Annual Report

Of

Department of Controller of Examination

(2019-20)



Narula Institute of Technology

81, Nilgunj Road, Agarpara, Kolkata 700109

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Controller of Examinations Narula Institute of Technology 81, Nilgunj Road, Agarpara, Kolkata-700109

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1. Introduction

The Department of Controller of Examination (COE) is responsible for transparent, fair and timely conduct of all examinations. The examinations conducted by the department of COE include the following.

- i. Semester Examinations (Theory, Practical, Sessional)
- ii. Slot Tests (Theory)
- iii. Continuous Assessment (Theory, Practical, Sessional)

For semester examinations, the Department of COE published notifications with start and end dates for application form fill-up and start date for each of the semester examinations. All students applied for the examinations using the following processes.

- Online Form Fill-up by students
- Attendance approval by HOD
- · Application Form printout by student
- Online payment of examination fees through Examination portal
- Approval of students for examination by Department of COE
- Admit Card download from examination portal by students
- Examination schedule was entered into the online system so that questions can be printed only on that day and at specified time for the transparency of examination.
- Print day-wise attendance sheet for all examination schedule from the online system.
- All evaluation was carried out by the examiners with annotations in red color by accessing the DVS system using internet through separate login IDs for each Examiner.
- Scrutiny was completely automated using the Digital Valuation System (DVS).
- Re-evaluation was carried out by the Head Examiners with annotations in green color by accessing the DVS system using internet through separate login IDs for each Head Examiner.

Department of COE has carried out the following activities.

- Notification for Slot Tests
- Requisition for procurement of general stationary
- Submission of Budget for approval
- Request for Nomination of Paper-setters & Moderators
- Issue of Appointment letters to Paper-setters
- Issue of Appointment letters to Moderators

Notification for Form fill-up for semester examination

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- Collection of approved Examination Applications from students in prescribed format
- Publish detailed examination schedule in notice boards and website
- Preparation and Circulation of Examination Duty Charts
- Prepare Room Allocation Plan
- Prepare Room-wise seating plan with Roll Numbers
- · Publish Room Allocation Plan on notice boards and website.
- · Preparation and Circulation of Invigilation Duty Charts
- Preparation and Circulation of Internal and External Roving Duty Chart
- Notice for Submission of Internal Marks in pre-printed Tabulation Sheets
- Request for Nomination of Examiner and Head Examiner from Departments
- Compilation of Roving Duty Report and Invigilators Report
- Distribution of Appointment Letter, Answer scripts and pre-printed Tabulation Sheets to Examiners
- Collection of Answer scripts and Tabulated Sheets from Examiners
- Scrutiny of all Answer Script packets
- Make available Answer scripts, Scrutiny Reports and Tabulated Sheets to Head Examiners
- Coordinate completion of 10% Answer scripts checking by Head Examiners
- Collection of Tabulated Sheets of Internal Marks from Departments
- Enter the examination schedule in the online system
- Print day-wise attendance sheet for all examination scheduled from the online system
- Completion of Result Processing
- Publication of Results
- Notice for Review applications
- Collection of approved Review applications from students in prescribed format
- Allocation of Answer scripts for Re-evaluation
- Publication of Review Results

2. Examination Calendar for Session 2019-20

"Academic Calendar" contains key dates important to all student and faculty of the Institution including the start and end dates of classes, holidays, exam dates, Registration dates (for regular and repeater courses) etc. Academic Calendar for all programs was released by the office of the Principal. An academic year in the Institute comprises of two semesters, i.e. ODD and EVEN semesters.

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UG Examination and Result Publication Schedule:

Semester	Date of End of Exam	Date of Declaration of Result
ODD	20/12/2019	27/12/2019
EVEN (Final semester)	24/06/2020	03/07/2020
EVEN (Other than final semester)	18/07/2020	12/08/2020

PG Examination and Result Publication Schedule:

Semester	Date of End of Exam	Date of Declaration of Result
ODD	20/12/2019	27/12/2019
EVEN	24/06/2020	03/07/2020
EVEN (Other than final semester)	18/07/2020	12/08/2020

Examination Compliance Report:

Based on the academic calendar of the institute, the department of COE prepares the examination calendar. It contains the dates for all examinations and related activities such as appointment of paper-setters and moderators, question paper formatting, question paper printing, examination duty charts, sitting arrangements, appointment of examiners and Head Examiners, answer script distribution and collection, result processing & result publication. All examination activities complied with the schedule of examination calendar given below.

