NETAJI SUBHAS UNIVERSITY OF TECHNOLOGY
A STATE UNIVERSITY UNDER ACT 06 OF 2018,GOVT. OF NCT OF
DELHI (FORMERLY NETAJI SUBHAS INSTITUTE OF TECHNOLOGY)
Azad Hind Fauj Marg, Sector – 3, Dwarka, New Delhi – 110 078.
Tel: 25000290, **Website :** http://www.nsut.ac.in

Recruitment Notice No. NSUT/FACULTY/2021/01

ADVERTISEMENT FOR FACULTY POSITIONS OF PROFESSOR, ASSOCIATE PROFESSOR AND ASSISTANT PROFESSOR (CIVIL ENGINEERING)

Online Applications in the prescribed format, are invited from eligible candidates for direct recruitment to the following faculty positions as per details given below:-

CATEGORY OF POSTS: GROUP 'A' (Teaching)

Sr.	Department	Position	Pay Scale & Level	UR	EWS	SC	ST	OBC	Total
1.	Civil Engineering	Assistant Professor	RS. 57,700-1,82,400 (Level 10)	08	01	03	01	04	17
2.	Civil Engineering	Associate Professor	Rs.1,31,400-2,17,100 (Level 13 A1)	02	01	01	--	02	06
3.	Civil Engineering	Professor	Rs.1,44,200-2,18,200 (Level 14)	01	--	01	--	--	02

Reservation for Persons with Benchmark Disabilities (PWD category) will be as per the prevalent rules.

Note:1. UR: Unreserved, EWS: Economical Weaker section, SC: Schedule Caste, ST: Schedule Tribes, OBC: Other Backward Classes, PWD: Persons with Benchmark Disability.
2. The number of posts advertised is indicative and the University reserves the right not to fill up any post and may decrease or increase the number of posts.
3. NSUT, besides its main campus at Dwarka, is also having two more campuses mainly East Campus at Geeta Colony (Formerly AIACTR) and West Campus at Jaffarpur, Najafgarh (Formerly CBPGEC). Presently civil engineering course is being run at West Campus only. However, the candidates who are selected for the above post may be transferred to any of the above campuses or any other campus which may be created in future by NSUT.

The online application form and other relevant details regarding educational qualifications, experience, Short-listing criteria, terms and conditions of appointment, reservation policy, etc. required for teaching posts advertised are available in subsequent paras. Candidates who wish to apply for the above posts are required to fill online applications only followed by submission of print out of filled application form alongwith relevant Annexures.

Separate applications should be **filled in online mode only** for each post followed by submission of print out of filled application form alongwith relevant annexure, failing which the application(s) is/are liable to be rejected. Application should be filled in capital letters only. The applications should be sent in an envelope super scribed on it post applied for Civil Engineering, whichever the case may be, Name, Address, Category, Applicant ID and Department, mandatorily as per detail given below:-

Application for the post of _____ in Civil Engineering
Name
Applicant ID
Category
Address

(I) MINIMUM QUALFICATION AND EXPERIENCE: PROFESSOR AND ASSOCIATE PROFESSOR

SNO	Name of the post	QUALIFICATIONS
1.	**PROFESSOR (CIVIL ENGINEERING)** QUALIFICATION &EXPERIENCE FOR CANDIDATES FROM TEACHING & INDUSTRY	**PROFESSOR (CIVIL ENGINEERING)** **ESSENTIAL QUALIFICATIONS:** **Direct Recruitment:** (a) Ph. D. degree in relevant field and First class or equivalent at either Bachelor's or Master's level in the relevant branch **AND** (b) Minimum of 10 years of experience in teaching/ research/ industry out of which at least 3 years shall be at a post equivalent to that of an Associate Professor **AND** (c) At least 6 research publications at the level of Associate

2.	**ASSOCIATE PROFESSOR** (CIVIL ENGINEERING) QUALIFICATION &EXPERIENCE FOR CANDIDATES FROM TEACHING & INDUSTRY	Professor in SCI journals / UGC / AICTE approved list of journals and at least 2 successful Ph.D. guided as Supervisor / Co-supervisor till the date of eligibility of promotion. **OR** At least 10 research publications at the level of Associate Professor in SCI journals / UGC / AICTE approved list of journals till the date of eligibility of promotion. **ASSOCIATE PROFESSOR (CIVIL ENGINEERING)** **ESSENTIAL QUALIFICATIONS:** **For Direct Recruitment:** (a) Ph.D. degree in the relevant field and First class or equivalent at either Bachelor's or Master's level in the relevant branch **AND** (b) At least total 6 research publications in SCI journals / UGC / AICTE approved list of journals. **AND** (c) Minimum of 8 years of experience in teaching / research / industry out of which at least 2 years shall be Post Ph.D. experience

Note: Out of the above required research publications as mentioned in the essential qualifications for the post of Professor and Associate Professor, minimum 03 publications should be Science Citation index (SCI) or Science Citation Index Expanded (SCIE).

(II)   **MINIMUM QUALFICATION AND EXPERIENCE: ASSISTANT PROFESSOR**

1.	**Name of the post**	
	ASSISTANT PROFESSOR (CIVIL ENGINEERING) QUALIFICATION & EXPERIENCE FOR CANDIDATES FROM TEACHING & INDUSTRY	**ASSISTANT PROFESSOR** **(CIVIL ENGINEERING)** **ESSENTIAL QUALIFICATIONS** **For Direct Recruitment:** B. E. / B. Tech. /B. S. and M. E./ M.Tech./ M. S. or Integrated M. Tech., in relevant branch with first class or equivalent in any one of the degrees

1. Equivalence for PhD is based on publication of 5 International Journal papers, each Journal having a cumulative impact index of not less than 2.0, with incumbent as the main author and all 5 publications being in the authors' area of specialization.

