



ODISHA STAFF SELECTION COMMISSION
Barrack No.1, Unit – V, Bhubaneswar – 751054

Advertisement No.IIE-92/2018- 4754/OSSC;

Date: 31.12.2019

COMBINED RECRUITMENT FOR THE POST OF ASSISTANT FODDER DEVELOPMENT OFFICER AND SENIOR LABORATORY ASSISTANT ON CONTRACTUAL BASIS UNDER DIRECTOR OF ANIMAL HUSBANDRY & VETERINARY SERVICES, ODISHA, CUTTACK.

POST CODE-AFDO/107 & SLA/60

(WEBSITE:-www.oss.gov.in)

1. IMPORTANT INSTRUCTION:

- Online Applications are invited from intending candidates to fill up 02 vacancies in the post of Assistant Fodder Development Officer & 02 vacancies in the post of Senior Laboratory Assistant under Director of Animal Husbandry & Veterinary Services, Odisha, Cuttack on contractual basis.

Mode of apply	Applications will be received through online mode only through the website www.oss.gov.in . No physical copy/hard copy of the online application form need to be submitted by the applicant.	
	Start Date	End Date
Online Registration	31.03.2021	30.04.2021
Online Payment of Examination Fee	31.03.2021	30.04.2021
Submission of Online Application	31.03.2021	07.05.2021

- Candidates must register their valid E-mail Id and Mobile no. while applying for the post and keep the same active till completion of the recruitment process to receive important messages from the Commission relating to recruitment.
- Before applying for the post the candidates must go through this advertisement uploaded in the website of the Commission and on satisfying the eligibility criteria prescribed may apply for the post through online mode only. Application(s) received through any other mode shall not be entertained by the Commission.
- Candidates applying for Assistant Fodder Development Officer must have passed B.Sc (Agriculture) from any recognized University.
- Candidates applying for Senior Laboratory Assistant must have passed Bachelors Degree in Science (PCM/CBZ)/Bachelors Degree in Pharmacy from any recognized University.
- The appointment for both the posts will be initially on contractual basis carrying a consolidated pay of Rs.16,880/- per month(for 1st year) as per Odisha Group-B Posts (Contractual Appointment) Amendment Rules, 2017 notified vide Government in GA Department Notification No. GAD-SC-RULES-0037-2017-19569/Gen. Dtd. 12th Sept. 2017.
- Candidates must not below 21 years and must not exceed 32 years of age as on 1st January of 01.01.2019 to be eligible to apply for both the posts with usual age relaxation for SEBC/SC/ST/Women/PwD/In-Service/Ex-Servicemen candidates as per relevant rules of Govt. in force.
- There shall be combined recruitment for both the posts. There is no vacancy for UR category. ST & SEBC candidates may apply for the post of Assistant Fodder Development Officer whereas SC & ST candidates may apply for the post of Senior Laboratory Assistant as per their educational qualification required for the posts.

- **In-service contractual candidates claiming benefits under the Contractual Appointment Rules will also have to follow the advisory notice published vide No.3568/ dtd.01.11.2019 available in the Commission's website.**
- **Candidates must submit correct data /information in the Online Application Form basing on which the candidate shall be allowed to appear the examination. If at any stage of recruitment or thereafter, it is found that any information furnished by the candidate in his/her online application is false/incorrect or the candidate has suppressed any relevant information or the candidate otherwise does not satisfy the eligibility criteria prescribed for the post, his/her candidature for the post will be cancelled forthwith.**

2. How to apply:

- a. **The applicants have to go through the detail advertisement before filling up the online application form.**
- b. Aspirants have to apply online using the official website of the Commission "www.osscc.gov.in."
- c. All eligible candidates have to register themselves by clicking on "APPLY ONLINE" button in the Home Page of the Commission's website www.osscc.gov.in.
- d. That candidate who is applying for the first time have to register for the post by clicking on "NEW USER" button shown on the screen. **On Submitting the registration form a User Id and Password will be generated.**
- e. On clicking "New user" or "Registered User" instructions for filling up the Online Registration/Re-registration and Application Forms shall appear on the computer Screen. These instructions are to be read carefully before proceeding for filling up the Application Form.
- f. Step by step procedure for registration/registration can be viewed by clicking on "Instruction to fill up Online Application". These instructions are to be read carefully before proceeding for filling up the Application Form.
- g. **Pre-requisites for filling up Online Application Form**
 - Applicants should possess and maintain an E-mail Id and Mobile Number for accessing the OSSC web portal and to make Online Registration/Re-Registration and Application Form. **Candidates should keep those E-mail Id and Mobile Number (given during registration) active for all important communication till publication of the final result of this recruitment exam.**
 - Recent Passport size Colour Photograph of the Applicant, scanned in "jpg/jpeg" format between ranges of 20 kb to 100kb shall be kept handy for uploading during Registration for any post.
 - Full Specimen Signature & Left /Right Thumb Impression of the Applicant, scanned in "jpg/jpeg" format between ranges of 20 kb to 50kb shall be kept handy for uploading during Registration.
 - Applicant shall keep their Certificates, Mark sheets & other documents ready as per Clause-7 of the advertisement while filling in the details of the educational qualification & other claims during filing of Online Application Form.
 - Applicants should enter the Aadhar number in the appropriate field in the online application form.
 - SC/ST/SEBC category candidates need to submit detail information of online Caste Certificate issued by competent Authority in the online application form. But if the valid

