

QUALIFICATION, EXPERIENCE AND OTHER DETAILS

Sr. No.	Qualification / Experience / Job Description
1.	<p>Technical Director (PPS-10)</p> <p>Qualifications:</p> <p>A qualified person with PhD in fields related to Biotechnology/Biochemistry/Molecular Genetics having an extensive managerial, research and industry experience (10 years); demonstrated ability to conduct analytical design and testing, expertise in extraction technologies at scale and the ability to design and implement quality control assurance plan.</p> <p>However, preference will be given to the candidate with minimum qualifications include with postgraduate degree preferably Ph. D in Biotechnology/Pharmacy/Chemistry with 15 years research experience and minimum 10 relevant research publications in scientific peer-reviewed journal in chemistry, extraction technologies/ phytoremediation, phycochemistry (algae's, natural products, secondary metabolites). The incumbent is expected to have experience in;</p> <ul style="list-style-type: none">• Hands-on experience in biomass processing, extraction techniques / solvent free extraction/Column Chromatography/ Purification and Chemical Characterization of Compounds/ Analytical Techniques (Gas and High-performance liquid chromatography (HPLC), Atomic Absorption, ICP, spectroscopy (Infrared and ultraviolet,) and Mass spectrometry.• ISO/IEC 17025:2017• Author technical documents, including SOPs, that describe experimental methods and operation of laboratory instruments/equipment or systems. Method and process validation.• Have an excellent network of international contacts with a range of specialties in the discipline• S/He will have to manage and lead staff and manage other resources, including budget preparation, management and control. S/He will have to actively participate in ongoing research project activities and strive for grants for new ones. <p>Strong knowledge about Food, Pharmaceuticals and Laboratory QMS.</p> <p>Duties/Job Description:</p> <p>The National Centre for Industrial Biotechnology (NCIB), PMAS- Arid Agriculture University, Rawalpindi seeks a Technical Director (PPS-10), for research and development under Pilot Extraction Facility of NCIB using medicinal plants biomass for extraction of high market value compounds. This position is three years term or till continuation of the project. The incumbent is expected to play a liaison role between Chemistry, Biotechnology, Tissue culture, and Hydroponic sections of NCIB. The incumbent is also expected to contribute to on-going research program development and supervision of research staff. Must have experience of technology transfer and laboratory qualification, IQ/OQ/PQ, Manage & coordinate all validation activities (method, product, process & cleaning), Knowledge of EHS system and its implementation. Direct the human resource management function for the site/s by coordinating the selection, promotion, orientation and performance appraisal processes. Building teamwork, collaboration and people engagement, Ensure that all of the staff have equal access to development opportunities, Provide opportunities for development through tools assignments, mentoring and coaching relationships. Must have experience of conducting and monitoring stability studies. The successful candidate is expected to develop an externally funded, self-sustaining research program with industrial collaboration that addresses for extraction and purification of high market value compounds. H/she will be responsible to work on plant/microbial biomass for Extraction and purification of high market value compounds and development of new industrial/pharmaceutical products. Industry collaboration and interdisciplinary approaches are strongly encouraged. Secondary responsibilities include representation of PMAS-Arid</p>

	University at workshops, on committees, task forces, and external bodies related to industrial bio-technology and allied technologies. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the public.
2.	<p>Project Director (PPS-9)</p> <p>Qualifications:</p> <p>A qualified person with 18 years education in Engineering or relevant field with 7 to 8 years of experience. S/He should be well versed with project management tools and techniques relevant to construction. S/He should assist in assembling the jobs site office and equipment requirements and have confidence in own ability to intelligently communicate with design team/client as well as effectively lead the trades. S/He should monitor site safety and ensure that the requirement of the occupational Health and Safety standards are enforced. S/He should maintain and enforce good construction standards and quality control.</p>
3	<p>Senior Scientific Officers (PPS-8) [One for Microbial Editing And Development Services (Lab)+ One for Analytical Chemistry (Lab)]</p> <p>Qualifications:</p> <p>A qualified person with postgraduate degree preferably Ph.D in relevant field and having a relevant experience of 3 years in research and project management.</p> <p>S/He will have to manage and lead staff and manage other resources, including budget preparation, management and control. S/He will have to actively participate in ongoing research project activities and strive for grants for new ones.</p> <p>However, preference will be given</p> <p>1. FOR MICROBIAL EDITING AND DEVELOPMENT SERVICES (LAB):</p> <ul style="list-style-type: none"> i. a candidate having Ph.D in life science or related discipline e.g. Biotechnology/Microbiology/Pharmacy/Chemical Biology, preferably hands on experience with gene editing, a variety of microbiology methods and fermentation and have a good record of relevant research publications in scientific peer-reviewed journal. Proficient in basic molecular biology techniques such as nucleic acid isolation and digestion, DNA cloning in bacteria, PCR, DNA sequencing, as well as applicable software(s). <ul style="list-style-type: none"> a. Hands-on, working with aerobic and anaerobic bacteria. Have an excellent network of international contacts with a range of specialties in the discipline b. Certified Scientist Training Program (STP) after completion of degree c. A track record of managing junior scientists and staff. <p>Duties:</p> <p>The NCIB seeks a Senior Scientific Officers (PPS-8), for research and development under Microbial Editing and Development Services (Lab). This position is three years term or till continuation of the project. The incumbent is expected to contribute to on-going research program development and supervision of research staff and graduate students. The successful candidate is expected to develop an externally funded, self-sustaining research program with industrial collaboration that addresses microbial editing and development services for high value bioactive compounds and development of new industrial/pharmaceutical products. Industry collaboration and interdisciplinary approaches are strongly encouraged. Duties also include;</p> <ul style="list-style-type: none"> i. Developing metabolic engineering pathway assays. ii. Perform efficient gene cloning including the design of DNA constructs for protein expression.

