, benzyl halides. Nucleophilicaliphaticsubstitutionreaction-
classificationintoSN^1andSN^2–reactionmechanismwithexamples-Ethylchloride,t-butylchloride.

Hydroxycompounds

Nomenclatureandclassificationofhydroxycompounds.Alcohols:Preparation with hydroboration reaction, Grignard synthesis of alcohols.Phenols: Preparation i) from diazonium salt, ii) from aryl sulphonates, iii)from cumene. Special reaction of phenols: Bromination, Kolbe-Schmidtreaction, Riemer-Tiemannreaction, Fries rearrangement, azocoupling,Pinacol-Pinacolonerearrangement.

UNIT-V

carbonylcompounds

Nomenclature of aliphatic and aromatic carbonyl compounds, structureof thecarbonyl group. Synthesis of aldehydes from acid chlorides,synthesis of aldehydes and ketones using 1,3-dithianes, synthesis ofketonesfromnitrilesandfromcarboxylicacids.

Nucleophilic addition reaction with a) $NaHSO_3$, b) HCN, c) RMgX, d)NH_2OH,e)$PhNHNH_2$,f)2,4DNPH,g)Alcohols-formationofhemiacetalandacetal.Basecatalysedreactions:a)Aldol,b)Cannizzaro's reaction, c) Perkin reaction,d)Benzoin condensation,
e) Haloform reaction, f) Knoevenagel reaction. Oxidation of aldehydes-Baeyer-
Villigeroxidationofketones.Reduction:Clemmensenreduction,Wolf-Kishnerreduction,MPVreduction,reductionwith$LiAlH_4$and$NaBH_4$.

ListofReferenceBooks

1. A TextBookofOrganicChemistrybyB.S.BahlandArunBahl
2. A TextBookofOrganicchemistrybyVolIbyI.L. FinarVolI
3. OrganicchemistrybyBruice
4. OrganicchemistrybyClayden
5. A TextBookofOrganicChemistrybyB.S.BahlandArunBahl

ANDHRAUNIVERSITY
B.Vocational courseDairying & Animal husbandry
IIYear–SemesterIII
2020-21Admittedbatch
ORGANIC CHEMISTRYMODEL QUESTION PAPER

Max. Marks: 75 Time: 3 hrs

SECTION-A

Answer any five questions. Each answer carries 5 marks(At least 1 question should be given from each Unit)
(5x5M=25Marks)

1. Explain different types of bong fissions in organic chemistry.
2. Explain 1,2 and 1,4 addition reactions of conjugated dienes.
3. Explain resonance in Benzene and also explain its reactivity.
4. Explain the mechanism for pinacol – pinacolone rearrangement.
5. Explain the preparation of alcohols by Grignard synthesis.
6. Explain the synthesis of aldehydes and ketones by using 1,3 dithianes.
7. Explain the mechanism of aldol condensation.
8. Explain the mechanism of benzoin condensation.

SECTIONB

Answerallquestions.Eachanswercarries10marks (5x10M = 50Marks)
(Atleast 1 question should be given from eachUnit)

1. (A) Explain the factors influencing the polarization of covalent bonds and its applications.
(OR)
(B) Explain the following reactions
(i) Hydroboration (ii)Michael addition (iii)Mannich reaction

2. (A) (i) Write the preparations of alkenes (ii) Explain Alkene addition reactions by Markonikov's rule with different examples. (OR)
(B) (i) Explain Bayer strain theory (ii) Draw confirmations of cyclohexane and explain their stability by drawing energy profile diagram.

3. (A) Define Hukel rule of aromatic compounds. What are benzenoid and Non-benzenoid aromatic compounds? Give examples. (OR)
(B) Explain the mechanism of nitration and Friedel-Craft's alkylation of Benzene.

4.(A) Give the mechanism of sterio chemistry of SN^1 and SN^2 reactions of alkyl halides with suitable examples. (OR)
(B) Explain the following reactions with mechanism. (i) Reimer – Tiemann reaction (ii) Fries rearrangement.

5.(A) Discuss the mechanism for following reactions (i) Parkin reaction (ii) Cannizaro reaction (OR)
(B) Discuss the mechanism of following reaactions (i) Bayer – Villiger oxidation reaction (ii) Wolf – Kishner reaction

ANDHRAUNIVERSITY
B.Vocational courseDairying & Animal husbandry
II Year – Semester
III2020-21 Admtted batchHEALTHANDHYGIENE
(Credits2+0=2)

The course is designed to provide a complete guidance on health and hygienesystems,guidelinesforimplementingandroleofgovernmentandpublicinmaintaining ahealthylife.Attheendofthecoursethestudent shallbeabletounderstand–

- theimportanceofhealthandhygiene inlife
- the importanceofnutritionforahealthylife
- differenthealthcareprogrammesofIndia
- basicconceptofhealthimpactassessmentasameansofassessingthepolicies ,plansandprojects usingquantitiativeandqualitativetechniques
- importanceof communityand personal health &hygiene measures
- Importanceoffood,socialtenets,mentalcondition,physicalactivityon health

LearningObjectives:

- To provide knowledge on different health indicators and types of hygienemethods
- ToimpartknowledgeondifferenthealthcareprogrammestakenupbyIndia
- Tomakestudentunderstandthe latestconceptsofhealthsuchasHIA, EIA,SIAandSEA
- Toenablestudentwithdisastermitigationstrategies
- Tocreate awarenesson communityhealthand hygiene
- To enrich knowledge on communicable and non-communicable diseasesandtheircontrol
- Toaware the student ontheimportanceoffood, social strategies,mentalstatusandphysicalactivitiesonhealth
- To introduce different community-based mobile apps on health to student andtherebytothecommunity

Learning/CourseOutcomes: Oncompletionofthiscourse,thestudentswillbeabl etounderstand–

- Whatisa healthydiet?
- Howcanweuseavailableinformationtooptimizeourdiet?
- Can nutritionbeused forahealthylife?
- Isthereaone-size-fits-all“good”diet orshouldweindividualizeourdietarygoals?
- Disastermanagementandresponsivenessofpublicinpandemicandepide micdiseases
- AssesstheimpactofpoliciesonhealthandhygieneHealthmeasurestoconsiderw hiletravelling
- Awarenessinpublicthroughdigitalmediaviz.,mobileapps

UnitI:BasicsofNutrition **10Hrs.**

1. Nutrition-definition,importance,Goodnutritionandmalnutrition;BalancedDiet:Basicsof MealPlanning
2. Carbohydrates-functions,dietarysources,effectsofdeficiency.
3. Lipids-functions,dietarysources,effectsofdeficiency.
4. Proteins-functions,dietarysources,effectsofdeficiency.
5. BriefaccountofVitamins-functions,foodsources,effectsofdeficiency,
6. Macro and micro minerals –functions, effects of deficiency; food sources ofCalcium,Potassium andSodium;foodsourcesofIron,IodineandZinc
7. Importanceofwater- functions,sources,requirementandeffectsofdeficiency.

UnitII: Health **10Hrs.**

8. Health–Determinantsofhealth,KeyHealthIndicators,Environment health&Publichealth;Health-Education:PrinciplesandStrategies
9. Health Policy & Health Organizations: Health Indicators and National HealthPolicyofGovt.ofIndia-2017;Functioningofvariousnutritionandhealthorganizations in India viz., NIN (National Institution of Nutrition), FNB (Food andNutritionBoard),ICMR(IndianCouncilofMedicalResearch),IDA(IndianDietetics Association),WHO-India,UNICEF-India
10. National Health Mission: National Rural Health Mission (NRHM) Framework,NationalUrbanHealthMission(NUHM)Framework
11. Women & Child Health Care Schemes: Reproductive, Maternal, Newborn,ChildandAdolescentHealth(RMNCH+);JananiShishuSurakshaKaryakaram(JSSK);RashtriyaBalSwasthyaKaryakram(RBSK);IndiaNewborn Action Plan (INAP); AdolecentHeatlh- Rashtriya Kishor SwasthyaKaryakram(RKSK)
12. DisasterManagement-Containment,ControlandPreventionofEpidemicsandPandemics-Acts,GuidelinesandRoleofGovernmentandPublic

UnitIII:Hygiene **10 Hrs.**

13. Hygiene – Definition; Personal, Community, Medical and Culinary hygiene;WASH(Water,SanitationandHygiene)programme
14. Rural Community Health: Village health sanitation & Nutritional committee(Roles & Responsibilities); About Accredited Social Health Activist (ASHA);VillageHealthNutritionDay,RogiKalyanSamitis
15. Community & Personal Hygiene: Environmental Sanitation and Sanitation inPublicplaces
16. Public Awareness through Digital Media – An Introduction to Mobile Apps ofGovernment of India: NHP, Swasth Bharat, No More Tension, Pradhan MantriSurakshitMantritvaAbhiyan(PMSumanYojana),MyHospital(Meraaspatal), India fights Dengue, JSK Helpline, Ayushman Bhava, Arogya Setu,Covid19AP

REFERENCES

Bamji,M.S.,K.Krishnaswamy&G.N.V.Brahmam(2009)TextbookofHumanNutrition(3rd edition)OxfordandIBHPublishingCo.Pvt.Ltd.,NewDelhiSwaminathan(1995)Food& Nutrition(VolI, SecondEdition) The Bangalore Printing&PublishingCoLtd., ,Bangalore
VijayaKhader(2000)Food,nutrition&health,KalyanPublishers,NewDelhiSrilakshmi,B.,(2010)FoodScience,(5thEdition) NewAge InternationalLtd.,NewDelhiWeblinks:https://nhm.gov.in/

- National Rural Health Scheme:https://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=969&lid=49
- National Urban Health Scheme:https://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=970&lid=13
- Villagehealthsanitation&Nutritionalcommitteehttps://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=149&lid=22
- About Accredited Social Health Activist (ASHA)https://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=150&lid=22
- VillageHealthNutritionDayhttps://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=152&lid=22

- RogiKalyan Samitishttps://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=153&lid=2
- HealthImpactAssessment- https://www.who.int/hia/about/faq/en/(suggestedinformationonly) http://www.euro.who.int/data/assets/pdf_file/0011/261929/Health-in-Impact-Assessments-final-version.pdf?ua=1
- WASHhttps://www.unicef.org/wash/andhttps://www.unicef.org/wash/files/UNICEF_Strategy_for_WASH_2016_2030.PDF
- HealthyLivinghttps://www.nhp.gov.in/healthylivingViewallNote:

The above web links are from MoHFW, GoI. Teachers can preparetheirnotesfromother resourcesalso.