online Caste Certificate issued by the competent Authority is not in possession with the candidate at the time of submission of the online application form, he/she must give self declaration in the format appended to the online application form.

- Applicants claiming age relaxation under “**Ex-Serviceman**” category need to upload any one of the Ex-Servicemen Documents i.e. **Discharge Certificate/ Identity card/ PPO (wherein the date of entry, date of discharge and period of service rendered in Defence Forces have been reflected)**. The scanned document must be in “Pdf” format between ranges of 100kb to 500 kb.
- Candidates claiming age relaxation under “**PwD (Persons with Disabilities)**” category need to upload a valid online **PwD** certificate issued by **Unique Disability Identification (UDID)**. The scanned document must be in “Pdf” format between ranges of 100kb to 500 kb.
- **In-service contractual employees in Government Offices** claiming age relaxation up to 45 years (as on 01.01.2019) as per Govt. in G.A. Department Notification No.GAD-SC-Rules-0061-2013-1147/Gen dtd.17.01.2014 & Notification No.GADSC-Rules-0009-2013/32010/Gen dtd.12.11.2013 and who have completed minimum one year of continuous service prior to commencement of Odisha Group- B/ Group-C& D posts Contractual Appointment Rules, 2013 must possess the required certificate issued by the concerned employer in the proforma prescribed by the Commission vide Advisory Notice No.3568/OSSC dated 01.11.2019 available in the website of the Commission www.oss.gov.in. They shall have to fill the detail information like Name of the Employer, Scheme of appointment, date of appointment, whether covered under Category-I/Category-II (as per clause-8 of Odisha Group-B/Group-C & D Contractual Appointment Rules-2013), FD Approval/Concurrence No. in the online application form and candidate has to produce the originals during Certificate Verification for consideration of his/her claim under Contractual in-service benefits.

The candidate should ensure that the scanned Photograph and full Specimen Signature, Left/Right Hand Thumb Impression and other relevant documents must be clearly identifiable/ visible, otherwise the registration and application shall be liable for rejection and no correspondence on this account shall be entertained.

3. Vacancies to be filled up and reservations:

As per requisition placed before the Commission by the Director of AH & VS, Odisha, Cuttack, the category-wise break-up of the different posts to be filled up through this recruitment are as follows.

3. (a) Vacancy position

Sl. No	Name of the Post	Vacancy details					Vacancies for Special Categories		
		SC	ST	SEBC	UR	Total	EX-SM	PwD	Sports Person
1	Assistant Fodder Development Officer	-	01 (w-nil)	01 (w-nil)	-	02 (w-nil)	-	-	-
2	Senior Laboratory Assistant	01 (w-nil)	01 (w-nil)	-	-	02 (w-nil)	-	-	-

3. (b) There is no vacancy reserved for Special Categories such as PwD/ Ex-Servicemen/ Sports Person. **However, the Ex-Servicemen/ PwD candidates belonging to ST & SEBC category may avail age relaxation to apply for the post of Assistant Fodder Development Officer and Ex-Servicemen/ PwD candidates belonging to SC & ST category may avail age relaxation to apply for the post of Senior Laboratory Assistant.**

- i. PwD candidates having disability of 40% or more in the Benchmark Disability of **Deaf & Hard of Hearing with suitable aid and Low Vision** are eligible to apply for the post of **Assistant Fodder Development Officer** by availing age relaxation as per Clause-8 of SSEPD Resolution No.7140 dated 05.09.2017.
- ii. PwD candidates having disability of 40% or more in the Benchmark Disability of **Deaf & Hard of Hearing with suitable aid** are eligible to apply for the post of **Senior Laboratory Assistant** by availing age relaxation as per Clause-8 of SSEPD Resolution No.7140 dated 05.09.2017.