- iii. Bank, characterize and manage inventory of microbial strains.
 - iv. Author technical documents, including SOPs, that describe experimental methods and operation of laboratory instruments/equipment or systems.
- Secondary responsibilities include representation of PMAS-AAUR at workshops, on committees, task forces, and external bodies related to industrial bio-technology and allied technologies. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

2. AND FOR ANALYTICAL CHEMISTRY (LAB-)

- i. Minimum qualifications include with postgraduate degree preferably Ph.D in Pharmacy/Chemistry and have a good record of relevant research publications in scientific peer-reviewed journal in biomass processing, extraction technologies/ solvent free extraction/column chromatography.
- ii. The incumbent is expected to have experience in;
 - a. Extraction and purification of high market value compounds using plant biomass
 - b. Hands-on experience in biomass processing, extraction techniques / solvent free extraction/Column Chromatography/Purification and Chemical Characterization of Compounds/ Analytical Techniques (Gas and High performance liquid chromatography (HPLC), Atomic Absorption, ICP, spectroscopy (Infrared and ultraviolet,) and Mass spectrometry.
 - c. Author technical documents, including SOPs, that describe experimental methods and operation of laboratory instruments/equipment or systems. Method and process validation.
 - d. Have an excellent network of international contacts with a range of specialties in the discipline
 - e. S/He will have to manage and lead staff and manage other resources, including budget preparation, management and control. S/He will have to actively participate in ongoing research project activities and strive for grants for new ones.
 - f. Strong knowledge about Food, Pharmaceuticals and Laboratory QMS.

Duties/Job Description:

The National Centre for Industrial Biotechnology (NCIB), PMAS- Arid Agriculture University, Rawalpindi (PMAS-AAUR) seeks a Senior Scientific Officers (PPS-8), for research and development using medicinal plants biomass for extraction of high market value compounds. This position is three years term or till continuation of the project. The incumbent is expected to contribute to on-going research program development and supervision of research staff. The successful candidate is expected to develop an externally funded, self-sustaining research program with industrial collaboration that addresses for extraction and purification of high market value compounds. H/she will be responsible to work on plant/microbial biomass for Extraction and purification of high market value compounds and development of new industrial/pharmaceutical products. Industry collaboration and interdisciplinary approaches are strongly encouraged. Secondary responsibilities include representation of PMAS-AAUR at workshops, on committees, task forces, and external bodies related to industrial bio-technology and allied technologies. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