2. PhD shall be from a recognized University.

3. Experience at Diploma Institutions is also considered equivalent to experience in degree level Institutions at appropriate level and as applicable. However, qualifications as above shall be mandatory.

4. If a class/division is not awarded, minimum of 60% marks in aggregate shall be considered equivalent to first class/division. If a Grade Point System is adopted the CGPA will be converted into equivalent marks as below:

Grade Points	Equivalent percentage
6.25	55%
6.75	60%
7.25	65%
7.75	70%
8.25	75%

   (Subject to conversion formula not provided by the degree awarding University/ Institutions)

5. B.Sc. (Engineering) shall be treated as equivalent to B.E/B.Tech..

6. M. Sc. (Engineering), and MS shall be treated as equivalent to ME / M. Tech. The MS degree shall be considered equivalent to ME/M.Tech. for all purposes, provided MS degree has been acquired from the Institutes of national importance as recognized by MHRD and the basic degree should be BE/B. Tech. in relevant branch. MS degree awarded by an accredited foreign Universities/ Institutions shall be considered provided that the equivalency of MS degree has been approved by AIU.

7. Candidates who have done Ph.D after the Bachelor's Degree from institution of National importance with GATE/GPAT/CEED shall be eligible for the post of Assistant Professor.

*Note: The relevant degrees for the posts are mentioned in **Annexure 'B'**. The relevancy list is indicative but not exhaustive. In case of any other relevant degree which may be submitted any candidate, the same shall be examined by the University through committee. University decision shall be final in this regard.*

Eligibility Criteria:-

1. The candidate must be a citizen of India.

2. The educational qualification, experience, age and other eligibility condition as stipulated in advertisement shall be determined as on the 1st June, 2021.

AGE LIMIT:

Name of the Post	Age Limit
Professor	55 years
Associate Professor	50 years
Assistant Professor	35 years

Conditions for age relaxation:

Relaxation for Government Servant* upto 5 years in accordance with the instructions/ orders issued by Govt. of India from time to time. The crucial date for determining the age limit shall be the 01.06.2021. Candidates who are:-

1. born on or before 01.06.1966 will not be eligible to apply for the post of Professor.
2. born on or before 01.06.1971 will not be eligible to apply for the post of Associate Professor.
3. born on or before 01.06.1986 will not be eligible to apply for the post of Assistant Professor.
4.
    (i)   The age relaxation for SC/ST candidates will be 5 years as per Govt. of India instructions.
    (ii)   The age relaxation for OBC candidates will be 3 years as per Govt. of India instructions.
    (iii) The age relaxation for PWD candidates will be 10 years (15 years for SC/ST and 13 years for OBC candidates) as per Govt. of India instructions

*Government Servant means employees of Government, Universities/ Institutions funded by the Government and Autonomous organizations of

Government. Government means Central Government of India and various Governments of State and Union Territories of Republic of India.

One-Time relaxation in upper age limit to the contractual employees working in NSUT at the time of regular appointment on direct recruitment basis will be available in accordance with the OM No. 19(11)/2015/S-IV/1751-1756 dated 11.06.2019 issued by Services Dept., GNCTD. Such candidates will be eligible for one-time relaxation in upper age limit upto a maximum period of 5 years, subject to other conditions mentioned therein.

One time relaxation in upper age limit will be given to the persons who were working as contract faculty member in erstwhile Ambedkar Institute of Advanced Communication Technology and Research, Geeta Colony (AIACTR) & Chaudhary Braham Prakash government Engineering College, Jaffarpur, (CBPGEC) in NSUT at the time of merger of these Institutes with NSUT. Relaxation will be given to the extent of the period of contractual service as faculty member rendered in these Institutes.

Reservation Benefits: -

1. Reservation benefits will be available to the EWS/SC/ST/OBC/PWD in accordance with the instructions/Orders/Circulars issued from time to time by the Govt. of Delhi.

2. Candidates who wish to be considered against reserved vacancies and /or to seek age relaxation, must be in possession as on 01/06/2021 of relevant certificates (EWS/SC/ ST/OBC(Delhi) – Non Creamy layer (NCL)/PWD/ Educational/ Experience etc.) issued by the competent / notified authority in prescribed format otherwise their claim for any category will not be entertained and their applications will be considered against un-reserved (UR) category vacancies, if eligible otherwise. The candidate has to select that particular category when applying online for the post. No request for change of Category will be entertained at any later stage.

3. Only OBC (Delhi) candidates notified by Govt. of NCT of Delhi vide letter/order No. F/19(10)2001/S-III/Pt. File/2278-2285 dated 27/07/2007 and no. F.19(01)/2012/S.IV/ 1241-1258 dated 20/07/2016 will be given the benefit of reservation / age relaxation under OBC category. OBC (Outside) candidates will be treated as un-reserved candidates and they must apply under UR category. The OBC candidates must be in possession of non-creamy layer certificate, issued by Competent Authority on or after 01/04/2020 along with his/her caste certificate. OBC Candidates belonging to "Creamy Layer" are not entitled to avail any concession otherwise extended to OBC category. Such candidates have to indicate their category as UR.