3. (c) Provision of assistance of Scribe

PwD candidates who have not less than 40% disability and have limitation in writing shall have the option to use his/her own scribe with due permission of the Commission. The intending candidates have to give option for scribe in the online application form and have to submit the required certificate in prescribed format at Annexure-I and Annexure-II appended to this advertisement.

3. (d) The number of vacant posts to be filled up on the basis of this recruitment is subject to change without any prior notice as per discretion of the Commission/ Requisitioning Authority/ Government.

4. Remuneration & Condition of Service:-

The appointment to both the posts will be initially on contractual basis carrying a remuneration of Rs.16,880/- per month (for 1st year) as per **Odisha Group-B posts (Contractual Appointment) Amendment Rules,2017 notified by Government in G.A. Department Notification No.19569/Gen. Dtd. 12th Sept. 2017** and Condition of Service will be guided by the Odisha Group-B Posts (Contractual Appointment) Rules, 2013 notified vide Govt. in G.A. Department Notification No. GAD-SC-Rules-0061-2013-1147/Gen dt.17-01-14 and amended update and other Recruitment Rules in force.

5. Eligibility:

5. a. Age:

- i. The minimum age for both the posts is 21 years and the maximum age is 32 years as on 01.01.2019. The upper age limit is relaxable by 5 years for candidates belonging to SC, ST, SEBC & Women candidates, 10 years for candidates belonging to PwD category & the total period of service rendered in Defence Services in case of Ex-servicemen. **To be eligible, candidates not enjoying any relaxation of upper age limit must not have been born earlier than 2nd January, 1987 and not later than 1st January 1998.**
- ii. PwD candidates in the ST & SC category shall be entitled **to cumulative age relaxation** of ten years over & above the normal relaxation specified for the category. However, a candidate can only avail one type of age relaxation as per rule.
- iii. The persons in Defence Forces having more than six months to retire/ discharge from the forces as on the last date of the submission of online application are not eligible to apply as Ex-serviceman for the post. The Ex-Servicemen who are going to retire within six months

from the closing date of online application may apply for the post by obtaining relevant **no objection certificate** from the appropriate authority mentioning therein the date of appointment, date of retirement and years of service rendered in Defence Forces. However such candidates have to submit the discharge certificate on the date of certificate verification for considering their claims of age relaxation under Ex-Serviceman category.

Border Security Force, Indian Coast Guard, CRPF and other Para Military Forces are not within the definition of Ex-Servicemen.

iv. The upper age limit is relaxable for in-service contractual employees engaged by the Govt. or through manpower service provider agencies in the State Govt. offices or in the State Govt. of Odisha who have completed at least one year of continuous service prior to commencement of "Odisha Group-C&D (Contractual Appointment) Rules, 2013/ Odisha Group-B posts (Contractual appointment) Rules-2013. They must be less than 45 years as on 01.01.2019. They should submit the required proof from their employer for availing age relaxation **as per Advisory Notice (ANNEXURE-III) of this advertisement** during Certificate Verification.

5.(b). Date of birth entered in the High School Certificate Examination by the Board of Secondary Education, Odisha or equivalent Certificate issued by the recognised Board/Council /by an Indian University as equivalent there to shall only be acceptable to the Commission.

5. (c) Educational Qualification:

- i. **For the post of Assistant Fodder Development Officer**-The candidate must have passed B. Sc (Agriculture) from a recognised University
- ii. **For the post of Senior Laboratory Assistant**-The candidate must have passed Bachelors Degree in Science (PCM/CBZ)/Bachelors Degree in Pharmacy from any recognized University.

Note:- **The candidate must have possessed the required qualification as on or before the closing date of online application form.**

5.(d)General Eligibility Criteria

In order to be eligible for appearing in the examination a candidate must satisfy the following conditions.

- (i) The candidate must be a citizen of India.
- (ii) Be able to speak, read & write Odia.
- (iii) Be of good moral character & conduct.
- (iv) Be of good mental condition and bodily health and free from any physical defect likely to interfere with the discharge of his duties in the service.
- (v) If married, must not have more than one spouse living. Provided that Government may, if satisfied that such marriage is permissible under Personal Law applicable to such person or there are other grounds for doing so, exempt any person from the operation of this rule.
- (vi) Candidate must have passed Middle School Examination with Odia as a language subject, or have passed High School Certificate Examination or equivalent examination with Odia as a subject/medium of examination in non-Language subject, or have passed in Odia as a language subject in the final examination of Class VII or above or have passed a test in Odia in M.E. School Standard conducted by the School & Mass Education Department.

Not fulfilling any of the eligibility criteria shall render the applicant's candidature invalid & rejected.