4.	<p>Product Development Officer (PPS-7)</p> <p>Qualification:</p> <p>A qualified person with 18 years of education and having 3 years of relevant experience in marketing / business / economics.</p> <p>Experience:</p> <p>S/He must have conducted/facilitated/participated in internationally sponsored pharmaceutical projects/grants. S/He must have good knowledge of Quality Management, ISO, ICH-GCP, GMP, FSSC, FAO, WHO and similar bodies/standards. S/He must have conducted and facilitated national/international audits. S/he will be responsible to advise on regulatory affairs of the of the (research) project from development till execution.</p>
5.	<p>Scientific Officers (PPS-7)</p> <ul style="list-style-type: none"> i. [One for Analyst lab + One for Biomass Processing & Scientific Equipment (Lab) + One for Microbial Editing and Development Services (Lab) + One for Analytical and fermentation set-up lab] ii. Tissue Culture [One for Plant Tissue Culture Facility (Lab)] iii. Hydroponic [One for Hydroponic Section] iv. Digital Agriculture [One for Digital Agriculture Section] v. Precision Agriculture [One for Precision Agriculture Section] vi. Economics & Environment [One for Economics & Environment Section] <p>Qualifications:</p> <p>A qualified person with 18 years of relevant education, having a relevant experience in research and development.</p> <p>S/He will have to device research proposals and projects as desired. S/He will also supervise the implementation of programs and coordinate the work between different labs and phases of the research for maximum efficiency and progress. S/He will then have to report to the executives about the results.</p> <p>However, the preference will be given</p> <ol style="list-style-type: none"> 1. FOR BIOMASS PROCESSING & SCIENTIFIC EQUIPMENT (LAB) A qualified person with 18 years of education in Biochemistry/Microbiology/ Chemical Biology/Biotechnology/Chemistry, having a relevant experience in biomass processing Chemical Analysis and relevant research publications in scientific peer-reviewed journals. <ul style="list-style-type: none"> a. Hands-on trainings and work experience in biomass processing/analytical techniques/ chemical Analysis b. develop new techniques, products and processes c. S/He will have to device research proposals and projects as desired d. S/He will also supervise the implementation of programs and coordinate the work between different labs and phases of the research for maximum efficiency and progress. S/He will then have to report to the executives about the results <p>Duties:</p> <p>The NCIB seeks a Scientific Officers (PPS-7), for research and development under Biomass Processing & Scientific Equipment (Lab) for processing and analysis of plant/microbial biomass for extraction of high market value compounds. This position is three years term or till continuation of the project. H/she will be responsible for bioprocessing and chemical analysis of plant and microbial biomass for extraction and purification of high market value compounds for development of new industrial/pharmaceutical products. Secondary responsibilities include representation of PMAS-AAUR at workshops, on committees, task forces, and external bodies related to industrial bio-technology and allied</p>

technologies. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

2. FOR MICROBIAL EDITING AND DEVELOPMENT SERVICES (LAB)

A qualified person with 18 years of education in life science or related discipline (Molecular Biology/Biotechnology/Microbiology) and relevant research publications in scientific peer-reviewed journals.

- a. Previous experience working with microbiome is highly desired
- b. work with specialist computer software to undertake studies and research
- c. Manage and oversee laboratory work.

Duties:

The NCIB seeks a Scientific Officer (PPS-7), for research and development under **Microbial Editing and Development Services (Lab)**. This position is three years term or till continuation of the project. Undertake laboratory analysis and monitoring of microbial cultures, samples and new drugs using specialist computer software and a range of identification methods. Duties also include;

- a. Developing new pharmaceutical products, vaccines, medicines and compounds such as antiseptics
- b. recording, analyzing and interpreting data
- c. Writing research papers, reports and reviews
- d. keeping up to date with scientific and research developments
- e. ensuring that data is recorded accurately in accordance to guidelines
- f. Observing high health and safety standards
- g. use a variety of identification methods, including molecular techniques, to test samples
- h. develop new techniques, products and processes
- i. develop and register new Bioproducts
- j. develop products such as enzymes, vitamins, hormones and antimicrobials

Secondary responsibilities include representation of PMAS-AAUR at workshops, on committees, task forces, and external bodies related to industrial bio-technology and allied technologies. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Ability to supervise undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public

3. FOR ANALYTICAL AND FERMENTATION SET-UP LAB

A qualified person with 18 years of education in life science discipline (Molecular Biology/Biotechnology/Microbiology) with expertise in Fermentation and analytical studies, and relevant research publications in scientific peer-reviewed journals. Ability to operate laboratory instruments and perform basic instrument maintenance. Knowledge of basic laboratory procedures and techniques. Strong technical, troubleshooting, and problem-solving skills.