ANDHRAUNIVERSITY
B.Vocational courseDairying & Animal husbandry
II Year – Semester III2020-21Admittedbatch
HEALTHANDHYGEINE
(Credits2+0=2)

Modelpaper

Max. Marks: 50 **Time: 11/2 hrs(90 min.)**

SECTION – A

Answer any four questions. Each answer carries 5 marks. (4*5=20 Marks)

1. Write in detail about Micro & Macro minerals? Their functions & effect of mineral deficiency?
2. Write in detail about importance of water and its functions, sources of availability & effects of water deficiency?
3. Write in detail about control & prevention of epidemics and pandemics Acts & Guidelines?
4. Name different Nutritional & Health organizations and their functions?
5. Write in detail about Hygiene, personal, community, medical & culinary hygiene?
6. Write in detail about Arogya setu app & ASHA?
7. Write about National Health policy of Govt. of India – 2017?

SECTION – B (3*10=30 Marks)

Answer any three questions. Each answer carries 10 marks.

1. Define Nutrition, Importance of Nutrition, Balanced diet, basics of Meal planning & write about Mal nutrition?
2. Write in detail about functions, dietary sources, effects of deficiency of Carbohydrates and Proteins?
3. Write in detail about National Health Mission- National Rural Health Mission & National Urban Health Mission- framework?,
4. Write in detail about Janani Sishu Suraksha Karykaram- JSSK, Rashtriya Bal SwasthyaKaryakaram- RBSK, India Newborn Action Plan – INAP?
5. Write in detail about Environmental Sanitation, Public awareness through Digital media, mobile apps of govt. of India?

ANDHRAUNIVERSITY
B.Vocational courseDairying & Animal husbandry
II Year – Semester III2020-21Admittedbatch

ENVIRONMENTALEDUCATION

(Credits2+0=2)

Course objective:AGenericCourse intendedtocreate awarenessthatthe lifeofhuman beings is an integral part of environment and to inculcate the skills required toprotectenvironment fromallsides.

Learningoutcomes: Oncompletionofthiscoursethestudentswillbeableto…..

1. Understand the nature, components of an ecosystem and that humans are anintegralpartofnature.
2. Realizetheimportanceofenvironment,thegoodsandservicesofahealthybiodiversity,dependenceofhumans onenvironment.
3. Evaluatethewaysandilleffectsof destruction of environment,populationexplosiononecosystemsand global problemsconsequent toanthropogenicactivities.
4. Discuss thelaws/actsmadebygovernmentto preventpollution,toprotectbiodiversityandenvironment asawhole.
5. Acquaint with international agreements and national movements, and realizecitizen'sroleinprotectingenvironmentandnature.

Unit1:EnvironmentandNaturalResources 06Hrs.

1. Multidisciplinarynatureofenvironmentaleducation;scopeandimportance.
2. Manasanintegral productand partof theNature.
3. Abriefaccountofland, forestandwater resourcesin Indiaandtheirimportance.
4. Biodiversity:Definition;importanceofBiodiversity-ecological,consumptive,productive,social,ethicalandmoral,aesthetic,andoptionvalue.
5. Levelsof Biodiversity:genetic,speciesandecosystemdiversity.

Unit-2:Environmentaldegradationandimpacts 10Hrs

1. Humanpopulationgrowthanditsimpactsonenvironment;landusechange,landdegradation,soilerosionanddesertification.

2. Use and over-exploitation of surface and ground water, construction ofdams,floods,conflicts overwater(withinIndia).

3. Deforestation:Causesandeffectsduetoexpansionofagriculture,firewood,minin g,forestfiresand buildingofnew habitats.
4. Non-renewableenergyresources,theirutilizationandinfluences.
5. A brief account of air, water, soil and noise pollutions; Biological, industrial andsolidwastesinurbanareas.Human healthandeconomicrisks.
6. Greenhouseeffect-globalwarming;oceanacidification,ozonelayerdepletion, acidrainsandimpacts onhumancommunitiesandagriculture.
7. Threats to biodiversity: Natural calamities, habitat destruction and fragmentation,over exploitation, hunting and poaching, introduction of exotic species, pollution,predatorandpestcontrol.

Unit3:ConservationofEnvironment 10Hrs

1. Conceptofsustainabilityandsustainabledevelopmentwithjudicioususeofland, waterandforestresources; afforestation.
2. Control measures for various types of pollution; use of renewable and alternatesources ofenergy.
3. Solidwastemanagement:Controlmeasuresofurban andindustrialwaste.
4. Conservationofbiodiversity:In-situandex-situconservationofbiodiversity.
5. EnvironmentLaws:EnvironmentProtectionAct;Act;WildlifeProtectionAct;Fore stConservationAct.
6. International agreements: Montreal and Kyoto protocols; Environmentalmovements:BishnoisofRajasthan, Chipko,Silentvalley.

Suggestedactivitiestolearner:(4hours)

1. Visittoanareatodocumentenvironmentalassets:river/forest/flora/fauna,etc
2. Visittoalocalpollutedsite-Urban/Rural/Industrial/Agriculturalsite.
3. Studyofcommonplants, insects,birdsandbasicprinciplesofidentification.
4. Studyofsimpleecosystems-forest,tank,pond, lake,mangrovesetc.
5. CasestudyofaForestecosystemorapondecosystem.

Suggestedtextbook:

- ErachBarucha (2004) Text book of Environmental Studies for Undergraduatecourses (PreparedforUniversityGrantsCommmission)UniversitiesPress.
- PurnimaSmarath(2018)EnvironmentalstudiesKalyaniPublishers,Ludhiana

Referencebooks:

- Odum, E.P., Odum, H.T. & Andrews, J. (1971) Fundamentals of Ecology.Philadelphia:Saunders.
- Pepper, I.L., Gerba, C.P. &Brusseau, M.L. (2011). Environmental and PollutionScience.Academic Press.
- Raven,P.H.,Hassenzahl,D.M.&Berg,L.R.(2012)Environment.8th editio n.JohnWiley& Sons.
- Singh, J.S., Singh, S.P. and Gupta, S.R. (2014) Ecology, EnvironmentalScienceandConservation.S.ChandPublishing,NewDelhi.
- Sengupta, R. (2003) Ecology and economics: An approach to sustainabledevelopment.OUP.
- Wilson, E. O. (2006) The Creation: An appeal to save life on earth. New York:Norton.
- Groom,MarthaJ., GaryK.Meffe, andCarlRonaldCarroll(2006)Principles ofConservationBiology.Sunderland: SinauerAssociate.

ANDHRAUNIVERSITY
B.VocationalcourseDairying & Animal husbandry
IIYear–SemesterIII2020-21Admittedbatch

ENVIRONMENTAL EDUCATION

(2+0=2)MODEL QUESTION PAPER

Max. Marks: 50 Time: 1½ hrs (90 Minutes)

SECTION-A (4x5M=20Marks)

Answer any four questions. Each answer carries 5 marks (At least 1 question should be given from each Unit)

1.Explain different types of bio diversity.
2.What are the various water resourses? Explain in detail
3.Write about soil erosion.
4.Explain in detail about renewable and non renewableressourses.
5.Write about deforestation.
6.What is green house effect?
7.Write about CHIPKO movement.
8.Explain the management of solid waste.

SECTIONB (3x10M= 30Marks)

Answer any three questions. Each answer carries 10 marks(At least 1 question should be given from each Unit)

1.What is meant by environment, scope and importance
2.India is mega diversity nation - discuss
3.Write a brief note on air, water, soil and noise pollutions.
4.What is the impact of human population on environment.
5.What do you mean by sustainable development and explain the components of sustainability.

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ANDHRAUNIVERSITY
B.VocationalcourseDairyin g & Animal husbandry
IIYear–SemesterIII2020-21Admittedbatch

DISASTERMANAGEMENT

(Credits2+0=2)

LearningOutcomes:

Aftersuccessfulcompletionofthecourse,thestudentsareableto;

1. Understandthenature,causeandeffectsofdisasters
2. ComprehendtheimportanceofDisasterManagementandtheneedofawareness
3. Acquireknowledgeondisasterpreparedness,recoveryremedialmeasuresandpersonalprecautions
4. Volunteerinpreandpostdisastermanagementserviceactivities

Syllabus:

UNIT-I:06hrs

Introduction of Disaster – Different types of disasters- Natural-(flood,cyclone,earthquake,famineandpandemic)-Accidental-(Fire,Blasting,Chemicalleakage, Rail,Aviation, Road boat tragedies and nuclear pollution) – DisasterManagementAct2005

UNIT-II:09hrs

Causes and immediate effects of Disasters – Preparedness of disasters – Precautions – Dissemination of information – Nature and concepts – Role ofNational Disaster Management Authority andRole ofGovernmentand nongovernmental organizations in protecting human livestockand naturalresources.-Useoftechnology-RoleofCitizensandYouthintheprevention.