6. **Examination Fee:**

- i. **The candidates other than SC/ST/ Persons with Disabilities (PwD) category shall have to pay a non refundable examination fee of Rs.200/- (Rupees Two Hundred only) by 30.04.2021. The fees can be deposited only through online mode using Internet Banking/ Debit Card/Credit card or any other available Payment methods linked with the online application form.** The Candidates should keep with them a copy of the payment slip showing successful transaction of fees for future reference. **SC/ST & PwD candidates are exempted from paying examination fee.**
- ii. **Applications without payment of examination fees (except SC/ST & PwD category candidates) will be treated as incomplete and shall be liable for rejection.**

7. **Certificates / documents to be submitted at the time of certificate verification**

The certificates/documents as listed below need to be produced by the candidate in original along with a set of self-attested copies of the same and downloaded online application form duly ink signed at the bottom of each page during certificate verification.

- (i) HSC or equivalent pass certificate & mark sheet issued by any recognised Board/Council.
- (ii) +2 or equivalent pass Certificate & mark sheet.
- (iii) B. Sc (Agriculture) pass Certificate & Mark sheet (in case of candidates applied for **Assistant Fodder Development Officer**).
- (iv) Bachelors Degree in Science (PCM/CBZ)/Bachelors Degree in Pharmacy pass Certificate & Mark sheet (in case of candidates applied for **Senior Laboratory Assistant**).
- (v) Valid Caste Certificate issued through online mode by competent Authority to get reservation/age relaxation under SC/ST/SEBC category
- (vi) Candidates have to submit certificate of passing HSC examination with Odia as a compulsory subject, or in lieu thereof a certificate of passing a language test in Odia in final examination of Class-VII issued by Principal/Head Master or any Educational Institution duly recognised by Govt. of Odisha/ Central Govt. or other competent authority.
- (vii) Self Attested photocopy of certificate of Disability issued online by the Unique Disability Identification in case of PwD candidates claiming age relaxation
- (viii) Candidates claiming age relaxation under Ex-servicemen category must submit Discharge certificate/ identity Card / P.P.O issued by the appropriate Authority wherein the Date of Entry, Date of Discharge & Period of Service rendered in Defence forces etc are mentioned.
- (ix) In-Service contractual employees claiming age relaxation and contractual In-service benefits must submit a Certificate from employer in the proforma prescribed by the Commission vide the **Advisory Notice No.3568/OSSC dated 01.11.2019** as of ANNEXURE-III of this advertisement



8. Plan of Examination:

The plan, pattern, scheme and syllabus of Examination is as follows:-

Stages of Examination.	Type of Examination	Nos. of papers	Name of Subjects	Marks allotted	Duration	Remarks
Stage-I	Main Written Examination	One Paper	Composite Paper	100 marks	1 ^{1/2} hours	Questions will be of objective type with multiple choices of answers. The examination will be conducted in Computer Based Recruitment mode (CBRE mode). <u>There will be negative marking @0.25 marks for each wrong answer.</u>
Stage-II	Certificate verification	Candidates about 03 times of the vacancies in order of merit category wise will be shortlisted for Document Verification. The candidate who will not attend the certificate verification his/her name will not be taken into consideration while preparing the merit list. The candidates found suitable in certificate verification for different posts shall be selected in order of merit category wise as per vacancies advertised.				

Main Written Exam

Paper		Subjects	Maximum Marks	No. of Questions	Time
One Paper (Composite Paper)	PART-A (Common for both the posts)	Odia Language	10	10	1 ^{1/2} hours
		General English	10	10	
		General Studies	20	20	
	PART-B (Questions in this part will be separate for respective posts)	For Assistant Fodder Development Officer as per Annexure-IV & for Senior Laboratory Assistant as per Annexure-V. (Detail syllabus prescribed for each post mentioned in the Annexures)	60	60	
		Total	100		

Note: There will be negative marking (0.25 marks) for each wrong answer.

Syllabus

Syllabus for Part –A: Odia Language, General English, and General Studies. -40 marks

The questions of General English & Odia Language will be of HSC standard and will comprise of comprehension of given passage, vocabulary & usage & grammar.

The questions of General Studies will be of HSC standard and comprise of questions on Indian History & History of Odisha, Geography of India & Odisha. Art & Culture of India & Odisha. Indian Polity, Environmental studies, General Science & Current Events.

Syllabus for Part-B: Questions in this part will be separate for each of the posts. Question Papers consisting of 60 questions of multiple choices will be provided as per the syllabus prescribed in Annexure-IV for the post of Assistant Fodder Development Officer and separate question paper consisting of 60 questions of multiple choices will be provided as per the syllabus prescribed in Annexure-V for the post of Senior Laboratory Assistant. The detail syllabus for both the posts are appended at Annexure-IV & V of this advertisement. There shall be no Viva-Voce Test.