- a. Solid interpersonal skills and team orientation.
- b. Skilled in Microsoft Excel, PowerPoint and Word and have good record of relevant research publications in scientific peer-reviewed journals

Duties:

The NCIB seeks a Scientific Officer (PPS-7), for research and development under **Analytical and fermentation set-up lab.** This position is three years term or till continuation of the project. Undertake laboratory analysis and monitoring of microbial cultures, samples and new drugs using specialist computer software and a range of identification methods. Duties also include;

- a. Understanding Good Manufacturing practices Set up and run laboratory scale fermentations
- b. Perform process development around our industrial microorganisms including yeast, bacterial and fungal strains, including further optimization around new lead cultures.
- c. Work closely with molecular biology/genetics teams to ensure timely evaluation of new leads.
- d. Work closely with fermentation pilot plant and production plant to ensure that the processes being developed meet the criteria for effective scale up into production.
- e. Implementation of new technologies within the group to ensure we deliver or exceed project targets.
- f. Empower the fermentation technology team to improve the overall reliability and productivity of the fermentation process

Secondary responsibilities include representation of PMAS-AAUR at workshops, on committees, task forces, and external bodies related to industrial bio-technology and allied technologies. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Ability to supervise undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public

4. AND FOR ANALYST (LAB)

Minimum 18 years of education in Pharmacy and Chemistry having a relevant experience in Bio-extraction technologies/ solvent free extraction/Column Chromatography/Phytochemical Analysis and relevant research publications in scientific peer-reviewed journals.

- a. Hands-on trainings and work experience in extraction technologies/ solvent free extraction/Column Chromatography/ Analytical Techniques
- b. S/He will have to device research proposals and projects as desired.
- c. S/He will also supervise the implementation of programs and coordinate the work between different labs and phases of the research for maximum efficiency and progress. S/He will then have to report to the executives about the results.

Duties:

The NCIB seeks a Scientific Officers (PPS-7), for research and development using medicinal plants biomass for extraction of high market value compounds. H/she will be responsible to work on plant/microbial biomass for Extraction and purification of high market value compounds and development of new industrial/pharmaceutical products. This position is three years term or till continuation of the project.

Secondary responsibilities include representation of PMAS-AAUR at workshops, on committees, task forces, and external bodies related to industrial bio-technology and allied technologies. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

5. FOR TISSUE CULTURE [ONE FOR PLANT TISSUE CULTURE FACILITY (LAB)]

Minimum 18 years of education in Horticulture [MSc (Hons)] specialization in Plant Tissue Culture field, having a relevant research experience in plant tissue culture and research publications in scientific peer-reviewed journals.

- a. Hands-on trainings and work experience in Plant Tissue Culture Techniques
- b. S/He will have to device research proposals and projects as desired
- c. S/He will also supervise the implementation of programs and coordinate the work between different labs and phases of the research for maximum efficiency and progress. S/He will then have to report to the executives about the results.

Duties:

The NCIB seeks a Scientific Officer (PPS-7), for research and development under **Plant Tissue Culture Facility** for the production of true to type, certified and disease free biomass/plants for high market value compounds. H/she will be responsible to work on novel plant tissue techniques to expand our current plant tissue capabilities and coordinate with the other production team to facilitate optimization and scale-up of promising new technologies. This position is three year term or till continuation of the project. Secondary responsibilities include representation of PMAS-Arid University at workshops, on committees, task forces, and external bodies related to industrial bio-technology and allied technologies. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

6. FOR HYDROPONIC [ONE FOR HYDROPONIC SECTION]

A qualified person with basic degree in Agriculture and MS with 18 years of education with specialization in Horticulture, Soil Science, Entomology, agriculture Economics and business administration or a closely related discipline. The incumbent is expected to have experience in hydroponics production system and its marketing.

- a. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

Duties:

The Hydroponics Agriculture Section of NCIB seeks a Scientific Officer. This position is till continuation of the project and required to contribute to research and service. The incumbent is also expected to contribute to on-going research program development and supervision of undergraduate research projects and graduate students. The successful candidate is expected to develop an externally funded, self-sustaining research program with industrial collaboration that addresses the site-specific agriculture needs of the region. Industry collaboration and interdisciplinary approaches are strongly encouraged. Secondary responsibilities include representation of PMAS-Arid University at workshops, on committees, task forces, and external bodies related to hydroponics agriculture and allied technologies.

S/He will have to device research proposals, draft projects and report writing as desired. S/He will also supervise the implementation of programs and coordinate the work between different labs and phases of the research and development for maximum efficiency and progress. S/He will then have to report to the executives about the results and progress.

7. FOR DIGITAL AGRICULTURE [ONE FOR DIGITAL AGRICULTURE SECTION]

A PhD or MS with two year experience in Computer Science / Computer Engineering / Information Technology / Software Engineering from HEC recognized university or institute, having experience in internet of things (IoT) and Software Development. The person should be active researcher in the desired field. The incumbent must have a demonstrated ability or potential to develop a nationally and internationally recognized research program; to obtain and sustain competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; strong software development skills in modern programming languages; skills about implementing controls using small single board computers such as Raspberry pi and Arduino; and effectively communicate in both oral and written formats in English.