Sl.	Description of Activity	Odd Semester	
No.		Schedule	Compliance
1	Notification for elective subjects	08/07/2019	08/07/2019
2	Examination committee meeting for slot test 1	23/08/2019	24/08/2019
3	Notification for slot test 1	26/08/2019	26/08/2019
4	Submission of marks of slot test 1	26/09/2019	26/09/2019
5	Examination committee meeting for slot test 2	14/10/2019	15/10/2019
6	Notification for slot test 2	15/10/2019	15/10/2019
7	Request for nomination of paper-setters & moderators	25/10/2019	25/10/2019
8	Submission of budget for approval	31/10/2019	31/10/2019
9	Examination committee meeting for semester examination	01/11/2019	01/11/2019
10	Notification for form fill-up for semester	02/11/2019	06/11/2019

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Sl.	Description of Activity	Odd Semester		
No.	Description of Activity	Schedule	Compliance	
	examination.			
11	Issue of appointment letters to paper-setters	04/11/2019	05/11/2019	
12	Circulation of examination duty charts	04/11/2019	05/11/2019	
13	Issue of appointment letters to moderators	14/11/2019	16/11/2019	
14	Submission of marks of slot test 2	14/11/2019	15/11/2019	
15	Publication of examination schedule	15/11/2019	15/11/2019	
16	Notice for submission of internal marks in online portal	22/11/2019	23/11/2019	
18	Circulation of invigilation duty charts	18/11/2019	18/11/2019	
19	Circulation of roving duty chart	18/11/2019	18/11/2019	
20	Request for nomination of examiner and Head Examiner from departments	02/12/2019	02/12/2019	
21	Submission of examiner and Head Examiner mapping.	09/12/2019	11/12/2019	
22	Compilation of roving duty report and invigilators report	14/12/2019	14/12/2019	
23	Compilation of marks after evaluation	25/12/2019	25/12/2019	
24	Meeting of examination committee to discuss regarding the result publication.	27/12/2019	27/12/2019	
25	Publication of results	27/12/2019	27/12/2019	
26	Notice for review applications	27/12/2019	27/12/2019	
27	Last date for submitting submission of review applications from students.	02/01/2020	03/01/2020	
28	Coordination of re-evaluation of answer scripts	09/01/2020	09/01/2020	
29	Publication of review results	10/01/2020	10/01/2020	

Sl.	Description of Activity	Even Semester	
No.		Schedule	Compliance
1	Notification for elective subjects	16/12/2019	16/12/2019
2	Examination committee meeting for slot test 1	14/02/2020	18/02/2020
3	Notification for slot test 1	15/02/2020	18/02/2020
4	Submission of marks of slot test 1	05/03/2020	05/03/2020
5	Examination committee meeting for slot test 2	08/04/2020	08/04/2020
6	Notification for slot test 2	08/04/2020	08/04/2020
7	Request for nomination of paper-setters & moderators	23/04/2020	23/04/2020
8	Submission of budget for approval	23/04/2020	23/04/2020
9	Examination committee meeting for final semester examination	27/04/2020	27/04/2020



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Sl.	Description of Activity	Even Semester	
No.		Schedule	Compliance
10	Notification for form fill-up for final semester examination.	27/04/2020	27/04/2020
	Issue of appointment letters to paper-setters	28/04/2020	28/04/2020
11	Submission of marks of slot test 2	07/05/2020	07/05/2020
	Publication of examination schedule for final semester	04/05/2020	04/05/2020
	Issue of appointment letters to moderators	05/05/2020	05/05/2020
16	Circulation of examination duty charts	11/05/2020	11/05/2020
17	Notice for submission of internal marks of final semester in online portal	21/05/2020	21/05/2020
18	Meeting of examination committee to discuss regarding results for final semester	03/07/2020	03/07/2020
19	Publication of results for final semester	03/07/2020	03/07/2020
22	Issue of appointment letters to paper-setters	28/04/2020	28/04/2020
23	Publication of examination schedule for other than final semester	04/05/2020	04/05/2020
24	Issue of appointment letters to moderators for other than final semester	05/05/2020	05/05/2020
26	Circulation of examination duty charts	11/05/2020	11/05/2020
27	Notice for submission of internal marks other than final semester in online portal	21/05/2020	21/05/2020
28	Meeting of examination committee to discuss regarding results of remaining semesters other than final semester	18/07/2020	18/07/2020
29	Publication of results of remaining semesters other than final semester	18/07/2020	18/07/2020

3. Examination Committee

To conduct the end semester examinations, to conduct and monitor the slot tests and to monitor the evaluation of students including continuous evaluation and internal assessment, an Examination Committee has been formed consisting of HODs of all department and Registrar before the commencement of 2019-20 Academic Session. In addition to these members the Examination Committee has the following members.