9. Certificate verification -

Candidates numbering about three (03) times of the vacancy in order of merit category wise shall be shortlisted for document verification for both the posts basing on the marks secured in Main Written Exam. In document verification the candidates have to produce original certificates in support of Age, Educational qualification, Caste, Special category claiming age relaxation and have to fulfil eligibility criteria in all respect for the post. **The names of the candidates will be deleted from the merit list who will remain absent in the certificate verification on the date notified, their candidature will not be taken into consideration while preparing the merit list.**

10. Place, Date, Venue of written examination/certificate verification & admission letter

The Date/Time/ Venue of the Main Written Examination and Certificate Verification will be informed to the candidates in the Admission Letter. The Admission Letter will be carrying the photograph and signature of the candidate and facsimile signature of the **Secretary of the Commission**. The Admission Letter will also contain instructions to the candidates which should be followed strictly by the candidates. Any deviation made by the candidate during the examination/will forfeit his/her candidature for the post. The Admission Letters will be made available in the official website of the Commission prior to the holding of the Main Written Examination/ Certificate verification. The candidates shall have to download the admission letters by accessing the Commission's website and using their '**User ID**' and '**Password**' to appear the Main Written Examinations/ Certificate Verification. Notice regarding date of the examination/ test will be informed to candidates through notice in each stage which will be uploaded in the Commission's website and published in local newspapers. Alert message will be sent to the candidates through their registered Mobile Number/ E mail Id. while uploading of the Admission Letters in the Commission's website. Further, Alert message regarding the date of examination will be sent to the candidates concerned in his/her registered Mobile No.& Email Id of the candidate. Each candidate shall have to download his/her admission letter well before the date of

the examination. The candidates are advised to be in constant touch with the website of the Commission to know the status of each examination/tests etc.

11. Merit List:

The Merit list of the candidates found suitable in certificate verification shall be prepared basing on the marks secured in the Main Written. Two separate merit list shall be prepared (1) for the post of Assistant Fodder Development Officer and the (2) for the post of Senior Laboratory Assistant.

12. Select list:

The select list in order of merit category wise for each post shall be prepared from the respective Merit lists which will be equal to the number of vacancies notified in the advertisement.

Note:

- i. The candidates are required to visit the website of the Commission the official website of the Commission 'www.osscc.gov.in' for detailed information about the programme of the examination other important notices etc. and also keep track of publication of various notices of this recruitment to be published in the leading local daily newspapers.
- ii. The candidate should furnish correct Mobile Number and e-Mail Id for sending SMS and other relevant information relating to this recruitment. The Mobile No. & e-Mail Id should remain active till completion of the recruitment process to avoid any communication gap.

WARNING

Mobile phone or any other electronics devices are strictly prohibited in the premises of the examination centre. The candidates are advised not to bring any such banned items to the examination centre. Any infringement of these instructions might entail debarment of the concerned candidate from the examination.

By order of the Commission


Secretary

Certificate regarding Physical limitation in an examinee to write

This is to certify that, I have examined Mr/Ms/Mrs _____ (name of the candidates with disability), a person with _____ (nature and percentage of disability as mentioned in the certificate of disability). S/o/D/o _____ a resident of _____ (Village/District/State) and to state that he/she has physical limitation which hampers his/her writing capabilities owing to his/her disability.

Signature

CDM & PHO/ Civil Surgeon/ Medical Superintendent of a government health care institution

Name and Designation

Name of Government Hospital/Health care centre with seal

Place:

Date:

Note: Certificate should be given by a specialist of the relevant stream/disability (eg. Visual impairment - Ophthalmologist, Locomotor disability - Orthopaedic specialist/PMR).

APPENDIX-II

ANNEXURE-II

Letter of Undertaking for Using Own Scribe

I _____, a candidate with _____ (name of the disability) appearing for the _____ (name of the examination) bearing Roll No. _____ at _____ (name of the centre) in the District _____, _____ (name of the State). My qualification is _____.

I do hereby state that _____ (name of the scribe) will provide the service of scribe/ reader/ lab assistant for the undersigned for taking the aforesaid examination.

I do hereby undertake that his qualification is _____. In case, subsequently it is found that his qualification not as declared by the undersigned and is beyond my qualification, I shall forfeit my right to the post and claims relating thereto.

(Signature of the candidate with Disability)

Place:

Date:

ODISHA STAFF SELECTION COMMISSION, UNIT-V, BHUBANESWAR.
Email: orissassc@gmail.com, Tel.0674-2392833, FAX-2396011

No.IIE-122/2019- 3568 /OSSC.