4. Only following two types of certificates will be accepted as valid certificates for

grant of benefit of reservation to OBC:-

(A) OBC certificate (Delhi) issued by the Revenue Department of GNCT Of Delhi, on the basis of an old certificate Issued to any member of individual's family from Competent Authority, GNCT of Delhi, along with NCL issued by the competent authority on or after 01/04/2020.

(B) OBC certificate issued by a competent authority outside Delhi to a person belonging to a community duly notified as OBC by GNCT of Delhi. This certificate should have mandatorily been issued on the basis of OBC certificate issued by Competent Authority Govt. of NCT of Delhi to a family member of the concerned person who had been residing in Delhi before 08/09/1993, along with NCL issued by the competent authority on or after 01/04/2020.

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5. Candidates belonging to Economically Weaker Sections (EWS) will have to furnish self-attested copy of valid Income & Asset certificate issued by the competent authority on or after 01/04/2020.

6.
(i) A Candidate belonging to SC/ST/OBC/EWS who is selected on the same standard as applied to general category candidates and who appears in the general merit list is treated as own merit candidate. Such candidate will be adjusted against unreserved point of the reservation roster. In other words, when a relaxed standard is applied in selecting an SC/ST/OBC/EWS candidate, for example in the age limit, experience, qualification, extended zone of consideration larger than what is provided for general category candidates, etc., the SC/ST/OBC/EWS candidates are to be counted against reserved vacancies. Such candidates would be deemed to be unavailable for consideration against unreserved vacancies.
(ii) The candidates belonging to SC/ST/EWS/OBC may also apply separately as General candidates in UR Category but their applications under UR category will be treated on merit.
(iii) The candidates belonging to SC/ST in other states are also eligible to apply under category of SC/ST, subject to submission of relevant certificates.
(iv) No relaxation for age will be applicable for SC/ST/OBC candidates who are applying against general vacancy.

GENERAL CONDITIONS

1. All entrants would be covered mandatorily under the New Pension Scheme (NPS) as a policy duly approved by the Govt. of NCT of Delhi.

2. The prescribed qualifications/experience is the minimum and the

mere possession and fulfilling the essential and desirable qualifications of the same does not entitle the candidates to be called for the interview. A short-listing criterion may be set higher than the minimum requirements advertised. Criteria for short-listing may vary post to post.

3. The candidates are advised to go through the **Guidelines for Screening cum Assessment for direct appointment to the position of Professor, Associate Professor and Assistant Professor at Annexure-A.**

4. The candidates already in Govt./Semi-Govt service / Autonomous Institutions/ PSU/Universities/etc. must apply **by uploading the `No Objection Certificate'** alongwith their applications. In case any candidate fails to obtain/upload No Objection Certificate, the same is mandatorily is to be produced at the time of Interview, if shortlisted.

5. All the candidates should submit their applications online on or before **16.07.2021 (Friday)** and thereafter **send the printout of it** with self-attested copies of all documents in support of academic and research performance and other scholarly and academic credentials/ accomplishments on or before **02.08.2021 (Monday)**. Original certificates should be produced at the time of Document Verification before the Interview.

6. The candidates short-listed for the interview shall be informed by E-mail/website. The candidates are advised in their own interest to mention their correct mobile no. and email IDs in the application. They are also advised to regularly visit the website.

7. No TA/DA in connection with appearing in the interview etc. will be paid to the candidate.

8. Incomplete applications or applications received after last date shall not be considered. Application will be considered only if both online and hard copy application form, duly filled, are received by due date. University shall not be liable for any postal delay.

Eligible persons may file their applications through online only by visiting NSUT website http://www.nsut.ac.in. The details of the procedure for online submission of applications, submitting of documents/certificates/ photos, etc. will be available on the website. The candidates are required to pay the following fees (Non-Refundable) as under:

(a) **For General/OBC /EWS Category Candidates**:

Registration Fees - Rs. 1,000/- (Rupees One Thousand Only)
Processing Fee   - Rs. 1,000/- (Rupees One Thousand Only)
Total   - Rs. 2,000/- (Rupees Two Thousand Only)

(b) **For SC/ST/PWD Category Candidates:**

Registration Fees - Nil
Processing Fee   - Rs. 1,000/- (Rupees One Thousand Only)
Total   - Rs. 1000/- (Rupees One Thousand Only)

Note: SC/ST/PWD candidates who are applying for General Category post will have to pay the fees as per Sub-Clause (b) above.

(c) Failure to pay the application fees would result in rejection of their applications.

9. The last date for filling up the online applications **16.07.2021 (Friday) till 12.00 pm (night).** The hard copy (Print out) of filled application form alongwith all enclosures covering the candidates credentials like Educational Qualifications, experience, pay scale/ remuneration drawn, NOC from the employer, etc. (as per list) must reach on or **before 02.08.2021 (Monday).** Mention **"Application for the post of (as the case may be) in the Civil Engineering Department in NSUT"** on the envelope containing the hard copy of the Form and Annexure, University will not be responsible for any postal delay.

Address for submission of Hard Copy-

The Registrar,
Netaji Subhas University of
Technology, Azad Hind Fauj Marg,
Sector-3, Dwarka, New Delhi-110078

REGISTRAR, NSUT

ANNEXURE-A

NETAJI SUBHAS UNIVERSITY OF TECHNOLOGY
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Guidelines for Screening cum Assessment of the candidates for direct appointment to the posts of Professor/ Associate Professor and Assistant Professor

1. **General Guidelines**:

    (i)   The direct recruitment to the posts of Professor/ Associate Professor and Assistant Professor in the University shall be on the basis of merit and would be conducted through all India advertisement and selection by the duly-constituted Selection Committees.

