



Dr. A.P.J. Abdul Kalam Technical University U.P.

Sec-11, Jankipuram Vistar, Lucknow 226031

Syllabus and some other necessary Instructions

In continuation with the call letter issued to you on 29/12/2020, for the post of Assistant Professor at Uttar Pradesh Institute of Design [UPID], please find here with the syllabus and some other important information pertaining to the written test:

Syllabus :

1. Visualization and spatial ability
2. Observation and design sensitivity
3. Analytical and logical reasoning
4. Environmental and social awareness
5. Numerical Aptitude

- The candidates shall observe the following COVID 19 related precautions while visiting the campus for written test/interview:
 1. Candidates should maintain social distancing while commuting to and from the campus and from the time of entry till the exit from the campus.
 2. Candidates may carry soap/hand-sanitizer of up to 50 ml in transparent bottle, face mask, gloves and water in transparent bottle for personal use.
 3. Candidate should not share personal items like mask, gloves, water bottle etc.
 4. It is mandatory to wear a face mask properly at all times, while on campus.
 5. Spitting in the open is strictly prohibited.
 6. It is mandatory to undergo thermal scanning before entering Campus.
- As per the decision of the 37th Executive Council of AKTU (held on 07th July 2020), it is mandatory to achieve 50% (Fifty percent) marks in the written test for further consideration of your candidature for the merit.



Dr. A.P.J. Abdul Kalam Technical University U.P.

Sec-11, Jankipuram Vistar, Lucknow 226031

Syllabus and some other necessary Instructions

In continuation with the call letter issued to you on 29/12/2020, for the post of Assistant Professor (Energy Science & Technology, Manufacturing Technology & Automation, Computer Science & Engineering), at **Center for Advanced Studies, Lucknow**, please find here with the syllabus and some other important information pertaining to the written test:

Energy Science & Technology:

Domain knowledge of following areas:

Advanced Applied Mathematics, Energy Sources, Fuel and Combustion, Energy Conversion and Storage System, Introduction to the Energy materials and Fundamentals of Energy Devices, Energy Audit And Management, Bio Energy Engineering, Hydrogen Energy, Electric Vehicles Technology, Wind Energy Conversion Systems, Nuclear Reactor Theory, Overview of Material Characterization Techniques, Environmental Engineering And Pollution Control, Process Modelling and Simulation in Energy Systems, Thermal Engineering, Energy Audit and Management, Solar Energy Engineering, Waste Management for Energy Generation Technologies, Environmental Impact Assessment and Economic Analysis of Energy Technologies, Instrumentation, Nuclear, Batteries & Fuel Cells, Electrochemistry and Super capacitor, Wind Energy Engineering, Thin Film Technology and Applications, Nuclear Materials, Instrumentation in Energy Systems, Computational Heat Transfer, Power Plant and Electrical Energy Technology, Renewable Power Generation Sources, Energy Systems Modelling and Analysis.

Teaching aptitude: Few questions to test the teaching skills of the candidates.

Note: The questions for faculty aptitude test should be of GATE examination/PG level.

Manufacturing Technology & Automation:

Domain knowledge of following areas:

Advanced Engineering Mathematics, Material Science including composite materials, Strength of Material, Manufacturing Technology, Metal removal Processes, Theory of Metal Forming, Conventional and unconventional manufacturing processes, Additive Manufacturing, Advanced Foundry and welding technology, Machine tool control and condition monitoring, Surface Engineering, MEMS, NEMS, Production of Gears and Screws, Friction, wear and lubrication, Precision Engineering, Fluid Mechanics and machinery, Theory of machines and design of machine elements, Materials handling and management, Industrial management, Production planning and control, Time and motion study, Total Quality management, Pneumatics and control, Computer Assisted Manufacturing, Computer Aided Design, Computer Integrated Manufacturing, Flexible Manufacturing System, Finite Element Method, Automobile Engineering, Operation Research, Design Planning and Control of Production Systems, Supply Chain Management, Project Management, Inspection and Testing in Manufacturing , Automation and Robotics, Automation and control, Tool Engineering, Refrigeration and Air conditioning, Simulation and modelling.

Teaching aptitude: Few questions to test the teaching skills of the candidates.

Note: The questions for faculty aptitude test should be of GATE examination/PG level.