Date:- 01.11.19

Advisory Notice to candidates claiming benefits available to in-service contractual employees under the In-service contractual appointment Rules while applying for different posts and services of Odisha Staff Selection Commission.

Pursuant to Rule-3,4,5 & 8 of Odisha Group-'C' & 'D' Posts (Contractual Appointment) Rules-2013 published vide G.A. & P.G. Department Notification No.32010/Gen dtd.12.11.2013. and Rule-3,4,5 & 8 of Odisha Group-'B' posts(Contractual Appointment) Rules-2013 published vide G.A. & P.G. Department Notification No.1147/Gen dtd.17.01.2014, it is notified that candidates while applying for different State cadre Posts and Services under Odisha Staff Selection Commission and claiming benefits available to in-service contractual employees under the above mentioned Rules are required to upload a certificate from the Employer/Appointing Authority in the format as prescribed in Annexure-'A' to this Notice.

No certificate other than in the prescribed format shall be accepted by the Commission and will lead to forfeiture of the claim of the candidate to avail the benefits under the above said Rules.

By order of Commission.


Secretary 11.11.19

Format of certificate to be submitted by Contractual Employees under different offices of Government of Odisha claiming benefits under Contractual Appointment Rules-2013.

1. Certified that Ms/Mrs./Shri/Mr _____ S/O.
_____ resident At _____
Po _____, PS _____, Dist _____
Date of Birth _____ has been engaged in this Office as
_____ (post held) in Group-'B'/Group-'C' post on contractual
basis from _____ to _____ as per this office Order
No. _____ dtd. _____ (Copy enclosed) and has completed total
_____ year of continuous service.

2. It is further certified that Mr./Ms/Mrs./Shri _____ has
been engaged against the contractual posts created with concurrence of Finance
Department vide their Order No./UOR No. _____ dtd. _____
without following the recruitment procedure including ORV Act-1975.

OR

It is certified that the engagement of Mr./Ms/Mrs./Shri _____ is
through Man power Service Provider Agencies i.e. _____ with
concurrence of Finance Department vide their Order No. _____
dtd. _____/UOR No. _____ dtd. _____

3. It is further certified that Mr./Ms/Mrs./Shri _____ has been
engaged as _____ (Post held), prior to commencement of Odisha
Contractual Appointment Rules, 2013 and he/she has not been engaged under
Temporary Plan Scheme/Temporary Establishment/Tenure Based post in this
office.

Signature of Appointing Authority/Employer
With seal

Syllabus for Assistant Fodder Development Officer

Agronomy

Fundamentals of agronomy, Origin and distribution of cereals , legumes, forage crops, and their package of practices, Fodder trees and pasture development in common property resources, Agro-forestry, and its role in natural resources management. Introductory Agro- Meteorology, climate change, Livestock production and management, fundamentals of crop physiology, crop production technology, rain fed agriculture and watershed management, farming system and sustainable agriculture, principles of organic farming, Azolla cultivation practice for livestock consumption. Seed production technology in forage crops, use of crop residues for livestock consumption, understanding grain *vs* biomass ratio of different crops.

Soil Chemistry

Soil classification and chemical makeup, effects of elements on crop growth, conservation of soil and water, soil fertility, fertilizer use, plant nutrient and foliar fertilization for plant growth and production , problematic soil and their management, use of manures and Bio-fertilizers, vermin compost for soil fertility management, soil micro nutrient management. Biological control of pests and soil fertility.

Horticulture

Fundamentals of horticulture plants, Package of practices of vegetables, spices, ornamental , fruit bearing orchard development, Horti-pasture development, vegetative propagation techniques , pruning, grafting, budding, regulation of plant growth, integration of horticultural crop with forage crops (seasonal / perennial), multi tier cropping system, Top feed species and their plantation and management, use of different top feed species for livestock consumption, trailing legume and spice crop and fruit bearing canopy. Anti nutrient factor and active principles in tree crops

Plant pathology

Fundamentals of plant pathology, entomology, common nematology, pests of field crops, and their management, insect ecology, integrated pest management, Bio-pesticides, biological control of pests. management of beneficial insects. Common diseases in forage crops and their control measures.

Plant breeding and Genetics

Fundamentals of plant breeding and genetics, micro propagation technology, commercial plant breeding, process to improve genetic characteristics to resist natural calamities, Different categories of seeds, nuclear seed, Foundation seeds, certified seeds, truth fully labeled (TL) seeds. Seed storage technology

Agriculture extension

Dimension of agriculture extension, fundamental of rural sociology and educational psychology extension methodology and transfer of agriculture technology, communication skill and interpersonal relationship, group motivation, use of mass media, print media, electronic media for extension. Horizontal and vertical expansion of technology, Lab to land message transmission technology. Capacity development of different stake holders and development of training modules.