UNIT-III-09hrs

Postdisastereffects-shortterm-ProceduresforRehabilitationandRecovery – Role ofvolunteers and Safety Precautions – Long term remedial andpreventivemeasures-Collection,filingandstorageofinformation-Casestudies

SuggestedcocurriculumActivities:(06hrs)

1. Invitelecturesbylocalexperts
2. Trainingonpreparedness,postdisasterservices
3. AnalysisofCasestudies
4. Visittoadisastermanagementofficeandfacility
5. Assignments,Groupdiscussion,quizetc.

ANDHRAUNIVERSITY
B.VocationalcourseDairying & Animal husbandry

IIYear–SemesterIII2020-21Admittedbatch
DISASTERMANAGEMENT
(Credits2+0=2)

MODEL QUESTION PAPER

Max marks: 50 **Time: 1hr 30mts**

Section – A

Answer any four(4) questions. Each question carries 5 marks **4X5=20 marks**

1. Define Disaster. How cyclone is caused? Classify cyclones.
2. What is drought? Explain the different management aspects in drought situation.
3. Explain various firefighting methods.
4. Explain the role of citizens and youth in prevention and management of disasters.
5. Write in detail about the post disaster effects of Tsunami
6. What measures are to be taken in protection of livestock during flood and cyclone?
7. Explain in brief about the Disaster management act 2005.

Section – B

Answer any three(3) questions. Each question carries 10 marks3X10=30 marks

1. Write an essay on National disaster management authority (NDMA) of India.
2. What are the various natural disasters? Explain in detail about any two natural disasters.
3. What are the various measures that have to be adopted in prevention of Road and boat tragedies?
4. What are the long term remedial and preventive measures in disaster management?
5. Write an essay on earthquake.

ANDHRAUNIVERSITY
Bachelor of Vocation:Dairying & Animal husbandryIIYear–Semester III
2020-21
AdmittedbatchBASICSOFANIMALNUTRITION
(Credits4+2=6)

UNIT–1

ImportanceofNutrition-CommonDefinitionsinAnimalNutrition-ClassificationofNutrients RoleofDifferentNutrientsinthebodysystems-Water-Carbohydrates-Proteins -Fats-Minerals-Vitamins.

UNIT–2

SpecialconsiderationintheNutritionofdifferentlivestockspecies-Ruminants-Non-ruminants–Poultry.
Carbohydrates-sugars-solublecarbohydrates-crudefibre-Non-starchpolysaccharide.
Energy-Grossenergy-Digestibleenergy-Metabolizableenergy-Netenergy-Starchequivalent.

UNIT–3

ProteinsinAnimalNutrition-Trueproteinandcrudeprotein-Aminoacids-EssentialandNon-EssentialAminoAcids-Biologicalvalues
Lipidnutrition-essentialfattyacids-omegafattyacids.

UNIT–4

MineralsinAnimalNutrition-Majorminerals-Minorminerals
Vitamins-FatSolublevitamins-Watersolublevitamins-Roles,deficiencysymptomsandsourcesofvitamins.

UNIT–5

Compoundfeeds-Feedsupplements- FeedAdditives.
GeneralconsiderationswhileFeedingofvariousspeciesforlivestockproducts-Dairycattleandbuffaloes-SheepandGoat-pigs-Poultry.

PRACTICALS

General acquittance of various equipment in Nutrition laboratory – Hot air oven – KjeldalDigestionandDistillationUnit-Soxhlet Apparatus-Mufflefurnace.
Estimation ofvariousproximateprinciples infeed-Moisture-Crudeprotein-Etherextract-Crudefibre–TotalAsh.
EstimationofAcidInsolubleAsh-Calcium-Phosphorus-
Detectionofcommonadulterantsinfeeds.
Feedformulation- Rationformulation-
practicalexercisesVisittoCattlefeedplantandPoultryfeed plant.

Referencebooks:

1.	Principlesofanimalnutritionandfeedtechnology	D.V.Reddy
2.	Principlesandpracticesofanimalnutrition	JagadishPrasad
3.	Atextbookofanimalnutrition	D.N.verma, kalyani
4.	Basicanimalnutritionandfeeding,	Pond,Wiley
5.	Animalnutrition	Maynord
6.	Principlesofanimalnutritionandfeeds	BANERJEE

ANDHRAUNIVERSITY
BachelorofVocation:Dairying & Animal husbandryIIYear–SemesterIII
2020-21AdmittedbatchBASICSOFANIMALNUTRITION
(Credits 4+2=6)Modelpaper

Time:3hrs Maximum:75marks

SECTION–A

Answerany**FIVE**questions.Eachquestioncarriesfivemarks. (5*5=25)

1. WriteaboutImportanceofwaterintheAnimalBody.
2. WhatarethefunctionsofCalcium,itsdeficiencysymptoms.
3. Whatare theblood forming minerals? Writebriefabouttheirotherfunctions.
4. NametheessentialAminoAcids.
5. DescribeaboutAcidosisinruminants?
6. Whatarethenutrientspresentindifferentproximateprinciplesoffeeds?
7. Writeaboutdifferencediseasescausedduetodeficiencyof B-Complexvitamins.
8. WhatarethefunctionsoffatsintheAnimalBody?Whatareessentialfattyacids?

SECTION–B

Answer**All**thequestions.Eachquestioncarries**TEN**marks (5*10=50)

1. a) Writeabout functions,deficiency symptoms andsources of fat-solublevitamins.

   (or)

   b)Importanceofsaltintheanimaldiet.
2. a)Classifyfeedingredientsandgiveoneexampletoeachcategory.

   (or)

   b)Writeaboutdifferentfeedprocessingmethods
3. a) Draw adiagrammatic representation of feedplant andlabel themwithdifferentareas.

   (or)

   b)Describeaboutfeedingoflayingpoultry.
4. a)Formulateamodelrationforanadultcowweighing400kgBWand8litersmilkyieldwith5%fat.

   (or)

   b)Whatareagoindustrialbyproducts?Givefiveexamplesalongwithsignificanceofeachbyproductinanimalnutrition.
5. a)Writeaboutfeedingofdifferentcategoriesofpigs.

   (or)

   b)Describeaboutdifferenttypesofcommercialpetfoods.

ANDHRAUNIVERSITY
Bachelor of Vocation:
Dairying & Animal husbandry
II Year–SemesterIII
2020-21Admittedbatch
FODDERPRODUCTIONANDCONSERVATION
(Credits4+2=6)

UNIT-1

ImportanceofgrasslandsandfodderinlivestockproductionAgronomicalPr acticesforfodderproduction.

UNIT-2

Importantleguminousandnon-leguminousfoddersindifferentseasons.

UNIT-3

SoilandWaterconservationanddrainageofwaterforfodderproduction.Fodderprod uctionforsmalllivestockunits.

UNIT-4

Structuresforstorageoffeedsandfodders.Scarcityfod dersandpreservationofgreenfodder.

UNIT-5

Recyclingofanimalwashingsandwastesinfoddersproductionanduseofrecyclewaste. cropresiduesandtheiroptimumutilization

PRACTICALS

Visittothefodderfarm.
FamiliarizationwiththevarioustypesoffoddersinAndhrapradeshFamiliariz ationwithvariousfertilizersandmanures.
Collection,preservationandstorageoffeedandfodder;Damagesorlossduringtransferandsto rage;methodstopreventthem.
CostofcalculationsoffodderproductionLive stockwasteutilizationandrecycling.

Referencebooks:

1. ProductionUtilizationandConservationofForageCrops — ASBimbraw
2. FodderproductionandConservation — SeemaMi sra,PremPath ak
3. ProductionTechnologyOfForageAndFodderCrops — Prof.RajuRA
4. Ahandbookforfeedandfodderdevelopment — JambayGy eltshen,Pema Wangda

ANDHRAUNIVERSITY
Bachelor of Vocation
Dairying & Animal husbandry
IIYear–SemesterIII
2020-21Admittedbatch
FODDERPRODUCTIONANDCONSERVATION
(Credits4+2=6)Model paper

Time:3hrs Maximum:75marks

SECTION–A

Answerany**FIVE**questions.Eachquestioncarriesfivemarks. (5*5=25)

1. Whatistheimportanceoflandpreparationforfoddercultivation.
2. Writethestageofharvestofanyfivefoddercrops.
3. Whatisrotationalgrazing?Whatareit'suses?
4. What are the cropresidues commonly fedtoanimals? Why they areimportant?
5. WritebrieflyaboutUrea,DAPandMurateofPotash
6. Writetheseedratesofanyfivefoddercrops.
7. Whatareperennialfoddercrops?Whatistheirimportance?
8. Writeaboutfodderstorage?

SECTION–B

Answer**All**thequestions.Eachquestioncarries**TEN**marks (5*10=50)

1. a)Describesilagemakingindetail.

(OR)

b)GivedetailsofMaizefoddercultivation.

2. a)Whataretheadvantagesofhaymaking?Describehaymakingmethod s indetail.

(OR)

a. WriteaboutUreatreatmentofpaddystraw.

3. a)DescribeHybridNapiercultivation.

(OR)

a. Howtoreducefodderwastageduringcultivation,harvest,trans portation,storageandfeeding.

4. a)Givedetaileddescriptionofgrasslandmanagement.

(OR)

a. WritedetailedcultivationpracticesLucerne.

5. a)Describeaboutmanuresandfertilizersusedinfodderproduction,theirap plicationrateforBajracrop.

(OR)

b)Writeaboutchaffingandchaffcuttersindetail.