Duties

The NCIB seeks a Scientific officer in the field of *Computer Science (Internet of Things)*.

This 3-year term position or till the continuation of the project is required to contribute in research and development. The successful candidate is expected to develop complete digital infrastructure for agriculture domain ranging from laboratory experiments to field cultivation and harvesting. Industry collaboration and interdisciplinary approaches are strongly encouraged. Secondary responsibilities include representation of PMAS-AAUR at workshops, on committees, task forces, and external bodies related to precision agriculture and biological systems. The candidate shall also contribute to on-going research program development and supervision of undergraduate research projects and graduate students. The selected candidate will have to device research proposals, draft projects and report writing as desired. S/He will also supervise the implementation of programs and coordinate the work between different labs and phases of the research and development for maximum efficiency and progress. S/He will then have to report to the executives about the results and progress.

8. FOR PRECISION AGRICULTURE [ONE FOR PRECISION AGRICULTURE SECTION]

A qualified person with 18 years of education in Engineering with specialization in Mechatronics/Electronics/Software Engineering/ Mechanical Engineering or closely related disciplines and publications in relevant peer-reviewed scientific journals. The incumbent is expected to have experience in electronics in machines, sensors, robotics, system controls and/or precision agriculture related technologies.

- a. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.
- b. This position is three years term or till continuation of the project.

Duties:

The Precision Agriculture Section of NCIB seeks a Scientific Officer. This position is three years term or till continuation of the project and required to contribute to research and service. The incumbent is also expected to contribute to on-going research program development and supervision of undergraduate research projects and graduate students. The successful candidate is expected to develop an externally funded, self-sustaining research program with industrial collaboration that addresses the site-specific agriculture needs of the region. Industry collaboration and interdisciplinary approaches are strongly encouraged. Secondary responsibilities include representation of PMAS-Arid University at workshops, on committees, task

forces, and external bodies related to precision agriculture and allied technologies.

S/He will have to device research proposals, draft projects and report writing as desired. S/He will also supervise the implementation of programs and coordinate the work between different labs and phases of the research and development for maximum efficiency and progress. S/He will then have to report to the executives about the results and progress.

9. FOR ECONOMICS & ENVIRONMENT [ONE FOR ECONOMICS & ENVIRONMENT SECTION]

A qualified person with basic degree in Agriculture and MS with 18 years of education with specialization in Agriculture Economics / business administration/business management or a closely related discipline and have publications in peer-reviewed scientific journals. The incumbent is expected to have experience in Environmental Impact Assessment/ Socio-Economic Analysis, feasibility preparation, business plan development and marketing.

a. The incumbent must have a demonstrated ability or potential to develop competitive research grants by leading multidisciplinary teams; to publish original research in peer-reviewed journals; and effectively communicate in both oral and written formats in English. Experience in supervising undergraduate and/or graduate students is desirable. Strong leadership skills, interpersonal skills, and an ability to work in collaboration with a number of universities, government, and industry groups are desirable assets. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

Duties:

The Economics Section of NCIB seeks a Scientific Officer. This position is three years term or till continuation of the project and required to contribute to research and service. The incumbent is also expected to contribute to on-going research program development and supervision of undergraduate research projects and graduate students. The successful candidate is expected to develop an externally funded, self-sustaining research program with industrial collaboration that addresses the site-specific agriculture needs of the region. Industry collaboration and interdisciplinary approaches are strongly encouraged. Secondary responsibilities include representation of PMAS-Arid University at workshops, on committees, task forces, and external bodies related to Environment and Economics.

S/He will have to device research proposals, draft projects and report writing as desired. S/He will also supervise the implementation of programs and coordinate the work between different labs and phases of the research and development for maximum efficiency and progress. S/He will then have to report to the executives about the results and progress.

6. Data Analyst (PPS-7)

A PhD or MS qualified person with data processing and analyzing skills for data simulation and modelling activities.

7. Deputy Director Admin (PPS-7)

(a) First Class M.Sc/M.A/MBA degree from a recognized University/Institution with no 3rd division in his/her academic career.

(b) Five years' experience in the establishment/ administration in any University or Government/Semi-Government organization in BPS-17 or above.

OR

(a) At least Second Class Bachelor's degree from a recognized University.

(b) Seven years office experience (including at least three years' experience in Grade 17) in a University or Educational Institution or Government or Semi-Government organization.