Agriculture economics

Fundamentals of Agriculture economics, Agriculture finance and cooperation, Agriculture marketing and trade prices, Agriculture risk management through weather based insurance, and value added agro advisory services, Agri-business model , small, Micro and mega agri-enterprises, Entrepreneurship development

Agriculture engineering

Principle of soil and water engineering, energy resources and their judicious application in agro processing, renewable energy and green energy. Energy resources management, farm implements, machineries, maintenance of farm implements

Syllabus for the Post of Senior Laboratory Assistant

A. BIOLOGY

MICROBIOLOGY

History, Classification and identification of microbes, General morphology, classification and economic importance of bacteria, fungi and viruses, Epidemiology of infectious diseases, Microbe interactions; Immune Responses; Cleaning of glass wares, sterilization principle and methods - moist heat - dry heat and filtration methods, Media preparation: Liquid media, Solid media, Agar slants, Agar plates. Basal, enriched, selective media preparation - quality control of media, growth supporting properties, sterility check of media, Pure culture techniques: Streak plate, pour plate and decimal dilution, Cultural characteristics of microorganisms: Growth on different media, growth characteristics, Staining techniques: Smear preparation, simple staining, Grams staining, Acid fast staining and staining for metachromatic granules, Morphology of microorganisms, Antibiotic sensitivity testing: Disc diffusion test - Quality control with standard strains, Physiology characteristics: IMViC test, H₂S, Oxidase, catalase, urease test, Carbohydrate fermentation, Maintenance of pure culture, Stab culture and mold culture.

PHYSIOLOGY & BIOCHEMISTRY

Structural organization and functions of tissue, glands and different systems of body; Digestive system, Respiratory system, Circulatory system (Blood, Heart), Excretory system, Nervous system, Reproductive system, Endocrine system; pH and Temperature measurement, Estimation of Red Blood Cell, Estimation of haemoglobin. Animal Behaviour, Mechanism and pattern of behaviour; Reflexes and their types; Orientation, Different types of animal behaviour, Social behaviour, Sexual behaviour, Biological Clock. Biomolecules, Structure, function and metabolism of important carbohydrates, proteins and fats; Enzymes and their mechanism of action; Action of salivary amylase and affect of temperature and pH on it; Estimation of total protein in given solutions.

INDUSTRIAL BIOLOGY, GENETICS, IMMUNITY & VACCINOLOGY

Cell, its structure and functions; Different cell organelles; Nucleic Acids, Salient features of DNA Double Helix, Structure and functions of DNA & RNA; DNA replication, Transcription, Translation; Cell-cycle, Mendelian Genetics, Development of Sex and Maturity. Differentiation and Growth; Cell Division, Gamete genesis, Fertilization, Embryonic Development, Immune System, Immunity, Antigen, Antibody, Structure and functions of different types of Immunoglobulin; Antigen-Antibody interactions, Vaccines; Preparation of solid and liquid culture medium and growth of Bacteria on these media, Antibiotic sensitivity / resistance; Microbial Fermentation.

ECONOMIC BIOLOGY & PUBLIC HEALTH

Indigenous and exotic breeds of cattle and poultry; Rearing, housing and feeding practices in dairy and poultry farming; Diseases and their management; Dairy and poultry farm management; Origin of Cultivated Plants: Concept of Centers of Origin, Crop domestication and loss of genetic Diversity; Cereals, Legumes; Sugars & Starches; Spices: Listing of important spices and part used, economic importance; Beverages: Tea, Coffee; Essential Oils: General account, extraction methods, comparison with fatty oils & their uses. Fibres: Classification based on the origin of fibers; Scope of Public health and Hygiene; nutrition and health; Environment & Health; Environmental pollution and Health hazards; Communicable and Non- Communicable diseases and their control measures.

B. CHEMISTRY

INORGANIC CHEMISTRY

Atomic Structure, Quantum mechanics, Chemical Bonding and Molecular Structure, Ionic Equilibria (Ionization of weak acids and bases, pH scale, common ion effect, Salt hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Buffer solutions), General Principles of Metallurgy, Kinetic Theory of Gases, Liquids, Solids.

ORGANIC CHEMISTRY

Fundamentals of Organic Chemistry, Stereochemistry, Functional group approach for the following reactions (preparations & reactions): Alkanes, Alkenes, Alcohols, Aldehydes, Ketones, Carboxylic acids, Aromatic hydrocarbons, Alkyl and Aryl Halides.

INDUSTRIAL CHEMICALS, ENERGY & ENVIRONMENT

Industrial Gases and Inorganic Chemicals, Sources of energy: Coal, petrol and natural gas. Coal and petrochemical industry, Nuclear fusion / fission, solar energy, hydrogen, geothermal, tidal and hydel energy; Nuclear Pollution: Disposal of nuclear waste, nuclear disaster and its management.