- · Controller of Examination (Convener).
- Assistant Controller of Examination
- Registrar
- · HODs of all Department



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4. Question Papers for Semester Examinations

All paper-setting was made in three sets for each subject. One of the sets was prepared by internal faculty and other two sets were from external faculty. All moderation was done by external faculty.

After moderation, Question Papers were reformatted in PDF files, and uploaded to a central server at the same location where all moderation of questions were carried out. The answer scripts are printed from M/s Saraswaty Press with security impressions on each page and specially designed top sheet.

Everyday two hours before each examination, three secured set of keys with color codes were sent from the central server to the Principal, COE and Assistant COE. These secured keys were entered in the Question Paper printing servers available at department of COE. The question papers as per schedule date and number of examinees were accessed and printed from the Question Paper printing servers after validation of the secured keys only for the odd semester. The question papers and blank answer scripts were then distributed to invigilators of specific examination halls at the department of COE. The invigilators carried the question papers, blank answer scripts and other examination material to the examination halls. After examination the invigilators collected the answer scripts from the students and submitted answer scripts for each subject in separate packets at department of COE.

The EVEN semester 2020 examinations was held under pandemic conditions. All paper-setting and moderation was done using a cloud-based server of an external agency. All questions were MCQ type. The paper-setting and moderation were done by internal faculty. Answer Key was provided with each question for automatic evaluation by the cloud-based server. All faculty were provided with separate login ID and password for access to the cloud-based system for paper-setting and moderation separately. A summary of the question bank preparation has been given below.

All paper-setting for slot examination was done by internal faculty members for each subject. After notification of the slot test examination internal faculties have to submit the question papers within stipulated time in specific format. Then all these question papers are processed and arranged day wise and time wise before examination.

Summary of Question Banks / Question Papers for Session 2019-20			
Description	ODD Semester	EVEN Semester	
Number of Question Banks Allocated	702	618	
Number of Internal Paper-setters	234	206	
Number of External Paper-setters	468	412	
Number of Moderators (External)	234	206	
Number of Question Papers Generated	234	206	
Number of slot question paper-setters	All internal Faculty	All internal Faculty	
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5. Conduct of the Semester Examinations

Odd Semester 2019-20:

During examinations, the Room Allocation, Seating Plan and the Rules of Examination were pasted on the entrance door of all examination halls as well as all notice boards in the institute premises. An Officer-in-Charge was appointed by the Chief Controller to coordinate the following activities for the semester examinations in Academic Session 2019-20.

- Examination Duty Chart
- Room Allocation
- Seating Plan
- Invigilation Duty Chart
- Distribution of Question Papers, Answer Scripts and Attendance Sheet to the invigilators
- Collection of Answer Scripts, Attendance Sheet and Invigilator Report from the invigilators
- Provide support to the External and Internal Roving Duty Teams

A summary of the examination center details and proctored online examination for the academic session has been presented below.

Summary of Examination Center Detail	5 101 36551011 2019-20
Semester Examination	ODD Semester
Number of Rooms Allocated	24
examination Sessions per day	2
Number of Staff on duty at Examination Cell	12
Number of Supervisors	3
umber of Internal Roving Observer per session	1
lumber of External Roving Observer per session	1
lumber of Invigilators per session	48
umber of Students Appeared	2925

Examination activities:

- Examination Form fill up by students using integrated examination portal
- Admit Card printing by students from online portal
- Secured 128 bit PKI Question Paper printing two hours before examination

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Three-step approval process for examination form fill up by students.

Step 1 – Accounts approval for Semester Fee clearance

Step 2 – Head of the Department approval for class attendance in the semester

Step 3 – Accounts approval for Examination Fee payment

All paper-setting was made in three sets for each subject. One of the sets was prepared by internal faculty and other two sets were from external faculty. All moderations were done by external faculty. All paper-setting and moderation were done using dedicated computer facilities in a central control room

After moderation, Question Papers were reformatted in PDF files and uploaded to a central server using integrated examination portal. The answer scripts were printed from M/s Saraswaty Press with security impressions on each page and specially designed top sheet.

Even Semester 2019-20:

This examination was conducted in COVID 19 pandemic time. Before conduction of the semester examinations we made a survey among the students regarding the availability of the required infrastructure for the online examinations. From that survey we came to know that only a few students did not have the proper facilities for appearing in online examinations. We provided the required facilities to those particular students before conducting the examinations.

An online cloud platform was used for conducting this examinations.

Examination activities:

- · Examination Form fill up by students using integrated examination portal
- Online Examination Fee payment by students through NIT payment portal
- Admit Card printing by students from online portal
- Online paper-setting and moderation by subject faculty and separate moderator nominated by respective departments
- Proctored online examination by students using their smart phone or Laptop / PC

Three-step approval process for examination form fill up by students was followed.