Computer Science & Engineering:

SYLLABUS will be that of the latest syllabus for GATE Exam

- The candidates shall observe the following COVID 19 related precautions while visiting the campus for written test/ interview:
 1. Candidates should maintain social distancing while commuting to and from the campus and from the time of entry till the exit from the campus.
 2. Candidates may carry soap/hand-sanitizer of up to 50 ml in transparent bottle, face mask, gloves and water in transparent bottle for personal use.
 3. Candidate should not share personal items like mask, gloves, water bottle etc.
 4. It is mandatory to wear a face mask properly at all times, while on campus.
 5. Spitting in the open is strictly prohibited.

6. It is mandatory to undergo thermal scanning before entering Campus.
- As per the decision of the 37th Executive Council of AKTU (held on 07th July 2020), it is mandatory to achieve 50% (Fifty percent) marks in the written test for further consideration of your candidature for the merit.



Dr. A.P.J. Abdul Kalam Technical University U.P.

Sec-11, Jankipuram Vistar, Lucknow 226031

Syllabus and some other necessary Instructions

In continuation with the call letter issued to you on 29/12/2020, for the post of Assistant Registrar at IET Lucknow, AKTU Lucknow & UPID NOIDA, please find here with the syllabus and some other important information pertaining to the written test:

Syllabus:

Hindi Language Comprehension, English Language Comprehension, Data Interpretation, Mental Ability, Reasoning, G.K. regarding Higher/Technical Education, University Administration (Service Rules, Finance Rules, RTI, Procurement, etc.)

- The candidates shall observe the following COVID 19 related precautions while visiting the campus for written test/interview:
 - 1.Candidates should maintain social distancing while commuting to and from the campus and from the time of entry till the exit from the campus.
 - 2.Candidates may carry soap/hand-sanitizer of up to 50 ml in transparent bottle, face mask, gloves and water in transparent bottle for personal use.
 - 3.Candidate should not share personal items like mask, gloves, water bottle etc.
 - 4.It is mandatory to wear a face mask properly at all times, while on campus.
 - 5.Spitting in the open is strictly prohibited.
 - 6.It is mandatory to undergo thermal scanning before entering Campus.
- As per the decision of the 37th Executive Council of AKTU (held on 07th July 2020), it is mandatory to achieve 50% (Fifty percent) marks in the written test for further consideration of your candidature for the merit.



Dr. A.P.J. Abdul Kalam Technical University U.P.

Sec-11, Jankipuram Vistar, Lucknow 226031

Syllabus and some other necessary Instructions

In continuation with the call letter issued to you on 29/12/2020, for the post of Assistant Professor at IET for Civil, Electronics & Communication, Mechanical and Computer Science & Engineering branches, please find here with the syllabus and some other important information pertaining to the written test:

SYLLABUS will be that of the latest syllabus for GATE Exam

- The candidates shall observe the following COVID 19 related precautions while visiting the campus for written test/interview:
 1. Candidates should maintain social distancing while commuting to and from the campus and from the time of entry till the exit from the campus.
 2. Candidates may carry soap/hand-sanitizer of up to 50 ml in transparent bottle, face mask, gloves and water in transparent bottle for personal use.
 3. Candidate should not share personal items like mask, gloves, water bottle etc.
 4. It is mandatory to wear a face mask properly at all times, while on campus.
 5. Spitting in the open is strictly prohibited.
 6. It is mandatory to undergo thermal scanning before entering Campus.
- As per the decision of the 37th Executive Council of AKTU (held on 07th July 2020), it is mandatory to achieve 50% (Fifty percent) marks in the written test for further consideration of your candidature for the merit.



Dr. A.P.J. Abdul Kalam Technical University U.P.

Sec-11, Jankipuram Vistar, Lucknow 226031

Syllabus and some other necessary Instructions

In continuation with the call letter issued to you on 29/12/2020, for the post of Research Engineer (Energy Science & Technology, Manufacturing Technology & Automation) at Center for Advanced Studies, please find here with the syllabus and some other important information pertaining to the written test:

Energy Science & Technology

Section-I Domain knowledge of following areas:

Software and apps related to modelling of photovoltaic and battery testing, Energy simulation and analysis, Wi-Fi, Bluetooth & IOT based devices and applications in energy management and analysis, networking of machines, knowledge of DBMS, wireless computer networks, network security, cloud computing, MATLAB, software related to CAD and relevant drawings.

Section-II: Aptitude

Logical reasoning, numerical aptitude, comprehension.

Note: The questions for research engineer aptitude test should be of UG level.