    (ii)   The overall selection procedure shall incorporate transparent, objective and credible methodology of analysis of the merits and credentials of the applicants, based on the weightage given to the performance of the candidate in different relevant dimensions.

    (iii) Mere possession of minimum qualifications, for the post applied for, may not entitle a candidate for a call for the interview.

    (iv)   The University shall have the right to restrict the number of candidates to a reasonable number (normally 10 candidates for the first post and 5 candidates for each subsequent post) to be called for interview, based on the recommendations of the Screening Committee constituted for this purpose which shall be on the basis of Assessment as per Table1 considering their qualifications, experience (higher than the minimum prescribed), relevant scholarly credentials and academic achievements or by any other conditions that it may deem fit.

    (v)   The University shall conduct a written test for the post of Assistant Professor to short list the candidates. Only those candidates who will obtain more than the minimum cut off marks (in the written test), shall be considered for further assessment of their credentials as per Table 1. Cut off criteria is given in the Para 3 (f) of the **Annexure A**.

    (vi)   After allocation of the weightages to all the eligible candidates (Qualified in written test and exempted from written test), the Screening Committee will

draw a list of all the eligible candidates indicating the points scored by them as per Table 1 in descending order for the purpose of shortlisting the candidates for the Interview in accordance with the criteria mentioned in Point No.(iv) above.

(vii) In case of tie in the points of two or more candidates for the last slot, all the candidates with the same score shall be called for interview.

2. **Screening-cum-Assessment Criteria for Direct Recruitments**:

The applications received for the teaching posts shall be screened on the basis of Academic and Research Performance and other scholarly and academic credentials/accomplishments of the candidates as per Table1

Table 1

Assignment of weightage/points for Academic record, Research performance and other scholarly credentials & academic achievements for the positions of Assistant Professor/Associate Professor/Professor:

	Criteria	**Assistant Professor**	**Associate Professor**	**Professor**
	Qualification, Experience, Research Performance and other Academic achievements	Minimum qualification & experience as per recruitment rules of the University		
A	**Academic record**	**Points**	**Points**	**Points**
1.	**UG (B.Tech/BE etc.): Maximum points**	**10**	**8**	**5**
	a. First Class/Division or equivalent CGPA	5	4	3
	b. Aggregate marks ≥ 75% or equivalent CGPA	8	6	4
	c. Aggregate marks ≥ 85 % or equivalent CGPA	10	8	5
2.	**PG (M.Tech/MS etc.): Maximum Points**	**15**	**12**	**8**
	a. First Class/Division or equivalent CGPA	5	4	3
	b. Aggregate Marks ≥ 75% or equivalent CGPA	8	6	4
	c. Aggregate Marks ≥ 85% or equivalent CGPA	10	8	5

	d. First class with one paper in SCI/SCIE/SSCI indexed Journals from the content of M.Tech Thesis as First/Second/ Corresponding author	15	12	8
3.	**Ph.D.: Maximum Points**	**20**	**15**	**12**
	a. Ph.D. with 3 SCI/SCIE/SSCI indexed journal papers from the work contained in the PhD Thesis as First/Second/Corresponding author	20	15	12
	b. Ph.D with 2 SCI/SCIE/SSCI indexed journal papers from the work contained in the PhD Thesis as First/Second/Corresponding author.	15	12	8
	c. Ph.D with 1 SCI/SCIE/SSCI indexed journal paper from the work contained in the PhD Thesis as First/Second/Corresponding author	10	8	6
	d. Ph.D with 3 papers in UGC-CARE listed Journals (other than a, b, c above) in the area of Ph.D Thesis	6	**5**	3
4.	**UGC/CSIR/ICAR/GPAT/GATE/ ICMR/ Equivalent Examination/ Test qualified at State/National level: Max Points**	**5**	**5**	**5**
	a. NET-Lectureship/GATE-qualified/Equivalent	3	3	3
	b. NET-JRF	5	5	5
	Total Marks - A	**50**	**40**	**30**
B	**Experience and Research Performance**	**Points**	**Points**	**Points**
5.	**Teaching/Research /Industrial Experience: Max Points**	**10**	**8** Above minimum eligibility	**6** Above minimum eligibility

	a. Teaching (UG/PG)/ Industrial Experience with regular scale in the equivalent position (**Max 5 points**)	1/Year	1/Year	1/Year
	b. Research Experience in R&D organizations after Ph.D (**Max 5 points**)	1/Year	1/Year	1/Year
	c. PDF /D.S. Kothari/Inspire/ Equivalent fellowship of Govt./Reputed organizations after Ph.D.	3/Year	2/Year	2/Year
6.	**Research Publications : Max Points**	**15**	**20**	**25**
	a. International/National Journal indexed in Thomson Reuters/ Clarivate Analytics (SCI/SCIE/ SSCI): (i) First/second/Corresponding author	3/Paper	2/Paper	2/Paper
	(ii) for other Co-authors	1/Paper	1/Paper	1/Paper
	b. Research papers in UGC-CARE list of journals (other than 'a.' above) as First/Second/ corresponding author (**Max 3 points**)	0.5/Paper	0.5/Paper	0.5/Paper
	c. Books published with ISSN/ISBN No.: International Publishers: to be divided equally if more than one author (**Max 4 points**)	3/Book	2/Book	2/Book
	d. Books published with ISSN/ISBN No. : National Publishers: to be divided equally if more than one author (**Max 2 points**) **Note : Max 4 points for both 'c.' and 'd.' as above**	2/Book	1/Book	1/Book
7.	**Research Projects (completed) Max Points**	**8**	**10**	**12**
	a. Projects above 15 lakh	8/Project	5/Project	4/Project
	b. Projects above 5 lakh	4/Project	3/Project	3/Project
	c. Projects above 2 lakh	2/Project	2/Project	2/Project