Step 1 – Accounts approval for Semester Fee clearance

Step 2 – Head of the Department approval for class attendance in the semester

Step 3 – Accounts approval for Examination Fee payment

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The semester examination was conducted under mandatory camera surveillance and proctored mode

Summary of Examination Center Details for Session 2019-20			
Semester Examination	EVEN Semester		
Number of Rooms Allocated	NA		
Examination Sessions per day	3		
Number of Staff on duty at Examination Cell	12		
Number of Supervisors	3		
Number of Internal Roving Observer per session	NA		
Number of External Roving Observer per session	NA		
Number of Invigilators per session	NA		
Number of online Proctors per session	66		
Number of Students Appeared	2894		

6. Evaluation and assessment

Evaluation of Theory Papers (70 marks)

Odd Semester:

All appointment for examination of answer scripts were awarded to external faculty. After examination answer scripts were manually scanned and uploaded to the main server. The external faculty checked each answer script and entered marks awarded for each question. All evaluation was carried out by the examiners with annotations in red color by accessing the DVS system using internet through separate login IDs for each Examiner. Tabulation was completely automated

Scrutiny was completely automated using the Digital Valuation System (DVS).

For distribution to Head Examiners, 10% of the answer script packets were randomly selected by the DVS and mapped to Head Examiners. All such re-evaluation was carried out by the Head Examiners with annotations in green color by accessing the DVS system using internet through separate login IDs for each Head Examiner.

Even Semester:

After examination, results were processed on the next day and downloaded from cloud server in excel files. Data in the excel files were transferred to the integrated examination portal for result processing. The internal marks were directly entered online by respective faculty from the logins provided to respective departments. The tabulation and result processing were automated.

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Internal Marks for Theory Papers (30 marks)

The internal marks were awarded by the internal faculty for the respective courses conducted by them as follows:

Average of two Slot Tests: 15 marks Assignment & Quiz: 10 marks Attendance: 5 marks

All marks were entered in the Examination Portal from the department using login IDs of faculty. A printout of all marks entered was taken out from the faculty login and submitted to the department of COE.

Evaluation of Practicals / Sessionals (100 marks)

For the Semester Examination of Practicals / Sessionals, external examiners were appointed.

In the semester examination of each laboratory practical course, the course teacher had assigned experiments to be conducted by groups of 4 or less number of students after holding a lottery. The assessment of the student performance for experiment was done in consultation with the external examiner (40 Marks). Viva-voce was conducted in presence of the external faculty and the course teacher. The assessment of student performance in viva-voce was done by each internal faculty in consultation with the external faculty (20 marks).

The course teacher had awarded the marks for student performance in laboratory classes based on the Continuous Evaluation sheets for each student (40 Marks).

For Sessional items where the formal Institutional contact hours are not specified, (viz. Online courses, Internships, Co-curricular/Extra-curricular activities etc.), or there are no formal End-semester examination of the written kind, (viz. Comprehensive Viva-voce, Seminar, Industrial Visits, etc.), an External Expert of the relevant field was appointed. For all items under these categories, assessment of student performance in viva-voce was done by the internal faculty in consultation with the external expert (100 marks).

All marks were entered in the Examination Portal from the department using login IDs of faculty. A printout of all marks entered was taken out from the faculty login and submitted to the department of COE. A summary of answer script evaluations and online proctored MCQ examinations are given below.

Summary of Evaluation of Theory Papers for Session 2019-20			
Description	ODD Semester	EVEN Semester	
Number of Answer scripts / online evaluations	14588	14555	
Number of Evaluators (External)	60	NA	
Number of Head Examiners (Internal)	30	NA	

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7. Result Publication

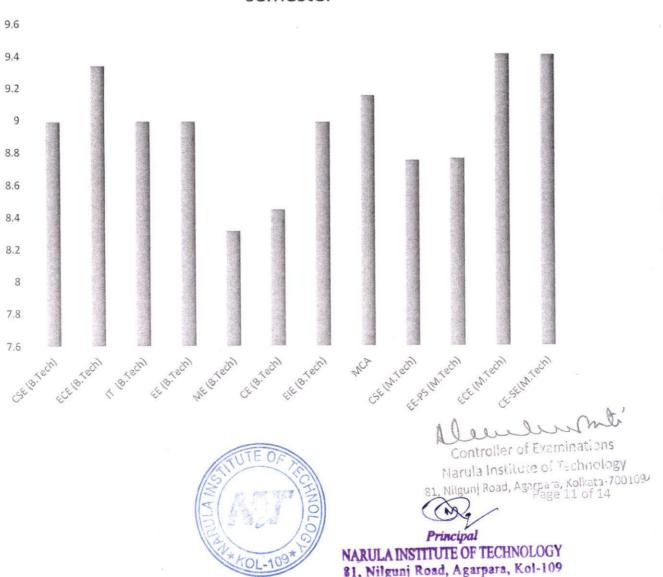
Result Processing was automated through an internet enabled server using a software supported by an external agency. After result processing, TR sheets were sent by the external agency vide email to COE. The result from the TR sheets were verified and summarized at department of COE. Before publication of results of each semester, a meeting of the Examination Committee was conducted and the summary of the results were discussed. After verification consent was given to the external agency for online result publication. After online publication, semester grade cards of all students were printed at the department of COE and distributed to the students.