CHEMICAL TECHNOLOGY

Basic principles of distillation, solvent extraction, solid-liquid leaching and liquid-liquid extraction, separation by absorption and adsorption. An introduction into the scope of different types of equipment needed in chemical technology, including reactors, distillation columns, extruders, pumps, mills, emulgators; Scaling up operations in chemical industry, Introduction to clean technology.

PHARMACEUTICAL AND PESTICIDE CHEMISTRY

Drug discovery, design and development, Synthesis of the representative drugs of the following classes: antibiotics, antibacterial and antifungal agents; antiviral agents; Fermentation (Aerobic and anaerobic fermentation), General introduction to pesticides (natural and synthetic); Benefits and adverse effects; Changing concepts of pesticides; Structure activity relationship, Synthesis and technical manufacture and uses of different pesticides

C. PHYSICS

DIGITAL AND ANALOG CIRCUITS, INSTRUMENTATION & SOLID STATE PHYSICS

Difference between Analog and Digital Circuits, Binary Numbers, Decimal to Binary and Binary to Decimal Conversion, Semiconductor Devices and amplifiers, Crystal Structure: Solids-Amorphous and Crystalline Materials.

MECHANICS

Vectors: Vector algebra, Scalar and vector products. Derivatives of a vector with respect to a Parameter; Laws of Motion: Newton's Laws of motion; Momentum and Energy: Conservation of momentum; Work and energy; Conservation of energy, Rotational Motion: Angular velocity and angular momentum; Torque, Conservation of angular momentum; Gravitation: Newton's Law of Gravitation; Oscillations: Simple harmonic motion; Kinetic and Potential Energy, Total Energy and their time averages; Special Theory of Relativity.

WAVES AND OPTICS

Fluids: Surface Tension- Excess of pressure - Application to spherical and cylindrical drops and bubbles - variation of surface tension with temperature; Viscosity - Rate flow of liquid in a capillary tube - Poiseuilles formula - Determination of coefficient of viscosity of a liquid - Variations of viscosity of liquid with temperature- lubrication; Sound: Simple harmonic motion - forced vibrations and resonance; Wave Optics: Electromagnetic nature of light; Definition and

Properties of wave front; Interference: Division of amplitude and division of wave front; Diffraction, Polarization.

THERMAL PHYSICS AND STATISTICAL MECHANICS

Laws of Thermodynamics & their applications, Reversible and irreversible processes, Entropy, Carnot's cycle; Kinetic Theory of Gases; Transport Phenomena: Viscosity, Conduction and Diffusion; Theory of Radiation.

ELECTRICITY AND MAGNETISM

Electrostatics: Electrostatic Field, electric flux, charged conductor; Electric potential as line integral of electric field, potential due to a point charge, electric dipole, Calculation of electric field from potential; Capacitance of an isolated spherical conductor; Resistances, AC and DC Voltages & Current; Checking electrical fuses; Magnetostatics: Biot-Savart's law and its applications; Electromagnetic Induction: Faraday's laws of electromagnetic induction.

D. MATHEMATICS

PROBABILITY & STATISTICS

Sample space, probability axioms, real random variables (discrete and continuous), cumulative distribution function, probability mass/density functions, mathematical expectation, moments, moment generating function, characteristic function, discrete distributions: uniform, binomial, Poisson, continuous distributions: uniform, normal, exponential. Joint cumulative distribution function and its properties, joint probability density functions, marginal and conditional distributions, expectation of function of two random variables, conditional expectations, independent random variables.

LOGIC & SETS

Introduction, propositions, truth table, negation, conjunction and disjunction. Implications, biconditional propositions, converse, contra positive and inverse propositions and precedence of logical operators. Propositional equivalence: Logical equivalences. Predicates and quantifiers: Introduction, Quantifiers, Binding variables and Negations. Sets, subsets, Set operations, the laws of set theory and Venn diagrams. Examples of finite and infinite sets. Finite sets and counting principle. Empty set, properties of empty set. Standard set operations. Classes of sets. Power set of a set. Difference and Symmetric difference of two sets. Set identities, Generalized union and intersections. Relation: Product set, Composition of relations, Types of relations, Partitions, Equivalence Relations with example of congruence modulo relation.

DIFFERENTIAL EQUATIONS

First order exact differential equations. Integrating factors, rules to find an integrating factor. First order higher degree equations solvable for x , y , p . Methods for solving higher-order differential equations. Basic theory of linear differential equations, Solving a differential equation by reducing its order.