8.	Patents: Maximum Points	6	7	8
	a. Awarded	6/Patent	4/Patent	3/Patent
	b. Published (**Max 3 Points**)	1/Patent	1/Patent	1/Patent
9.	**Research Guidance: (Max Points)**	7	8	10
	Ph.D. guided and Degree awarded under the supervision of the applicant			
	(a) As Sole Supervisor	4/Student	3/Student	2/Student
	(b) As Joint Supervisor	2/Student	1.5/Student	1/Student
10	**Max. Points**	--	2	2
	Seminars/conferences/symposia/ workshops/ training programmes etc. organized as Organizer/ Coordinator (Max. 2 points)	--	1 for 1 day programme and 2 for more than 1 day	0.5 for 1 day programme and 1 for more than 1 day
11	**Max. Points**	4	5	7
	(a) Fellow of any of the three National Academies of Science/ National Academy of Engineering/ Fellow of IEEE/ IEE/ASME/ASCE/ACM, Shanti Swarup Bhatnagar Awardee etc.	(a) Nil	(a) 5 for any one	(a) 5 for any one
	(b) Editor/Associate Editor of SCI/ SCIE/SSCI indexed journals	(b) 4 for each	(b) 4 for each	(b) 4 for each
	(c) Fellowship of National organizations like IE (India) etc.	(c) 2 for each	(c) 2 for each	(c) 2 for each
	(d) Reviewer of SCI/SCIE/SSCI indexed Journals	(d) 2 for each	(d) 1 for each	(d) 1 for each
	Total Points: B	50	60	70
	Grand Total: A+B	100	100	100

Abbreviation Used:-

PG-Post Graduation, UG-Under Graduation, SCI- Science Citation Index,SCIE- Science Citation Index Expanded, SSCI- Social Sciences Citation Index.

NOTES:

(a) Assessment/shortlisting of the candidates shall be based on the evidence uploaded by the applicant such as: copy of the publications, Sanction letters of the projects, Certificates of utilization/completion of the projects (issued by the Institute/ University), acknowledgements for patent filing and approval letters, Ph.D. award letter/notification of research scholars guided, etc.

(b) In the disciplines where specialized programmes are being run, Screening Committee may shortlist the candidates for interview, from amongst the eligible candidates having area of specialization required for the posts.

(c) Selection Committee may not be held if the number of eligible candidates for any position (Assistant Professor/Associate Professor/Professor) is less than three. In such case, the positions shall be re-advertised.

(d) Depending upon the exigency and requirements of the University, the condition of minimum/maximum number of candidates to be called for interview may be relaxed by the University.

(e) Teaching experience as full-time faculty member with regular scale in any recognized University/College/Institution of Higher Education at appropriate position shall be counted for 5(a) of Table 1.

(f) Research experience, after Ph.D. as full-time Post-doctoral Fellow/ Research Associate/Research Scientist etc., in recognized University/ Research Organization in India or abroad shall be counted for 5(b) & 5(c) of Table1.

(g) **Experience certificate clearly mentioning** pay scale, Period of service, name of the post whether full-time/ part time, whether regular/ contract /adhoc basis, will be required to be submitted. **Certificate lacking any of the above aspect shall not be treated as valid**.

(h) If a class/division is not awarded, a minimum of 60% marks in aggregate shall be considered equivalent to first class/ division. If a Grade Point System is adopted but the conversion formula is not provided by the concerned University/Institution, the applicant can convert their CGPA into equivalent marks as per formula: **Aggregate Percentage of marks = (CGPA - 0.75) × 10**

(i) If any false information is provided by the candidate, his/her candidature for the post shall stand cancelled.

3. **Conduct of Written Test for Short listing of Candidates for the post of Assistant Professor:**

There may be a written test for shortlisting of the candidates, in the case of Recruitment of Assistant Professor. The University shall conduct a written test for short listing of the candidates as follows:

a. The applications received shall be scrutinized as per the eligibility criteria notified in the advertisement by the University for the Respective post.

b. List of eligible candidates for appearing in the written test shall be uploaded on the University website.

c. The eligible candidates shall be required to download Admit Cards from University website for appearing in the written test.

d. The written test for the post of Assistant Professor shall be based on prescribed syllabus which is attached herewith as **Annexure C.**

e. The date of Written Test shall be notified in due course of time on University website. The candidates shall be advised to visit the University website from time to time for further updates.

f. The cut off for the written test:

    (a) The minimum cut off marks for written test for General, OBC & EWS category applicants shall be taken as marks equal or more than 50% of X ("X" is being defined in the subsequent lines). Further, for SC/ST/PWD category minimum cut off marks for written test shall be as 45% of X. For this purpose, X is defined as the average marks obtained by top five applicants in the written test.

    (b) The minimum cut off marks shall be a minimum of 35% and 30% marks (absolute) for General/OBC/EWS and SC/ST/PWD candidates, respectively in the written test.

    The higher marks out of (a) and (b) of the above shall be considered as final cut off marks.

g. Mere qualifying the written test shall not guarantee the candidate be to be called for interview.

h. A pool of the eligible candidates will be formed including the candidates who qualify the written test and the candidates who were exempted from written test. These candidates who are part of the pool shall be assessed as per Table1.

i. The number of candidates from the above pool of eligible candidates to be called for interview shall be based on aggregate points obtained as per Table1 and the criteria mentioned in the point 4 of general guidelines of this Annexure.