However, Deputy Director Admin will be qualified person with necessary management skills and will assist Project Director.

8.	<p>Network Administrator (PPS-6)</p> <p>Qualification</p> <ul style="list-style-type: none"> i. M.Sc/B.Sc (Hons.) Computer Science/BS(CS)/ BS(IT) (16 years of education) from HEC recognized University/Institution, preferably with experience for establishing IoT and data processing networks. <p>However, preference will be given to a person having BS (4-Years Computer Science / Software Engineering / Information Technology) or MCS or MS (Computer Science / Electronics) from HEC recognized university. Two year experience required in Open Field Computer Network Deployment and Administration i.e. Internet of Things (IoT); Expertise and hands-on experience in managing networks on Windows, Linux and Unix platforms. Experience must include systems and network support, Switching, installation and management of Intranets, evaluation of different switching equipment, routers and protocols, Firewalls and intrusion detection systems. Must have provided level-3 support in a Data Centre or ISP environment. Professional certification like CCNA, CCIE or CCNP will be an added advantage. The candidate must have knowledge about different computer network protocols such as MQTT and SOAP Services.</p> <p>Duties</p> <p>The NCIB seeks a three-year term position or till the continuation of the project of Network Administrator. The selected candidate is expected to deploy wide area network (WAN) to establish the digital infrastructure for agriculture domain ranging from laboratories (buildings) to open field or agriculture farms. The selected candidate needs to configure and maintain servers providing services such as connectivity to Internet of Things devices, Machine learning agents and Web Services. The candidate needs to configure programming environments/virtual environments at servers for different programming languages such as Python and Java and machine learning environments such as Tensorflow and Pytorch. The selected candidate will manage users accounts and their role policies. The candidate will visit agriculture farms for the deployment and maintenance of the computer network. The candidate is required to install battery or solar powered devices in the field. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.</p>
9.	<p>Software Developer (PPS-6)</p> <p>Bachelor's degree (16 years)/MCS/MIT in computer science or related degree. Must be a full-stack developer. Knowledge of IoT and server-side configurations are a must. The desire to work in fast-paced environment. Experience working on a variety of software development projects. Demonstrated experience of more than one year in programming languages such as PHP, ASP.net and Python is required.</p> <p>Duties</p> <p>The NCIB seeks a three-year term position or till the continuation of the project of Software Developer. The candidate is required to develop software, web and mobile applications using modern frameworks to automate the processes of NCIB and the University. The selected candidate have to develop software for high volume data. Database design and management is a must requirement for this job. The selected candidate must develop interoperability among different software platforms such as Internet of Things, Web and Mobile. The candidate must integrate the future software development with the current Campus Management System (CMS) i.e. developed in Oracle Forms. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.</p>

10.	<p>Accounts Officer (PPS-6)</p> <p>(a) At least Second Class Bachelor's degree from a recognized University. (b) Five years office experience (including at least three years' experience in scale 16) in a University Government or Semi-Government Organization in Educational Institution.</p> <p>However, preference will be given to a person having enough experience in project financial management.</p>
11.	<p>Research Associates (PPS-5) This position is three years term or till continuation of the project</p> <ul style="list-style-type: none"> i. Analyst/Biotechnology Section ii. Tissue Culture Section iii. Hydroponic Section iv. Digital Agriculture Section v. Precision Agriculture Section vi. Economics & Environment Section <p>Qualification: Postgraduate in relevant field of research group (PhD scholar will be preferred).</p> <p>However, the preference will be given to the candidate</p> <ol style="list-style-type: none"> 1. For Biotechnology Section Postgraduate in Biochemistry/Molecular Biology/Biotechnology/Plant Biochemistry/Pharmacy/Chemistry/Microbiology (PhD scholar will be preferred) having research experience in Biomass Processing/Bio-extraction or proficient at basic molecular techniques e.g., gene engineering/Cloning, transformation and expression studies or study of microorganisms in the fermentation process and how they relate to food and medicines, analyze and develop new uses for fermentation. <p>Duties: The Research Associates (PPS-5) are expected to do:</p> <p>Analyst lab seeks RAC to do R&D using medicinal plants biomass for extraction of high market value compounds. A qualified person working on plant biomass for extraction and purification of high market value compounds for developing new pharmaceutical products. Must have research experience in Plant Biochemistry, Phytochemical Analysis/ Bio-extraction and biochemical analysis of bioactive compounds. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.</p> <p>Biomass Processing & Scientific Equipment (Lab) seeks RAC for processing and analysis of plant/microbial biomass for extraction of high market value compounds. This position is till continuation of the project. H/she will be responsible for bioprocessing and chemical analysis of plant and microbial biomass for extraction and purification of high market value compounds for development of new industrial/pharmaceutical products. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.</p>

Microbial Editing and Development Services (LAB) seeks RAC for laboratory analysis and monitoring of microbial cultures, samples and new drugs using specialist computer software and a range of identification methods.