ANDHRAUNIVERSITY

B.Vocationalcourse

Dairying & Animal husbandryIIYear–SemesterIII

2020-21AdmittedbatchVETERINARYPUBLICHEALTHANDFOODSAFETY

(Credits4+2=6)

UNIT-1

AimsandscopeofVeterinaryPublicHealth.
Role of veterinarians in public health. One Health concept and initiatives. VeterinaryPublic Healthadministration. Sourcesofcontamination. Principlesand conceptsoffoodhygieneandsafety.

UNIT-2

Milk hygiene in relation to public health. Hygienic and safe milk production practicesincludingstepsforpreventionandcontrolofmilkcontamination,adulterants,antimicrobialresidues,agrochemicals,subclinicalmastitisorudderinfectionsetc..

UNIT-3

Microbial flora of milk and milk products. Milk plant and dairy equipment hygiene.Qualitycontrolofmilkandmilkproducts.MilkhygienepracticesinIndia

UNIT-4

Elementsofmeatinspectionandmeathygienepractices.Pathologicalconditionsassociated with the transport of food animals. Hygiene in abattoirs and meat plants.Detection of conditions or diseases and judgements during ante mortem and postmorteminspection.

UNIT-5

Classificationoflowriskandhighriskmaterialgeneratedinanabattoiranditshygienicdisposal.
Inspectionofpoultryforhumanconsumption.Occupationalhealthhazardsinabattoirandmeatplants.
Foodborne infections and intoxications associated with foods of animal origin. Toxicresidues(pesticides,antibiotics,metalsandhormones)infoodsandassociatedhealthhazard

PRACTICALS

1. Collectionofsamplesforchemicalandbacteriologicalexamination.
2. Grading of milk by dye reduction test, direct microscopic examination andstandard plate count. Quality assurance tests for processed milk and milkproducts.
3. Testsforplantsanitation-Air,waterandequipment.

4. Detectionoforganismsofpublichealthsignificancefromfoodproductsbytechniq ues.
5. Testsfordetectionofmastiticmilk.
6. Ante-mortemandpost-morteminspectionoffoodanimals.
7. Demonstrationordetectionoftoxicchemicalsandcontaminantsofpublicsignific ance frommilkandmeat.
8. Detectionofantimicrobialresiduesinmilkandmeatbymicrobiologicalandanalytic altechniques.
9. Demonstrationofspeciationofmeat

Referencebooks:

1.Textbookofelementsofveterinarypublichealth	A.T.Sherikar, V.N.Bachhil&D.C.Thapliya l

ANDHRAUNIVERSITY
B.Vocationalcourse
Dairying & Animal husbandryIIYear–SemesterIII
2020-21AdmittedbatchVETERINARYPUBLICHEALTHANDFOODSAFETY
(Credits4+2=6)M

odelpaper

Time:3hrs Maximum:75marks

SECTION–A

Answeranyfive**Five**ofthefollowing (5x5=25)

1. Whatarethedifferentspoilagemicrofloraandspoilageconditionsofmilk?
2. Differentiatethesyntheticmilkfromnaturalmilk?
3. Writedifferentabnormalconditionsdetectedinmeat?
4. Enlistdifferentindirecttestsformicrobiologicalanalysisinthedairyindustryandexplainaboutanydyereductiontest?
5. Writeabouttheemergencyslaughterofanimals?
6. Whatarethedifferentadulterantsusedinmilk?Explainmethodofdetectionforanytwocommonlyusedadulterantsatfieldlevel.
7. Whatarethedifferentdiseaseconditionsneedtobeobservedduringpostmorteminspectionofpoultry?
8. Whatarethebasicprinciplesoffoodsafety?

SECTION–B

Answer**all**thequestions.Eachquestioncarries**ten**marks (5x10=50)

1. Classifydifferenttypesoffoodborneillnessanddescribeaboutanymeatborne disease?

or

Whatarethedifferentsourcesofcontaminationinmilkproduction.Describeaboutdifferentstepsinvolvedin Cleanmilkproduction?

2. Enlistdifferentmethodsforidentificationoffraudulentsubstitutionofmeatand explainindetailaboutanymethod?

or

DefineHACCP?WriteabouttheprinciplesofHACCP.

3. Whatarethedifferentoccupationalhealthhazardsencounteredbyslaughterhouseworkersandwriteindetailaboutthepreventivemeasures.

or

Discussindetailaboutdifferentfacilitiesrequiredforantemorteminspection.Whatarethedifferentjudgmentsgiveninantemorteminspection.

4. Defineonehealthandwriteaboutdifferentcomponentsofonehealth.

or

Writeindetailaboutthedifferentmethodsforsafedisposalofabattoirwastes.

5. Whatistheroleofaveterinarianinpromotionofpublichealth?

or

Discussindetailaboutdifferentapproachesyourecommendafarmerregardingsafeandhygienicproductionofanimalbasedfoods(milk,meat&eggs)inyourownwords.

4thSem	1.	Infectiousdiseasesoflivestockand poultry	Core subject	4+2=6
	2.	Veterinaryimmunologyand vaccines	Core subject	4+2=6
	3.	Milkandmilkproductstechnology	Core subject	4+2=6
	4.	Meat productionand abattoirmanagement	Coresubject	4+2=6
	5.	PrinciplesofDairychemistryand Dairymicrobiology	Core subject	4+2=6
	6.	LaboratoryDiagnosticTechniques	Core subject	4+2=6

ANDHRAUNIVERSITY
B.VocationalcourseDairyi
ng & Animal husbandry
IIYear–SemesterIV2020-
21Admittedbatch

INFECTIOUSDISEASESOFLIVESTOCKANDPOULTRY

(Credits4+2=6)

UNIT-1

Itiology,symptoms,diagnosisandtreatmentofvariousViraldiseasesoflivestock,petsa ndpoultry

UNIT-2

Itiology,symptoms,diagnosisandtreatmentofvariousBacterialdiseasesoflivestock,pet sandpoultry

UNIT-3

Itiology,symptoms,diagnosisandtreatmentofvariousParasiticdiseasesoflivestock,pet sandpoultry

UNIT–4

Itiology,symptoms,diagnosisandtreatmentofvariousFungaldiseasesoflivestock,petsa ndpoultry

UNIT–5

Itiology,symptoms,diagnosisandtreatmentofvariousDiseasescausedbyectoparasites oflivestock,petsandpoultry

PRACTICALS

Postmortemexaminationofdifferentdiseasesandtheirinterpretation.Studyofgr ossspecimensandhistopathologicalslidesofvariousorganspertainingtoinfecti ousandnon-
infectiousdiseasesofdomesticanimals.Demonstrationofcausativeagentsintis suesectionbyspecialstainingmethodsanduseofrapiddiagnostictests

BOOKSFORREFERENCE

1. Textbookofpreventiveveterinarymedicine
   Dr.Amalenduchakarvarthi
2. InfectiousdiseasesoflivestockS.V.PunditandV.V.Deshmukh
3. ATextbookOfVeterinarySpecialPathologyInfectiousDiseasesOfLivest ockAndPoultry2005EditionbyVegadJL,IBDCPublishers
4. AdvancedPathologyAndTreatmentOfDiseasesOfPoultryCDN Singh,
5. PoultryDiseasesAGuideforFarmersandPoultryProfessionalsVega dJ.L

ANDHRAUNIVERSITY
B.Vocational courseDairying & Animal husbandry
II Year – Semester IV2020-21Admittedbatch
IINFECTIOUSDISEASESOFLIVESTOCKANDPOULTRY
(Credits 4+2=6)Modelpaper

Time:3hrs Maximum:75marks

SECTION–A

Answeranyone**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. DescribeEtiology,Transmission,Symptoms andcontrolofFootandMouthDisease.
2. DescribeEtiology,Transmission,SymptomsandcontrolofBluetongueinsheep.
3. WritenoteonAscariosisincalves.
4. DescribeindetailaboutTrypanosmiosis(Surra)inlargeruminants..
5. EnlistcommonEndoparasiticdiseasesofbovineandsmallruminants
6. Writedewormingscheduleandprophylacticvaccinationscalendarinlargeruminants.
7. Writeaboutsymptomsofrabiesincattleandcontrol.
8. ListoutcommonViral,BacterialandProtozoandiseasesofcattleandbuffalo.

SECTION–B

Answer**all**questions.Eachquestioncarries**TEN**marks (5*10=50)

1. WriteadetailednoteonHaemorrhagicsepticaemiainbuffaloes.

   (or)

   NarrateBrucellosisincattle.
2. Write in detail about Theileriosis incross breed cattle includingprophylaxis

   (or)

   WriteindetailaboutBabesiosiscattleincluding.
3. ExplainEtiology,Symptoms,lesions,andcontrolofEnterotoxaemia(ET)insheep

   (or)

   ExplainEtiology,Symptoms,lesions,andcontrolofPPRinsheep&Goat.
4. GiveclassificationofAntibioticsusedinveterinarymedicine.

   (or)

   EnlistcommonDewormingdrugsandEctoparasiticideusedinveterinarymedicine.
5. NarrateEtiology,Symptoms,post-mortemlesionsandcontrolofRanikhetdisease(ND)inpoultry.

   (or)

   Explainhowtocontrolinfectiousdiseaseoutbreaksystematicallyatfieldlevel.