4. <u>Exemption from the written test:</u>

The exemption from the Written Test for the purpose of recruitment to the post of Assistant Professor shall be granted to the candidates who has a Ph.D. degree in the relevant branch and if:

1) the candidates has at-least one publication in Category I **OR**
2) the candidate has at-least two publications in Category II **OR**
3) the candidate has at-least one publication in Category II & four publications in category III **OR**
4) the candidate has at-least seven publications in Category III.

Mere exemption from written test will not guarantee a candidate the call for interview. The candidates to be called for the interview would be based upon aggregate points obtained as per table-1.

5.1 Categorization of Journals: Latest list of indexing and impact factor of journals shall be considered.

CATEGORY I – OUTSTANDING RESEARCH PUBLICATIONS

The paper must be published in the following journals:
- Nature
- Science

The candidate must have contribution either as a First/second author or Corresponding author.

CATEGORY II – PREMIER RESEARCH PUBLICATIONS

The paper(s) must be published in the SCI/SSCI/SCIE indexed journals **with impact factor (Thomson Reuters/Clarivate Analytics) of at-least 2.0 (two)** for IEEE Transactions and IET (formerly, IEE UK) Journals; and **impact factor of at least 1.0 (one)** for all others in the following:

1. Proceedings of the Royal Society
2. American Mathematical Society
3. American Physical Society
4. American Society for Mechanical Engineers (ASME)
5. Association for Computing Machinery (ACM) Transactions
6. Institute of Mechanical Engineering, London

7.   American Society of Testing Materials (ASTM)
8.   American Society for Civil Engineers (ASCE)
9.   Institute of Civil Engineering Publishing, London

In addition to the above list, the SCI/SSCI or SCI expanded indexed journals with impact factor (Thomson Reuters/Clarivate Analytics) equal to or more than 4.0 (four) shall also be considered in category II.

The candidate must have contribution either as a First/Second Author or Corresponding Author.

CATEGORY III – COMMENDABLE RESEARCH PUBLICATIONS

The papers must be published in the following SCI/SSCI/SCIE indexed journals with **impact factor (Thomson Reuters/Clarivate Analytics) of at least 1.0 (one):**

1. IEEE Transactions IEEE Journals
2. IET (formerly IEE, UK) Journals
3. Springer
4. Elsevier (Science Direct)
5. Taylor and Francis
6. Oxford University Press
7. Pergamon-Elsevier Science Ltd
8. Cambridge University Press
9. Wiley- Blackwell
10. Blackwell Publishing
11. John Wiley & Sons
12. World Scientific Publishers
13. Biomedical Central Ltd
14. MIT Press
15. Indiana University Press
16. American Meteorological Society
17. American Physiological Society
18. American Society of Microbiology
19. American Chemical Society
20. American Institute of Physics
21. IOP Publishing Ltd.
22. Massachusetts Medical Society
23. IOS Press
24. Princeton University Press
25. Society of Industrial and Applied Mathematics

26. Proceedings of National Academy of Science of the USA
27. Nature Publishing Group

In additions to the above, SCI/SSCI or SCI expanded indexed journals not included in the above list having impact factor (Thomson Reuters/Clarivate Analytics) of at least 1.5 (one & half) shall also be considered for Category III. The candidate must have contribution either as a First/Second author or Corresponding author.

5.2 Claim for Exemption from the written test

The candidates who wish to be considered for exemption from the screening test should mention the same in the online application form. In case the exemption is claimed, necessary documents in support of the claim should be Uploaded along with the online application form.

5.3 Weightage in the Written Test

The candidates having Ph.D. degree, who could not become eligible for exemption of written test as notified, but have good research papers as a First/Second author or corresponding author will be given weightage of 2% of maximum marks of written test for each research paper in category II/III of para 5.1 for the post of Assistant Professor. However, the maximum weightage including all weightages will not exceed 5% of the maximum marks of the written test.

6. Seminar/Presentation by the short-listed Candidates:

(i) Before the personal interview, the University shall assess the teaching aptitude and ability of the candidate through a seminar/ lecture in a class room using latest technology.

(ii) The shortlisted candidates shall be required to make a presentation before the Committee as above in the concerned Department in the presence of faculty members/ students of the Department, prior to appearing for interview before the Selection Committee. Grading shall be given by the above Committee to all the candidates as 'A', 'B', 'C', or 'D' on the basis of their performance/presentation in the Department. The above grades are defined as under:

Grade A: Very Good

Grade B: Good

Grade C: Average

Grade D: Below Average

(iii) The confidential report, placed in a sealed cover duly signed by all the members of the Committee, shall be provided to the Chairman of the Selection Committee for necessary consideration during the interview of the candidates. Decision of his/her suitability shall be taken by the Selection Committee.

7. **Overall weightages of the credentials, teaching feedback and personal Interview:**

For the final selection of the candidates:

- 50% weightage shall be given on the points/scores earned by the candidates on the basis of the criteria/parameters given in Table 1, and

- The remaining 50% weightage shall be given on the performance of the candidate in the interview (which will take due cognizance of the feedback on his/her teaching aptitude/ability, as provided by the Committee constituted for this purpose).

- Minimum cut off marks out of 100 required to be obtained by a candidate to be eligible for selection will be decided by the selection committee which shall not be less than 50 in any case in respect of General/OBC/EWS and 45 for SC/ST/PWD.