Analytical and Fermentation Set-up (Lab) seeks RAC for laboratory analysis and monitoring of microbial cultures, samples and new drugs using specialist computer software and a range of identification methods. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

2. FOR PLANT TISSUE CULTURE FACILITY (LAB)

The preference will be given to the candidate having

- i. Postgraduate in Horticulture [MSc (Hons)] preferably thesis research in Plant Tissue Culture field. PhD scholar will be preferred

Duties:

The NCIB seeks a Research Associate (PPS-5), for research and development under **Plant Tissue Culture Facility** for the production of true to type certified and disease free biomass/plants for high market value compounds. This position is three year term or till continuation of the project. H/she will be responsible for the propagation and maintenance of in vitro plant cultures, media preparation, sampling, analysis, etc. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

3. FOR HYDROPONIC SECTION

The preference will be given to the candidate having

- i. MS (Agricultural Economics/horticulture/Soil Science/Plant Pathology/Entomology or related disciplines) and or MBA after basic degree of Agriculture (PhD scholar will be preferred).

Duties:

The research associate will work in team and assist his/her superordinate in research activities, writing papers, preparing funding projects, field visits, software development and any other tasks as required.

4. FOR DIGITAL AGRICULTURE SECTION

The preference will be given to the candidate having

- i. MS (Computer Science / Software Engineering / Artificial Intelligence / Data Science) from HEC recognized university. The incumbent must have a demonstrated ability to develop software programs in modern programming languages such as Python, Node.js, PHP using their respective frameworks. The applicant must demonstrate skills in machine learning frameworks such as tensorflow or pytorch. PhD scholar will be preferred. The candidate must effectively communicate in both oral and written formats in English.

Duties:

The NCIB seeks a three-year term position or till the continuation of the project of Research Associate. The research associate will work in team and assist his/her superordinate in research activities, field visits, software development and any other tasks as required. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

5. FOR PRECISION AGRICULTURE SECTION

The preference will be given to the candidate having

- i. MS Mechatronics/Electronics/electrical/Mechanical Engineering/ Software Engineering/) from HEC recognized university (PhD scholar will be preferred).

	<p>Duties: The research associate will work in team and assist his/her superordinate in research activities, writing papers, preparing funding projects, field visits, software development and any other tasks as required. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public. This position is three years term or till continuation of the project</p> <p>6. FOR ECONOMICS & ENVIRONMENT SECTION The preference will be given to the candidate having i. MS (Agricultural Economics/Environmental Sciences/social sciences or related disciplines) and or MBA after basic degree of Agriculture (PhD scholar will be preferred).</p> <p>Duties: The research associate will work in team and assist his/her superordinate in research activities, writing papers, preparing funding projects, field visits, software development and any other tasks as required. This position is three years term or till continuation of the project. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.</p> <p>Note: Seat allocation may vary depending upon availability of suitable candidates.</p>
12.	<p>Research Assistant (PPS-4) This position is three years term or till continuation of the project</p> <ul style="list-style-type: none"> i. Analyst/Biotechnology Section ii. Tissue Culture Section iii. Hydroponic Section iv. Digital Agriculture Section v. Precision Agriculture Section vi. Economics & Environment Section <p>Qualification: Graduate (16 years) degree in relevant field of research group (MS/M.Phil. scholar will be preferred).</p> <p>However, preference will be given to the candidates</p> <ol style="list-style-type: none"> 1. For Analyst/Biotechnology Section Graduate in Plant Biochemistry/Pharmacy/Molecular Biology/Biotechnology/Chemistry/Microbiology (MS/M.Phil scholar will be preferred) having research experience in biomass processing/bio-extraction or proficient at basic molecular techniques e.g., data mining, in silico PCR primer designing, PCR, sequencing and chromatogram analysis.