ANDHRAUNIVERSITY
B.VocationalcourseDairyi ng & Animal husbandry
IIYear–
SemesterIV<u>VETERINARYIMMUNOLOGYANDV ACCINES</u>

(Credits4+2=6)

<u>UNIT-1</u>

HistoryofImmunology-Lymphoidorgans,tissuesandCells-TypesofImmunity

<u>UNIT-2</u>

Hypersensitivity:classificationandmechanismofinduction;

<u>UNIT-3</u>

Autoimmunity;ImmunotoleranceC

<u>UNIT-4</u>

onceptofImmunitytoMicrobes

<u>UNIT-5</u>

Vaccines-
preparation,storage,safetyandmaintenanceVaccinationschedulesofdiff erentlivestock,poultryandpetanimals.

Practicals

VisitandappraisalofVeterinarybiologicalinstitute.Demo nstrationofvariouslivestockandpetvaccines.
Toattendvaccinationprogrammesinfieldandcommercialpoultryfarms.

<u>Referencebooks:</u>

1. VeterinaryImmunology — IanRTizard,Else vierScience
2. Immunology:BasicConceptsandApplications — Y.Haribabu
3. VeterinaryImmunology:Principles&Practice — Day,Manson Pub
4. VaccinesforVeterinarians — IanRTizard
5. VaccineScienceAndImmunizationGuideline — ROCKWELLP G,SPRINGER

ANDHRAUNIVERSITY
B.VocationalcourseDairyi
ng & Animal husbandry
IIYear–SemesterIV2020-
21Admittedbatch
VETERINARYIMMUNOLOGYANDVACCINES
(Credits4+2=6)Mo
delpaper

Time:3hrs Maximum:75marks

SECTION–A

Answeranyone**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. What are abtibodies? Differentiate between different classes of antibodies.
2. What is the role of thymus, bone marrow, bursa of fabricius in the immune system?
3. write in detail about lymph nodes, location and functions.
4. write in detail about cells of immunity.
5. write in detail about biological barriers.
6. write in detail differences between B & T- Lymphocytes.
7. what is phagocytosis? Explain.
8. write down vaccination schedule in Bovines

SECTION–B

Answer**all**questions.Eachquestioncarries**TEN**marks (5*10=50)

1. Write about different portals of entry of infection and local defense mechanism.
   (or)
   What are different types of immunoglobulins. Write their functions in detail.
2. Write in brief about historical significant achievements in immunology.
   (Small pox vaccine-Edward jenner, Rabies vaccine-Louis pastuer etc.)
   (or)
   Writeindetailabout types of immunity.
3. What is an antigen. Draw diagram of antigen and write down its functions.
   (or)
   Write down vaccination schedule in layers and broilers.
4. What is vaccine. Write in detail about storage, safety and maintenance of vaccines.
   (or)
   Write the differences between live attenuated vaccines and killed vaccines
5. Give a detailed account of vaccination of sheep and goat
   (or)
   What are the different types of hypersensitivity? Give one example for each.

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ANDHRAUNIVERSITY
B.VocationalcourseDairyi
ng & Animal husbandry
IIYear–SemesterIV
MILKANDMILKPRODUCTSTECHNOLOGY
(Credits4+2=6)

UNIT–1

MilkindustryinIndia,milkprocessingunitanditsmanagementCompo
sition&Nutritivevalueofmilk
FactorseffectingcompositionofmilkPh
ysio-chemicalpropertiesofmilk

UNIT–2

Collection,chillingofmilk
Standardisationofmilk-
pasteurisation,homogenisation,bactofugation,dehydrationofmilk

UNIT-3

Introductiontofunctionalmilkproducts.Preparationofcream,butter,paneerorchan
na,ghee,khoa,lassi,dahi,ice-cream,mozzarellacheeseanddairybyproducts.
Commondefectsofmilkproductsandtheirremedialmeasures.

UNIT-4

Packaging,transportation,storageanddistributionofmilkandmilkproducts.Goodmanuf
acturingpracticesandimplementationofHACCPinmilkplant.Organicmilkproducts.

UNIT-5

Foodsafetystandardsformilkandmilkproducts.

PRACTICALS

Visittomodernmilkprocessingandmilkproductsmanufacturingplants.Samplin
gofmilk.estimationoffat,solidnotfat(SNF)andtotalsolids.
Platformtests.Crea
mseparation.
Detectionofadulterationofmilk.Determinationof
efficiencyofpasteurization.
Preparationofmilkproductslikeghee,paneerorchanna,khoa,ice-
creamorkulfi,milkbeverages.

Referencebooks:

1. TextBookonMilk&MilkProducts — RanveerRC,Kamble DK,Patange
2. MILKANDMILKPROCESSING — HerringtonB.L.
3. MilkandMilkProducts — H.VarnamAlan
4. PrincipleofDairyProcessing. — WarnerJamesN

ANDHRAUNIVERSITY
B.VocationalcourseDairyi
ng & Animal husbandry
IIYear–SemesterIV2020-
21Admittedbatch
MILKANDMILKPRODUCTSTECHNOLOGY
(Credits4+2=6)Mo
delpaper

Time:3hrs Maximum:75marks

SECTION–A

Answeranyone**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. Write about composition of milk and also factors effecting composition of milk.
2. Write down physio-chemical properties of milk.
3. Write about collection and chilling of milk.
4. Write about common defects of milk products and their remedial measures.
5. Write down food safety standards of milk and milk products.
6. Expand HACCP and importance of HACCP measures in milk plant.
7. Write about organic milk products.
8. Write in detail about cream separation.

SECTION–B

Answer**all**questions.EachquestioncarriesTEN**marks** (5*10=50)

1. Write in detail about scope of Milk industry in India.

(or)

Write in detail about milk processing unit and its management.

2. Writeindetailabout adulteration of milk and tests for detection of milk adulteration.

(or)

Write in detail about sampling of milk estimation of fat, solid not fat (SNF) and total solids.

3. Write down the procedure of preparation of milk products like ghee, paneer or channa, khoa, ice cream.

(or)

Write down the procedure of preparation of milk products like cream, butter, mozzarella cheese, lassi, dahi .

4. What is Standardization of milk write in detail.

(or)

Write about packaging, transport, storage and milk and milk products.

5. Write in detail about good manufacturing practices of milk.

(or)

Write in detail about platform tests.

ANDHRAUNIVERSITY
B.vocationalcourseDairyi
ng & Animal husbandry
IIYear–SemesterIV2020-
21Admittedbatch

MEATPRODUCTIONANDABATTOIRPRACTICES

(Credits4+2=6)

UNIT-1

ProspectofmeatindustryinIndia.Nutritivevalueofmeat.

UNIT-2

Preservationofmeatandpoultry;drying,salting,curing,smoking,chilling,freezing,canning,irradiationandchemicals.Ageingofmeat.

UNIT-3

Modernprocessingtechnologiesofmeatandmeatproducts.Packagingofmeatandmeatproducts.Formulationanddevelopmentofmeat;kabab,sausages,meatballsorpatties,tandoorichicken,soup,pickles

UNIT-4

Layoutandmanagementofrural,urbanandmodernabattoirs.
HACCP concepts in abattoir management. FSSA standards on organizationand layout of abattoirs. Animal welfare and pre-slaughter care, handling andtransportofmeatanimalsincludingpoultry.

UNIT-5

Procedures of Ante-mortem and post mortem examination of meat animals.Slaughteringanddressingofmeatanimalsandbirds.
Evaluation,gradingandfabricationofdressedcarcasses

PRACTICALS:

Visittoslaughterhousesormeatplants.
Packaging of meat, poultry and shell eggs and their products.Estimationofdeteriorativechangesinmeatandmeatproducts.
Preparation of comminuted and non comminuted meat and poultry products.Evaluation of external and internal egg quality and preservation technique ofeggs
Methods ofritual and humane slaughter, flaying anddressing offoodanimalsincludingpoultry.
Carcassevaluation.
Determinationofmeatyield,dressingpercentage,meatboneratioandcutupparts.
Preparationofdifferentabattoirbyproducts.

Referencebooks:

1. TextbookOnAbattoirPractices&AnimalByproductsTechnologyJSahoo,MKChatli
2. ModernAbattoirPractices&AnimalByproductsTechnologySharma
3. TextBookonAbattoirPracticesandAnimalByProductsTechnologyJhariSahooandManishKumarChatli
4. AbattoirPracticesBy-ProductsAndWoolTechnologyVPSinghandNeelamSachan

ANDHRAUNIVERSITY
B.VocationalcourseDairying & Animal husbandry
IIYear–SemesterIV2020-21Admittedbatch
MEATPRODUCTIONANDABATTOIRMANAGEMENT
(Credits4+2=6)Modelpaper

Time:3hrs Maximum:75marks

SECTION–A

Answeranyone**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. Write in detail about nutritive value of meat.
2. Explain ageing of meat.
3. Write in detail about packaging of meat and meat products.
4. What is HACCP? Write about concepts of HACCP in abattoir management.
5. Explain salting, curing, freezing, canning.
6. Write about evaluation and grading of carcass.
7. Write about slaughtering and dressing of birds.
8. Write about pre-slaughter care of animal and birds.

SECTION–B

Answer**all**questions.Eachquestioncarries**TEN**marks (5*10=50)

1. Write in detail about prospect of meat industry in India.
   (or)
   Write in detail about preservation of meat & poultry.

2. Writeindetailabout modern processing technologies of meat and meat products.
   (or)
   Write in detail about different formulations and development of meat.

3. Whatis the procedure of Ante-mortem examination of meat animals. Write in detail.
   (or)
   Whatis the procedure of Post-mortem examination of meat animals. Write in detail.

4. What are the FSSA standards on organization and layout of abattoirs.
   (or)
   Write about layout and management of rural, urban and modern abattoirs.