Major/ Core branch of Engineering/ Technology and their relevant/ appropriate course leading degree in Engineering/ Technology for recruitment of teaching positions in Civil Engineering Department –

Specializations (Civil & Civil-Geoinformatics)	
UG	**PG**
1. Civil and Environmental Engineering	1. Civil Engineering (Environmental and Pollution Control)
2. Civil and Rural Engineering	2. Civil Engineering (Water Management)
3. Civil and Water Management Engineering	3. Construction and Project Management
4. Civil Engineering	4. Construction Engineering/ Management
5. Civil Engineering (Construction Technology)	5. Construction Planning and Management
6. Civil Engineering (Environmental Engineering)	6. Construction Project Management
7. Civil and Infrastructure Engineering	7. Energy and Environmental Management
8. Civil Engineering (Public Health Engineering)	8. Environmental Biotechnology
9. Civil Technology	9. Environmental Engineering/ Management
10. Construction Engineering	10. Environmental Science and Engineering
11. Construction Engineering and Management	11. Environmental Science and Technology
12. Construction Technology	12. Geoinformatics
13. Building and Construction Technology	13. Geoinformatics and Surveying Technology
14. Environmental Engineering	14. Geotechnical Engineering
15. Environmental Science and Engineering	15. Green Technology
16. Geo Informatics	16. Highway Engineering/Technology
	17. Hydraulics and Flood Control
	18. Hydrology
	19. Hydraulics Engineering
	20. Industrial Pollution Control
	21. Infrastructure Engineering
	22. Infrastructure Engg/Management
	23. Irrigation Engineering
	24. Remote Sensing and/ GIS
	25. Soil Mechanics
	26. Soil Mechanics and Foundation Engg
	27. Spatial Information Technology
	28. Structural and Foundation Engg
	29. Structures
	30. Structural Design

	31. Structural Engineering
	32. Town and Country Planning
	33. Transportation Engineering
	34. Transportation Engineering/ Management
	35. Waste Water Management, Health and Safety Engineering
	36. Water Resource/Engineering Management
	37. Water Resources and Hydraulic Engg
	38. Ecosystems, Climate and Climate Change
	39. Geographic Information Science
	40. Geoinformatics-Mobile Technologies
	41. Geoinformatics-Data Structure
	42. Geoinformatics-Database Management

Note: The above relevancy list is indicative but not exhaustive. In case of any other relevant degree which may be submitted any candidate, the same shall be examined by the University through committee. University decision shall be final in this regard.

SYLLABUS FOR THE WRITTEN TEST FOR THE POST OF ASSISTANT PROFESSOR (CIVIL) ENGINEERING

1. **Part-I : GENERAL APTITUDE**

1.1 Verbal Ability:

Grammar, Vocabulary, Coding-Decoding & Series, Directions, Blood Relations, Arrangements, Syllogism, Inference & Assumptions, Clocks and Puzzles.

1.2 Numerical Ability:

Fundamentals, Equations, Percentage, Averages, Ratio & Propotions, Mixture and Alligations, Data Interpretation & Data Suffiency, Time, Speed & Distance, Time & Work, Set Theory & Venn Diagrams, Progression, Functions & Graphs, Logarthims, Permutations and Combinations, Probability, Geometry & Mensuration.

2. **Part-II: SUBJECT (CIVIL ENGINEERING)**

2.1 Mathematics

Linear Algebra:

Matrix Algebra, Systems of linear equations, Eigen values and Eigen vectors.

Calculus:

Functions of single variable, limit, continuity and differentiability, mean value theorems, indeterminate forms; evaluation of definite and improper integrals; double and triple integrals; partial derivatives, total derivative, Taylor series (in one and two variables), maxima and minima, Fourier series; gradient, divergence and curl, vector identities, directional derivatives, line, surface and volume integrals, applications of Gauss, Stokes and Green's theorems.

Differential equations:

First order equations (linear and nonlinear); higher order linear differential equations with constant coefficients; Euler-Cauchy equation; initial and boundary value problems; Laplace transforms; solutions of heat, wave and Laplace's equations.

Complex variables:

Analytic functions; Cauchy-Riemann equations; Cauchy's integral theorem and integral formula; Taylor and Laurent series.

Probability and Statistics:

Definitions of probability, sampling theorems, conditional probability; mean, median, mode and standard deviation; random variables, binomial, Poisson and normal distributions.

Numerical Methods:

Numerical solutions of linear and non-linear algebraic equations; integration by trapezoidal and Simpson's rules; single and multi-step methods for differential equations.

Engineering Mechanics:

2.2 Structural Engineering

Engineering Mechanics

System of forces, free-body diagrams, equilibrium equations; Internal forces in structures; Friction and its applications; Kinematics of point mass and rigid body; Centre of mass; Euler's equations of motion; Impulse-momentum; Energy methods; Principles of virtual work.

Solid Mechanics

Bending moment and shear force in statically determinate beams; Simple stress and strain relationships; Theories of failures; Simple bending theory, flexural and shear stresses, shear centre; Uniform torsion, buckling of column, combined and direct bending stresses.

Structural Analysis

Statically determinate and indeterminate structures by force/ energy methods; Method of superposition; Analysis of trusses, arches, beams, cables and frames; Displacement methods: Slope deflection and moment distribution methods; Influence lines; Stiffness and flexibility methods of structural analysis.