Duties:

The duties of Research Assistant (PPS-4), for research and development are as under:

Analyst lab seeks RA who can do R&D using medicinal plants biomass for extraction of high market value compounds. This position is three years term or till continuation of the project. A qualified person working on plant biomass for extraction and purification of high market value compounds for developing new pharmaceutical products. Must have research experience in Plant Biochemistry, Phytochemical Analysis/ Bio-extraction and biochemical analysis of bioactive compounds. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

Biomass Processing & Scientific Equipment (Lab) seeks RA for processing and analysis of plant/microbial biomass for extraction of high market value compounds. H/she will be responsible for bioprocessing and chemical analysis of plant and microbial biomass for extraction and purification of high market value compounds for development of new industrial/pharmaceutical products.

Microbial Editing and Development Services (Lab) seeks RA to undertake laboratory analysis and monitoring of microbial cultures, samples and new drugs using specialist computer software and a range of identification methods. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public. This position is three years term or till continuation of the project.

Analytical and fermentation set-up lab seeks RA to undertake laboratory analysis and monitoring of microbial cultures, samples and new drugs using specialist computer software and a range of identification methods. This position is three years term or till continuation of the project. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

Duties include;

- a. Oversee fermentation pilot plant and recovery
- b. Shake flask development, mutation screening programs, and strain development programs
- c. Conduct microbiology research to improve present strains that are utilized in production
- d. Develop programs for contamination reduction and increasing fermenter up time

2. FOR PLANT TISSUE SECTION

The preference will be given to the candidate having

- i. A graduate in Horticulture [BSc (Hons)]. MSc (Hons) scholar will be preferred.

Duties:

The NCIB seeks a Research Assistants (PPS-4), for research and development under **Plant Tissue Culture Facility** for the production of true to type, certified and disease free biomass/plants for high market value compounds. This position is three year term or till continuation of the project. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

3. FOR HYDROPONIC SECTION

The preference will be given to the candidate having

- i. BS (4 years) or MSc (2 years) or MS in the field of Agricultural Economics/Horticulture/Soil Science/Entomology) from HEC recognized university.

Duties:

The research assistant will work in team and assist his/her superordinate in research and development activities, field visits, software development and any other tasks as required.

4. FOR DIGITAL AGRICULTURE SECTION

The preference will be given to the candidate having

- i. BS (4 years) or MCS (2 years) or MS in the field of Computer Science / Software Engineering / Artificial Intelligence / Data Science / Information Technology from HEC recognized university. The incumbent must have a demonstrated ability to develop software programs in modern programming languages such as Python, Node.js, PHP using their respective frameworks. The incumbent must have hands-on experience on small single board computers such as Raspberry pi and Arduino. The candidate must effectively communicate in both oral and written formats in English.

Duties:

The NCIB seeks a three-year term position or till the continuation of the project of Research Assistant. The research assistant will work in team and assist his/her superordinate in research and development activities, field visits, software development and any other tasks as required. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public.

5. FOR PRECISION AGRICULTURE SECTION

The preference will be given to the candidate having

- i. BS (4 years) or MSc (2 years) or MS in the field of Mechatronics/Electronics/Electrical/ Software Engineering/ mechanical Engineering from HEC recognized university.

Duties:

The research assistant will work in team and assist his/her superordinate in research and development activities, field visits, software development and any other tasks as required. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public. This position is three years term or till continuation of the project

6. FOR AGRICULTURE & ENVIRONMENT SECTION

The preference will be given to the candidate having

- i. BS (4 years) or MSc (2 years) or MS in the field of Agricultural Economics/Social Sciences) from HEC recognized university.

Duties:

The research assistant will work in team and assist his/her superordinate in research and development activities, field visits, software development and any other tasks as required. The individual must be highly motivated with sound judgment, high integrity, and strong organizational skills, and have the ability to deal effectively with students, colleagues and the general public. This position is three years term or till continuation of the project.

13.	Computer Assistant (PPS-4) Intermediate or equivalent qualification with at least 2 nd division from a recognized board. Typing speed of 40 words per minute along with certificate of computer course.
14.	Lab Assistant (PPS-3) A qualified person with 10 years of education with science in or relevant field of research group. S/He must have worked in laboratory and have excellent coordination skills. S/He have good knowledge of inventory system, equipment calibration, measuring compounds, preparing solutions for use and disposing of hazardous waste
15.	Driver (PPS-3) A qualified person with primary pass education and LTV valid license. Those who have both license (LTV and HTV) or can speak multiple languages. The age limit is 25-50 years. However, the preference will be given to the person having Secondary School Certificate from recognized Board. Experience of operating tractor will be given preference.
16.	Field Worker (PPS-2) A qualified person with relevant background and willingness to work in the field.
17.	Naib Qasid (PPS-1) A qualified person with middle or metric qualification with good presentation and communication skills.