5. Write in detail about methods of ritual and humane slaughter, flaying and dressing of food animals.
   (or)
   Write in detail about handling and transport of meat animals and poultry

ANDHRAUNIVERSITY
B.VocationalcourseDairyi
ng & Animal husbandry
IIYear–SemesterIV2020-
21Admittedbatch

PRINCIPLESOFDAIRYCHEMISTRYANDDAIRYMICROBIOLOGY

(Credits4+2=6)

UNIT-1

Nutritional importance – Introduction - Milk Composition Milk Constituents - FactorsAffectingtheCompositionofMilkFlavoursandOff-FlavoursRelatedto Milk NutritiveValueofMilk

UNIT-2

physio-chemicalpropertiesofmilk-Objectives–Introduction-DensityandSpecificGravity-ViscositySurface-Tension-RefractiveIndex

UNIT-3

FreezingPoint-BoilingPoint-SpecificHeat-Acidity-Ph-BufferingActionOxidation-Reduction-preservatives,neutralizersandadulterantsinmilkandtheirdetection-thermalprocessingofmilk

UNIT-4

HeatProcessingofMilk-EffectofHeatonMilk-FreezeProcessingofMilk -EnzymesinRelationtoProcessing

UNIT–5

Introductiontomicrobiology-Microorganismsfoundinmilk-Bacteria-Virus – Fungi – significance of micro organisms in the context of dairyindustry – enumeration of different types of micro organisms commonlyfoundinmilk–theirgrowthcharacteristics.

PRACTICALS:

Assessingthechemicalcompositionofmilksamples.Asse ssingthenutritivevaluesofmilksamples.
Enumerationofdifferentmicroorganismscommonlyfoundinmilk.Usageofp ycnometerandlactometer.
Usageofrefractometer.

Referencebooks:

Jenness RandPatton S.(1959)Principles ofDairy
ChemistryLingE.R.(1956)AtextBookofDairyChemistryVol1&2Londo n.
WebbB.H.andJohnson,A.H(1979)FundamentalsofDairyChemistry,Rai,M.M .(1964)DairyChemistryandAnimalNutrition,
MathurM.P.DattaRoy,D,andDinakar(1999)

ANDHRAUNIVERSITY
B.VocationalcourseDairyi
ng & Animal husbandry
IIYear–SemesterIV2020-
21Admittedbatch
PRINCIPLESOFDAIRYCHEMISTRYANDDAIRYMICROBIOLOGY
(Credits4+2=6)Mod
elpaper

Time:3hrs Maximum:75marks

Section-A

AnsweranyFIVEquestions.Eachquestioncarriesequalmarks. (5x5=25)

1. Givethecompositionofcowandbuffalomilk.
2. Explainindetailphysio-chemicalpropertiesofmilk.
3. Explainindetailaboutfreezingpoint&boilingpointofmilk.
4. Explainhowcolostrummilkisdifferentfromnormalmilk?5.Stat ehydrolyticrancidityanditscontrol.
6. Giveinbriefaboutfactorsaffectingthecompositionofmilk.
7. Explainaboutthermalprocessingofmilk.
8. Enumerateindetaildifferenttypesmicroorganismsfoundinmilk.

Section–B

Answerallthequestions.EachquestioncarriesTENmarks(5x10=50)

1. Indicatethegrowthcharacteristicvariousmicrobesinmilk.
   (or)
   Explainindetailthesignificanceofmicrobesinthecontextofdairyindustry.
2. Writeindetailaboutfreezeprocessingofmilk&effectofenzymesonit.
   (or)
   Writethebacterial&viralcontaminantsofmilk?

3. Whatistheproceduretoassessthechemicalcompositionofmilksamples.
   (or)
   Explainindetailtheusageofpycnometerandlactometer

4. Whatisbufferingaction.Explainindetail.
   (or)
   Explainindetailaboutpreservatives,neutralisersandadulterantsinmilk

5. Whatisheatprocessingofmilk.Explaineffectofheatonmilkindetail.
   (or)
   Explainindetailaboutthedensityandspecificgravityofmilk

ANDHRAUNIVERSITY
B.VocationalcourseDairyin g & Animal husbandry
IIYear–SemesterIV2020-21Admittedbatch

LABORATOARYDIAGNOSTICTECHNIQUES

Credits(4+2=6)

UNIT-1

Microscopeandusageofdifferentmicroscopes.Ster ilizationandmethodsofsterilization.

UNIT-2

Media – various ingredients used for preparation of culture media.Differentmedia for bacterial and fungal cultures. Tissue cultures Various stains anddyesusedfordiagnosticwork.Differentstainingmethods.

UNIT-3

Antigens and antibodies.Serodiagnostic technics used for identification ofantigen/antibody.

UNIT-4

Methodsofpreparationofpermanentslides.Collection,preservationanddespatchof variousmaterialsforparasitologicalexaminations.

UNIT-5

Examinationofparasiticspecimens.Examinationofpathologicalspecimens.Haem atologicalexaminations.Biochemicalanalysis.

PRACTICALS

Identificationofglasswarechemicalsandlaboratoryequipment.Prep arationofnormalandstandardsolutions.
Samplespreparationforchemicalanalysis.
Preparationofslidesforparasiticandpathologicalexaminations.Staini ngproceduresfordifferentspecimans.
Collectionandprocessingofspecimansforclinicalexamination.Clinic alhaematology
Preparationofpermanentslidesandmuseumspecimans.

Referencebooks:

1. VeterinaryLaboratoryDiagnosis — ChauhanRS
2. VeterinaryLaboratoryDiagnosis — Sriraman
3. Veterinary Technician's Handbook of Laboratory ProceduresBrianneBellwoodand.MelissaAndrasikCatton,JohnWiley
4. VeterinaryLaboratoryMedicineClinicalBiochemistryandHae matologyMoragG.Kerr,JohnWiley
5. Veterinaryclinicaldiagnostictechnology — PrasadB

ANDHRAUNIVERSITY
B.VocationalcourseDairyi
ng & Animal husbandry
II Year–
SemesterIV2020-
21Admittedbatch
LABORATORYDIAGNOSTICTECHNIQUES
(Credits4+2=6)Mod
elpaper

Modelpaper

Time:3hrs Maximum:75marks

SECTION–A

Answerany**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. Write about microscope and usage of microscope.
2. Write about different staining methods.
3. Write about different media for bacterial and fungal cultures.
4. Write in detail about antigens and antibodies.
5. Write down the differences between antigen and antibody.
6. Write in detail about hematological examination.
7. Write in detail about biochemical analysis.
8. Write about collection and preservation of specimens.

SECTION–B

Answer**all**questions.Eachquestioncarries**TEN**marks (5*10=50)

1. Write in detail about sterilization and also different methods of sterilization.
(or)
Explain various ingredients used for preparation of culture media.

2. Write in detail about different staining methods.
(or)
Write in detail about different tissue culture stains and dyes used for diagnostic work.

3. Write in detail about examination of parasitic specimens.
(or)
Explainexamination of pathological specimens.

4. Whatare the different serodiagnostic techniques used for identification of antigen/antibody.
(or)
Explainindetailaboutpreparation of permanent slides.

5. Write about collection and processing of specimens for clinical examination.
(or)
Explainindetailaboutstaining procedures of different specimens.

5thSem	1.	Veterinarypharmacology	Coresubject	4+2=6
	2.	DairyPlantManagement	Coresubject	4+2=6
	3.	FundamentalsofVeterinarymedicine	Coresubject	4+2=6
	4.	Clinical practice	Coresubject	4+2=6
	5.	BasicsofVeterinarysurgery	Coresubject	4+2=6
	6.	VeterinaryGynaecology,obstetricsandAI	Coresubject	4+2=6
			Total	**24+12=36**

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VETERINARYPHARMACOLOGY

Credits(4+2=6)

UNIT-1

Introduction,historicaldevelopment,branchesandscopeofPharmacology.Sourcesandnatureofdrugs.Pharmacologicaltermsanddefinitions,nomenclatureofdrugs.

UNIT-2

Principlesofdrugactivity:Pharmacokinetics-Routesofdrugadministration,absorption,distribution,biotransformationandexcretionofdrugs.

UNIT-3

Pharmacodynamics-Conceptofdrugandreceptor,dose-responserelationship,terms relatedtodrug activity and factors modifying the drugeffectanddosage.Adversedrugreactions,druginteractions

UNIT-4

Classification of drugs. History, mechanism and stages of generalanaesthesia. Inhalant, intravenous and dissociative anaesthetics.**UNIT-5**

Hypnoticsandsedatives;psychotropicdrugs,anticonvulsants,opioidanalgesics,non-steroidalanti-inflammatorydrugs,analepticsandotherCNSstimulants.Localanaesthetics,musclerelaxants.Euthanizingagents.
Fluidtherapy.

PRACTICALS

Handlingandwashingoflaboratorywares.
Handlingandoperationofcommonlyusedlaboratoryinstruments.Conceptofgoodlaboratorypractices(GLP).
Pharmacyappliances.Principlesofcompoundinganddispensing.Metrology,systemsofweightsandmeasures,pharmacycalculations.Pharmaceuticalprocesses.Pharmaceuticaldosageforms.
Prescriptionwriting,incompatibilities.

Referencebooks:

1. VeterinaryPharmacology — Vallachira Aravindan
2. EssentialsOfVeterinaryPharmacologyAndTherapeutics — HS Sandhu

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VETERINARYPHARMACOLOGY
Credits(4+2=6)M

odelpaper

Time:3hrs Maximum:75marks

SECTION–A

Answerany**FIVE**questions.Eachquestioncarriesequalmarks.(5X5=25)

1. Writeaboutmusclerelaxants.
2. Describeindetailaboutdifferentstagesofgeneralanaesthesia.
3. Writeinbriefabouteuthanizingagents.
4. Writeashortnotesonantitussives.
5. Describeindetailaboutantidiarrhoealdrugs.
6. Writeashortnoteaboutbronchodilators
7. Writeaboutnonsteroidanti-inflammatorydrugsindetail.
8. Classifyantiparasiticdrugs.