Construction Materials and Management

Construction Materials: Structural steel – composition, material properties and behaviour; Concrete – constituents, mix design, short-term and long-term properties; Bricks and mortar; Timber; Bitumen. Construction Management: Types of construction projects; Tendering and construction contracts; Rate analysis and standard specifications; Cost estimation; Project planning and network analysis – PERT and CPM.

Concrete Structures

Working stress, Limit state and Ultimate load design concepts; Design of beams, slabs, columns; Bond and development length; Prestressed concrete; Analysis of beam sections at transfer and service loads.

Steel Structures

Mathematical modeling and representation of systems, Feedback principle, transfer function, Block diagrams and Signal flow graphs, Transient and Steady, state analysis of linear time invariant systems, Routh-Hurwitz and Nyquist criteria, Bode plots, Root loci, Stability analysis, Lag, Lead and Lead, Lag compensators; P, PI and PID controllers; State space model, State transition matrix.

Working stress and Limit state design concepts; Design of tension and compression members, beams and beam- columns, column bases; Connections – simple and eccentric, beam-column connections, plate girders and trusses; Plastic analysis of beams and frames.

2.3 Soil Mechanics and Foundation Engineering

Origin of soils, soil structure and fabric; Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability – one dimensional flow, Darcy's law; Seepage through soils – two-dimensional flow, flow nets, uplift pressure, piping; Principle of effective stress, capillarity, seepage force and quicksand condition; Compaction in laboratory and field conditions; One-dimensional consolidation, time rate of consolidation; Mohr's circle, stress paths, effective and total shear strength parameters, characteristics of clays and sand.

Sub-surface investigations – scope, drilling bore holes, sampling, plate load test, standard penetration and cone penetration tests; Earth pressure theories – Rankine and Coulomb; Stability of slopes finite and infinite slopes, method of slices and Bishop's method; Stress distribution in soils – Boussinesq's and Westergaard's theories, pressure bulbs; Shallow foundations – Terzaghi's and Meyerhoff's bearing capacity theories, effect of water table; Combined footing and raft foundation; Contact pressure; Settlement analysis in sands and clays; Deep foundations – types of piles, dynamic and static formulae, load capacity of piles in sands and clays, pile load test, negative skin friction.

2.4 Water Resources Engineering

Fluid Mechanics:

Properties of fluids, fluid statics; Continuity, momentum, energy and corresponding equations; Potential flow, applications of momentum and energy equations; Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth.

Hydraulics:

Forces on immersed bodies; Flow measurement in channels and pipes; Dimensional analysis and hydraulic similitude; Kinematics of flow, velocity triangles; Basics of hydraulic machines, specific

speed of pumps and turbines; Channel Hydraulics – Energy-depth relationships, specific energy, critical flow, slope profile, hydraulic jump, uniform flow and gradually varied flow.

Hydrology:

Hydrologic cycle, precipitation, evaporation, evapo-transpiration, watershed, infiltration, unit hydrographs, hydrograph analysis, flood estimation and routing, reservoir capacity, reservoir and channel routing, surface run-off models, ground water hydrology – steady state well hydraulics and aquifers; Application of Darcy's laws.

Irrigation:

Duty, delta, estimation of evapo-transpiration; Crop water requirements; Designof lined and unlined canals, head works, gravity dams and spillways; Design of weirs on permeable foundation; Types of irrigation systems, irrigation methods; Water logging and drainage; Canal regulatory works, cross-drainage structures, outlets and escapes.

2.5 Environmental Engineering

Water and Waste Water:

Quality standards, basic unit processes and operations for water treatment. Drinking water standards, water requirements, basic unit operations and unit processes for surface water treatment, distribution of water. Sewage and sewerage treatment, quantity and characteristics of wastewater. Primary, secondary and tertiary treatment of wastewater, effluent discharge standards. Domestic wastewater treatment, quantity of characteristics of domestic wastewater, primary and secondary treatment. Unit operations and unit processes of domestic wastewater, sludge disposal.

Air Pollution:

Types of pollutants, their sources and impacts, air pollution meteorology, air pollution control, air quality standards and limits.

Municipal Solid Wastes:

Characteristics, generation, collection and transportation of solid wastes, engineered systems for solid waste management (reuse/ recycle energy recovery, treatment and disposal).

Noise Pollution:

Impacts of noise, permissible limits of noise pollution, measurement of noise and control of noise pollution.

2.6 Transportation Engineering

Transportation Infrastructure:

Highway alignment and engineering surveys; Geometric design of highways – cross-sectional elements, sight distances, horizontal and vertical alignments; Geometric design of railway track; Airport runway length, taxiway and exit taxiway design.

Highway Pavements:

Highway materials – desirable properties and quality control tests; Design of bituminous paving mixes; Design factors for flexible and rigid pavements; Design of flexible pavement using IRC: 37-2012; Design of rigid pavements using IRC: 58-2011; Distresses in concrete pavements.

Traffic Engineering:

Traffic studies on flow, speed, travel time – delay and O-D study, PCU, peak hour factor, parking study, accident study and analysis, statistical analysis of traffic data; Microscopic and macroscopic parameters of traffic flow, fundamental relationships; Control devices, signal design by Webster's method; Types of intersections and channelization; Highway capacity and level of service of rural highways and urban roads.

2.7 Geomatics Engineering

Principles of surveying; Errors and their adjustment; Maps - scale, coordinate system; Distance and angle measurement - Levelling and trigonometric levelling; Traversing and triangulation survey; Total station; Horizontal and vertical curves.

Photogrammetry and Remote Sensing - Scale, flying height; Basics of remote sensing and GIS.