8. Result Analysis

Department wise SGPA analysis of ODD and EVEN semester is presented here.

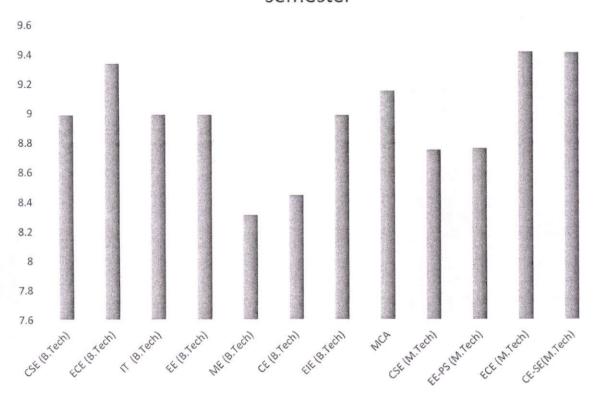
The average SGPA of the college for odd semester 2019 is 7.82.

Department wise average SGPA for 2019 ODD semester



The average SGPA of the college for even semester 2020 is 8.96.

Department wise average SGPA for 2020 EVEN semester



8.1 Average Pass percentage of final year students:

Student Appeared	Student Passed	Pass Percentage
759	754	99.34%

9. Grievances Reported by Students

9.1 Answer Script Scrutiny by Students

Notices inviting application for post-publication scrutiny (PPS) from students were issued within 7 days of publication of result. Students not satisfied with the grades, could apply for scrutiny of answer script of specific subjects by filling up a prescribed format and submitting the same within a time window specified in the notice. In presence of the faculty who scrutinized the answer scripts after evaluation, students were permitted to scrutinize a answer script. The details

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regarding students who submitted PPS applications in the academic year 2019-20 are given below.

Description of Parameter	ODD Semester	EVEN Semester
Number of Answer Scripts involved in PPS Applications submitted by students	7	nil
Number of Answer Scripts where awarded marks changed after scrutiny	nil	nil

9.2. Review Application and Re-evaluation

Notices inviting application for post-publication review (PPR) from students were issued within 7 days of publication of result. Students not satisfied with the evaluation, could apply for reevaluation by filling up a prescribed format and submitting the same within a time window specified in the notice. The list of review cases were handed over to the external agency. The reevaluation was mapped to an internal faculty in the Digital Valuation System (DVS). All reviews were completed using the DVS system by internal faculty. The details regarding students who submitted PPR applications in the academic year 2019-20 are given below.

Description of Parameter	ODD Semester	EVEN Semester
Number of Answer Scripts involved in Review Applications submitted by students	4	nil
Number of Answer Scripts where awarded marks changed after Re-evaluation	1	nil

10. Automation of Examination System

The following examination activities were fully automated.

- 1. Examination Form fill up by students using online portal
- 2. Attendance approval from HOD was introduced which is automatically approved based on their class attendance.
- 3. Students can submit examination fees and form online
- 4. Students can download the admit card from the examination portal
- 5. List of students appearing in examination is prepared automatically
- 6. Examination schedule was entered into the online system so that questions can be printed only on that day and at specified time for the transparency of examination.

7. Print day-wise attendance sheet for all examination schedule from the online system.

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- 8. All evaluation was carried out by the examiners with annotations in red color by accessing the DVS system using internet through separate login IDs for each Examiner.
- 9. Scrutiny was completely automated using the Digital Valuation System (DVS).
- 10. Re-evaluation was carried out by the Head Examiners with annotations in green color by accessing the DVS system using internet through separate login IDs for each Head Examiner.
- 11. Internal marks were entered in the examination portal from the department using login IDs.
- 12. Result Publication
- 13. Online moderation process was introduced with the existing method of examination.

14. Students were appeared in the semester examination through online platform.

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