SECTION–B

Answer**All**thequestions.Eachquestioncarries**TEN**marks (5X10=50)

1. a.Writeaboutdifferentroutesofdrugadministration.

(or)

b.writeaboutdifferentfactorswhicheffectdrugaction.

2. a.classifyintravenousanaesthetics,localanaesthetics

(or)

b.writeaboutfluidtherapy.

3. a.Explainindetailaboutadversedrugreactions.

(or)

b.classifydifferenttypesofpurgatives.

4 a.Giveclassificationofpencillinsindetail.

(or)

b.classifyaminoglycosidesindetail.

5 a.writeindetailaboutbiotransformationandexcretionofdrugs.

(or)

b.writeindetailaboutdrugandreceptor,drug-doseresponse

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DAIRYPLANTMANAGEMENT

(Credits4+2=6)

UNIT-1

Dairyequipmentforfluidmilkprocessing–Introduction-TheDairyPlant-MilkCollectionorChillingCentre-MilkReceptionandStorage-PasteurizerandSterilizer-HomogenizerandCentrifuges-PackagingandFilling-Clean-in-place(CIP)-CleaningSystem.

UNIT-2

Dairyequipmentforproductsprocessing-Objectives–Introduction-Butterand Cheese Making Equipment -Ice-Cream Making Equipment - EvaporatorsandDryers.

UNIT-3

GheeMakingEquipment-KhoaMakingEquipment-DahiandLassiMakingEquipment-Paneer,Chana&CaseinMakingEquipment

UNIT-4

Materials their characteristics and selection of equipment – Objectives – Introduction-TypesofMaterials-PropertiesofMaterials-Corrosionandits Prevention -Choice of Materials - Milk Handling and ProcessingEquipment - SelectionofUtilities

UNIT-5

Preventivemaintenanceofdairyplantsandmachineries-PrinciplesofPreventiveMaintenanceDevelopmentofPlantMaintenanceProgramme-GuidelinesforEffectiveLubrication-CareandCleaningofSSSurface-CareofPipesandFittings-MaintenanceofRubberandGasketsDairyBuildingSanitationDairyeffluentmanagement.

PRACTICALS:

VisittomilkcollectioncentreVisitto milkchillingcentre.
Visittovariousunitsofdairyplant.
Handsontraininginpreparationofvariousmilkproducts.Handling ofdefferentdairyequipment

REFERENCEBOOKS:

AhmadTufail.(1990).DairyPlantSystemsEngineering.KitabMahalPublisher,Allahabad.
AnantakrishnanC.P.andSimhaN.N.(1987).DairyEngineeringTechnologyandEngineeringofDairyPlantoperation

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DAIRYPLANTMANAGEMENT
(Credits4+2=6)Mod
elpaper

Time:3hrs Maximum:75marks

Section-A

AnsweranyFIVEquestions.Eachquestioncarriesequalmarks. (5x5=25)

1. Describefactorsforestablishingadairyplant.
2. Namethefacilitiesavailableatthecollectioncentre?
3. Whatarethetimeandtemperaturecombinationsofsterilizationproce ss?
4. Whatistheprincipleofcentrifugation?
5. Explaintheoperationofchurn.
6. Explainprocessdifferenceindahiandlassimaking.
7. Howdowepreventcorrosionofmetals?
8. WriteindetailaboutDairyeffluentmanagement?

Section–B

AnswerallthequestionsEachquestioncarriesTENmarks.(5x10=50)

1. A)Whatarethebasicequipmentusedinadairyplant?
   (or)
   B)Writevarioussectionsofadairyplant.

2. A)Describethedifferencesbetweenaseparatorandaclarifier.
   (or)
   B)Explaintheworkingofacontinuousfreezer.

3. A)Explaintheworkingofspraydryerusedformilk.
   (or)
   B)Givetheworkingofahomogenizerandexplainwhataretheadvantagesofhom ogenization.

4. A)Explaintheworkingofmultipurposeprocessvatusedfordahimaking .
   (or)
   B)Explaintheequipmentusedformakinggheeandkhoa.
5. A)Distinguishbetweeninternalcheckupandmajoroverhaul.
   (or)
   B)Describetheimportanceofproperselectionofdairyequipment.

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FUNDAMENRTALSOFVETERINARYMEDICINE

Credits (4+2=6)

UNIT–1

HistoryandscopeofVeterinaryMedicine,conceptofanimaldiseases. Conceptsofdiagnosis,differentialdiagnosis,treatmentandprognosis.

UNIT–2

Generalsystemic states,hyperthermia, hypothermia,fever,shock,allergy,oedema,coma.

UNIT–3

Etiology,clinicalmanifestations,diagnosis,treatmentof diseases of digestive system, respiratory system, cardiovascular system and urinary system

UNIT–4

Etiology, clinical manifestations, diagnosis, treatment of diseases ofnervous,musculoskeletal,haemopoietic system and skin.

UNIT–5

Deficiency diseasescausedbydeficiencyofiron,copper,cobalt,zinc,manganese,selenium,calcium,phosphorus,magnesium,iodine,vitamin A,D,E,Bcomplex,KandC.

PRACTICALS

Collectionofhistoryandgeneralclinicalexamination.
Collection,preservation,packinganddispatchofsamplesfromclinicalcases.
Nasogastricand orogastric intubationin animals.
Gastricandperitoneallavage.
Collectionandexaminationofcerebrospinalfluid.BloodtransfusionMethods ofmedication

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IIIYear–SemesterV2020-21Admittedbatch

FUNDAMENRTALSOFVETERINARYMEDICINE

(Credits4+2=6)

Modelpaper

Time:3hrs **Maximum:75marks**

SECTION–A

Answeranyone**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. Definefeverandlistoutcommoncausesoffeverinlivestock.
2. Writeanoteonetiology, symptoms and treatment of anaemia?
3. Writeaboutcausesofvomitings and its treatment
4. Writeanoteonshock in animals
5. Writeaboutpica-causes,symptomsandtreatment.
6. WriteaboutricketsandOsteomalacia.
7. Writeaboutcommoncausesofitching/pruritisindogs?
8. Describeclinicalsignsofaspiration pneumonia andit'streatment?

SECTION–B

Answer**All**thequestions.Eachquestioncarries**TEN**marks(5*10=50)

1. Writeadetailednoteonpericarditis incattle.

(or)

Writeadetailednoteoncongestive heart failure inbuffaloes.

2. Writeadetailednoteoncausesofcolic?

(or)

Writeadetailednote on blood transfusions?

3. WriteindetailaboutAcute renal failure?

(or)

WriteaboutHaematuria and urinary incontinenceinbovines?

4. WriteadetailednoteonSimpleindigestionandit'streatmentinbovines?

(or)

Writeanoteoncauses,Symptomsandtreatmentofallergic dermatitis?

5. Enlistthedeficiency diseases caused by deficiency of vitamins and discuss in detail of any two?

(or)

Writeaboutconcept of diagnosis, differential diagnosis, & treatment?

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VETERINARYCLINICAL PRACTICE

Credits (4+2=6)

UNIT-1

History and scope of veterinary medicine.Case historyDehydration, Fluid therapy

UNIT-2

Acid indigestion, Alkaline indigestion, Impaction
Bloat
Bovine ketosis
Mastitis
Milk fever
White scours
Poisoning

UNIT-3

Repeat breeding
Pyometra
Dystocia
Prolapse
Retention of placental membranes

UNIT-4

Wound management
Abscess
Maggot wound
Evisceration of eye balls
Medial patellar desmotomy
Horn amputation
Rumenotomy
C- section

UNIT-5

Preparation of animal for surgery
Post surgical management

PRACTICALS

Disinfection
Sterilization
Diagnosis
Differential diagnosis
Systemic diseases in large animals
Metabolic diseases in large animals

Referencebooks:

1. TextbookofclinicalveterinarymedicineDr.Amalenduchakravarthi
2. Smallanimalinternalmedicine Ettinger
3. Largeanimalinternalmedicine BradfordandSmith
4. Handbookforveterinaryclinicians
   Dr.A.U.BhikaneandDr.S.B.Kawitkar
5. Ahandbookforveterinaryphysician V.P.Sapre

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VETERINARYCLINICAL PRACTICE
(Credits4+2=6)
Modelpaper

Time:3hrs Maximum:75marks

SECTION–A

Answerany**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. Write in detail about scope of veterinary medicine..
2. Write in detail about bloat.
3. Write about case history.
4. Write about poisoning in animals.
5. Discuss in detail aboutabscess.
6. Write about preparation of animal for surgery.
7. Discuss post surgical management.
8. Write in detail about maggot wound in large animals.

SECTION–B

Answer**All**thequestions.Eachquestioncarries**TEN**marks(5*10=50)

1. Writein detail about fluid therapy

   (or)

   Discussabouthistory of veterinary medicine

2. Writeaboutmastitis, causes, clinical symptoms, diagnosis, treatment and prevention?

   (or)

   Writeabout acid digestion, causes, clinical symptoms, diagnosis, treatment?

3. Writeabout repeat breeding, causes, clinical symptoms, diagnosis, treatment?

   (or)

   Writeabout pyometra, causes, clinical symptoms, diagnosis, treatment

4. Write about milk fever, causes, clinical symptoms, diagnosis, treatment

   (or)

   Write about horn amputation in large animals

5. Write aboutprolapse, causes, clinical symptoms, diagnosis, treatment

   (or)

   Writeaboutvarioustypesofwoundsinanimals

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IIIYear–SemesterV2020-21Admittedbatch

BASICSOFVETERINARYSURGERY

Credits(4+2=6)

UNIT-1

Introduction:Historicalperspective,Definitions.classificationofsurgery.Tenetsof Halsted.