Manufacturing Technology & Automation

Section-I Domain knowledge of following areas:

Computer Assisted Manufacturing, Computer Integrated Manufacturing, Flexible Manufacturing System, Wi-Fi, Bluetooth & IOT based devices and applications in automation, networking of machines, Programming and Apps related to robotics, manufacturing & automation on any platform, knowledge of DBMS, wireless computer networks, network security, cloud computing, MATLAB, software related to CAD and machine drawings.

Section-II: Aptitude

Logical reasoning, numerical aptitude, comprehension.

Note: The questions for research engineer aptitude test should be of UG level.

- The candidates shall observe the following COVID 19 related precautions while visiting the campus for written test/interview:
 1. Candidates should maintain social distancing while commuting to and from the campus and from the time of entry till the exit from the campus.
 2. Candidates may carry soap/hand-sanitizer of up to 50 ml in transparent bottle, face mask, gloves and water in transparent bottle for personal use.
 3. Candidate should not share personal items like mask, gloves, water bottle etc.
 4. It is mandatory to wear a face mask properly at all times, while on campus.
 5. Spitting in the open is strictly prohibited.
 6. It is mandatory to undergo thermal scanning before entering Campus.

- As per the decision of the 37th Executive Council of AKTU (held on 07th July 2020), it is mandatory to achieve 50% (Fifty percent) marks in the written test for further consideration of your candidature for the merit.



Dr. A.P.J. Abdul Kalam Technical University U.P.

Sec-11, Jankipuram Vistar, Lucknow 226031

Syllabus and some other necessary Instructions

In continuation with the call letter issued to you on 29/12/2020, for the post of **Deputy Librarian at UPID, Noida**, please find here with the syllabus and some other important information pertaining to the written test:

Syllabus

- **General Knowledge**

- **Library and Information Science and Basic Knowledge of Computer:-**

Foundation of library and information Science: Concept of library, information and society, Information society, Library as a social institution, Types of libraries: Academic, Special and Public, National library of India, Five laws of library science and their implications, Concept of information literacy, Library movement in India, Library legislation, Library acts in India, Intellectual property rights and law, Censorship, Extension activities and public relation work, Role and activities of LL.A., IFLA and UNESCO and RRRLF, Library resource sharing.

Library Classification and Cataloguing: Definition, need, purpose and function, Notation: Types and qualities, Main features of Colon Classification and Dewey Decimal Classification Schemes, Principles of helpful sequence, General aspects of common isolates/standard sub-divisions, Devices used in C.

C. and D.D. C., Steps in practical classification, Library Cataloguing: Definition, need, purpose and function, History of Classified Catalogue Code and Anglo American Cataloguing Rules, Kinds of entries: Main entry and added entries of Classified Catalogue Code, Kind of catalogue: Classified and dictionary, Physical and inner forms of catalogue, Subject cataloguing and chain procedure, OPAC.

Library Organization and Management: General and scientific principles of management and their implication to library administration, Function of administration, Sections of a library: Acquisition section -Book selection, procedure and accessioning, Technical processing section (Classification and Cataloguing of books), Periodical section, Circulation section: Newark and Browne, Maintenance: Open access system, care and repair (binding) of books and journals, Stock rectification and verification, Library display, Library rules, Library statistics, Budgeting.

Reference Service and Information Sources: Reference and information Services: Need and purpose, Ready reference service, Long range reference service, Initiation, Reference service in School and public library, Organization reference department, Qualities of a reference librarian, CAS and SDI, Information Sources: Need and types: Primary, secondary and tertiary.

Basics of Computer: Introduction to computer-Characteristics, use, and types of computers, Computer generations, and computer architecture: Hardware, input and output devices, Software: Need, purpose and types, Operating system, Library software: Proprietary, Open source software, Role of library automation, Use of Internet in libraries, Electronic Resources: e-Books, e- Journals, databases

- The candidates shall observe the following COVID 19 related precautions while visiting the campus for written test/ interview:
 1. Candidates should maintain social distancing while commuting to and from the campus and from the time of entry till the exit from the campus.
 2. Candidates may carry soap/hand-sanitizer of up to 50 ml in transparent bottle, face mask, gloves and water in transparent bottle for personal use.
 3. Candidate should not share personal items like mask, gloves, water bottle etc.
 4. It is mandatory to wear a face mask properly at all times, while on campus.
 5. Spitting in the open is strictly prohibited.
 6. It is mandatory to undergo thermal scanning before entering Campus.
- As per the decision of the 37th Executive Council of AKTU (held on 07th July 2020), it is mandatory to achieve 50% (Fifty percent) marks in the written test for further consideration of your candidature for the merit.