UNIT-2

History taking, physical examination.Pre-operative, intra-operative and post-operative considerations

UNIT-3

Sterilizationanddisinfection:Definitions,surgicalsterilization,variousmethodsofsterilization(Heat,chemicalandradiationsetc.),disinfections.**UNIT-4**

Sutures:Definitions,suturing,factorsinfluencingsuturing,characteristicsofanidealsuturematerial,typesofsuturematerial-absorbableandnon-absorbable,surgicalknots,varioussuturepatterns-apposition,eversion,inversionandspecial.

UNIT-5

Basicsurgicalaffections:Definitions,classification,diagnosisandtreatmentofabscess, tumour, cyst,hernia,haematoma, necrosis, gangrene,burn andscald,frostbite. Haemorrhage and hemostasis.
Fractures.
Majorsurgeriesofcattleanddogs.

PRACTICALS

Introductiontolayoutofoperationtheatreandsurgicalunit.Introductionofcommonsurgicalequipmentandinstruments.Suturematerials,surgicalknotsandsuturepatterns.
Generalexaminationofsurgicalpatients.Preparationofsurgicalpatients.Other operationtheatreroutineslikesterilization,preparationoftheatre,Surgeonandsurgicalpack.
Bandaging and basic woundmanagement Demonstration(orAudio visualaids)ofsurgery,controlofhaemorrhageandsuturing

Referencebooks:

ATextbookOnVeterinarySurgeryandRadiology S.KNANDIEssentialsofVeterinarysurgery VenugopalanS
Dollor'sVeterinarysurgery OconnorJJ
Veterinarysurgery ERFrank
VeterinarySurgery SpencerAJohnston

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BASICSOFVETERINARYSURGERY
Credits(4+2=6)Mod

elpaper

Time:3hrs Maximum:75marks

SECTION–A

Answeranyfive**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. Halstedprinciplesofsurgery
2. Whatisanabscessandhowitisdifferentiatedfrom Cyst,Haematoma,Tumourandhernia.
3. Writeindetailaboutpreparationofpatientbeforesurgery?
4. Definesterilization?Writeindetailaboutvariousmethodsofsterilization.
5. Writeindetailaboutpostoperativecareofanimal.
6. Classify wounds?List outthe factors responsible for delayedwoundhealing.
7. Explain various types of surgeries in animal practice.

SECTION–B

AnswerAllthequestions.EachquestioncarriesTENmarks (5*10=50)

1.a.Nonabsorbablesyntheticsuturematerials

(or)

b.Explain the four phases of wound healing.

2.a.Differentmethodsofhaemostasis

(or)

b.writeindetailaboutfracturesandalsoclassifythem.

3.aTreatmentforBurns

(or)

b.List out various surgical instruments and their uses.

4.awritedownvarioussurgicalaffectionsofpelviccavityofdog

(or)

b.What is hernia? Explain the procedure for operation of umbilical hernia.

5.a.writedownvarioussurgicalaffectionsofabdominalcavityofcattle

(or)

b.writeindetailaboutabsorbablesuturingmaterial

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ng & Animal husbandry
IIIYear–
SemesterV2021-
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VETERINARYGYNAECOLOGY,OBSTETRICSANDAI
Credits(4+2=6)

UNIT-1

Anatomyoffemaleandmalereproductivetractoflivestock.Pubertyan dsexualmaturity.

UNIT-2

Oestrouscycleandfactorsaffectingthelengthoftheoestrouscycle, problemsinoestrusdetectionandoestrusdetectionaids.

UNIT-3

Pathologicalaffectionsofovary,uterinetubes,uterus,cervix,vaginaand externalgenitalia.

UNIT-4

Pregnancydiagnosis-Durationofpregnancy-
Factorsaffectinggestationlength.

UNIT-5

Careandmanagementofpregnantanimals.Stagesofparturition.Formsof femaleandmaleinfertilityinbovines.
Artificialinseminationtechniquesinfarmandpetanimals

PRACTICALS

StudyoffemaleandmalegenitalorgansusingslaughterhousespecimensOestrusdetecti oninfarmanimals
TechniquesofrectalpalpationoffemalereproductivetractGyna ecologicalequipmentandinstruments
VaginalexfoliativecytologyandvaginoscopyAIe quipmentandtechnique
Vasectomyandcastration
HandlingandmaintenanceofLN2containers

Referencebooks:

1. Veterinaryobstetricsandgenitaldiseases
   StephenJ.Roberts
2. Appliedveterinarygynaecologyandobstetrics
   Dr.Pradeepkumar
3. Veterinaryreproductionandobstetrics
   GeoffreyH.Arthur
4. VeterinaryReproductionandObstetrics DavidE.Noakes,Timothy J.Parkinson&GaryC.W.

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IIIYear–SemesterV
2021-Admittedbatch

VETERINARYGYNAECOLOGY,OBSTETRICSANDAI
(Credits4+2=6)
Modelpaper

Time:3hrs Maximum:75marks

SECTION–A

Answerany**FIVE**questions.Eachquestioncarriesequalmarks. (5*5=25)

1. Writeindetailregardingfactorseffectinggestationallength.
2. Explainregardingfactorsthatinfluencepubertyandsexualmaturity.
3. Writeaboutdifferenttechniquesusedforpregnancydiagn osisinanimals.
4. Discussindetailaboutestruscycleinbovines.
5. Writeaboutthe pathological affections of ovary in cow?
6. Drawthediagramofbuffaloe'sfemalereproductivetract.
7. Discussaboutprocedureofartificialinseminationincattle.
8. Enumerate gestational periods in different species and define the term Gestation

SECTION–B

Answer**All**thequestions.Eachquestioncarries**TEN**marks(5*10=50)

1. A)Writeindetailaboutfactorseffectinggestationlenth.
   (or)
   B)Writeabouttechniqueofvaginalexfoliativecytologyinbitches.
2. A)Discussaboutcareandmanagement of
   Pregnant animals
   B)Explainaboutstagesofparturitionincattle.
3. A)Discussaboutestrusdetectionaidsusedforcattle.
   (or)
   B)WriteabouthandlingandmaintenanceofLN2containers.
4. A)DiscussindetailregardingImpotentiagenerondi
   (or)
   B)Discuss in detail about the estrous cycle in bitches.
5. A)Discussindetailabout pathological affections of uterus?
   (or)
   B)Drawdiagramsofdifferentcellsexposedduringvaginalcytologyin bitches.

6thSem	1.	InternshipinVeterinary dispensaries	**Fieldwork**	0+6=6
	2.	VisakhaDairy		0+2=2
	3.	Zoologicalpark		0+2=2
	4.	Avianhatchery		0+3=3
	5.	Mechanisedslaughterhouse		0+2=2
	6.	Pigbreedingstation		0+2=2
	7.	Cattlefeedmixingplant		0+2=2
	8.	Animalbirthcontrolprogramme		0+3=3
			Total	**0+22=22**

1. **INTERNSHIPINVETERINARYDISPENSARIES**:Aspartoffieldworkstudents will be allotted to different veterinary dispensaries.They will havehands ontraining in respect of treatment of ailing animals, all surgical andgynaecological procedures, preventive vaccination programmes etc.They willalso have acquaintance with all the calendar of operation of AH department.Theywillmaintaincaserecordsofallthecasesattendedfortreatment.

2. **VISAKHADAIRY**:Studentswillbeinvolvedinalldairyoperationsfromcollection of milk from the villages, transportation of milkto bulk milk chillingcentres,processing,packaging,distributionandinpreparationvariousmilkproducts.Besidestheywillbeinvolvedinmarketingofmilkandmilkproducts.

3. **ZOOLOGICAL PARK**:In the zoological parkstudents willbe appraisedondifferent procedures that will be adopted in relation to captive, wild and zooanimals.Various managemental and feeding practices of zoo animals will bedealtthoroughly.

4. **AVIANHATCHERY:**Studentswillhaveexposureinoperatingpoultryincubatorsandhatchers.Theywillalsogainknowledgeofvariousprocedures that are being adopted in avian hatchery from setting of eggs inincubatorstohatchingofchicks.

5. **MECHANISED SLAUGHTER HOUSE:**Students will havehandsontraininginhumaneslaughterofanimals.Variousproceduresfollowedin mechanised

slaughterhousewillbedealtthoroughly.Theywillhaveacquaintancewithvariousmachineriesinmechanisedslaughterhouse.

6. **PIG BREEDING STATION:**The breeding operations that are being followedand the problems that are encountered in pig breeding will be dealt in thiscomponentof field work. Thevarious remedial measures that arepracticedineffectivepigbreedingandinreducingpigletmortalitywillbestudiedthoroughly.
7. **CATTLE FEED MIXING PLANT:**Students will have exposure in formulationandpreparationofvariousrationspertainingtolivestock.Theywillhaveacquaintance with the machinery of feed mixing plant. Will acquire knowledgeofprocuringrawmaterialanddifferentfeedingredientsusedforpreparingfeedfordifferentpurposes,differentspeciesanddifferentagegroups.

8. **ANIMALBIRTHCONTROLLPROGRAMME:**Theknowledgeonstandardoperating procedures(SOPs) as specified by the Animal welfare board of Indiafor conducting animal birth control programme will be imparted.Students willhave exposure in humane catching of stray dogs, their housing, preoperativeactivity,conducting birthcontrol operation,post operativecare and relocatingthedogsintheiroriginalplaces.

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